



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
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**Refer to NMFS No: WCRO-2022-01851**

December 13, 2022

Nathan Wiese  
Program Administrator  
Lower Snake River Compensation Plan Office  
U.S. Fish and Wildlife Service  
1387 S. Vinnell Way, Suite 343  
Boise, Idaho 83709-1657

Re: Endangered Species Act Section 7(a)(2) Biological Opinion for the Dayton Dam Repairs, Touchet River (HUC 170701020308), City of Dayton, Washington.

Dear Mr. Wiese:

This letter responds to your August 2, 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, including information submitted subsequent to that 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 listed species and designated critical habitat.

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

We reviewed the U.S. Fish and Wildlife Service's (USFWS) consultation request and related initiation package. Where relevant, we have adopted the information and analyses you have provided and/or referenced but only after our independent, science-based evaluation confirmed they meet our regulatory and scientific standards. We adopt by reference here the following sections of the biological assessment (BA) (USFWS 2022): Section 1.1, Project Location; Section 2, Proposed Action & Action Area; Section 3, Listed Species & Critical Habitat in Action Area; Section 4, Effects of the Action; Section 5, Cumulative Effects; Section 6, Essential Fish Habitat; and Section 7, Conclusion.



On March 1, 2021, NMFS received an email invitation to a March 17, 2021 meeting to discuss the proposed Dayton Pond Intake Facility Weir Repair Project, located on the Touchet River. NMFS participated in the meeting which included identification of issues and alternatives. The USFWS notified NMFS of an impending emergency action to place fill at the base of the Dayton weir (weir) on June 29, 2021. NMFS acknowledged receipt of the USFWS emergency action notice, and encouraged the USFWS to take all actions necessary to minimize impacts to steelhead during and as a result of the emergency action. The USFWS placed riprap along the downstream base of the weir in the summer of 2021 to fill scour holes along the underside of the foundation. On January 27, 2022, NMFS participated in a project coordination meeting to discuss the preferred alternative and permitting. Following this meeting, NMFS requested and received steelhead density information from Joe Bumgarner, Washington Department of Fish and Wildlife (WDFW), for electrofishing surveys which were conducted in 1999–2003, and 2005. NMFS received a draft BA from the USFWS on May 9, 2022. NMFS provided comments to the USFWS on May 26, 2022. NMFS participated in a meeting with the USFWS on June 15, 2022 to review our comments.

The USFWS submitted a request for initiation of consultation and a BA on August 2, 2022. After our review, we requested additional information via email on September 2, 2022. NMFS met with USFWS staff on September 8, 2022 and received requested information via email on September 9, 2022. Information submitted by the USFWS included a clarification of project effects, a figure of their proposed willow planting location, and their proposed fish salvage plan. Consultation was initiated on September 8, 2022.

As described in Section 2.0 of the BA, the USFWS proposes to repair the weir, stabilize the riverbed both upstream and downstream of the weir, extend the juvenile bypass pipe outlet 115 feet downstream, and install an Obermeyer weir on the left side of the existing weir. Project construction will occur June 19–August 28, 2023. The WDFW identified in-water work window is July 15–August 31. However, the USFWS proposes to conduct all work below the ordinary high water mark (OHWM) July 5–September 8, an extension of the WDFW work window, to complete all work in one season.

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. The status of the species, in this case Middle Columbia River (MCR) steelhead, is described in Sections 3.1.1., 3.1.1.1., 3.1.1.2., and 3.1.1.3. of the BA (USFWS 2022) and adopted here. We also examined the condition of critical habitat throughout the designated area and discuss the function of the physical or biological features essential to the conservation of the species that create the conservation value of that habitat. Middle Columbia River steelhead critical habitat is described in Section 3.1.1.4. of the BA (USFWS 2022), and 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). The action area is described in Section 2.2. of the BA (USFWS 2022), and is adopted here with one modification for the downstream extent. The USFWS identifies the action area as extending 0.5 miles downstream from Dayton Dam, for turbidity dissipation. As part of the proposed action, turbidity increases will be monitored 100 feet downstream from in-water activities and will comply with

Washington State water quality standards. To comply with Washington State water quality standards for salmonid spawning, rearing, and migration designated uses, turbidity generated by the project cannot exceed 5 nephelometric turbidity units (NTU) over background when the background is 50 NTU or less; or result in a 10 percent increase in turbidity when the background turbidity is more than 50 NTU. The USFWS expects Touchet River flow in the project area to be 90 cubic feet per second (cfs) or less during project construction. For waters above 10 cfs up to 100 cfs flow at the time of construction, the point of compliance is 200 feet downstream of the activity causing the turbidity exceedance. Therefore, NMFS expects impacts from increased turbidity to extend 200 feet downstream from the work pad; and the action area to extend 200 feet downstream of Dayton Dam.

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).

The Environmental Baseline is described in Sections 1.1., 1.2., 1.2.1., 1.3., and 3.1.1.4. of the BA (USFWS 2022), and adopted here. Overall, the MCR steelhead distinct population segment (DPS) is at “moderate risk” of extinction, with viability unchanged from the 2016 review (Ford 2022; NMFS 2022). The Touchet River population is one of three steelhead populations in the Umatilla/Walla Walla Rivers Major Population Group (MPG). The Umatilla/Walla Walla MPG is not viable. To achieve viability, one population needs to be viable (low risk) and one population needs to be highly viable (very low risk); with the only large population, the Umatilla River population, needing to be at least viable. Therefore, either the Walla Walla River or Touchet River population needs to be viable. Currently, both the Umatilla and Walla Walla populations are considered “maintained” (moderate risk), and the Touchet population is not viable (high risk), but needs to be at least maintained (Ford 2022; NMFS 2022). The recent 10-year (2010–2019) geometric mean of natural spawner abundance for the Touchet River steelhead population is 253, substantially below the threshold target of 1,000 (Ford 2022).

The Touchet River in the action area is designated critical habitat for MCR steelhead. The action area is used for spawning, rearing, and migration. The action area provides physical and biological features (PBF) of critical habitat for spawning, rearing, and migration, though these persist in a largely degraded condition. The weir spans the entire width of the Touchet River. It connects to a fish ladder/intake structure on the left bank and a U.S. Army Corps of Engineers (Corps) levee on the right bank. Annual maintenance of the weir includes dredging approximately 20 cubic yards of gravels and cobbles that accumulate in front of the intake screens and fish ladder exit.

## Project Effects

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 is provided in Sections 4 and 5 of the BA (USFWS 2022), and adopted here (50 CFR 402.14(h)(3)). Touchet River summer steelhead use the action area for spawning, rearing, and migration. Juvenile migration through the action area primarily occurs October–June. However, some juveniles (age 0 and age 1+) are expected to be migrating through and rearing in this area at all times of the year. Adult steelhead migrate through the action area January through the beginning of May. Spawning occasionally occurs in the action area above the weir in April. Based on spawn timing and water temperatures, fry emerge prior to July.<sup>1</sup> Therefore, the USFWS determined, and NMFS concurs, that only juvenile steelhead will be present in the action area during project construction.

Potential adverse project effects to juvenile MCR steelhead identified by the USFWS include:

- Blocked upstream fish passage for approximately 27 days, July 5–July 31, from high velocities in the fish ladder.
- Handling and translocation of 574 juvenile MCR steelhead during work area isolation and dewatering.
- Fish migration downstream and away from increased turbidity during project construction.
- Loss of forage in the dewatered work area for 6 months.

Potential adverse effects to the PBFs of MCR steelhead critical habitat identified by the USFWS include:

- Temporary loss of 11,250 square feet of benthic habitat, from: (1) installation of 2,540 square feet of berms and cofferdams above the weir; (2) dewatering of 5,310 square feet above the weir; (3) installation of a 2,200 square foot work pad below the weir; (4) dewatering of 1,000 square feet below the weir; and (5) removal of 730 square feet of gravel, of which 200 square feet is located outside of the dewatered area.

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<sup>1</sup> Email from Joe Bumgarner, WDFW, November 16, 2022.

- Permanent loss of 260 square feet of critical habitat below the OHWM, including: (1) 160 square feet for the relocated juvenile bypass pipe; and (2) 100 square feet for the Obermeyer weir concrete pad.
- Removal of 200 cubic yards of gravels and cobbles from 730 square feet.
- On-going migration barrier from the weir crossing the Touchet River.
- On-going permanent loss of 4,735 square feet of critical habitat.

Potential beneficial effects to MCR steelhead and critical habitat include:

- Extending the juvenile bypass pipe 115 feet downstream will have a beneficial effect to fish by moving it outside of the weir deposition zone and reducing the frequency of plugging.
- Installation of the Obermeyer weir will increase transport of gravels and cobbles downstream during flood events by about 20 cubic yards annually, decreasing accumulation and the need for annual dredging above the weir.

NMFS has evaluated the effects sections in the BA and after our independent, science-based evaluation, determined the additional information included in the following paragraphs is needed to complete our analysis.

### Effects to Juvenile Summer Steelhead

#### *Fish Salvage*

All fish salvage will occur July 5–August 31. Fish salvage will consist of herding fish out of the construction area and electrofishing and netting any fish that do not leave of their own volition. We expect most fish to be herded out of the work area using seines, and any remaining fish to be captured by electrofishing and netting, and relocated upstream of the project. Many factors influence the success of fish salvage efforts, including water depth, habitat complexity, temperature, salvage methods, crew experience, and care of fish after capture. At best, all fish are captured without injury and successfully released. However, in many cases some fish are difficult to capture, sustain injuries, and experience high stress after capture. Herding will minimize the risk of injury and mortality to listed fish to the extent possible. However, seining, netting, capture, and handling may injure fish and can increase stress, resulting in harm or death to some individuals; and herded fish may experience increases in predation, increased competition for forage, or reduced feeding when moved out of their established areas. Additionally, a small number of fish, particularly Age 0 steelhead that seek cover in existing substrate, may not be found by the fish capture crew and could end up stranded and die during dewatering.

NMFS estimates up to 11,250 square feet of the Touchet River will be isolated and dewatered. Electrofishing was conducted by the WDFW for summer steelhead in the mainstem Touchet River from 2001–2003 and 2005. The WDFW estimated the maximum steelhead density within

1.25 miles above and below the action area to be 45.2 Age 0 steelhead per 100 square meters (0.042 per square foot) and 9.7 Age 1 steelhead per 100 square meters (0.009 per square foot).<sup>2</sup> Although the collected data is 17–21 years old, NMFS expects similar densities under current conditions since there has been very little change to rearing habitat since the electrofishing surveys were conducted. Therefore, NMFS estimates 574 juvenile steelhead (472 Age 0 and 102 Age 1) will be present during work area isolation and dewatering.

NMFS expects all fish salvaged will be captured and released above the existing weir. NMFS estimates that 95 percent<sup>3</sup> of juveniles (545 fish) in the isolated area will be herded out or captured and released upstream without ill effects. However, we expect the remaining 5 percent (29 juvenile fish) will be injured or killed because they are unable to be captured during fish salvage and succumb to lack of oxygen or desiccation during dewatering, or they will experience external or internal injury, including injurious levels of stress, during holding and handling. We assume that fish that are injured or experience injurious levels of stress will be less likely to survive the challenges of outmigration and will ultimately die as a result. Therefore, NMFS estimates 545 juvenile steelhead will be salvaged and released safely, and 29 juvenile steelhead (24 Age 0 and 5 Age 1) will be injured or killed during fish salvage at the weir.

Using a fry-to-smolt survival rate of 0.135 (Quinn 2005) and a smolt-to-adult survival rate of 0.035 (Mendel et al. 2014), the injury or death of up to 29 juvenile steelhead does not accrue to the loss of one adult steelhead. Therefore, NMFS does not believe the proposed action will influence the abundance or productivity of the Touchet River population.

### *Water Quality*

***Turbidity.*** The proposed action will affect water quality during installation and removal of isolation barriers, the riprap access ramp, and the work pad; and during fish salvage, by temporarily increasing delivery of sediment to the waterway and increasing total suspended sediments and turbidity in the water column. Increased fine sediment can be detrimental to juvenile salmon and steelhead in several ways including avoidance of the area, abandonment of cover, stress, and reduced growth rates (Newcombe & Jensen 1996). Turbidity from increased fine sediment may disrupt steelhead feeding and territorial behavior and may displace fish from preferred feeding and resting areas. However, low to moderate levels of turbidity can provide cover from predation (Gregory & Levings 1998).

Based on the proposed work schedule, turbidity generating activities are expected to occur on nine separate days. Based on the proposed activities, flows and existing substrate conditions, increased turbidity is expected to extend up to 200 feet downstream from the construction limits. Because appropriate best management practices (BMPs) will be in place and the in-water work area will be isolated from the flowing channel, we expect very little sediment will be released from the project site and turbidity to be of low concentration. We also expect that water quality will return to baseline levels within a few hours following completion of installation and removal of work area isolation materials. However, NMFS expects that the turbidity levels generated by

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<sup>2</sup> Electrofishing data from Joe Bumgarner, WDFW, January 28, 2022.

<sup>3</sup> This is a conservative estimate based on the professional opinion of NMFS biologists and considers expected fish size, capture methods, and site conditions. The latter include anticipated depth, cover, substrate, turbidity, and flow.

this action will cause temporary behavioral changes to steelhead below the work pad, including changes in feeding behavior, movement of fish within turbidity plumes, and movement of fish short distances downstream, which will increase the risk of predation (Berg & Northcote 1985). We do not have sufficient data to determine how many juveniles may be harmed by increased turbidity.

***Chemical contamination.*** Additional impairment of water quality may result from accidental releases of fuel, oil, and other contaminants that can injure or kill aquatic organisms. Petroleum-based contaminants, such as fuel, oil, and some hydraulic fluids, contain polycyclic aromatic hydrocarbons (PAHs), which can kill salmon at high levels of exposure, and can cause sublethal, adverse effects at lower concentrations (Meador et al. 2006). Therefore, spills that make their way into the Touchet River could harm fish. The operation of equipment will predominantly be in isolated and dewatered areas, except for the in-river use of heavy equipment on two separate days to install the berm and work pad. In addition, excavators and loaders will contain hydraulic fluid certified as non-toxic to aquatic organisms, NMFS anticipates that only very small quantities (ounces) of PAHs are likely with each accidental release or spill, and that a spill is very unlikely to occur. Conservation measures will be implemented to prevent or contain any spill that may occur (e.g., staging and fueling equipment in a protected location, emergency spill response kit available onsite, and daily inspection of equipment and equipment maintenance). The conservation measures and limited use of equipment in-river should minimize the opportunity for contaminants to enter the waterway and affect steelhead. Therefore, NMFS does not expect any fish to be injured or killed by exposure to accidental releases of fuel, oil, and other contaminants caused by this action.

***Stormwater.*** The contractor will develop a Stormwater Pollution Prevention Plan. Soil erosion and sedimentation control measures will be employed during construction of the staging and access areas as well as the weir features, including use of straw wattles and silt fencing. Therefore, stormwater is not expected to cause adverse effects to ESA-listed fish.

### *Sedimentation and Forage*

The proposed action will negatively affect the availability of benthic invertebrates by crushing, covering, dislodging, or dewatering them temporarily in 11,250 square feet and permanently in 260 square feet of streambed; from riparian vegetation removal in 0.06 acres; and from sediment deposition up to 200 feet (10,000 square feet) below the temporary work pad. Installation and removal of the berm, cofferdam, and work pad; fish salvage; dewatering of the in-stream work areas; and weir and riprap repair will temporarily disturb 11,250 square feet of benthic habitat. These disturbances will kill or displace benthic invertebrates, reducing available forage until the area is recolonized. Installation of the juvenile bypass pipe and the concrete pad for the Obermeyer weir will cause a minor, permanent reduction in available forage in 260 square feet of benthic habitat.

Approximately 0.06 acres of immature riparian vegetation will be removed. Removal will cause some loss of allochthonous input, such as leaf litter and terrestrial invertebrates. In addition, elevated turbidity from in-water work to install and remove cofferdams and to conduct fish salvage, and settling of suspended sediment up to 200 feet downstream of the work area (in an

estimated 10,000 square feet), is expected to cause a loss of abundance of benthic organisms. We expect deposited sediment to flush out with the first high flow event.

Aquatic invertebrates could start recolonizing within days to months after completion of construction (Fowler 2004; Korsu 2004; Miller & Golladay 1996; Paltridge et al. 1997). Some aquatic insect life cycles can extend up to 3 years (Hilsenhoff 1981; Pennak 1953), but most aquatic insects in the north temperate zone have an annual life cycle (Merritt & Cummins 1996). Thus, we estimate that recolonization of the disturbed areas will occur within 1 year.

The USFWS will plant willow stakes along 120 feet of left streambank, encompassing 0.06 acres. These plantings will help minimize the loss of allochthonous input in the short-term and provide better riparian function over time as the willows become established and grow.

Together, the benthic habitat disturbance and loss of allochthonous input will slightly decrease potential forage production and availability to juvenile steelhead within the action area for about 1 year. There will also be a minor, permanent loss of benthic forage production. Reducing food availability generally leads to reduced growth and ultimately survival (Spence et al. 1996). However, a source of forage will continue to be provided by invertebrate drift, benthic production in the action area, and allochthonous input from riparian vegetation in and adjacent to the action area. Due to the very small area of permanent benthic loss, the small, temporary habitat disturbance, and the small amount of impacted riparian vegetation, we believe 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.

### Effects to Critical Habitat

#### *Natural Cover and Forage*

Riparian vegetation serves important functions in stream ecosystems by providing shade, sediment storage, nutrient inputs, channel and streambank stability, habitat diversity, large wood input, and cover and shelter for fish (Murphy & Meehan 1991). Existing juvenile vegetation will be removed from approximately 120 feet of the left bank (0.06 acres) below the weir to allow for bank repair. No mature vegetation or trees will be removed. Once bank repair is complete, the USFWS will plant willow stakes in the riprap along the 120 feet (0.06 acres) of streambank. The action area will temporarily experience decreased shade and allochthonous and terrestrial invertebrate inputs after vegetation clearing, and while willows grow and mature. Therefore, NMFS expects small, temporary negative effects to the function and conservation value of the riparian vegetation, natural cover, and forage PBFs at the scale of the action area.

The proposed action will negatively affect benthic invertebrate production in 21,510 square feet. The proposed action will negatively affect the availability of benthic invertebrates by crushing, covering, dislodging, or dewatering them temporarily from 11,250 square feet and permanently from 260 square feet of streambed, and from sediment deposition up to 200 feet (10,000 square feet) below the temporary work pad. Accumulated sediment is expected to flush out with the first high flows. Following reconnection of the 11,250 square feet of isolated work areas with the flowing channel, we expect drifting invertebrates from upstream will recolonize the sediment.



Over time, forage will improve and return to pre-project levels. We expect recolonization to occur within a few days to 1 year after project completion (Fowler 2004; Griffith & Andrews 1981). Given the very small area of permanent benthic habitat loss, and the small area and short-term nature of the temporary benthic habitat impacts, NMFS expects this project to have a small, negative effect on the function and conservation value of the forage PBF at the scale of the action area.

#### *Substrate*

Approximately 260 square feet of substrate below the OHWM will be permanently altered from installation of the new juvenile bypass pipe and the concrete pad for the Obermeyer weir. Approximately 11,250 square feet of substrate will be altered for up to 10 weeks from installation and removal of isolation barriers and the work pad below the weir, and dewatering. An additional 10,000 square feet of substrate will be affected by minor levels of sediment deposition as the small turbidity plumes settle out within 200 feet downstream of the temporary work pad. Accumulated sediment is expected to flush out with the first high flows. Therefore, NMFS expects small permanent (260 feet) and small temporary (11,250 square feet) impacts to the function and conservation value of the substrate PBF at the scale of the action area.

#### *Water Quality*

Water quality will be reduced within the project area periodically for approximately 10 weeks from increased delivery of sediment to the waterway and suspension of fine sediment increasing turbidity in the water column; and from accidental releases of fuel, oil, and other contaminants. Because the in-water work area will be isolated from the flowing channel, and erosion control measures will be implemented during construction, very little sediment is expected to be released from the project site. Resuspension of sediment will be localized and is expected to last for a few hours for each of 9 days, but is not expected to extend more than 200 feet downstream. NMFS also expects minor leaks and spills of petroleum-based fluids (not more than ounces) that will be contained within isolated work areas. Therefore, NMFS expects small, temporary negative effects to the function and conservation value of the water quality PBF at the scale of the action area.

#### *Free of Artificial Obstruction*

The in-water work area isolation will temporarily restrict a total 11,250 square feet of channel from fish access during the July 5–September 8 work window, and permanently from 260 square feet. Further, diversion of Touchet River flow into the fish ladder will prevent juvenile steelhead upstream migration for 27 days. Therefore, NMFS expects a very small, permanent impact to the function and conservation value of the free of artificial obstruction PBF at the scale of the action area. NMFS also expects temporary negative effects from artificial obstructions at the scale of the action area.

## **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 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. Cumulative effects are described in Section 5 of the BA (USFWS 2022) and incorporated by reference here. Neither the USFWS nor NMFS are aware of any future non-Federal activities within the action area that could adversely affect MCR steelhead and their critical habitat. The weir is located in Dayton, Washington, which has a decreasing human population. Therefore, for our analysis, NMFS assumes that future State and private actions and land uses will continue within the action area at roughly their current rate.

## **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 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.

### Middle Columbia River Steelhead

Middle Columbia River steelhead from the Touchet River population inhabit the action area and depend on it to support critical life functions of spawning, rearing, and migration. The MCR steelhead DPS is not currently meeting the viability criteria described in the Mid-Columbia Steelhead Recovery Plan (NMFS 2009). The Touchet River population of MCR steelhead will be affected by the proposed action. Recovery criteria for the Umatilla/Walla Walla MPG requires two populations to meet viability criteria and the third population to be maintained. The Interior Columbia Technical Recovery Team also calls for at least one population to be highly viable. Overall, the Umatilla and Walla Walla River populations are considered maintained, while the Touchet River population is considered to be at high risk, but needs to be at least maintained. Under current conditions, the Umatilla River population is the closest to being highly viable. Of the remaining two populations, the Walla Walla is much closer to reaching viable status than the Touchet River population.

Middle Columbia River steelhead juveniles use the action area for rearing and migration. Adults may spawn within the action area, but primarily use the area for migration. As described earlier, the proposed action will have effects on juvenile steelhead MCR steelhead from the Touchet River population. We estimate that the proposed action will injure or kill a total of 29 (24 Age 0 and 5 Age 1) juvenile MCR steelhead, less than one adult equivalent, during fish salvage and dewatering.

Additional juvenile steelhead will be affected by impacts to water quality. Temporary increases in turbidity during installation and removal of isolation barriers, the riprap access ramp, and the work pad; and during fish salvage; along with turbidity plumes which extend 200 feet downstream of the work pad, are likely to alter the feeding behavior and movement of juvenile MCR steelhead in 21,510 square feet, which will increase risk of predation. In contrast to the fish affected by salvage, NMFS is unable to estimate the number of fish harmed by increased turbidity. In circumstances where NMFS cannot numerically predict the amount of take, we estimate the extent of take by describing the extent of habitat modified by the proposed action (June 3, 1986, 51 FR 19926 at 19954). This surrogate represents an observable metric of the extent of take, which if exceeded, would trigger consultation. The extent of modified habitat is 21,510 square feet. This is equivalent to the maximum area of riverbed that will be isolated, the maximum extent of riverbed that will be permanently lost, and the downstream extent of the temporary turbidity plume in the water column (up to 200 feet downstream from the work pad, 10,000 square feet).

NMFS also expects diversion of Touchet River flow and increased water velocity through the fish ladder will block upstream migration of juvenile steelhead for 27 days, July 5–July 31.

NMFS expects State and private actions and land uses will continue within the action area at roughly their current rate. NMFS also expects that climate change will continue, and the effects to salmon and steelhead will increase. Climate change has the potential to increase summer water temperatures within the Touchet River drainage. Successful establishment of the proposed riparian plantings should ensure more shade in the long term compared to baseline conditions in the action area. However, NMFS believes the small area of increased shade will only minimally help to buffer potential effects of increased temperatures due to climate change.

Even considering the high-risk viability rating of the Touchet River steelhead population, the impaired environmental baseline, and potential climate change effects, the effects and the number of steelhead that will be injured or killed will be too small to appreciably alter the abundance, productivity, spatial structure, or diversity of the Touchet River population, or the Umatilla/Walla Walla MPG. Therefore, it is NMFS' opinion that when the effects of the action and cumulative effects are added to the environmental baseline, and in light of the status of the species, the effects of the action will not cause reductions in reproduction, numbers, or distribution that would reasonably be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of MCR steelhead.

### Critical Habitat

The action area is designated critical habitat for MCR steelhead, providing spawning, rearing and migration habitat. Critical habitat in the action area is degraded due to construction, maintenance, and operation of the weir, irrigation diversions, and the Corps levee. NMFS expects small, temporary negative effects to the function and conservation value of water quality, riparian vegetation, natural cover, forage, substrate, and free of artificial obstruction PBFs from installation and removal of isolation barriers for worksite dewatering, the riprap access ramp, and the work pad; weir and riprap repairs; installation of the juvenile bypass pipe and the Obermeyer weir concrete pad; and removal of riparian vegetation.

Based on our analysis, adverse effects from the proposed action will cause a small and localized decline in the function and conservation value of PBFs in the action area. However, because of the scale and extent of the effects to PBFs, we do not expect a reduction in the conservation value of critical habitat in the action area. Therefore, as we scale up from the action area to the designation scale, the proposed action is not expected to appreciably reduce the function and conservation value of critical habitat for MCR steelhead at the designation scale.

## **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' biological opinion that the proposed action is not likely to jeopardize the continued existence of MCR steelhead or destroy or adversely modify its designated critical habitat.

## **INCIDENTAL TAKE STATEMENT**

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined by regulation to include significant habitat modification or degradation that actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering (50 CFR 222.102). "Harass" is further defined by interim guidance as to "create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. "Incidental take" is defined by regulation as takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR 402.02). Section 7(b)(4) and section 7(o)(2) provide that taking that is incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this ITS.

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

In this opinion, NMFS determined that incidental take is reasonably certain to occur and will include: (1) harm and harassment of 29 juvenile steelhead caused by injury and mortality during fish salvage, including herding and dewatering; (2) altered feeding behavior and movement of juvenile steelhead in an estimated 21,510 square feet, which will increase risk of predation; and (3) blocked upstream migration of juvenile steelhead for 27 days.

### **Incidental Take from Work Area Isolation and Fish Salvage**

Work area isolation and dewatering of 11,250 square feet will be accomplished by installing a berm to direct flow into the fish ladder, a coffer dam to direct flow into the ladder and over the right side of the weir, and an in-water work pad for machinery use. Fish salvage will include seining (herding), electrofishing, and netting. NMFS estimates that the USFWS will successfully

salvage and relocate up to 545 juvenile steelhead from the in-water work areas, with 29 juvenile steelhead experiencing sufficient harm to result in injury or death. The extent of take will be exceeded if salvage activities result in the death of more than 29 juvenile steelhead, or if more than 11,250 square feet of the Walla Walla River is isolated and dewatered.

Take in the form of harm caused by the temporary increases in turbidity will be manifested in altered behaviors including avoidance of the area, abandonment of cover, and exposure to predators. In contrast to the fish affected by capture, NMFS is unable to estimate the number of fish harmed by increased turbidity. In circumstances where NMFS cannot numerically predict the amount of take, we estimate the extent of take by describing the extent of habitat modified by the proposed action (June 3, 1986, 51 FR 19926 at 19954). This surrogate represents an observable metric of the extent of take, which if exceeded, would trigger consultation. The extent of modified habitat is 21,510 square feet. This is equivalent to the maximum area of riverbed that will be isolated and dewatered (11,250 square feet), the downstream extent of the temporary turbidity plumes in the water column (up to 200 feet downstream from the work pad and encompassing 10,000 square feet), and the extent of permanent impacts from installation of the juvenile bypass pipe and Obermeyer weir concrete pad (260 square feet). This description of the extent of modified habitat is the extent of take exempted from the prohibition against take in this statement.

Take in the form of blocked juvenile upstream fish passage will occur for 27 consecutive days, July 5–31, from increased velocity in the fish ladder. The extent of take will be exceeded if upstream passage of juvenile steelhead is blocked in the fish ladder for more than 27 days.

The amount of take and the extent of take are the thresholds for reinitiating consultation. If any of these limits are exceeded during project activities, the amount of take would increase beyond that examined in this consultation, and thus the reinitiating provisions of this opinion apply.

### **Effect of the Take**

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

### **Reasonable and Prudent Measures**

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

The USFWS shall:

1. Track, monitor, and report on the proposed action to ensure that the project is implemented as proposed, and the amount and extent of take is not exceeded.

NMFS believes that full application of conservation measures included as part of the proposed action, together with the use of the RPM and terms and conditions described below, are

necessary and appropriate to minimize the likelihood of incidental take of listed species due to completion of the proposed action.

### **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 USFWS 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. Track and monitor construction activities to ensure that the conservation measures are meeting the objective of minimizing take. Monitoring shall be conducted by the USFWS or contractor, and include a daily visual survey for fish in the areas adjacent to construction and inside the in-water work areas.
  - b. Submit a completion of project report to NMFS 2 months after project completion. The completion report shall include, at a minimum, the following:
    - i. Starting and ending dates for work completed, with in-water work period specified.
    - ii. Methods used to isolate the work areas.
    - iii. Total area of in-water work, including areas isolated and dewatered.
    - iv. Total area of modified habitat.
    - v. Dates and number of days of blocked upstream fish passage.
    - vi. Duration isolation materials were in place at each work area.
    - vii. Any daily observed sediment plume from the in-channel work area to 200 feet downstream during the 10-week in-water construction period.
    - viii. A summary of pollution and erosion control inspection results, including results of implementing required BMPs, and including a description of any erosion control failure, contaminant release, and efforts to correct such incidences.
    - ix. Number and species of fish observed injured or killed in the Touchet River.

- x. Description of all capture and release methods employed including:
  - 1. Supervisory fish biologist name and address.
  - 2. Methods used.
  - 3. Number of fish captured by species.
  - 4. Location and condition of all fish released.
  - 5. Observation of injury and mortality.
- xi. Reference to NMFS consultation number WCRO-2022-01851.
- c. All reports will be sent to: [crbo.consultationrequest.wcr@noaa.gov](mailto:crbo.consultationrequest.wcr@noaa.gov).
- d. If the amount or extent of take is exceeded, stop project activities and notify NMFS immediately.

### **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).

NMFS recommends that the USFWS work with Walla Walla Basin stakeholders on implementation of the Walla Walla 2050 plan, particularly strategies and actions that increase flow, improve fish passage, increase floodplain connectivity, increase extent and function of riparian vegetation, and increase habitat complexity. Implementation of these strategies will improve the function and conservation value of PBFs, and the abundance and distribution of MCR steelhead.

### **Reinitiation of Consultation**

Under 50 CFR 402.16(a): “Reinitiation of consultation is required and shall be requested by the USFWS or by NMFS where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (1) If the amount or extent of incidental taking specified in the ITS is exceeded; (2) If new information reveals effects of the 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 this biological opinion; or (4) If a new species is listed or critical habitat designated that may be affected by the identified action.”

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public

Law 106-554). The biological opinion will be available through NOAA Institutional Repository at <https://repository.library.noaa.gov/welcome>. A complete record of this consultation is on file at NMFS' La Grande, Oregon, office.

Please direct questions regarding this letter to Colleen Fagan, Interior Columbia Basin Office, La Grande, Oregon, at (541) 962-8512 or [colleen.fagan@noaa.gov](mailto:colleen.fagan@noaa.gov).

Sincerely,

A handwritten signature in blue ink that reads "Nancy L. Munn". The signature is written in a cursive, flowing style.

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

cc: Mark Robertson – USFWS  
Mike Lambert – CTUIR  
Joe Bumgarner – WDFW



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