



**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

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**Refer to NMFS No: WCRO-2022-00466**

July 18, 2022

Peter L. Plant  
Project Administrator  
Wapato Irrigation Project  
Bureau of Indian Affairs  
Yakama Agency  
P.O. Box 0632xd  
Toppenish, WA 98948

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson–Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Wapato Headworks Rehabilitation Project, Yakima County, Washington.

Dear Mr. Plant:

This letter responds to your March 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, as amended by your updated letter and Biological Assessment (BA) received on May 12 and 13, 2022. Your request qualified for our expedited review and analysis because it met our screening criteria and contained all required information on, and analysis of, your proposed action and its potential effects to ESA-listed species and designated critical habitat.

For purposes of this consultation, we considered whether the substantive analysis and its conclusions regarding the effects of the proposed actions articulated in the biological opinion and its incidental take statement would be any different under the 50 CFR part 402 regulations as they existed prior to the 2019 Rule vacated by the order of the United States District Court for the Northern District of California on July 5, 2022. We have determined that our analysis and conclusions would not be any different.

We reviewed the Bureau of Indian Affairs (BIA) 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 meet our regulatory and scientific standards. We adopt by reference the following sections of BIA's BA: Chapter 3.1 (Action Area), Chapter 3.2–3.4 (Proposed Action), Chapter 4.1 (Status of Species and Critical Habitat), Chapter 5 (Environmental Baseline), and Chapter 6 (Effects of the Action).



The BIA submitted a consultation initiation package, including a BA, to NMFS on March 1, 2022. NMFS requested additional information on March 15, 2022. The BIA submitted a revised BA on May 12, 2022, and a revised consultation request letter on May 13, 2022. The revised BA and consultation request included all information necessary to initiate consultation; therefore, consultation was initiated on May 13, 2022.

As described in the BA, the BIA proposes to conduct a thorough inspection of, and make minor repairs and safety improvements to, the Wapato diversion facilities in Yakima County, Washington. The project will allow BIA and the Yakama Nation to rehabilitate and repair the diversion structures, inspect the existing diversion dams, and design long-term rehabilitation or replacement options for the headworks and diversion facilities to address ongoing operational, structural, and environmental issues. Construction of any long-term changes to the facilities deemed necessary after inspection is planned to occur several years after the initial repairs to the headworks and will require subsequent consultation.

We examined the status of Middle Columbia River (MCR) 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 also examined the condition of critical habitat throughout the designated area and the function of the physical and biological features essential to the conservation of the species that create the conservation value of that habitat. Chapter 4.1 of the BA describes the status of the species and critical habitat, and is adopted here. Major risk factors that limit MCR 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). Chapter 3.1 of the BA identifies the action area as including the Yakima River from the Century Landing boat launch upstream of the diversion facility to a point approximately one mile downstream of the diversion facility. The action area includes the extent of the river that will be used by a construction barge, dewatered, or potentially affected by temporarily reduced flows or increased turbidity and noise.

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 (50 CFR 402.02). Chapter 5 of the BA describes the environmental baseline and is adopted here.

The action area supports rearing and migration of MCR steelhead from the Upper Yakima and Naches populations. Adults from the Naches population may also spawn in the action area at low density in the spring. Both populations are within the Yakima River Major Population Group (MPG), one of four MPGs of MCR steelhead. Important physical and biological features (PBF) in the action area include water quantity and quality, substrate, floodplain connectivity, forage, natural cover, freedom from obstruction, and excessive predation. The ability of critical habitat in the action area to support MCR steelhead is primarily limited by alterations of the hydrograph caused by operation of the Yakima Irrigation Project, juvenile passage problems at the Wapato

diversion facility, simplified instream habitat, loss of streamside cottonwoods, and impairment of natural channel migration processes.

Under the ESA, “effects of the action” means the direct and indirect effect 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 (50 CFR 402.02). Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur.

The biological assessment provides a detailed discussion and comprehensive assessment of the effects of the proposed action in Chapter 6 of the initiation package, and is adopted here. NMFS has evaluated this section and after our independent, science-based evaluation, determined it meets our regulatory and scientific standards.

An unknown number of juvenile steelhead from the Upper Yakima and Naches populations will be affected by fish rescue and dewatering within a 128,000 square-foot area at the east and west diversion dams. Additional fish for a distance of up to 1.5 river miles downstream of the dewatered areas in the east and west channels will be affected by temporarily reduced flows. Most of the steelhead that will be present are expected to move to areas that will not be dewatered or to be captured and released safely during fish rescue. A minority of fish present in the area are expected to die by evading rescue and suffocating in the dewatered area, or to be injured or killed as a result of fish rescue efforts. The ability of critical habitat in the action area to support steelhead rearing will be temporarily impaired by decreasing rearing capacity via the water quantity PBF.

“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. Chapter 6.8 of the BA describes cumulative effects and 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 proposed action is expected to kill or injure a small number of juvenile steelhead during dewatering and fish rescue. The status of MCR steelhead is generally poor, and is compromised within the action area as a result of regulation of the hydrograph by Reclamation’s Yakima Irrigation Project and habitat simplification. Cumulative effects may cause a slight degradation of habitat conditions in the action area over the coming decades. A one-time loss of a small number of juveniles caused by the proposed action will not meaningfully affect the abundance or

productivity of the Upper Yakima or Naches populations, and will not affect their diversity or spatial structure. The likelihood of persistence and recovery potential of the MPG will not be affected because none of the component populations will meaningfully be affected. Similarly, the likelihood of persistence and recovery potential of MCR steelhead as a whole will not be affected, because we expect no change in the viability status of the Yakima River MPG.

The proposed action will temporarily reduce the function of the water quantity PBF during the dewatering event. Several areas will be dewatered in sequence over a period of up to three months. Temporary impairment of the ability of this localized critical habitat to support juvenile rearing will not meaningfully affect its ability to support recovery of the DPS. 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 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 incidental take statement (ITS).

#### **Amount or Extent of Take**

In the opinion, NMFS determined that incidental take of MCR steelhead is reasonably certain to occur as follows: capture, injury, and death resulting from dewatering and fish rescue activities.

We anticipate that the proposed action is likely to result in capture, injury, and death to juvenile MCR steelhead caused by dewatering 128,000 square feet of river at the east and west diversion dams combined, and by reducing flows in areas downstream of dewatering areas extending to the end of the east and west channels, totaling 1.5 river miles. A small number of juvenile steelhead are anticipated to be injured or killed.

NMFS anticipates the proposed action will result in capture, injury, and death as a result of dewatering and fish rescue. Estimating the specific number of animals captured, injured or killed is not possible because of the range of responses that individual fish will have, because the numbers of fish present at any time is highly variable, and it is not possible to observe all fish being affected. Although captured fish can be counted, it is difficult to identify and quantify the number of fish with internal injuries. While this uncertainty makes it difficult to quantify take in terms of numbers of animals injured or killed, our best estimate is that a small number of juvenile steelhead will experience injury or death due to fish rescue and dewatering, and reduced flows downstream of dewatered areas. We anticipate locating and finding all potential injured or killed fish will be impossible and hard to track. However, the extent of dewatering and fish rescue, and reduced flows, is readily discernible and presents a reliable measure of the extent of take that can be monitored and tracked. Therefore, the estimated extent of dewatering and fish rescue activities, and reduced flows, represents the extent of take associated with injury and death. The proposed surrogate is causally linked to anticipated take because it describes conditions that will cause take due to dewatering and fish rescue. Specifically, NMFS will consider the extent of take exceeded if the proposed action results in:

- Dewatering of, or fish rescue within, more than 128,000 square feet of the river at the east and west diversion dams combined.
- Reduced flows below dewatered areas extending to the ends of the east and west channels for a distance longer than 1.5 miles combined.

The surrogates described above are measurable, and thus can be monitored and reported. 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**

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

The BIA shall:

- Minimize incidental take resulting from dewatering and fish rescue, and from reducing flows in the east and west channels downstream of dewatered areas.
- Monitor the project to ensure that the measures are meeting the objective of minimizing take and 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 BIA, 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 a minimum of 10 cubic feet per second of water is available in the east and west channel downstream of the dewatered areas at all times. Water spilling over part of the dam and seepage may be sufficient to provide the minimum flow; if not, pumping water around the dewatered area may be necessary.
  - b. At least 30 days before the dewatering event:
    - i. Identify a lead fish biologist for the dewatering and fish rescue effort. The lead biologist will have experience in fish rescue during dewatering activities.
    - ii. Ensure the construction schedule allows for at least two days of dewatering and fish rescue activities for each of the two diversion dam dewatering areas.
    - iii. Identify all equipment and supplies needed for dewatering activities, including electrofishers, dipnets, seines, blocknets, buckets, aerators, batteries, etc. in sufficient sizes and numbers to support the dewatering effort.
2. The following terms and conditions implement RPM 2:
  - a. Within 90 days after construction is completed, the BIA shall provide NMFS a post-project monitoring report including, at a minimum, the following information:
    - i. Project name and NMFS Tracking No: Wapato Headworks Rehabilitation, WCRO-2022-00466.
    - ii. Number of *O. mykiss* up to 225 mm fork length that were captured and released without injury. Fork length can be estimated, instead of directly measured, to reduce handling stress for captured fish.

- iii. Number of *O. mykiss* up to 225 mm fork length that were captured and observed injured or dead. Fork length can be estimated, instead of directly measured, to reduce handling stress for captured fish.
  - iv. Number of *O. mykiss* up to 225 mm fork length that were unable to be captured and observed to be killed by asphyxiation from dewatering.
  - v. Total river area (square-feet) of dewatering.
  - vi. Length (miles) of east and west channel that had reduced flows due to dewatering.
  - vii. Estimated minimum flow in east and west channel below dewatered areas.
- b. The monitoring report should be delivered to [crbo.consultationrequest.wcr@noaa.gov](mailto:crbo.consultationrequest.wcr@noaa.gov).

### **Reinitiation of Consultation**

As 50 CFR 402.16 states, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and if: (1) The amount or extent of incidental taking specified in the ITS is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, (3) the agency action is subsequently modified in a manner that causes an effect on the listed species or critical habitat that was not considered in this opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action.

### **Essential Fish Habitat**

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson–Stevens Fishery Conservation and Management Act (MSA), including conservation measures and any determination you made regarding the potential effects of the action. This review was conducted pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation.

Section 305 (b) of the MSA directs Federal agencies to consult with NMFS on all actions or proposed actions that may adversely affect EFH. Under the MSA, this consultation is intended to promote the conservation of EFH as necessary to support sustainable fisheries and the managed species' contribution to a healthy ecosystem. For the purposes of the MSA, EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity," and includes the associated physical, chemical, and biological properties that are used by fish (50 CFR 600.10). Adverse effect means any impact that reduces quality or quantity of EFH, and may include direct or indirect physical, chemical, or biological alteration of the waters or substrate, loss of (or injury to) benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects may

result from actions occurring within EFH or outside of it and may include direct, indirect, site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) of the MSA also requires NMFS to recommend measures that can be taken by the action agency to conserve EFH. Such recommendations may include measures to avoid, minimize, mitigate, or otherwise offset the adverse effects of the action on EFH [50 CFR 600.0-5(b)].

NMFS determined the proposed action would adversely affect EFH of Pacific salmon as follows:

- Dewatering 128,000 square feet of river at the east and west diversion dams, combined, and by reducing flows in areas downstream of dewatering areas extending to the end of the east and west channels, totaling 1.5 river miles.

NMFS determined that measures included in the BA are sufficient to avoid, minimize, mitigate, or otherwise offsets the impact of the proposed action on EFH.

The BIA must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations [50 CFR 600. 920(1)].

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 at <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 Sean Gross, Columbia Basin Branch, at (509) 856-5442.

Sincerely,



Michael P. Tehan  
Assistant Regional Administrator  
Interior Columbia Basin Office

cc: Allison Konkowski – USFWS