



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-2022-03096

May 15, 2023

Ralph J. Rizzo
Division Administrator
Federal Highway Administration
Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, WA 98501

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson–Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Yakima County East–West Corridor Project, Yakima River, HUC 170300030206, Yakima County, Washington

Dear Mr. Rizzo:

This letter responds to your December 15, 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.

We reviewed the Federal Highway Administration’s (FHWA) 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 FHWA’s Biological Assessment (BA): Chapter 1.2 (project description), Chapters 2.1 to 2.4 (Project Details), Chapter 2.5 (Impact Avoidance and Minimization Measures), Chapter 3 (Status/Presence in the Action Area), Chapter 4 (Environmental Baseline), Chapter 5 (Action Area), and Chapter 6 (Effects Analysis and Cumulative Effects).

The FHWA submitted a formal consultation initiation package, including a BA, to NMFS on December 15, 2022. After our review, we requested additional information by a phone call on January 9, 2023. NMFS received a response from the FHWA via email on January 11, 2023, and initiated consultation on that same date.

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. On November 14, 2022, the Northern District of California issued an order granting the government’s request for voluntary remand without vacating the 2019 regulations. The District Court issued a slightly amended order two days later on November 16, 2022. As a result, the 2019 regulations remain in effect, and we are applying the 2019 regulations here. For purposes of this consultation and in an abundance of caution, 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.

The project proposes the construction of a transportation corridor from the intersection of North 1st Street and East H Street in the City of Yakima to the eastern terminus at the Roza Canal Wasteway #2 in the Terrace Heights neighborhood. This corridor is part of a larger transportation corridor that will eventually connect Fruitvale Boulevard in western Yakima to 57th Street in Terrace Heights. The East–West Corridor will involve the construction of two bridges: a combined vehicular and a pedestrian bridge over the Yakima River, and a combined pedestrian and vehicular bridge over the Roza Canal Wasteway #2. In addition to roadway and bridge construction, the proposed project will involve improvements to U.S. Interstate Highway 82 (I-82), including new overpass bridges over the East–West Corridor. This project will also involve restoration and levee work along the Yakima River floodplain, including removal of a portion of the Y-6 (Marsh Road) levee south of the proposed bridge.

Construction is anticipated to begin in the summer of 2023 and last for five years. Phase 1 was permitted separately, and construction has been completed. Construction will be completed in phases:

- Phase 2 (Roza Canal Wasteway #2 bridge to North 15th Street and floodplain mitigation work): summer 2023 to fall 2024.
- Phase 3 (Yakima River bridge to westernmost roundabout on Bravo Company Boulevard and I-82 work): 2024 to 2027.
- Phase 4 (Bravo Company Boulevard and H Street): 2027 to 2028.

We examined the status of each species 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. Chapter 3.2.4 of the BA covers the status of the species, in this case, Middle Columbia River (MCR) steelhead. 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. Critical habitat for MCR steelhead has been designated in the Yakima River within the 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). Chapter 5.1 of the BA describes the action area. Due to noise created by pile-driving, the action area extends 0.7 miles upstream from the bridge work site; the downstream extent of the action area is the confluence of the Yakima River with the Columbia River due to water quality impacts created by stormwater runoff.

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 describes the Environmental Baseline and is being adopted here. Major limiting factors in the action area include reduced streamflow, high water temperatures, altered floodplains, and poor water quality.

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).

Chapter 6 of the BA provides an assessment of the proposed action’s effects and is adopted here (50 CFR 402.14(h)(3)). NMFS has evaluated this section and after our independent, science-based evaluation, determined it meets our regulatory and scientific standards. The BA found that both adult and juvenile steelhead will be affected because the action area is used for migration. Adult and juvenile steelhead may be present in the Yakima River during construction at relatively low densities. The effects of the proposed action on MCR steelhead in the action area are:

- Construction of the temporary work bridge and placement of the oscillator will require the installation and removal of 57 steel pipe piles below the ordinary high water mark (OHWM).
 - Up to 7,950 strikes from an impact pile driver may occur in a single day.
 - Impact pile-driving activities will cause injurious sound pressure levels that may result in physical injury and/or behavioral modification to fish during pile installation and removal, which is anticipated to occur for an estimated 57 hours over the span of 19 days.
 - Vibratory pile-driving activities will create sound pressure levels which may result in behavioral modification to fish for approximately 28.5 hours over the span of 19 days (which may occur concurrently or independently of impact pile-driving).

- Increased turbidity as result of placement and removal of casings, pile-driving, connecting the new side channel, and channel adjustments resulting from the new bridge pier and side channel.
- Creation of 3.1 acres of side channel will likely increase channel complexity and juvenile rearing habitat.
- The project will create 15 acres of pollutant-generating impervious surface (PGIS) in the action area. Although stormwater runoff will be increased, all new PGIS will receive treatment.
- Existing PGIS in the action area totals 8.1 acres. In addition to treating new PGIS, 5.25 acres of existing PGIS will be treated following project construction. Of the remaining existing PGIS, 1.1 acres is already treated and 1.75 acres is comprised of private driveways and will remain untreated.
- Five acres of PGIS will receive basic treatment and will be discharged to the Yakima River via an existing outfall. An additional 10.4 acres will receive enhanced treatment using infiltration methods.

MCR steelhead utilize the action area as a migration corridor to upstream spawning and rearing habitat for two populations (Upper Yakima and Naches River). Habitat quality is rated as low in the action area due to a lack of large wood, instream and overhead cover, and undercut banks. Low habitat quality is largely the result of urban development, channelization, and irrigation conveyance. The Naches and Upper Yakima populations are within the Yakima River Major Population Group (MPG) of MCR steelhead. Important PBFs 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 effects from floodplain development, channelization, agricultural practices (i.e., irrigation conveyance), and degraded water quality. Likely effects to MCR steelhead critical habitat are:

1. Removal of riparian vegetation may result in a temporal loss of organic inputs within the aquatic portion of the action area. Removal of trees will result in a temporal decrease in refugia and large wood recruitment.
2. Creation of 3.1 acres of side channel will likely increase channel complexity and juvenile rearing habitat.
3. In addition to treating new PGIS, more than 75 percent of existing PGIS will be treated at precipitation events less than a 25-year recurrence interval. Although new PGIS will be created, it is expected that treatment of existing untreated and new PGIS will improve existing stormwater runoff water quality.
4. During 25-year storms, untreated stormwater may enter the Yakima River which is known to harm and even kill salmonids.
5. The proposed project will temporarily impact 700 square feet of substrate for the placement of steel pipe piles and casings and permanently impact 85 square feet of substrate for the in-water pier for the proposed Yakima River bridge. The long-term loss

of 85 square feet of migratory and juvenile overwintering habitat is very small and similar habitat is abundant in adjacent channel areas.

6. Possible changes in main channel current flow and erosion patterns below the OHWM may result from the newly created side channels and bridge pier and slightly change adult holding and juvenile overwintering habitat. Changes in flow and erosion in the main channel will likely redistribute those habitats and little long-term affect is anticipated.

“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 Chapter 6.4 of the BA, which are likely to be minimal.

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 environmental baseline is characterized by degraded floodplain and channel structure, altered sediment routing, altered hydrology, and altered water quality. Adjacent to the action area the major sources of impacts to steelhead are the continued development and maintenance of the shoreline and irrigation water withdrawal. The operation of water storage and withdrawal projects has altered the natural hydrograph of the Yakima River. Shoreline development has reduced the quality of steelhead habitat by eliminating native riparian vegetation, disconnecting historic side channels, riprapping streambanks, and by further disconnecting the Yakima River from historic floodplain areas. Water withdrawals, irrigation returns, and loss of riparian vegetation have contributed to warmer river temperatures in the action area. The cumulative effects of State and private actions within the action area are anticipated to continue to have negative effects on ESA-listed salmonids and critical habitat.

Climate change is likely to affect the abundance and distribution of the ESA-listed species considered in the opinion. The exact effects of climate change are both uncertain, and unlikely to be spatially homogeneous, and the ability of listed-species to adapt is uncertain. Most of the effects of the action are short term, and thus will not exacerbate the effects on species and habitat caused by climate change. The long-term effects (loss of 85 square feet of instream habitat) of the bridge are likely to be small because the area impacted is relatively small; these effects will not be altered by climate change. The proposed project will excavate 3.1 acres of side channel habitat and includes construction of five engineered log jams. The excavation of five backchannel areas is also proposed. After excavation, these areas will be planted with 6.9 acres of native riparian vegetation including cottonwoods, coyote willows, bitterbrush, and native grasses. The proposed mitigation work will improve the river’s ability to move through side

channels thus expanding the area of viable cottonwood establishment and retention. Side channels and backwater areas provide important places for both juvenile rearing and refuge during flood events. The proposed floodplain mitigation should enhance current conditions.

The action area is used by MCR steelhead, Chinook salmon, and coho salmon. MCR steelhead are listed as threatened and have an overall viability rating of high risk; of the two affected populations, the Naches River population is at moderate risk and the Upper Yakima population is at high risk. Chinook and coho salmon are not listed; however, these species and their habitats will similarly be affected by the action; habitat effects will be assessed in the Essential Fish Habitat (EFH) section below.

The proposed in-water construction work window is July 15 to February 1. However, impact pile-driving will only occur from July 15 to October 1. Juvenile steelhead outmigration through the lower Yakima River generally begins in November and is complete in late June (with the peak in April and May), while the adult upstream migration period is September through May. Therefore, we expect only a small number of juvenile and adult steelhead to be exposed to effects from pile-driving and increased turbidity. NMFS anticipates the proposed action will affect primarily MCR steelhead juveniles within the action area. Smaller juvenile fish are less likely to flee and could be harmed by exposure to sound pressure levels or noise produced by impact and vibratory pile-driving. Calculated threshold distances estimate that underwater vibrations will cause potential behavior modification of fish to within approximately 0.7 miles upstream and 0.4 miles downstream of the proposed pile driving (75.5 acres). Impact pile driving may physically injure fish within 0.4 miles downstream and 0.6 miles upstream (51.5 acres) of pile driving activities. A confined bubble curtain will be placed around any pile impact driven in greater than two feet of water to reduce noise levels. Since few juvenile steelhead are anticipated to be present in the action area during pile-driving, we anticipate a low number of juvenile steelhead to be affected.

Adult MCR steelhead may also be present during the work window; they are likely to avoid the disturbance by ceasing upstream migration during active work and then migrating through the area during periods of work stoppage (e.g., at night). Turbidity plumes produced by the action should be relatively small and affect only a small number of adult steelhead; most plumes will likely cause fish to move to nearby habitat. We do anticipate harassment of a small number of adult MCR steelhead; however, the avoidance behaviors, from both sound pressure and turbidity, are not expected to reduce the fitness of the fish due to the short duration and intermittent nature of the in-water work.

In the context of the Upper Yakima and Naches populations, which have average abundances of over 300 and 900 adult steelhead, respectively, the loss of a small number of juveniles from a single cohort of both populations will not meaningfully affect the abundance or productivity of either population and will have no effect on its spatial structure or diversity. The likelihood of persistence and recovery potential of the Yakima River 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 has the potential to affect several PBFs within the action area. Those PBFs include water quality (turbidity, and chemical contamination), substrate, safe passage, cover, and forage. The proposed action includes floodplain mitigation work that should provide long-term improvement to the affected PBFs. Short-term sedimentation/turbidity is expected to occur during the first floods that result in water flow in the new side channels. This is anticipated to be minimal due to the gravel material in the channel and the stabilization of the lowest portions of the channel with cottonwood and willow plantings. The amount of fine erodible material in the channels is expected to be limited.

The water quality PBF may be affected by an increase in stormwater runoff generated by the proposed increase in PGIS. Under existing conditions, more than 85 percent of PGIS is untreated. A total of four acres of existing PGIS for I-82 have the potential to reach the Yakima River, 2.9 acres of which are currently untreated; 10.1 acres of new PGIS will be created by the project and, upon completion, a total of 18.2 acres of PGIS will exist within the action area. All new PGIS will receive treatment and more than 75 percent of existing PGIS will be treated following project construction. Five acres of PGIS will receive basic treatment and will be discharged to the Yakima River via an existing outfall. An additional 10.4 acres will receive enhanced treatment using infiltration methods. All 16.5 acres receiving treatment will also be flow controlled. The remaining 1.75 acres of existing PGIS is composed of private driveways and will remain untreated. Stormwater being piped to the Yakima River will be treated using a bio-infiltration vault at flows up to the 25-year storm event. Higher flows will bypass the treatment system. Although the proposed action will treat 5.25 acres of existing untreated PGIS, some untreated discharges are expected over the life of the project during extreme weather events. Stormwater water quality improvements are expected over current conditions, but the project will still expose listed salmonids to runoff that may be harmful.

Safe Passage will likely be temporarily impeded during pile-driving activities. Adult and juvenile steelhead will be exposed to the effects of the action while migrating through the action area. Impact and sheet pile-driving will likely cause steelhead to flee and/or avoid the action area. Since impact and sheet pile-driving will be limited to an estimated total of 4.5 hours per day, safe passage through the action area is anticipated to be temporary.

In the short-term, the cover PBF will be affected but long-term gains in cover are anticipated. Removal of riparian vegetation may result in a temporal loss of organic inputs and cover within the aquatic portion of the action area. Removal of trees will result in a temporal decrease in refugia and large woody debris recruitment. However, the proposed action includes planting 6.9 acres of native riparian vegetation, including cottonwoods, coyote willows, bitterbrush, and native grasses. The planting plan more than doubles the vegetation lost, so it is anticipated that when plants mature this will be an improvement on the baseline.

Forage for fish is expected to be temporarily reduced in a small area. Benthic disturbance will reduce prey availability in a 700-square-foot area where temporary pilings are placed. The prey invertebrates will start to recolonize as soon as construction is done, but invertebrate drift through the action area will continue during construction. Recolonization will occur over a couple of months. Due to the expected low density of juvenile steelhead in the action area, this

slight decrease in forage production will be too small to cause competition for forage or a decrease in the growth or survival of individual juvenile steelhead.

It is reasonably certain that these actions will not result in long-term adverse effects to substrates, water quality, migratory habitat, food base, or other PBFs within the action area, given the proposed conservation and mitigation measures as part of the proposed action.

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 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 Incidental Take Statement (ITS).

Amount or Extent of Take

In the opinion, NMFS determined that incidental take of juvenile MCR steelhead is reasonably certain to occur as follows: (1) injury or death resulting from underwater sound pressure levels from pile driving, and (2) PGIS runoff contaminant loads during extreme storm events are likely to exceed levels deemed protective of anadromous salmonids. NMFS expects the action to result in harm, harassment, injury, or death to a small number of juvenile steelhead from the Naches River and Upper Yakima populations of the Yakima River MPG, and harassment of a small number of adult MCR steelhead.

It is not possible to determine the number of steelhead that will be harmed or harassed by vibratory pile driving or by the cumulative effects of sound pressure waves from repeated pile strikes. Therefore, NMFS uses a surrogate for incidental take. The surrogate is causally linked to the take pathways because the risk of injury and severity of injury from sound pressure waves

increase with additional pile strikes, and more steelhead are exposed to possible injury and predation when the time period of pile driving is longer.

The best available indicators to measure the extent of incidental take caused by pile driving and predation are:

- The number of steel piles installed below the OHWM.
- The number of pile strikes from an impact driver performed with a confined bubble curtain over the course of a single day.
- The duration of pile driving.

The extent of take will be exceeded if:

- More than 57 24-inch steel piles are installed.
- More than 7,950 strikes from an impact pile driver occur in a single day.
- Impact pile-driving occurs for more than 19 days.
- Sheet pile-driving occurs for more than 19 days.

NMFS is unable to quantify the amount of take that is associated with stormwater runoff because the number of ESA-listed fish that are exposed to untreated discharge of pollutants is unknown and is expected to vary annually as well as seasonally in response to precipitation events. Furthermore, it is not possible to count the number of fish that may be adversely affected, as the majority of effects are anticipated to be sub-lethal or behavioral in nature. The actual exposure of ESA-listed fish to harmful concentrations of pollutants, and the duration of such exposures, is unpredictable. There is a large degree of variability in effects that could occur if fish were exposed to pollutant concentrations of sufficient magnitude and for a sufficient period of time. For these reasons, NMFS will use a surrogate to measure the extent of take caused by the action. The extent of incidental take anticipated and analyzed in the opinion is exceeded if:

- Untreated PGIS exceeds 1.75 acres.
- Treating less than 16.5 acres of PGIS (which includes existing 1.1 acres of treated PGIS).

If at any time the level or method of take exempted from take prohibitions and quantified in this opinion is exceeded, reinitiation of consultation may be required.

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 FHWA 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 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) By the end of the calendar year following construction, the FHWA shall report monitoring items to include, at a minimum, the following:
 - i) Project identification:
 - (1) Project name: East–West Corridor Project. (WCRO-2022-03096).
 - (2) FHWA contact person.
 - ii) Construction details:
 - (1) Number of piles installed.
 - (2) Number of impact pile strikes.
 - (3) Total time of impact pile driving (days).
 - (4) Total time of sheet pile driving (days).
 - (5) A description of any elements of the project that were constructed differently than depicted in the BA or this opinion.
 - b) Reporting of PGIS treated acres.
 - c) If take is exceeded, contact NMFS promptly to determine a course of action.
 - d) All reports will be sent to NMFS at 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 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 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)). The aquatic zone of impact includes habitats that have been designated as EFH for coho and Chinook salmon. The Pacific Fishery Management Council designated the following five habitat types as habitat areas of particular concern (HAPCs) for salmon: complex channel and floodplain habitat, spawning habitat, thermal refugia, estuaries, and submerged aquatic vegetation. The action area contains the following HAPCs:

- Complex channel and floodplain habitat.
- Spawning habitat.

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

- Increased turbidity from pile-driving activities and reconnecting floodplain channels.
- Potential contamination from stormwater runoff.
- About 700 square feet of benthic habitat will be disturbed.
- The permanent loss of 85 square feet of benthic habitat.
- 3.3 acres of riparian vegetation will be permanently cleared for this project, however 3.1 acres of that will be converted to side channel habitat.
- 6,700 square feet of riparian vegetation will be disturbed by construction activities, affecting forage production and availability to juvenile salmon.

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

The FHWA 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 Todd Andersen, Snake Basin Office, (208) 366-9586, todd.andersen@noaa.gov.

Sincerely,



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

cc: Gary Martindale - FHWA
Melanie Vance - WSDOT
Randy Giles - WSDOT
Cindy Callahan - FHWA
Sonja Kokos - USFWS

REFERENCES

Yakima County Department of County Roads. 2022. East–West Corridor Project Biological Assessment. 181 pp.