



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
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Refer to NMFS No: WCRO-2022-01545

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May 23, 2023

Erica Taecker
District Ranger
Wenatchee River Ranger District
Okanogan–Wenatchee National Forest
600 Sherbourne Street
Leavenworth, WA 98826

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson–Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Upper Wenatchee Pilot Project (HUC 1702001107) Wenatchee River Watershed, (HUC 1702001101) White River–Little Wenatchee Watershed, (HUC 1702001103) Chiwawa River Watershed, Chelan County, Washington.

Dear Ms. Taecker:

This letter responds to your July 1, 2022, request for initiation of consultation with the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act (ESA) for the subject action. Your request contained all required information on, and analysis of, your proposed action and its potential effects to ESA-listed species and designated critical habitat.

On July 5, 2022, the U.S. District Court for the Northern District of California issued an order vacating the 2019 regulations that were revised or added to 50 CFR part 402 in 2019 (“2019 Regulations,” see 84 FR 44976, August 27, 2019) without making a finding on the merits. On September 21, 2022, the U.S. Court of Appeals for the Ninth Circuit granted a temporary stay of the district court’s July 5 order. As a result, the 2019 regulations are once again in effect, and we are applying the 2019 regulations here. For purposes of this consultation, we considered whether the substantive analysis and conclusions articulated in the biological opinion and incidental take statement (ITS) would be any different under the pre-2019 regulations. We have determined that our analysis and conclusions would not be any different.

Thank you, also for your request for consultation pursuant to the essential fish habitat (EFH) provisions in Section 305(b) of the Magnuson–Stevens Fishery Conservation and Management Act (16 U.S.C. 1855(b)) for this action. However, after reviewing the proposed action, we concluded that there will be no adverse effects on EFH, and we are hereby concluding EFH consultation.



We reviewed the Forest Service’s consultation request and related initiation package. 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 met our regulatory and scientific standards. We adopt by reference the following sections of the Forest Service’s Biological Assessment (BA): Proposed Action, Status of Listed Fish Species, Environmental Baseline, Potential Effects on Listed Fish and Critical Habitat, and Aquatic Actions in Appendix A.

The Forest Service submitted a consultation initiation package, including a BA, to NMFS on July 1, 2022. After the BA was submitted, a wildfire occurred in the action area and the BA was updated and re-submitted on November 14, 2022 and NMFS initiated consultation. On March 23, 2023, the Forest Service again updated the BA providing additional details on the proposed action.

As described in the BA, the Wenatchee River Ranger District of the Okanogan–Wenatchee National Forest proposes to create and maintain forest conditions that improve stand resilience to natural disturbances and sustainability into the future. The action will also reduce the risk of large-scale habitat loss from severe wildfires, insect outbreaks, and will restore the structure and composition of the landscape. To achieve this, the project will implement vegetation and transportation treatments that include commercial harvest, non-commercial thinning and fuels reduction, prescribed fire, fuel breaks, and road management actions. We considered, under the ESA, whether or not the proposed action would cause any other activities and determined that it would not.

We examined the status of Upper Columbia River (UCR) steelhead, which 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 examined the condition of critical habitat throughout the designated area and the function of the physical and biological features (PBFs) essential to the conservation of the species that create the conservation value of that habitat. The Status of Listed Fish Species section of the BA (pages 66–79) describes the status of the species and critical habitat. In addition to the submission of the BA, more recent information has become available and is being adopted here. NMFS published our *5-year Review: Summary and Evaluation of Upper Columbia River Spring-run Chinook Salmon and Upper Columbia River Steelhead* (NMFS 2022) in August 2022, and the *Biological Viability Assessment Update for Pacific Salmon and Steelhead Listed under the Endangered Species Act: Pacific Northwest* (Ford 2022) in January 2022. These documents are adopted here to describe the status of UCR steelhead and its critical habitat. Major risk factors that limit UCR steelhead recovery include reduced quality and quantity of freshwater habitat, predation, regulatory mechanisms that fail to adequately protect habitat, ocean conditions, hatchery fish, and climate change.

“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). The action area is described in the Project Location section (pages 3–4) of the BA, adopted here.

The “environmental baseline” refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences of 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 consultation, 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). The Environmental Baseline section (pages 80–162) of the BA describes the environmental baseline and is being adopted here.

The action area supports spawning, rearing, and migration of UCR steelhead from the Wenatchee population, one of four populations of UCR steelhead. The ability of critical habitat within the action area to support PBFs is primarily limited by simplified instream habitat, loss of large wood, and impairment of natural channel migration processes.

Under the ESA, “effects of the action” are all consequences to listed species and critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (see 50 CFR 402.17). In our analysis, which describes the effects of the proposed action, we considered 50 CFR 402.17(a) and (b).

The BA provides a detailed discussion and comprehensive assessment of the effect of the proposed action in the Potential Effects on Listed Fish and Critical Habitat section (pages 162–222), and is adopted here. NMFS has evaluated this section and after our independent, science-based evaluation, determined it meets our regulatory and scientific standards.

The Forest Service proposes to haul logs across nine different unpaved road/stream crossings. These occur over two crossings in Alder Creek, two crossings in Twin Creek, one crossing in Gate Creek, one crossing in Brush Creek, and three crossings in Clear Creek. In the BA, the Forest Service found juvenile steelhead will likely be affected by increased sediment delivered to the stream at these nine road/stream crossings. Likely effects on juveniles will include minor and short-term exposure to pulses of suspended sediment, which will increase turbidity up to 300 feet downstream from unpaved road/stream crossing locations throughout the duration of the proposed action. Turbidity will be increased for minutes at a time, up to 10 times per day for a period of 15 years, with no more than 500 crossing over a single crossing in a year. Log hauling has the potential to occur during all times of year, although not during heavy rains when sedimentation into streams would be most likely.

Small numbers of rearing juveniles below the nine road/stream crossings from the Wenatchee population of UCR steelhead will be affected from increased turbidity during the proposed

action. The increased turbidity will likely cause a small subset of juvenile steelhead to change their behavior and move to a different rearing location, which will increase energetic costs while increasing risks of competition and predation. This will result in the reduced fitness and survival of small numbers of individuals from each year's cohort over the 15 years of operation.

The function of the PBFs of critical habitat in the action area (juvenile rearing area) will be intermittently (up to 10 times per day) and temporarily (minutes) impaired by increased turbidity from log haul. This impairment of water quality will lead to a decrease in forage success for juvenile steelhead within 300 feet of each stream crossing. The impaired water quality and forage will occur throughout the 15 years of log haul.

“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 and 402.17(a)). 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. We were not able to identify any additional cumulative effects not already discussed in the Aquatic Actions section of Appendix A (pages 233–238) of the BA. That section is adopted here.

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 value of designated or proposed critical habitat as a whole for the conservation of the species.

The use of nine unpaved road/stream crossings for log haul will result in a small number of juvenile steelhead being harmed each year (reduced fitness and mortality) due to increased turbidity below each of the nine stream crossing locations. These effects will occur for minutes at a time, intermittently throughout the day for up to 15 years. Other activities that are a part of the Upper Wenatchee Pilot Project (Project) are not expected to cause adverse effects. In the context of the Wenatchee population, which has an average abundance of a thousand adult steelhead, the loss of a small number of juveniles a year will not meaningfully affect the abundance or productivity of the population and will have no effect on its spatial structure or diversity. The likelihood of persistence and recovery potential of the North Cascades major population group will not be affected because none of the component populations will be meaningfully affected. Similarly, the likelihood of persistence and recovery potential of UCR steelhead as a whole, will not be affected because we expect no change in the viability status of the Wenatchee population.

The proposed action will reduce the forage and water quality PBFs for juvenile rearing and migration habitat in Alder Creek, Twin Creek, Gate Creek, Bush Creek, and Clear Creek. The proposed action will use nine unpaved stream crossing locations, which will increase turbidity in

these streams. Temporary and intermittent impairment of PBFs over a 300-foot reach below these nine stream crossings will not meaningfully affect each stream's ability to support the recovery of the distinct population segment. Therefore, the action will not affect the conservation value of critical habitat at the scale of the designation.

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 effect 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 UCR steelhead or adversely destroy or 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 opinion, NMFS determined that incidental take of juvenile UCR steelhead is reasonably certain to occur from exposure to increased turbidity.

Incidental Take from Increased Turbidity

NMFS expects the proposed action will result in the harm of juvenile steelhead by increased turbidity in five streams for up to 300 feet below a total of nine unpaved stream crossing locations. The increased turbidity will occur both intermittently (up to 10 times per day) and temporarily (minutes at a time) during the 15 years of log haul. Small numbers of juvenile steelhead exposed to the increased turbidity will respond with temporary behavioral changes, including changes in feeding and movement (reduced fitness) and increased risk of predation (reduced survival).

Estimating the specific number of animals harmed by increased turbidity is not possible because of the range of responses that individual fish will have, and because the numbers of fish present

is highly variable both spatially and temporally. While this uncertainty makes it impossible to quantify take in terms of numbers of animals harmed, the specific locations of the nine unpaved stream crossing locations of which fish will be exposed is readily discernible and presents a reliable measure of the extent of take that can be monitored and tracked. Therefore, the locations and maximum number (nine) of the unpaved stream crossings and the downstream extent of increased turbidity represents the extent of take. The proposed surrogate is causally linked to anticipated take because it describes conditions that will cause take due to increased turbidity. Specifically, NMFS will consider the extent of take exceeded if the location or number of stream crossings locations over occupied habitat increases over the nine proposed locations.

This surrogate is measureable, and thus can be monitored and reported. For this reason, the surrogates function as an effective reinitiation trigger.

Effect of 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

“Reasonable and prudent measures” (RPMs) are measures that are necessary or appropriate to minimize the impact of the amount or extent of incidental take (50 CFR 402.02).

The Forest Service shall minimize incidental take by:

1. Minimize the effects of sediment delivery and increased turbidity to the stream network.
2. Monitoring the project to ensure that the amount or extent of take is not exceeded.

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 Forest Service 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. Follow Washington Department of Ecology’s water quality standards for turbidity at WAC 173-201A-200.
 - b. Assess whether log haul is meeting turbidity standards on a quarterly basis by measuring turbidity downstream of one or more of the nine active unpaved stream crossings.

2. The following terms and conditions implement RPM 2:
 - a. The Forest Service shall report monitoring items to include, at a minimum, the following by February 28 of each year:
 1. Project name: Upper Wenatchee Pilot Project (WCRO-2022-01545)
 2. Forest Service contact person.
 3. Number of unpaved stream crossings used for log haul each year.
 4. Results of the quarterly turbidity monitoring.
 - b. The monitoring report should be delivered to:
crbo.consultationrequest.wcr@noaa.gov

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 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 ITS 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.”

“Not Likely to Adversely Affect” Determination

The Forest Service has determined that the Project actions are “Not Likely to Adversely Affect” for UCR spring-run Chinook salmon and their critical habitat. The Forest Service determined this based on where the species occurs and where critical habitat occurs in relation to sediment delivery to the stream network from log haul across unpaved stream crossings. NMFS concurs with the Forest Service’s determination that the likelihood that Project actions will have negative effects from increased sediment input to the stream network on individual UCR spring-run Chinook salmon or the PBFs of its critical habitat are insignificant. Therefore, the proposed action is “Not Likely to Adversely Affect” the species or its critical habitat.

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 NMFS’ Columbia Basin Branch.

Please direct questions regarding this letter to Justin Yeager at justin.yeager@noaa.gov or Steven Hughes at the Columbia Basin Branch, at (509) 312-2043 or steven.hughes@noaa.gov.

Sincerely,

A handwritten signature in blue ink that reads "Nancy L. Munn". The signature is written in a cursive style with a large, prominent "N" and "M".

Nancy L. Munn, Ph.D.
Acting Assistant Regional Administrator
Interior Columbia Basin Office

cc: Gene Shull, USFS Wenatchee
Mariah Mayfield, USFS

REFERENCES

- 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.
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- NMFS (National Marine Fisheries Service). 2022. 2022 5-year Review: Summary and Evaluation of Middle Columbia River Steelhead. NMFS, West Coast Region. 87 pp.
- USFS (U.S. Forest Service) Wenatchee River Ranger District, Okanogan–Wenatchee National Forest. 2022. Fisheries Biological Assessment for the Upper Wenatchee Pilot Restoration Project. 290 pp.