



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
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Refer to NMFS No: WCRO-2022-02565

<https://doi.org/10.25923/x4qx-2c08>

May 15, 2023

J. A. LaPlante
Head, Reactor Compartment
Department of the Navy
Puget Sound Naval Shipyard and Intermediate Maintenance Facility
1400 Farragut Avenue Stop 2090
Bremerton, WA 98314-2090

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson–Stevens
Fishery Conservation and Management Act Essential Fish Habitat Response for the Port
of Benton Barge Slip Maintenance, Columbia River, Benton County, Washington.

Dear Mr. LaPlante:

This letter responds to your February 16, 2023, request for initiation of consultation with the National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act (ESA) for the Port of Benton barge slip maintenance. Your request qualified for our expedited review and analysis because it met our screening criteria and contained all required information on, and analysis of, your proposed action and its potential effects to ESA-listed species and designated critical habitat.

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

We reviewed the Navy’s consultation request and related initiation package. Where relevant, we have adopted the information and analyses you have provided and/or referenced, but only after our independent, science-based evaluation confirmed they meet our regulatory and scientific standards. We adopt by reference the following sections of the Navy’s Biological Assessment (BA): Proposed Action (Section 2.2), Action Area (Section 2.3), Species and Critical Habitat Information (Section 4), Conservation Measures (Section 5.1.3), and Effects of the Action (Section 6). Sections 4.15, 4.25, and 4.35 summarize the environmental baseline for Upper



Columbia River (UCR) Chinook salmon, Middle Columbia River (MCR) steelhead, and UCR steelhead, respectively, and Section 2.1 (Existing Conditions) also provides some baseline habitat information; these sections are all adopted here. However, supplemental environmental baseline information is provided below.

The Navy submitted a consultation initiation package, including a BA, to NMFS on October 5, 2022. The U.S. Army Corps of Engineers was contracted to produce the BA and will be issuing an authorization to the U.S. Navy for maintenance dredging of the Port of Benton barge slip under Section 401 of the Clean Water Act. The BA and consultation request concluded that the proposed action was not likely to adversely affect (NLAA) UCR spring-run Chinook salmon (*Oncorhynchus tshawytscha*), MCR steelhead (*O. mykiss*), and UCR steelhead or their critical habitats. NMFS did not concur with the NLAA determinations because a part of the maintenance action, dredging, will affect critical habitat and is likely to affect a small number of juvenile steelhead and/or salmon based on the frequency of implementing the action (up to two times per year). The action agency and NMFS met on January 11, 2023 and agreed to change the NLAA determinations for the affected species and critical habitat to likely to adversely affect (LAA), and revised the BA to reflect the changes. On February 16, 2023, NMFS received an email from the Navy providing a revised BA determining that the proposed action was LAA for the ESA-listed species and critical habitats. The Navy was requesting ESA coverage for a period of 20 years; on February 27, 2023, NMFS emailed the Navy requesting they change the term of the request from 20 years to twenty individual dredging applications and the Navy concurred with that request via email on March 1, 2023. Additional NMFS review of the February 16, 2023, BA found language that conflicted with the LAA determination; an oversight upon updating and editing the BA. The action agency and NMFS met on March 15, 2023, to discuss the necessary edits, and the Navy submitted the final BA on March 16, 2023. The BA had all of the required information, so formal consultation was initiated on that date.

As described in the BA, the Navy proposes to conduct annual maintenance dredging necessary to maintain the Port of Benton barge slip. Maintenance includes sediment removal of up to 100 cubic yards of material, and the annual addition of up to 100 cubic yards of clean gravel. Maintenance dredging will occur via land-based backhoe/track hoe with an open bucket or clamshell dredge, or a screened suction dredge. The suction dredge will be used in small areas and limited to the removal of 25 cubic yards annually within the 100-cubic-yard annual limit. Suction dredging is used to remove fine sediment that will be unnecessarily disturbed by the excavator (open bucket or clamshell dredge). A silt curtain will be deployed during excavation but not during use of the suction device.

Maintenance dredging will occur during a winter in-water work window from December 15 through March 1, or during a summer window from August 15 through August 30. Gravel placement will occur during the winter in-water work window and may also occur during the summer from July 1 through August 30. Hand raking of gravel to fill in depressions left by the excavator will occur from December 15 through April 10, and July 1 through October 31, as needed.

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

We examined the status of: (1) UCR spring-run Chinook salmon, (2) MCR steelhead and, (3) UCR steelhead, which may be adversely affected by the proposed action, to inform the description of the species' "reproduction, numbers, or distribution" as described in 50 CFR 402.02. We also examined the condition of critical habitat throughout the designated area and the function of the physical and biological features (PBFs) essential to the conservation of the species that create the conservation value of that habitat. Section 4 of the BA describes the status of the species and critical habitat and is 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 BA identifies the in-water action area as including those portions of the Columbia River from 300 feet upstream of the project site to one mile downstream of the site. The downstream extent of the action area is defined by the maximum distance that noise is expected to extend.

The "environmental baseline" includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process (50 CFR 402.02). The environmental baseline subsections (4.15, 4.25, and 4.35) and Existing Conditions (Section 2.1) of the BA summarize the environmental baseline and are adopted here; however, supplemental baseline information follows.

Adult UCR steelhead, and UCR spring-run Chinook salmon migrate through the action area to access upstream tributary spawning streams. Some adult MCR steelhead are likely to overshoot the Yakima River delta and spawn in the mainstem, but spawners in the Hanford Reach have been associated with the UCR steelhead distinct population segment (DPS) (Section 10.12.1.2 in Poston et al. 2008). For the purpose of this opinion, we assume that juvenile steelhead in the action area include smolt-sized individuals from the UCR steelhead DPS, and fry and parr from either DPS; progeny of individuals that spawn in the Hanford Reach use the action area as a migration corridor and for resting and foraging on their way to the ocean.

In the Columbia River, hydrosystem development has modified the seasonal flow regime, resulting in higher water temperatures during summer and fall, changes in fish community structure, and delayed migration for adult salmon and steelhead. Inundation of wide flats and shallow coves by the mainstem reservoirs creates temperature and flow conditions suitable for the growth of non-native riparian and aquatic vegetation. Altered habitats and flow regimes slow smolt migration rates and create more favorable habitat conditions for invasive, non-native species that may compete with or prey upon juvenile salmonids.

Under the ESA, "effects of the action" means the direct and indirect effect of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline (50 CFR 402.02). Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur.

The BA provides a detailed discussion and comprehensive assessment of the effects of the proposed action in the Analysis of Effects (Section 5), and is adopted here. NMFS has evaluated Section 5, and after our independent science-based evaluation, determined that Section 5 needs the additional information included in the following paragraphs regarding project effects to critical habitat.

NMFS did not designate critical habitat for MCR steelhead within the action area. The critical habitat PBFs for UCR steelhead and UCR spring-run Chinook salmon that are most likely to be affected are substrate, water quality, forage, and safe passage. Approximately 9,300 square feet of near-shore, shallow-water benthic habitat will be disrupted by dredging the barge slip. Up to 100 cubic yards of substrate will be dredged and hauled away annually. Dredging activities could result in temporary (up to 3 days) and localized increased levels of turbidity within 250 feet of the barge slip.

A silt curtain will be deployed prior to dredging with an open bucket or clamshell, limiting most of the increase in turbidity to the small area within the footprint of the barge slip. We anticipate that suspended sediment will quickly settle to the riverbed within a day after disturbance, likely sooner. After completion of this work, the silt curtain will be removed. Increased turbidity within the barge slip and the mainstem portion of the action area is expected during the removal process as the curtain is dragged along the streambed and sediment attached to the curtain becomes mobilized. Additionally, newly disturbed substrate may become mobile after flow is reconnected to the dredge slip. Fine material disturbed by dredging and silt curtain removal may become re-suspended and increase turbidity up to 250 feet downstream of the work area for a short period of time (hours). The scale of impact will be minimal relative to the rearing habitat in the action area, and will not meaningfully change the conservation value of the substrate PBF.

The proposed action will have a short-term negative effect on forage by crushing, covering, or displacing benthic macroinvertebrates during dredging an area of approximately 9,300 square feet. The value of the area within the barge slip would be reduced as foraging habitat for juvenile Chinook salmon and steelhead. However, this portion of the action area is relatively small (9,300 square feet) and actual frequency of disturbance is likely to be less than proposed—the barge slip has been dredged only twice in the last 25 years, after extremely high flows in the winter of 1996/1997, and again in 2010. Any sediment that settles on the bottom outside of the barge slip will be flushed away by mainstem currents, leaving the benthos intact. As a result, NMFS does not anticipate that this project will change the conservation value of the forage PBF in juvenile rearing and migration areas.

The proposed action will not alter PBFs for passage in juvenile rearing and juvenile and adult migration areas, except during the few days when actively dredging. Underwater noise would be associated with use of the dredging equipment (open bucket or clamshell excavator or suction dredge) within the barge slip. This level of noise is likely to negatively affect safe passage for juvenile and adult salmonids, but only for short periods (up to 3 days per dredging event) and only within a small portion of the action area. Therefore, the action area (shown in Figure 4 in the BA) will still function for safe passage.

The action area is used by adult MCR steelhead, adult and juvenile UCR steelhead, and UCR spring-run Chinook salmon. Middle Columbia River and Upper Columbia River steelhead are listed as threatened, and UCR spring-run Chinook salmon are listed as endangered. The action area is used primarily as a migration corridor for both adult and juvenile steelhead and Chinook salmon. The proposed work window is not within the migration period for juvenile steelhead and spring-run Chinook salmon. However, dredging the barge slip may occur twice per year and up to twenty occasions; given the potential number of individual dredging operations, it is possible that a few juvenile fish would be present and affected by the action. These include both smolt-sized individuals migrating to the ocean from upstream tributaries and fry- and parr-sized fish from mainstem spawning areas in the Hanford Reach.

The primary effects of dredging described in the BA are short-term increases in noise disturbance and turbidity, and entrainment/impingement during excavation of substrates. The proposed action will primarily affect steelhead and Chinook salmon juveniles trapped within and just downstream of the silt-curtained area. We anticipate that most fish will be herded from the work site upon installation of the silt curtain, but a small number of juvenile steelhead and Chinook salmon will remain in the barge slip and exposed to increased turbidity and noise and the risk of injury or mortality from impingement/entrainment in the excavator bucket. A turbidity plume is expected to extend up to 250 feet downstream of the work site upon removal of the silt curtain. Effects from turbidity are likely to be short-term behavioral avoidance or disorientation, physiological stress (e.g., coughing), and gill abrasion. The latter could cause the loss of condition or fitness of small numbers of juveniles, especially steelhead fry and parr from mainstem spawning areas that rear in the mainstem portion of the action area. Mortality resulting from turbidity is not anticipated because the time of exposure inside the barge slip is small (one day) and fish outside the barge slip will likely move a short distance to avoid turbidity.

Noise as a result of the proposed dredging would be temporary and primarily limited to engine noise from equipment operating above the water line and operation of the open bucket, clamshell, and suction dredge underwater. The noise levels are not anticipated to cause injury or death to fish within the enclosed work area, but behavioral modifications are likely. Fish will likely flee from the source of the noise and seek cover, possibly disrupting their feeding. The effects to individual fish from noise will likely be minor since dredging will occur for a short time period (up to 3 days). Also, we anticipate that very low numbers of fish will be trapped in the enclosed work area and affected by noise.

Entrainment/impingement may occur if fish are trapped in the bucket of the excavator during dredging of in-water substrates. The potential for entrainment is largely dependent on the likelihood of fish occurring within the dredging area, the scope and scale of the dredging activity, and the life stage of the fish. Given the proposed timing of in-water works, utilization of fish herding and worksite isolation with the silt curtain, use of an open bucket or clamshell excavator, and relatively slow speed of dredging; it is reasonably certain that the risk of injury or lethal take of juvenile ESA-listed fish species from proposed dredging activities will be small, involving very few juvenile fish.

Adult salmon and steelhead migrating through the mainstem portion of the action area may be exposed to noise and turbidity from dredging. Disturbed adults are likely to flee a short distance

to avoid effects from the activities, but the avoidance behaviors are not expected to reduce adult fitness. Migrating adults are not expected to be holding in the barge slip.

The proposed action will likely result in injury or death of a small number of juvenile steelhead and Chinook salmon as a result of in-water dredging. Estimating the specific number of animals injured or killed by interactions with heavy equipment is not possible because of the range of responses that individual fish will have, and because the numbers of fish present at any time is highly variable. While this uncertainty makes it impossible to quantify take in terms of numbers of animals injured or killed, the extent of habitat altered by dredging is readily discernible and presents a reliable measure of the extent of take that can be monitored and tracked. Therefore, the estimated extent of habitat encompassed by in-water dredging represents the extent of take associated with mechanical injury and death. The proposed surrogate is causally linked to anticipated take because it describes conditions that will cause take due to in-water work. Specifically, NMFS will consider the extent of take exceeded if the limits of dredging exceed 9,300 square feet.

NMFS anticipates the proposed action will result in harm to fish by increasing turbidity: (1) in the enclosed area as a result from dredging; and (2) in the Columbia River up to 250 feet downstream of the work area when the silt curtain is removed. Estimating the specific number of fish harmed from turbidity is not possible because the number of fish present at any time is highly variable and there is relatively little data available on fish densities in the adjacent areas. While this uncertainty makes it impossible to quantify take in terms of numbers of fish injured or killed, the linear extent of the turbidity plume is readily discernible and presents a reliable surrogate measure of the extent of take that can be monitored and tracked. Therefore, the downstream extent of a turbidity plume represents the extent of take associated with turbidity. Specifically, NMFS will consider the extent of take exceeded if upon removal of the silt curtain a visible turbidity plume extends beyond 250 feet.

“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. The Cumulative Effects section of the BA describes cumulative effects and is adopted here.

The Integration and Synthesis section is the final step in our assessment of the risk posed to species and critical habitat as a result of implementing the proposed action. In this section, we add the effects of the action to the environmental baseline and the cumulative effects, taking into account the status of the species and critical habitat, to formulate the agency’s biological opinion as to whether the proposed action is likely to: (1) reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing its numbers, reproduction, or distribution; or (2) appreciably diminish the value of designated or proposed critical habitat as a whole for the conservation of the species.

Considering the effects of the action in conjunction with the existing condition of the environmental baseline and the timing of implementation, we expect small numbers of juvenile

UCR and MCR steelhead and a very small number of juvenile UCR spring Chinook salmon to experience harm, harassment, injury, or death. Affects to the tributary populations of the UCR spring-run Chinook evolutionarily significant units (ESUs) and the UCR steelhead DPS are expected to be proportional to the size of the population. NMFS has determined that the loss of a very small number of juvenile salmon and steelhead that may be caused by the proposed action will not be substantial enough to negatively influence viable salmonid population (VSP) criteria at the population scale and will not appreciably reduce the likelihood of any population maintaining its current status. Because the effects will not be substantial enough to negatively influence VSP criteria at the population scale, the viability of major population groups, ESUs, and DPSs are also not expected to be reduced. The effects of the proposed action are not likely to appreciably reduce survival of any of the three species considered in this opinion, nor is the action likely to reduce the likelihood of recovery of these species.

The proposed action has the potential to affect several critical habitat PBFs within the action area. Those PBFs include water quality (turbidity), substrate, safe passage, and forage. The primary effects of the action will be short-term, localized increases in background turbidity and minor alterations of the substrate. Benthic disturbance in the excavation area will reduce prey availability only over a very small area; the disturbed area is a small fraction of similar quality, shallow habitat area available elsewhere in the action area. NMFS expects minor effects to the above PBFs from the reduced water quality, temporary disturbance of the substrate and shallow-water benthic habitat, which will cause a temporary change to prey availability in the disturbed area. It is reasonably certain that these actions will not result in long-term adverse effects to substrates, water quality, migratory habitat, food base, or other PBFs within the action area. Thus, the effects will not influence the conservation value of the critical habitat at the scale of the designation.

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

INCIDENTAL TAKE STATEMENT

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

incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this incidental take statement (ITS).

Amount or Extent of Take

In the opinion, NMFS determined that incidental take of MCR steelhead, UCR steelhead, and UCR spring-run Chinook salmon is reasonably certain to occur as follows: injury and death resulting from entrainment/impingement and increased turbidity as a result of dredging activities. A small number of juvenile steelhead and Chinook salmon are anticipated to be injured or killed.

NMFS anticipates the proposed action will result in injury or death as a result of in-water dredging. Estimating the specific number of animals injured or killed by interactions with heavy equipment is not possible because of the range of responses that individual fish will have, and because the numbers of fish present at any time is highly variable. While this uncertainty makes it impossible to quantify take in terms of numbers of animals injured or killed, the extent of habitat altered by dredging is readily discernible and presents a reliable measure of the extent of take that can be monitored and tracked. Therefore, the estimated extent of habitat encompassed by in-water dredging represents the extent of take associated with mechanical injury and death. The proposed surrogate is causally linked to anticipated take because it describes conditions that will cause take due to in-water work. Specifically, NMFS will consider the extent of take exceeded if the limits of dredging exceed 9,300 square feet.

NMFS anticipates the proposed action will result in harm to fish by increasing turbidity: (1) in the enclosed area as a result from dredging; and (2) in the Columbia River up to 250 feet downstream of the work area when the silt curtain is removed. Estimating the specific number of fish harmed from turbidity is not possible because the number of fish present at any time is highly variable and there is relatively little data available on fish densities in the adjacent areas. While this uncertainty makes it impossible to quantify take in terms of numbers of fish injured or killed, the linear extent of the turbidity plume is readily discernible and presents a reliable surrogate measure of the extent of take that can be monitored and tracked. Therefore, the downstream extent of a turbidity plume represents the extent of take associated with turbidity. Specifically, NMFS will consider the extent of take exceeded if upon removal of the silt curtain, a visible turbidity plume extends beyond 250 feet.

Effect of the Take

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

Reasonable and Prudent Measures

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

The Navy shall minimize incidental take by:

- 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 and that the extent of take is not exceeded.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the Federal action agency must comply (or must ensure that any applicant complies) with the following terms and conditions. The Navy has a continuing duty to monitor the impacts of incidental take and must report the progress of the action and its impact on the species as specified in this ITS (50 CFR 402.14). If the entity to whom a term and condition is directed does not comply with the following terms and conditions, protective coverage for the proposed action would likely lapse.

- 1) The following terms and conditions implement RPM 1:
 - a) By the end of each calendar year when in-water work is performed, the Navy shall report monitoring items to include, at a minimum, the following:
 - i) Project identification:
 - (1) Project name: Port of Benton Barge Slip Maintenance (WCRO-2022-02565).
 - (2) The Navy contact person.
 - ii) Construction details:
 - (1) Dates of dredging.
 - (2) Details of total footprint of disturbed area during in-water dredging.
 - (3) Summary and details of turbidity monitoring including:
 - (a) Any daily observed turbidity plume from the in-channel work area to 250 feet downstream during the in-water construction period. Observations shall occur daily before, during, and after commencement of construction activities and compared to observable upstream turbidity.
 - (b) Description of the visually monitored downstream extent of turbidity plumes resulting when the silt curtain is removed.
 - (c) If the turbidity plume exceeds 250 feet, stop work immediately and wait until the plume dissipates before re-starting in-water work.
 - b) All reports will be sent to NMFS at crbo.consultationrequest.wcr@noaa.gov.

Reinitiation of Consultation

As 50 CFR 402.16 states, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and if: (1) The amount or extent of incidental taking specified in the ITS is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in

a manner or to an extent not considered in this opinion, (3) the agency action is subsequently modified in a manner that causes an effect on the listed species or critical habitat that was not considered in this opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action.

Essential Fish Habitat

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

Section 305 (b) of the MSA directs Federal agencies to consult with NMFS on all actions or proposed actions that may adversely affect EFH. Under the MSA, this consultation is intended to promote the conservation of EFH as necessary to support sustainable fisheries and the managed species' contribution to a healthy ecosystem. For the purposes of the MSA, EFH means “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity,” and includes the associated physical, chemical, and biological properties that are used by fish (50 CFR 600.10). Adverse effect means any impact that reduces quality or quantity of EFH, and may include direct or indirect physical, chemical, or biological alteration of the waters or substrate, loss of (or injury to) benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects may result from actions occurring within EFH or outside of it and may include direct, indirect, site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) of the MSA also requires NMFS to recommend measures that can be taken by the action agency to conserve EFH. Such recommendations may include measures to avoid, minimize, mitigate, or otherwise offset the adverse effects of the action on EFH (50 CFR 600.0-5(b)).

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

1. The temporary alteration of the near-shore environment substrate, which will temporarily (during construction) affect juvenile rearing and the quality of habitat in the migration corridor
2. Temporary reduction in prey availability within the barge slip from removal and disturbance of the macroinvertebrate community and as a result of increased fine sediment settling into substrates within and just outside the barge slip due to in-water work.
3. Short-term elevation of turbidity within and immediately downstream from the project area from construction activities.

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

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

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The biological opinion will be available through the NOAA Institutional Repository at <https://repository.library.noaa.gov/welcome>. A complete record of this consultation is on file at NMFS' Columbia Basin Branch.

Please direct questions regarding this letter to Todd Andersen, Snake Basin Office, (208) 366-9586, todd.andersen@noaa.gov.

Sincerely,



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

cc: Rachel Preisinger,
Puget Sound Naval Shipyard and Intermediate Maintenance Facility

Jacqueline Allen,
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Karl Anderson,
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U.S. Fish and Wildlife Service

REFERENCES

- Poston, T. M., J. P. Duncan, and R. L. Dirkes (eds.) 2008. Hanford Site Environmental Report for Calendar Year 2007. PNNL-17603. Pacific Northwest National Laboratory, Richland, Washington.
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