



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

**Refer to NMFS No: WCRO-2024-01458**

<https://doi.org/10.25923/mqbg-h442>

August 8, 2024

Shaun McKinney  
Forest Supervisor  
Wallowa-Whitman National Forest  
1550 Dewey Ave., Suite A  
Baker City, Oregon 97814

William Abadie  
Regulatory Branch Chief  
Portland District  
U.S. Army Corps of Engineers  
P.O. Box 2946  
Portland, Oregon 97208-2946

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for Forest Service Road (FSR) 7785 Catherine Creek Road Repair, Mill Creek-Catherine Creek Subwatershed (HUC 170601040503), Union County, Oregon

Dear Mr. McKinney and Mr. Abadie:

This letter responds to your June 28, 2024, request for initiation of consultation with the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 et seq.) for Forest Service Road (FSR) 7785 Catherine Creek Road Repair. You also requested consultation pursuant to the essential fish habitat (EFH) provisions in Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. 1855(b)) for this action. Your request qualified for our expedited review and analysis because it met our screening criteria and contained the required information on, and analysis of, your proposed action and its potential effects to listed species, designated critical habitat, and EFH.

We reviewed the Wallowa-Whitman National Forest's (WWNF) 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. The parts of the documents we are



incorporating by reference are explicitly stated in the sections below, where appropriate. In our biological opinion (opinion) below we indicate what parts of your documents we have incorporated by reference and where that information is being incorporated.

On July 15, 2024, NMFS provided a copy of the proposed action and terms and conditions sections of the draft opinion to the action agencies and the Nez Perce Tribe. NMFS did not receive any comments from the WWNF, the U.S. Army Corps of Engineers (COE), or the Nez Perce Tribe.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on May 6, 2024 (89 FR 24268). We are applying the updated regulations to this consultation. The 2024 regulatory changes, like those from 2019, were intended to improve and clarify the consultation process, and, with one exception from 2024 (offsetting reasonable and prudent measures), were not intended to result in changes to the Services' existing practice in implementing Section 7(a)(2) of the ESA (89 FR 24268; 84 FR 45015). We have considered the prior rules and affirm that the substantive analysis and conclusions articulated in this opinion and incidental take statement would not have been any different under the 2019 regulations or pre-2019 regulations.

### **Proposed Action**

The proposed action is described in Section E of the FSR 7785 Catherine Creek Road Repair biological assessment (BA) (Section E pages 6–8, WWNF 2024). The WWNF proposes to stabilize an eroding bank and road prism back to its original footprint next to Catherine Creek; the erosion was caused by a large tree that fell into the stream in May 2023. The project area is located along FSR 7785, Catherine Creek Lane, at River Mile 32.29. The project is located on the La Grande Ranger District of the WWNF. The COE may issue a Clean Water Act (CWA) Section 404 permit for the project, if applied for, and this consultation also addresses the COE's issuance of the permit.

Work in Catherine Creek will occur over a 2-day period between July 1 and August 15, during seasonal low flows identified by the Oregon Department of Fish and Wildlife (ODFW 2023). The BA provides additional details regarding implementation, construction methods, and best management practices (BMPs), referencing the Aquatic Restoration Activities in the States of Oregon and Washington programmatic biological opinion (ARBO II, NMFS consultation tracking number NWR-2013-0996) for full details of conservation measures that will be used (page 8, WWNF 2024). Though not explicitly stated in the BA, the WWNF clarified through a July 12, 2024, email that dewatering measures would be used during the one day of in-water work.

We considered, under the ESA, whether or not the proposed action would cause any other activities and determined that it would not.

## BIOLOGICAL OPINION

### Status of Species and Designated Critical Habitat

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. 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.

We have supplemented the BA Section F on “Species Listing & Life History” (pages 9–10, WWNF 2024) with the following information. Together, this represents the best available and most recent information on the status of the species considered in this consultation.

A summary of the current status of the Snake River spring/summer (SRS) Chinook salmon evolutionarily significant unit (ESU) can be found on our website at:

<https://www.fisheries.noaa.gov/s3/2023-02/feb-2023-status-snake-r-spring-summer-chinook.pdf>, and is incorporated by reference here. Overall, the species is at a moderate-to-high risk of extinction within the next 100 years.

A summary of the current status of the Snake River Basin (SRB) steelhead distinct population segment (DPS) can be found on our website at:<https://www.fisheries.noaa.gov/s3/2023-02/feb-2023-status-snake-r-steelhead.pdf>, and is incorporated by reference here. Overall, available information suggests that SRB steelhead continue to be at a moderate risk of extinction within the next 100 years.

NMFS also incorporates by reference the following 2022 5-year reviews:

- [2022 5-Year Review: Summary & Evaluation of Snake River Spring/Summer Chinook Salmon](#)
- [2022 5-Year Review: Summary & Evaluation of Snake River Basin Steelhead](#)

The WWNF determined the action is likely to adversely affect designated critical habitat (DCH) for SRS Chinook salmon and SRB steelhead. We reviewed the information presented in the BA and have supplemented the BA with a summary of DCH information for SRS Chinook salmon and SRB steelhead at the scale of the ESA listings (Table 1). Detailed information on the status of DCH are provided in the recovery plan for each species (NMFS 2017) and the most recent 5-year reviews (referenced above).

Table 1. Critical habitat, designation date, Federal Register citation, and status summary for critical habitat considered in this opinion.

Species	Designation Date and Federal Register Citation	Critical Habitat Status Summary
Snake River spring/summer Chinook salmon	10/25/99; 64 FR 57399	Critical habitat consists of river reaches of the Columbia, Snake, and Salmon Rivers, and all tributaries of the Snake and Salmon Rivers (except the Clearwater River) presently or historically accessible to this evolutionarily significant unit (except reaches above impassable natural falls, and Dworshak and Hells Canyon Dams). Habitat quality in tributary streams varies from excellent in wilderness and roadless areas, to poor in areas subject to heavy agricultural and urban development (NMFS 2017). Reduced summer stream flows, impaired water quality, and reduced habitat complexity are common problems.
Snake River Basin steelhead	9/02/05 70 FR 52630	Critical habitat encompasses 25 subbasins in Oregon, Washington, and Idaho. Habitat quality in tributary streams varies from excellent in wilderness and roadless areas, to poor in areas subject to heavy agricultural and urban development (NMFS 2017). Reduced summer stream flows, impaired water quality, and reduced habitat complexity are common problems.

In evaluating the condition of DCH, NMFS examines the condition and trends of physical or biological features (PBFs), which are essential to the conservation of the ESA-listed species because they support one or more life stages of the species. Proper function of these PBFs is necessary to support successful adult and juvenile migration, adult holding, spawning, incubation, rearing, and the growth and development of juvenile fish. Modification of PBFs may affect freshwater spawning, rearing or migration in the action area. Generally speaking, sites required to support one or more life stages of the ESA-listed species (i.e., sites for spawning, rearing, migration, and foraging) contain PBFs essential to the conservation of the listed species (e.g., spawning gravels, water quality and quantity, side channels, or food).

Climate change and its influence on PBFs such as water quality, water quantity, temperature, and safe passage are expected to exacerbate current conditions for ESA-listed salmonids, limiting future run timing (due to reduced adaptability) and thus increasing the difficulty of species recovery. A synthesis of current literature pertinent to these habitat conditions can be found in NMFS' recovery plans (NMFS 2017) and recent climate vulnerability assessments (Crozier et al. 2019).

For both species, the construction and operation of water storage and hydroelectric power development in the Columbia River basin, including the run-of-river dams on the mainstem lower Snake and lower Columbia Rivers, have altered the mainstem migration corridor habitat for juveniles and adults. However, several actions taken since 1995 have reduced the negative effects of the hydro system on juvenile and adult migrants. Examples include providing spill at each of the mainstem dams for smolts, steelhead kelts, and adults that fall back over the projects; and maintaining and improving adult fish way facilities to improve migration passage for adult salmon and steelhead (NMFS 2020).

## 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). The BA describes the project site in Section B (pages 2–3 of the BA, WWNF 2024). In this consultation, we expand the BA’s extent of the action area to include 50 feet above and a 600 feet below the project site to account for the projected extent of all effects of the action.

## Environmental Baseline

The “environmental baseline” refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early Section 7 consultations, and the impact of State or private actions, which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency’s discretion to modify are part of the environmental baseline (50 CFR 402.02).

We adopted the BA’s Section D on “Existing Conditions” (pages 4–5, WWNF 2024), include it here by reference, and supplement it with the following information.

While degraded, the action area in Catherine Creek is DCH for SRS Chinook salmon and SRB steelhead. The erosion has occurred along 50 feet of FSR 7785 adjacent to the streambed. The opposite bank is a steep, forested hillslope with minimal disturbance. The roadbed and hillslope keep the creek in a confined state (i.e., limited off-channel habitat, floodplain connectivity, habitat complexity, wood recruitment, and streamside shade) within the action area.

Screw traps are operated on Catherine Creek every year to estimate out-migrating juvenile salmonids (ODFW 2018), and the site will likely have both juvenile SRS Chinook salmon and juvenile SRB steelhead use during the proposed action. Annual redd surveys indicate the site is a known spawning site for SRS Chinook salmon at an average of 0.0038 redds/mile (ODFW 2024); however, the proposed action occurs during a time of year when we would not expect adults of either species or SRS Chinook salmon redds to be in the action area. The action area falls within the boundaries for the SRS Chinook salmon Catherine Creek population, which belongs to the Grande Ronde/Imnaha Rivers Major Population Group (MPG). This action area also falls within the boundaries for the SRB steelhead Upper Grande Ronde population within the Grande Ronde River MPG. While there have been improvements in the abundance/productivity in these populations since the time of listing, they have experienced sharp declines in abundance in recent years.

## Effects of the Action

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.

The BA provides a detailed discussion and assessment of the effects of the proposed action in Section G (pages 10–17), and is adopted here by reference (50 CFR 402.14(h)(30)). NMFS has evaluated this section and after our independent, science-based evaluation determined it meets our regulatory and scientific standards. We include supplemental information related to our analysis of effects of the action to SRS Chinook salmon, SRB steelhead, and their DCH below.

As stated above, the WWNF provided further details on the proposed action through a July 12, 2024, email (i.e., dewatering and other measures), and we therefore presume these actions will occur and have conducted our analysis accordingly.

*Effects to Species.* We do not anticipate that any adult SRS Chinook salmon or SRB steelhead, or their incubating eggs, will be exposed to project effects because of the location of the project and proposed work window (July 1 through August 15). We anticipate only juvenile SRS Chinook (one cohort) and SRB steelhead (up to two cohorts) will be exposed to short term project effects. Adults and juveniles of both species may be exposed to long-term project effects.

The short-term effects of the proposed action to SRS Chinook salmon and SRB steelhead are:

- Behavioral impacts to juveniles from sound, caused by heavy equipment during construction work. We believe this effect will be minor and temporary because machinery noise would be at levels below those found to have adverse effects to salmonids and construction will last only two days.
- Behavioral effects to juveniles, not rising to the level of harm or harassment, are expected from turbidity plumes during fish salvage, block net placement, and re-watering. Effects will be minor and temporary because the WWNF will stop or modify work activities immediately if a visible turbidity plume is present 50 feet downstream of any of the work areas and will incorporate BMPs associated with reducing turbidity plumes in the streams, including dewatering the work area and using sediment filtering methods.
- Electrofishing related harm (including harassment, capture, injury, and potential death of individuals) to juveniles caused by fish salvage efforts during dewatering.
- Potential chemical contamination to juveniles from heavy equipment and fuel storage. Given the proposed BMPs, harm to individual fish is improbable.

The long-term effects of the proposed action are:

- Loss of juvenile rearing/migration habitat due to the placement of new riprap. Effects will be minor but permanent over the life of the new structure, and are expected to be undetectable to juveniles given the small size of the action area, and the availability of more suitable habitat in the secondary channel.

- Loss of adult migration habitat. This will be a minor, permanent effect to habitat that is expected to be undetectable to adults. Adults are expected to continue migrations to more suitable spawning habitat within Catherine Creek.
- Loss of potential spawning habitat for adult SRS Chinook. This minor, permanent effect to habitat is expected to be undetectable to adult SRS Chinook. Given the low likelihood of spawning in this reach, they are expected to use more suitable spawning habitat within Catherine Creek.
- Plantings in the riparian zone will improve cover and shelter for all life stages of SRS Chinook salmon and SRB steelhead.

**Fish Salvage.** The Catherine Creek work site will stabilize a maximum of 50 feet (15.24 m) of streambank and rebuild the recently eroded road prism back to its previous footprint with no further encroachment on the creek. Approximately half of the creek will be blocked off for fish salvage and isolated and dewatered for construction work. Wetted width modeled during July–September is approximately 6.7 meters (Cooney and Holzer 2006); therefore, approximately 3.35 meters in width would be isolated by the proposed action, and a total of 51.05 m<sup>2</sup> (3.35 meters x 15.24 meters = 51.05 m<sup>2</sup>) would be isolated by block nets and salvaged for fish.

The BA did not provide Chinook salmon or steelhead density data for the action area. However, the BA states, and we believe, that juvenile Chinook salmon and steelhead are likely present in the action area and will be exposed to fish salvage effects. The ODFW (1997) estimated Chinook salmon parr in varying types of habitat in Catherine Creek to be a maximum of 10.0 fish per 100 m<sup>2</sup>. For steelhead, ODFW (2005, 2018) estimated that 11,456 to 34,050 juvenile steelhead are located above the Catherine Creek weir. With approximately 306,665 m<sup>2</sup> of steelhead Intrinsic Potential habitat above the weir (Cooney and Holzer 2006), there would be an estimated maximum of 11.1 (34,050 fish per 306,665 m<sup>2</sup> = 11.10 fish per 100 m<sup>2</sup>) juvenile steelhead per 100 m<sup>2</sup> if evenly distributed throughout the system. This is the best available information and allows us to make an appropriate evaluation of the action's effects.

Therefore, we estimate that up to 5.1 (10.0 fish per 100 m<sup>2</sup> = 5.1 fish per 51.05 m<sup>2</sup>) juvenile Chinook salmon and 5.7 (11.10 fish per 100 m<sup>2</sup> = 5.7 fish per 51.05 m<sup>2</sup>) juvenile steelhead and may be captured during dewatering and electrofishing at the Catherine Creek site. Each of these fish would experience varying levels of elevated stress and potential harm, with some fish potentially dying from the exposure to electrofishing and handling. Although some listed salmonids may die from electroshocking, the majority of captured fish will only be exposed to the stress caused by biological sampling/handling once. Fish experiencing stress are expected to recover fairly rapidly. NMFS assumes that any fish not captured in the work area will be killed due to stranding by placement of riprap in the channel.

In total, NMFS assumes an injury rate of 15 percent from electrofishing (Ainslie et al. 1998), and a total mortality rate of 13 percent, comprised of a stranding rate of 8 percent (applied to total number of fish exposed) and 5 percent from electrofishing mortalities (McMichael et al. 1998). Thus, NMFS concludes that up to one (15 percent of 5.1 fish = 0.8, rounded to one) juvenile SRS Chinook salmon and one (15 percent of 5.7 fish = 0.9, rounded to one) juvenile SRB steelhead

could be injured, and up to one (13 percent of 5.1 fish = 0.7, rounded to one) juvenile SRS Chinook and one (13 percent of 5.7 fish = 0.7, rounded to one) juvenile SRB steelhead could be killed as a result of fish salvage efforts and stranding during subsequent construction. Here, rounding up to a whole number allows us to make an appropriate evaluation of the action's effects to individual fish. Salvage related mortality will occur over two days from July 1 to August 15 during the year of implementation and is expected to affect one year class of Chinook salmon and two year classes of steelhead within the Catherine Creek and Upper Grande Ronde populations, respectively.

## Effects to Critical Habitat

Pages 12–14 of the BA (Section G, WWNF 2024) evaluate the action's potential effects on PBFs of SRS Chinook salmon and SRB steelhead DCH. We incorporate that section of the BA by reference and provide the following supplemental information.

The short-term effects of the proposed action to the PBFs of SRS Chinook salmon and SRB steelhead DCH are:

- Turbidity from construction will negatively affect water quality and forage PBFs of rearing and migration, but will be minor and temporary (less than one hour).
- Chemical contamination during construction may affect water quality for rearing and migration of salmonids, but BMPs will make this very unlikely to occur.
- Fish salvage, dewatering, isolation, and construction noise will negatively affect space and safe passage PBFs of migration, but this will be minor and temporary, and only occur in half of the split-channel stream.

The long-term effects of the proposed action to the PBFs of SRS Chinook salmon and SRB steelhead DCH are:

- Bank stabilization and riparian plantings will improve water quality, food/forage, and natural cover and shelter PBFs for rearing and migrating salmonids over the life of the new structure. This will be a permanent, minor improvement.
- Bank hardening and placement of riprap will have a minor, permanent negative effect on the substrate PBF for freshwater spawning and food/forage for rearing salmonids.
- Bank hardening will have a minor, permanent negative effect on space and safe passage PBFs for migrating salmonids.

## Cumulative Effects

“Cumulative effects” are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02). Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the ESA. The BA (page 17, WWNF 2024) discusses cumulative effects in the action area, and is incorporated here by reference. No new future State or private activities were identified that are not currently occurring.

## Integration and Synthesis

The Integration and Synthesis section is the final step in our assessment of the risk posed to species and critical habitat as a result of implementing the proposed action. In this section, we add the effects of the action to the environmental baseline and the cumulative effects, taking into account the status of the species and critical habitat, to formulate the agency's 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 will reconstruct and re-arm FR 7785 to its original road prism footprint (i.e., prior to damage in 2023) along 50 feet of the Catherine Creek streambank during a 2-day period between July 1 and August 15. The action area is defined as 50 feet upstream of the project site to 600 feet downstream of the project site.

The action area in Catherine Creek is primarily a juvenile rearing and migratory corridor for SRS Chinook salmon and SRB steelhead, with low documented adult SRS Chinook spawning. Due to project timing, adults and/or redds are not expected in the action during the proposed action. Only juveniles would be exposed to project effects during construction. Adults and juveniles of both species will be exposed to effects from extending the life of the structure.

The eroding streambank in the action area is located along 50 feet of FR 7785 adjacent to Catherine Creek. The bank opposite the erosion site is a steep, forested hillslope with minimal disturbance. The roadbed and hillslope keep Catherine Creek in a confined state (i.e., limited off-channel habitat, floodplain connectivity, habitat complexity, wood recruitment, and streamside shade) within the action area. While degraded, the action area is DCH for SRS Chinook salmon and SRB steelhead.

SRS Chinook salmon and SRB steelhead abundance experienced population increases, relative to the time of ESA listing, through the mid-2000s. During the past seven years, abundance has dropped, with many populations nearing levels observed when the species were listed. Observed declines have been similar for all populations in the ESU and DPS, and declines are believed to be tied to recent ocean conditions (Ford 2022). The action area has not improved or declined during this time and, due to the small scale, existing habitat conditions within the action area have likely had little influence on recent abundance trends. In addition to abundance and productivity concerns for these species, climate factors will likely make it more challenging to increase abundance and recover the species (Crozier et. al. 2019; NMFS 2017). The populations affected by the proposed action, are at high risk of extinction and remain far below recovery plan abundance and productivity targets. As a result, both species remain threatened with extinction.

Anticipated juvenile fish mortalities and injuries from electrofishing can be used to estimate the total number of adult equivalents potentially removed from the pool of affected populations. Using the estimated juvenile mortalities for each species documented above (i.e., one from each species), we estimate a loss of much fewer than one adult equivalent for both SRS Chinook salmon and SRB steelhead. For Chinook salmon, this would affect only the previous year's

brood from the Catherine Creek population (Grande Ronde/Imnaha Rivers Major Population Group). For SRB steelhead, impacts could be to the brood from one or two years prior, or both, from the Upper Grande Ronde population (Grande Ronde River MPG). The potential loss of much less than one adult equivalent from one (SRS Chinook salmon) or two (SRB steelhead) brood years is too small to have meaningful impacts on any of the affected individual populations' abundance or productivity. Due to the absence of population level impacts on viability, we find that the action will not affect the viability of the affected MPGs, nor the affected ESU or DPS. When considering the status of the species, and adding in the environmental baseline and cumulative effects, implementation of the proposed action will not appreciably reduce the likelihood of survival and recovery of SRS Chinook salmon or SRB steelhead in the wild.

Action area habitat conditions are generally poor to medium quality under the environmental baseline. The channel is currently constrained by the road prism, and lacks adequate vegetation on the side of the stream adjacent to the road; however, the action area is DCH and used for migration, rearing, and spawning purposes. The proposed action will have only very minor, long-term negative impacts to the PBFs of DCH within the relatively small action area. None of these impacts are expected to reduce the growth, survival, or spawning potential of fish utilizing the action area. We expect bank stabilization (riprap and riparian plantings) will locally reduce erosion and improve the water quality, riparian cover, and shelter PBFs of DCH in the long term. Hardening the bank to its previous roadbed footprint will reduce streambank condition permanently for the life of the structure, but it will be mitigated by willow plantings, which will also improve the water quality, riparian cover, and shelter PBFs over the life of the new structure. The proposed action will cause temporary fluctuations in water quality, but fish passage will be maintained. None of these effects will have influence on the action area's conservation value. Overall, the described effects on space will be limited to the reach scale, constituting a very small proportion of the overall habitat at the ESU/DPS scale.

When considering the status of the DCH, and adding in the environmental baseline and cumulative effects, implementation of the proposed action will not appreciably reduce habitat conditions. There are no reasonably foreseeable cumulative actions or effects that would otherwise affect the action area that were not previously considered in the environmental baseline. For these reasons, the conservation value of DCH for SRS Chinook and SRB steelhead will not be appreciably diminished by the proposed action.

## Conclusion

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

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

- Juvenile SRS Chinook salmon and SRB steelhead will likely be harmed or killed from fish salvage during the work area isolation portion of the proposed bank stabilization. Up to one each of juvenile Chinook salmon and juvenile steelhead may be injured, and up to one each of juvenile Chinook salmon and juvenile steelhead may be killed due to isolation work and fish salvage. Exceeding the total number of fish injured or killed would exceed the amount of take identified in this consultation.

### **Effect of the Take**

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

### **Reasonable and Prudent Measures**

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

The WWNF and the COE shall:

1. Minimize incidental take from the proposed streambank stabilization project.
2. Ensure completion of a monitoring and reporting program to confirm that the Terms and Conditions in this ITS are effective in avoiding and minimizing incidental take from permitted activities.

## Terms and Conditions

In order to be exempt from the prohibitions of Section 9 of the ESA, the Federal action agencies must comply (or must ensure that any applicant complies) with the following terms and conditions. The WWNF, the COE, 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 reasonable and prudent measure one:
  - a. The applicant shall walk the block nets slowly to their desired location, taking care to avoid contact with juvenile fish.
2. The following terms and conditions implement reasonable and prudent measure two:
  - a. During the project, the applicant shall:
    - i. Monitor (1) the downstream extent of the visible turbidity plume and (2) the linear feet of riprap installed.
    - ii. Maintain records of the number, species, and size of fish captured during fish salvage.
  - b. The WWNF shall submit a post-construction report to the Snake River Basin Office email ([nmfswcr.srbo@noaa.gov](mailto:nmfswcr.srbo@noaa.gov)) by December 31 of the year of project completion, referencing the consultation tracking number WCRO-2024-01458. The completion report shall include, at a minimum, the following:
    - i. Starting and ending dates for work completed.
    - ii. Measurements of the isolated area, length of riprapped streambank, and extent of turbidity plumes.
    - iii. A description of any contaminant release and efforts to correct such incidences.
    - iv. Number and species of fish observed, injured, or killed in the isolated instream work area during the project.
    - v. Number and species type of plantings.
  - c. If the amount or extent of take is exceeded, the applicant shall stop project activities and notify NMFS immediately using the contact information at the end of this consultation.

## Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Specifically, conservation recommendations are suggestions regarding

discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information (50 CFR 402.02).

- Where possible, without compromising the desired benefit of structural integrity of the project, use bioengineered solutions to stabilize streambanks instead of or in addition to riprap to further improve the habitat condition for listed SRS Chinook salmon and SRB steelhead that may use the project area for migration, spawning, and rearing.

### **Reinitiation of Consultation**

Under 50 CFR 402.16(a): “Reinitiation of consultation is required and shall be requested by the Federal agencies 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 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 RESPONSE**

Thank you also for your request for essential fish habitat (EFH) consultation. NMFS reviewed the proposed action for potential effects on EFH 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. We have concluded that the action would adversely affect EFH designated under the Pacific Coast Salmon Fishery Management Plan (PFMC 2022).

### **Magnuson–Stevens Fishery Conservation and Management Act**

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 agencies 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 600.905(b)).

## **EFH Affected by the Proposed Action**

The proposed project occurs within EFH for various Federally managed fish species within the Pacific Coast Salmon Fishery Management Plan (PFMC 2022). In addition, the project occurs within, or in the vicinity of complex channel and floodplain habitat and spawning habitat, which are designated as habitat areas of particular concern (HAPCs) for various federally managed fish species within the Pacific Coast Salmon Fishery Management Plan (PFMC 2014, 2022). HAPCs are described in the regulations as subsets of EFH, which are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. Designated HAPCs are not afforded any additional regulatory protection under the MSA; however, Federal projects with potential adverse impacts on HAPCs will be more carefully scrutinized during the consultation process.

## **Adverse Effects on EFH**

NMFS determined the proposed action would adversely affect EFH for Pacific Coast Salmon as follows:

1. Temporary degrading of water quality due to sediment input during construction work.
2. Permanent change in streambank condition due to hardening from the placement of riprap.

The BA provides a detailed discussion and comprehensive assessment of the effects of the proposed action in Section G (pages 10–17) of the BA (WWNF 2024), 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.

## **EFH Conservation Recommendations**

NMFS determined that the following conservation recommendations are necessary to avoid, minimize, mitigate, or otherwise offset the adverse effects of the proposed action on EFH.

1. Where possible, without compromising the desired benefit of structural integrity of the road prism, bioengineered solutions should be used to stabilize the streambank instead of riprap to further improve habitat condition for listed SRS Chinook salmon and SRB steelhead that use the area for migration, spawning, or rearing.
2. The applicant should allow visual turbidity to subside in the isolated work area before removing the block nets.

## Statutory Response Requirement

As required by Section 305(b)(4)(B) of the MSA, the WWNF and the COE must provide a detailed response in writing to NMFS within 30 days after receiving an EFH conservation recommendation. Such a response must be provided at least 10 days prior to final approval of the action if the response is inconsistent with any of NMFS' EFH Conservation Recommendations unless NMFS and the Federal agencies have agreed to use alternative time frames for the Federal agency response. The response must include a description of the measures proposed by the agencies for avoiding, minimizing, mitigating, or otherwise offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the conservation recommendations, the Federal agencies must explain its reasons for not following the recommendations, including the scientific justification for any disagreements with NMFS over the anticipated effects of the action and the measures needed to avoid, minimize, mitigate, or offset such effects (50 CFR 600.920(k)(1)).

## Supplemental Consultation

The WWNF and the COE 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 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' Southern Snake Branch office, Boise, Idaho.

You may contact Cortney Brown, Fish Biologist in the Southern Snake Branch of the Interior Columbia Basin Office at (208) 398-0053 or at [cortney.brown@noaa.gov](mailto:cortney.brown@noaa.gov) if you have any questions concerning this consultation, or if you require additional information.

Sincerely,



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

cc: Y. Malyutina—COE  
S. Brandy—WWNF  
P. Gower—USFWS  
M. Lopez – NPT  
J. Bushyhead – NPT

## REFERENCES

Ainslie, B. J., J. R. Post, and A. J. Paul. 1998. Effects of Pulsed and Continuous DC Electrofishing on Juvenile Rainbow Trout. *North American Journal of Fisheries Management*. 18(4):905–918.

Cooney, T. and D. Holzer. 2006. Appendix C: Interior Columbia basin stream type Chinook salmon and steelhead populations: habitat intrinsic potential analysis. Preliminary Review Draft. NOAA Northwest Fisheries Science Center.

Crozier, L. G., M. M. McClure, T. Beechie, S. J. Bograd, D. A. Boughton, M. Carr, T. D. Cooney, J. B. Dunham, C. M. Greene, M. A. Haltuch, E. L. Hazen, D. M. Holzer, D. D. Huff, R. C. Johnson, C. E. Jordan, I. C. Kaplan, S. T. Lindley, N. J. Mantua, P. B. Moyle, J. M. Myers, M. W. Nelson, B. C. Spence, L. A. Weitkamp, T. H. Williams, and E. Willis–Norton. 2019. Climate vulnerability assessment for Pacific salmon and steelhead in the California Current Large Marine Ecosystem. *PLoS ONE* 14(7): e0217711. <https://doi.org/10.1371/journal.pone.0217711>

Ford, M. J. (ed.). 2022. Biological Viability 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.

McMichael, G. A., L. Fritts, and T. N. Pearsons. 1998. Electrofishing Injury to Stream Salmonids; Injury Assessment at the Sample, Reach, and Stream Scales. *North American Journal of Fisheries Management* 18:894–904.

NMFS (National Marine Fisheries Service). 2017. ESA (Endangered Species Act) Recovery Plan for Snake River Spring/Summer Chinook Salmon (*Oncorhynchus tshawytscha*) & Snake River Basin Steelhead (*Oncorhynchus mykiss*). West Coast Region, Portland, Oregon. <https://www.fisheries.noaa.gov/resource/document/recovery-plan-snake-river-spring-summer-chinook-salmon-and-snake-river-basin>

NMFS. 2020. ESA (Endangered Species Act) Section 7(a)(2) Biological Opinion and Magnuson–Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Continued Operation and Maintenance of the Columbia River System. West Coast Region, Portland, Oregon. Available at: <https://doi.org/10.25923/3tce-8p07>

ODFW (Oregon Department of Fish and Wildlife). 1997. Fish Research Project Oregon Investigations into the Early Life History of Naturally Produced Spring Chinook Salmon in the Grande Ronde River Basin. Project Number 1992-026-04 to Bonneville Power Administration. La Grande, Oregon.

ODFW. 2005. Investigations into the Early Life History of Naturally Produced Spring Chinook Salmon and Summer Steelhead in the Grande Ronde River Subbasin. Annual Report 2004 - Project Period: 1 February 2004 to 31 January 2005. Project Number 1992-026-04 to Bonneville Power Administration. La Grande, Oregon.

ODFW. 2018. Investigations into the Early Life History of Naturally Produced Spring Chinook Salmon and Summer Steelhead in the Grande Ronde River Subbasin. Project Number 1992-026-04 to Bonneville Power Administration. La Grande, Oregon.

ODFW. 2023. Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources. Salem, Oregon.

ODFW. 2024. Tracking Chinook Salmon spawning and surveying efforts. Website hosted by the Grande Ronde Model Watershed, data provided by ODFW, and basemap layers provided by National Geographic, ESRI, and U.S. Geological Survey. Accessed May 15, 2024.  
<https://experience.arcgis.com/experience/6276f965fa11404489546ecac4170b6b>

PFMC (Pacific Fishery Management Council). 2014. Appendix A to the Pacific Coast Salmon Fishery Management Plan, as modified by Amendment 18. Identification and description of essential fish habitat, adverse impacts, and recommended conservation measures for salmon. PFMC, Portland, Oregon.

PFMC. 2022. Pacific Coast Salmon Fishery Management Plan for Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon, and California as Revised through Amendment 23. Identification and description of essential fish habitat, adverse impacts, and recommended conservation measures for salmon. PFMC, Portland, Oregon. 84 pp.

WWNF (Wallowa Whitman National Forest). 2024. FSR 7785 Catherine Creek Road Repair Biological Assessment for Snake River Steelhead, Snake River Spring Chinook Salmon, Columbia River Bull Trout, and Essential Fish Habitat. Wallowa Whitman National Forest, USDA Forest Service, Baker City, Oregon.