



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
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November 17, 2022

Todd N. Tillinger
Chief, Regulatory Branch
Seattle District, U.S. Army Corps of Engineers
P.O. Box 3755
Seattle, WA 98124-3755

Re: Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion and Magnuson–Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the City of Pasco Waste Water Treatment Plant Clean Water Preservation Project Phase 2, Franklin County, Washington.

Dear Mr. Tillinger:

This letter responds to your April 20, 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 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.

NMFS also reviewed the likely effects of the proposed action on essential fish habitat (EFH), pursuant to section 305(b) of the Magnuson–Stevens Fishery Conservation and Management Act (16 U.S.C. 1855(b)), and concluded that the action would adversely affect the EFH of Pacific coast salmon. Therefore, we have included the results of that review in this document.

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 would be any different under the pre-2019 regulations. We have determined that our analysis and conclusions would not be any different.



We reviewed the Army Corps of Engineers' (Corps) consultation request and related initiation package, including a Biological Assessment (BA) (City of Pasco, 2022). We requested additional information and received a BA Supplement (Supplement) (Vlastelicia, John, 2022) from the applicant's consultant on September 30, 2022, and additional information about construction timing on October 25, 2022; therefore, consultation was initiated on October 25, 2022.

Where relevant, we have adopted the information and analyses you and the applicant's consultant 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 the BA: Chapter 2 (action area and proposed action), Chapter 3 (status of species and critical habitat), Chapter 4 (environmental baseline), and Chapters 5 and 6 and Appendix D (effects of the action). We also adopt by reference the Supplement that amends multiple chapters of the BA. In the case of any conflicts between the BA and Supplement, we defer to the Supplement.

As described in the BA and Supplement, the Corps proposes to authorize the City of Pasco (City) to replace its existing wastewater outfall in the Columbia with a new structure with increased capacity and more effective diffusion. Replacement work includes trenching, fish rescue, vibratory pile driving, sinking the new pipe into place and connecting it, backfill over the pipe, removal of piles, and disconnection and removal of the existing outfall pipe. Other elements of the City's project include upgrading facilities at the wastewater treatment plant to improve water quality of its effluent. These activities are not consequences of the Corps' proposed action.

We examined the status of Middle Columbia River (MCR) steelhead, Upper Columbia River (UCR) steelhead, and UCR spring-run Chinook salmon 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 discussed the function of the physical and biological features essential to the conservation of the species that create the conservation value of that habitat. Chapter 3 of the BA describes the status of the species and critical habitat and is adopted here. Since receipt of the BA, NMFS has published 5-year reviews for each species updating their status and limiting factors (NMFS 2022a and 2022b). These reviews are adopted here.

"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 2 of the BA and the Supplement identifies the action area as encompassing the Columbia River from the footprint of in-water construction activities downstream approximately 3 miles to its confluence with the Snake River, and is 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 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). Chapter 4 of the BA and the Supplement describe the environmental baseline and are adopted here.

The action area supports migration of MCR steelhead, UCR steelhead, and UCR spring-run Chinook salmon. Additionally, juveniles of all three species rear in the action area year round, with fish density varying over that time and peaking in the spring during smolt outmigration. The ability of critical habitat in the action area to support recovery of these listed species is primarily limited by the existence and operations of McNary Dam and dams upstream of the action area that have dramatically altered hydrology of the Columbia River and changed the basic nature of the action area from a river to a series of reservoirs. Predation on juveniles and poor water quality, particularly high temperature, also impede the ability of the critical habitat in the action area to support recovery.

Under the ESA, "effects of the action" are all consequences to listed species or 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).

An assessment of the effects of the proposed action are included in Chapters 5 and 6 and Appendix D of the BA, and in the Supplement, and these sections are adopted here (50 CFR 402.14(h)(3)). NMFS has evaluated these sections and, after our independent, science-based evaluation, determined it meets our regulatory and scientific standards. The Corps found that effects would include:

- Capture, injury, and/or death of juvenile fish during fish rescue.
- Behavioral effects and increased risk of predation to juveniles from increased noise and turbidity during construction.
- Sublethal effects to juveniles, including reduced growth and survival, from discharge of pollutants at low concentrations from the wastewater treatment plant outfall.

Individual fish from all populations of UCR steelhead and UCR spring-run Chinook salmon, and from the Yakima population of MCR steelhead will be affected by the proposed action. The effects of fish rescue and increased noise and turbidity will affect few juveniles and occur over a limited time period. Sublethal effects from discharge of pollutants at low concentrations is expected to be minor but a large number of fish will be exposed over time. Critical habitat will be temporarily affected during construction and water quality will be degraded slightly over the long term.

"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 5 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 juveniles during a single fish rescue event. Increased sound and turbidity during construction may cause juvenile fish to avoid the construction area and increase their susceptibility to predation, resulting in the death of a small number of individuals. The long-term effect of the proposed action is an increased risk of sublethal effects for juveniles that rear in the action area for extended periods from discharge of pollutants, resulting in harm to a small number of exposed fish. The status of each evolutionarily significant unit (ESU) and distinct population segment (DPS) is generally poor as a result of a combination of effects outside the action area and of the existence and operation of several Columbia River dams impairing habitat in the action area. Cumulative effects are expected to 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 viability status of any population, DPS, or ESU. Sublethal effects to juveniles from the very slight reduction in water quality in the action area over the long term is not expected to meaningfully affect the viability status of the exposed populations, or the associated ESU or DPS.

The proposed action will temporarily reduce the function of critical habitat with respect to water quality during construction via increased turbidity. In the long term, the function of critical habitat in the action area will be reduced very slightly with respect to water quality. These effects will not meaningfully degrade the ability of critical habitat to support recovery of the listed species in the action area. 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, UCR steelhead, or UCR spring-run Chinook salmon, or destroy or adversely modify their 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 MCR steelhead, UCR steelhead, and UCR spring-run Chinook is reasonably certain to occur and will include: (1) capture, injury, and death resulting from fish rescue activities; (2) harm from increased noise and turbidity during construction; and (3) harm from discharge of pollutants in wastewater effluent.

Incidental Take from Fish Rescue

NMFS anticipates the proposed action will result in capture, injury, and death as a result of fish rescue in a 900-square-foot zone. 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 because 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 fish will experience injury or death due to fish rescue. However, the zone of fish rescue is readily discernible and presents a reliable measure of the extent of take that can be monitored and tracked. Therefore, the estimated zone of fish rescue activities 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 fish rescue. Specifically, NMFS will consider the extent of take exceeded if the proposed action results in fish rescue over more than 900 square feet.

Incidental Take from Increased Noise and Turbidity

NMFS anticipates the proposed action will result in harm to a small proportion of fish in the vicinity of construction by causing them to avoid the area and increasing their susceptibility to

predation. Estimating the specific number of animals harmed 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 because it is not possible to observe fish being affected. While this uncertainty makes it difficult to quantify take in terms of numbers of animals harmed, our best estimate is that a small number of juveniles will be harmed by avoiding disturbance caused by construction activities. However, the temporal extent of disturbance is readily discernible and presents a reliable measure of the extent of take that can be monitored and tracked. Therefore, the estimated temporal extent (i.e., duration) of in-water construction activities represents the extent of take associated with increased noise and turbidity. The proposed surrogate is causally linked to anticipated take because it describes conditions that will cause take due to disturbance. Specifically, NMFS will consider the extent of take exceeded if the proposed action results in in-water construction activities that extend beyond the proposed August 1 to February 28 in-water work window.

Incidental Take from Discharge of Pollutants

NMFS anticipates the proposed action will result in harm (sublethal effects) to fish in the action area caused by discharge of pollutants from the wastewater outfall. Estimating the specific number of animals harmed 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 because it is not possible to observe fish being affected. While this uncertainty makes it difficult to quantify take in terms of numbers of animals harmed, our best estimate is that a large number of individuals will be exposed to low concentrations of pollutants, causing a small number of fish to be so severely affected that their fitness is reduced.

Harm caused to fish in the action area is expected to directly relate to the concentrations of pollutants present in wastewater effluent. Generally, concentrations of various pollutants are correlated because their concentrations are directly related to the intensity and extent of pollution-generating activities and treatment technologies applied. Some of these pollutants are more readily monitored than others. Because non-regulated contaminants such as pharmaceuticals and personal care products are not regularly monitored, we use the average monthly concentration of a frequently monitored contaminant, Total Suspended Solids, as a surrogate for measuring effects. The proposed surrogate is causally linked to anticipated take because it describes conditions that will cause take due to pollutant discharge. Specifically, NMFS will consider the extent of take exceeded if the average monthly concentration of Total Suspended Solids discharged from the outfall exceeds 30 mg/L.

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” (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 Corps shall minimize incidental take by:

1. Monitoring 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 Corps 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. Within 90 days after construction is completed, the Corps shall provide NMFS a post-project monitoring report including, at a minimum, the following information:
 - i. Project name and NMFS Tracking No: City of Pasco Wastewater Treatment Plant (WWTP) Clean Water Preservation Project Phase 2, WCRO-2022-01039.
 - ii. Number of *Oncorhynchus mykiss* that were captured and released without injury.
 - iii. Number of *O. mykiss* that were captured and observed injured or dead.
 - iv. Number of spring-run Chinook salmon that were captured and released without injury.
 - v. Number of spring-run Chinook salmon that were captured and observed injured or dead.
 - vi. Total area (square feet) of fish rescue efforts.
 - b. After the new outfall is operational, the City shall report to NMFS when the monthly average of Total Suspended Solids exceeds 30 mg/L, as well as what remedies are being undertaken to reduce pollutant concentrations in effluent. The report should include the project name and NMFS Tracking No: City of Pasco WWTP Clean Water Preservation Project Phase 2, WCRO-2022-01039.

- c. 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 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.”

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 and 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:

1. Increased noise and turbidity during construction; and
2. Discharge of pollutants in wastewater effluent.

NMFS determined that measures included in the BA and an October 25, 2022 email modifying the in-water work window to August 1–February 28 are sufficient to avoid, minimize, mitigate,

or otherwise offsets the impact of the proposed action on EFH. Therefore, NMFS is not recommending any additional measures.

The Corps 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(l)).

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

Sincerely,



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

cc: David Moore, U.S. Army Corps of Engineers, David.J.Moore@usace.army.mil
John M. Vlastelicia, Environmental Science Associates, JVlastelicia@esassoc.com

REFERENCES

- City of Pasco. 2022. City of Pasco WWTP Clean Water Preservation Project Phase 2 Biological Assessment. 112 pp.
- NMFS (National Marine Fisheries Service). 2022a. 2022 5-year Review: Summary and Evaluation of Middle Columbia River Steelhead. NMFS. West Coast Region. 87 pp.
<https://doi.org/10.25923/63dr-dw24>
- NMFS. 2022b. 2022 5-Year Review: Summary & Evaluation of Upper Columbia River Spring-run Chinook Salmon and Upper Columbia River Steelhead. 95 pp.
<https://doi.org/10.25923/p4w5-dp31>
- Vlastelicia, John. 2022. Biological Assessment Supplement: Effluent Water Quality Effects Analysis City of Pasco WWTP Clean Water Preservation Project Phase 2 (NWS-2022-223). 15pp.