



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

Refer to NMFS No:
WCRO-2020-00970

July 13, 2020

Calvin J. Terada
Division Director
U.S. Environmental Protection Agency
Region 10
1200 6th Avenue, Suite 155
Seattle, Washington 98101-2182

Re: Endangered Species Act Section 7 Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the River Mile 11 East Sheet Pile Test in the Willamette River at RM 10.9 to 11.6 (HUC 1709001202), Multnomah County, Oregon

Dear Mr. Terada:

This letter responds to your April 23, 2020, request for initiation of consultation with the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act (ESA) on the effects of the U.S. Environmental Protection Agency (EPA) authorizing the above named action based on the EPA's authority to administer the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).

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 listed species and designated critical habitat.

We reviewed the EPA's consultation request and related initiation package, including a Biological Assessment (BA) prepared by Grette and Associates (2020), which is available on file at the NMFS Oregon Washington Coastal Office in Portland, Oregon. Where relevant, we adopted the information and analyses provided in the BA, 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 BA:

- Section 2 for the description of the proposed action, including the purpose and need;
- Section 3 for the description of the action area and environmental baseline;
- Section 4 for the status of species and critical habitat; and,
- Section 5 for the effects of the proposed action and cumulative effects.

On March 6, 2020, NMFS and the EPA met via teleconference with the EPA environmental compliance contractor to discuss the proposed action as part of a larger CERCLA action in

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the Portland Harbor Superfund Site (Superfund Site) to remediate a large section of contaminated shoreline sediment along the east bank of the Willamette River. The EPA's primary concern regarding the ESA consultation was timing, as the action agency must complete consultation before it can enter construction contracts for the in-water work season that opens on July 1, 2020.

Based on the March 6, 2020, discussion, NMFS determined all parties had a clear understanding of the proposed action and the ESA consultation process. NMFS provided the contractor a recent Portland Harbor pile driving biological opinion (NMFS 2019) to assist with development of a BA for the proposed action.

On April 23, 2020, the EPA submitted a request for initiation of ESA consultation with the BA.

On May 6, 2020, the EPA supplemented the BA with pile driving noise monitoring plan as requested by NMFS. At this point, NMFS considered the information sufficient to initiate consultation,

The EPA is proposing to use its CERCLA and SARA authorities to permit the River Mile 11 E Group to conduct a test that will help to determine the feasibility of installing sheet piles within the Superfund Site. The test will take place along the eastern bank of the Willamette River, between River Mile (RM) 10.9 and RM 11.6. Sheet piles installed for the test will be removed immediately after installation. The objective of sheet pile driving test is to determine whether sheet pile installation during future cleanup activities in this area will be feasible. Dependent upon the outcome of the test, sheet piles may be used to support the slope during or after sediment and bank remediation.

“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 includes the immediate project area is between RM 10.9 and RM 11.6 along the eastern bank of the Willamette River, and the area of impact that extends approximately 6.5 miles downriver and 1.3 miles upriver from the project site to account for the anticipated noise attenuation area, and water quality impacts, that are also expected to occur within that area (BA, Section 3.2, Figure 1).

Upper Willamette River (UWR) Chinook salmon, Lower Columbia River (LCR) Chinook salmon, LCR coho salmon, UWR steelhead, and LCR steelhead all occur in the action area (BA, Table 1). Moreover, those species are also likely to be adversely affected by effects of the proposed action (BA, Table 2) that will include a short-term reduction in water quality from increased suspended sediments and associated contaminants, and short-term hydroacoustic impacts from pile driving (BA, Section 5). Our information confirms the presence of those species in the action area, and that the proposed action is likely to adversely affect them as described.

Each of the affected species also has designated critical habitat in the action area (BA, Table 1) and, according to the BA (Table 2), those critical habitats are not likely to be adversely affected by the proposed action because those effects have a low likelihood of causing long-term habitat changes. The effects of an action on species or critical habitat often depend on the duration of

those effects, but even a short-term event whose effects are relaxed almost immediately (i.e., pulse effect) can still be adverse, provided those effects are reasonably likely to occur, and can be meaningfully measured, detected, or evaluated. In this case, we expect to be able to measure the effects of the action as physical changes in water quality and underwater sound that will be sufficient to reduce the capability of designated critical habitat to meet the biological requirements of listed species. Thus, our information confirms the presence of critical habitat in the action area but, contrary to the BA, we conclude that the effects of the proposed action are likely to adversely affect critical habitat, even if those effects may be unlikely to bring about a long term or permanent modification of those critical habitats.

We used information in BA Sections 1 and 4, to examine the status of each species and the condition of critical habitat throughout the designated area, as described in 50 CFR 402.02, including 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 also considered information in the UWR Conservation and Recovery Plan for Chinook salmon and steelhead (NMFS 2011) describing the presence, abundance, density or periodic occurrence of listed species and the condition and location of the species' habitat, including critical habitat [50 CFR 402.14(c)(1)(iii)].

We used information in BA Section 3 to examine the “environmental baseline,” including 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 actions 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 (50 CFR 402.02). 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 also part of the environmental baseline

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).

Sections 5 and 6 of the BA provide a detailed discussion and comprehensive assessment of the effects of the proposed action, and are adopted here pursuant to 50 CFR 402.14(h)(3)(i). NMFS evaluated these Sections of the BA and after our independent, science-based evaluation determined that it meets our regulatory and scientific standards. Information necessary to confirm the effects of the proposed action and, if necessary, to modify the practice sheet pile driving to reduce its impact during future CERCLA actions in the Portland Harbor will be provided by the noise monitoring plan presented to NMFS on May 6, 2020.

UWR Chinook salmon, Lower Columbia River (LCR) Chinook salmon, LCR coho salmon, UWR steelhead, and LCR steelhead will be affected by the proposed action, as discussed in

Section 5 of the BA. The effects of pile driving will be temporary and will not impact more than two cohorts of the affected populations. Each of the affected species also has designated critical habitat located in the affected area, which would also be adversely affected by temporarily reduced water quality due to resuspension of sediments, and noise. These effects will be minor, have a short duration, and are not expected to result in a substantial reduction in the conservation value of critical habitat. A detailed discussion of the proposed action's potential impact on critical habitat is included in Section 6 of the BA.

“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. Section 5.2 of the BA discusses cumulative effects and identifies no non-federal actions occurring or likely to occur within the affected area other than this proposed action and potential future work that may stem from this pile driving test.

Integration and synthesis of information for the status of species, environmental baseline, effects of the action, and cumulative effects is the final step in our assessment of the risk posed to species and critical habitat as a result of implementing the proposed action. Here, 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 our 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.

As described in Section 2 of the BA and information cited therein, individual UWR Chinook salmon, LCR Chinook salmon, LCR coho salmon, UWR steelhead, and LCR steelhead use the action area to complete part of their life history requirements. Some salmon and steelhead migrate and rear in the action area, while others only migrate through, once as out-migrating juveniles and then again as adult fish on upstream spawning migration.

The status of each salmon and steelhead species addressed by this consultation varies considerably from very high risk of extinction (UWR and LCR Chinook salmon), moderate to high risk (LCR coho salmon) to moderate risk (UWR and LCR steelhead). Similarly, the many individual populations affected by the proposed program vary considerably in their biological status. The species addressed in this opinion have declined due to numerous factors. The one factor for decline that all these species share is degradation of freshwater and estuarine habitat. Human development of the Pacific Northwest has caused significant negative changes to stream and estuary habitat across the range of these species.

As described in Section 3 of the BA, the environmental baseline within the action area is severely degraded, and climate change is likely to exacerbate several of the ongoing habitat issues, in particular, increased summer temperatures, decreased summer flows in the freshwater environment, ocean acidification, and sea level rise in the marine environment.

As described in Section 2 of the BA, the design of the sheet pile test is a critical factor in our assessment. The impact reduction measures, or best management practices (BMPs) to be applied were carefully chosen based on timing, impact area reduction, pile driving and removal method, and sediment and noise containment.

As described in Section 5 of the BA, the effects of the proposed sheet pile test will be very short-term, localized, and minor. These effects will be caused by the pile driving and removal and will be distributed over a period of five days. Aquatic and riparian habitat at the test site and within the action area are not expected to have any long-term impacts that last beyond the test period. Additionally, the proposed action is not likely to significantly contribute to cumulative effects of upstream activities that collectively result in diminished baseline conditions of the project area.

In summary, the proposed sheet pile test will affect far too few individual fish to influence the VSP parameters of any population, and will not reduce the likelihood of survival and recovery of any the listed species addressed in this biological opinion.

Regarding critical habitat, the action area is designated as critical habitat for the five species of ESA-listed salmon and steelhead that occur there. Those habitats were determined to have a high conservation value, based largely on their migratory and restoration potential. Baseline conditions for the individual PBFs that comprise those critical habitats vary widely, from poor (e.g., floodplain connectivity, riparian conditions) to fair (e.g., fish passage, water quantity). Climate change and human development have and continue to adversely impact critical habitat creating limiting factors and threats to the recovery of the ESA listed species. Climate change will likely result in a generally negative effects on stream flow and temperature. Information in Section 2 described the environmental baseline in the action area as poor, and NMFS assumes that the environmental baseline is not meeting all biological requirements of individual fish of listed species. This is due to one or more impaired aquatic habitat functions related to any of the habitat factors limiting the recovery of the species in that area. As described in Section 2, the cumulative effects are not likely to have an adverse impact on critical habitat PBFs because any future project that entails in-water work will require appropriate Federal and ESA review.

In the analysis of the effects of the action on critical habitat PBFs, we found that the effects of the sheet pile test will be short term. On balance, we expect critical habitat quality be unchanged as a result of the proposed sheet pile test, and therefore the proposed action is not likely to result in appreciable reduction in the value of designated critical habitat for the conservation of the species addressed but this biological opinion.

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 LCR Chinook salmon, LCR steelhead, UWR Chinook salmon, and UWR steelhead, and LCR coho salmon 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). “Incidental take” is defined by regulation as takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR 402.02). Section 7(b)(4) and section 7(o)(2) provide that taking that is incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this ITS.

Amount or Extent of Take

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

- Harm to juveniles and adults of all ESA-listed salmon and steelhead considered in this opinion due to hydroacoustic impacts from sheet pile driving with a vibratory or impact hammer.
- Harm to juveniles and adults of all ESA-listed salmon and steelhead considered in this opinion due to a temporary increase in suspended sediment and associated contaminants during pile replacement.

The distribution and abundance of fish that occur within an action area are affected by habitat quality, competition, predation, and the interaction of processes that influence genetic, population, and environmental characteristics. These biotic and environmental processes interact in ways that may be random or directional, and may operate across far broader temporal and spatial scales than are affected by the proposed action. Thus, the distribution and abundance of fish within the action area cannot be attributed entirely to habitat conditions, nor can NMFS precisely predict the number of fish that are reasonably certain to be injured or killed if their habitat is modified or degraded by the proposed action. In such circumstances, NMFS cannot provide an amount of take that would be caused by the proposed action.

The best available indicators for the extent of take are:

1. For harm associated with hydroacoustic impacts: the total duration in minutes of vibratory hammer use necessary to install four piles, and to remove the same four piles, plus the total duration in minutes of impact hammer use that may be necessary to help install the four test piles.

Assuming that an average of 60 minutes of vibration are necessary to install a pile and 60 minutes of vibration are needed to extract a pile, the anticipated take will be exceeded if vibratory hammer use exceeds 480 minutes, i.e.,

$$(\text{install 4 sheet piles})(60 \text{ min/pile}) + (\text{extract 4 sheet piles})(60 \text{ min/pile}) = 480 \text{ minutes (4 hours)}$$

Similarly, if an impact hammer must be used to help install selected new piles, a process that can be accomplished with no more than 750 impact strikes per pile, the anticipated take will be exceeded if impact hammer use exceeds 750 strikes.

2. For harm associated with an increase in suspended sediments: the extent of suspended sediment plumes. Specifically, the anticipated take will be exceeded if increased suspended sediment from pile replacement causes suspended sediment plumes 300 feet from the boundary of construction activities to exceed 5 NTU over the background level for two consecutive monitoring intervals.

These take indicators act as effective reinitiation triggers because these features best integrate the likely take pathways associated with this action, are proportional to the anticipated amount of take, and are the most practical and feasible indicators to measure. In particular, the number minutes the impact and vibratory hammers are in operation is directly correlated to the potential for harm due to hydroacoustic impacts, and thus the number of individuals harmed due to pile replacement. In addition, the extent of suspended sediment plumes rationally reflects the amount of take from suspended sediment caused by pile replacement because larger sediment plumes are correlated with harm to a larger number of individual fish.

Exceeding any of the indicators for extent of take will trigger the reinitiation provisions of this opinion.

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” are nondiscretionary measures that are necessary or appropriate to minimize the impact of the amount or extent of incidental take (50 CFR 402.02).

The EPA shall:

1. Minimize incidental take from proposed action-related activities by applying conditions to the proposed action that avoid or minimize adverse effects of noise generation and on water quality.

2. Ensure completion of a monitoring and reporting program to confirm that the take exemption for the proposed action is not exceeded, and that the terms and conditions in this incidental take statement are effective in minimizing incidental take. The report will be submitted to NMFS no later than 60 days after the close of the work window.

Terms and Conditions

The terms and conditions described below are non-discretionary, and the EPA or any applicant must comply with them in order to implement the RPMs (50 CFR 402.14). The EPA 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 term and condition implements reasonable and prudent measure 1:
 - a. Work Window. To minimize effects to juvenile salmonids, the applicant must limit all activities conducted below ordinary high water to the in-water work window of July 1–October 31.
 - b. Notice to Contractors. Before beginning work, the applicant must provide all contractors working on site with a complete list of EPA permit special conditions, reasonable and prudent measures, and terms and conditions intended to minimize the amount and extent of take resulting from in-water work.
 - c. Minimize Impact Area and Duration. The applicant must confine construction impacts to the minimum area and duration necessary to complete the proposed action.
 - d. Conservation Measures. The applicant must carry out all relevant conservation measures from the proposed action section of this opinion as described.
 - e. Pile Driving. When possible, the applicant must use a vibratory hammer for pile installation. If an impact hammer is used to help proof or set the piles, a bubble curtain must be utilized during impact hammer strikes.
 - i. If water velocity is 1.6 feet per second or less, surround the pile being driven by a confined or unconfined bubble curtain that will distribute small air bubbles around 100% of the pile perimeter for the full depth of the water column.
 - ii. If water velocity is greater than 1.6 feet per second, surround the pile being driven by a confined bubble curtain (e.g. a bubble ring surrounded by fabric or a non-metallic sleeve) that will distribute air bubbles around 100% of the pile perimeter for the full depth of the water column.
 - f. Pile Removal. The applicant must use the following steps to minimize contaminant release, sediment disturbance and suspended sediment:
 - i. Keep all equipment out of the water, grip piles above the waterline, and complete all work during low water and low current conditions.
 - ii. Dislodge the pile with a vibratory hammer, whenever feasible; never intentionally break a pile by twisting or bending.
 - iii. Slowly lift the pile from the sediment and through the water column.

- iv. Place the pile in a containment basin on a barge deck, pier, or shoreline without attempting to clean or remove any adhering sediment. A containment basin for the removed piles and any adhering sediment may be constructed of durable plastic sheeting with sidewalls supported by hay bales or another support structure to contain all sediment and return flow which may otherwise be directed back to the waterway.
 - v. Dispose of all floating surface debris, any sediment spilled on work surfaces, and all containment supplies at a permitted upland disposal site.
- g. Turbidity. The applicant must conduct monitoring and reporting as described below. Monitoring must occur each day during daylight hours when in-water work is being conducted.
- i. Representative background point. An observation must be taken every 2 hours at a relatively undisturbed area at least 600 feet upcurrent from in-water disturbance to establish background turbidity levels for each monitoring cycle. Background turbidity, location, time, and tidal stage must be recorded prior to monitoring downcurrent.
 - ii. Compliance point. Monitoring must occur every 2 hours approximately 300 feet downcurrent from the point of disturbance and be compared against the background observation. The turbidity, location, time, and tidal stage must be recorded for each sample.
 - iii. Compliance. Results from the compliance points must be compared to the background levels taken during that monitoring interval. Turbidity may not exceed an increase of 5 NTU above background at the compliance point during work.
 - iv. Exceedence. If an exceedence occurs, the applicant must modify the activity and continue to monitor every 2 hours. If an exceedence over the background level continues after the second monitoring interval, then work must stop and NMFS must be notified so that revisions to the BMPs can be evaluated.
 - v. If the weather conditions are unsuitable for monitoring (heavy fog, ice/snow, excessive winds, rough water, *etc.*), then operations must cease until conditions are suitable for monitoring.
 - vi. Copies of daily logs for turbidity monitoring must be available to NMFS upon request.
- h. The applicant must maintain an absorptive boom during all in-water activities to capture contaminants that may be floating on the water surface as a consequence of construction activities.
2. The following term and condition implements reasonable and prudent measure 2:
- a. Reporting. The applicant must report all monitoring items within 60 days of the close of any work window that had in-water work within it, including:
 - i. A discussion of implementation of the terms and conditions in #1, above.
 - ii. Turbidity observations.
 - iii. Number, type, and size of piles replaced.
 - iv. Dates of initiation and completion of pile driving.
 - v. Pile driving method.

- vi. Total minutes of vibratory and impact hammer use.
 - vii. Results of pile driving noise monitoring.
 - viii. Dates of initiation and completion of in-water work.
 - ix. The applicant must report any exceedance of take covered by this opinion to NMFS immediately.
- b. The applicant must submit monitoring reports to:
National Marine Fisheries Service
Oregon Washington Coastal Office
Attn: WCRO-2020-00970
1201 NE Lloyd Boulevard, Suite 1100
Portland, OR 97232-2778

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).

Identify and implement habitat enhancement or restoration activities in the LWR that:

- Increase the amount of non-contaminated shallow-water habitat in the reach to benefit ESA-listed salmonids
- Remove old in-water structures such as docks and piles that are no longer in use
- Protect and restore riparian areas to improve water quality through appropriate handling of contaminated sediment and debris
- Improve or regrade and revegetate streambanks as shoreline remediation activities are carried out in the Superfund Site.

Please notify NMFS if the EPA or the applicant carries out this recommendation so that we will be kept informed of actions that are intended to improve the conservation of listed species or their designated critical habitats.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by [name of action agency] or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) The amount or extent of incidental taking specified in the ITS is exceeded, (2) 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) 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 if (4) a new species is listed or critical habitat designated that may be affected by the identified action.

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. The proposed action and action area for this consultation are described in the Introduction to this document. The action area includes areas designated as EFH for various life-history stages of Chinook and coho salmon as identified in the Fishery Management Plan for Pacific coast salmon (Pacific Fishery Management Council 2014). Based on information provided by the action agency and the analysis of effects presented in the ESA portion of this document, NMFS concludes that proposed action will have adverse effects on EFH designated for Chinook and coho salmon. These effects include a temporary reduction in water quality from increased suspended sediment and associated contaminants, as well as hydroacoustic impacts from pile installation and removal, and a short-term loss of benthic invertebrates due to sediment disturbance.

EFH conservation recommendations include:

1. In-water Work: The EPA should recommend that the applicant follow terms and conditions 1(c) – 1(h) as presented in the ESA portion of this document.
2. Monitoring and Reporting: The EPA should recommend that the applicant follow terms and conditions 2(a) and 2(b) as presented in the ESA portion of this document.
3. The EPA should recommend that the applicant identify and implement habitat enhancement or restoration activities in the LWR that:
 - a. Increase the amount of shallow-water habitat in the reach to benefit ESA-listed salmonids
 - b. Restore or create off-channel habitat or access to off-channel habitat, side channels, alcoves, wetlands, and floodplains
 - c. Remove old docks and piles that are no longer in use
 - d. Protect and restore riparian areas to improve water quality, provide long-term supply of large wood to streams, and reduce impacts that alter other natural processes
 - e. Improve or regrade and revegetate streambanks
 - f. Restore instream habitat complexity, including large wood placement
 - g. Remove invasive plant species from upland vegetation and plant native species

Fully implementing these EFH conservation recommendations would protect, by avoiding or minimizing the adverse effects described previously, designated EFH for Pacific Coast salmon.

As required by section 305(b)(4)(B) of the MSA, the EPA 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 agency have agreed to use alternative time frames for the Federal agency response. The

response must include a description of measures proposed by the agency 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 agency 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)).

In response to increased oversight of overall EFH program effectiveness by the Office of Management and Budget, NMFS established a quarterly reporting requirement to determine how many conservation recommendations are provided as part of each EFH consultation and how many are adopted by the action agency. Therefore, we ask that in your statutory reply to the EFH portion of this consultation, you clearly identify the number of conservation recommendations accepted.

The EPA must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH Conservation Recommendations (50 CFR 600.920(l)).

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

Please direct questions regarding this letter to Kate Wells, Kathleen.Wells@NOAA.gov, (503) 230-5437.

Sincerely,



Kim W. Kratz, Ph.D
Assistant Regional Administrator
Oregon Washington Coastal Office

cc: Hunter Young: EPA Project Lead
Glenn Grette: Grette Associates
Syd Gebers: Grette Associates

REFERENCES

- Grette Associates. 2020. River Mile 11 East, Portland, Oregon, Sheet Pile Testing Project: Biological Assessment. Prepared by Grette Associates LLC, 151 South Worthen Suite 101 Wenatchee, Washington, for the River Mile 11 E Group. 21 pp. with attachments (April 14, 2020)
- NMFS. 2011. Upper Willamette River conservation and recovery plan for Chinook salmon and Steelhead. <https://repository.library.noaa.gov/view/noaa/15981>
- NMFS. 2019. Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Phillips 66 Fender Pile Replacement on the Willamette River, River Mile 7.8 (HUC 1709001202), Multnomah County, Oregon (Corps No.: NWP-2007-92-8). August
- Pacific Fishery Management Council. 2014. Appendix A to the Pacific Coast Salmon Fishery Management Plan, as modified by Amendment 18 to the Pacific Coast Salmon Plan: Identification and description of essential fish habitat, adverse impacts, and recommended conservation measures for salmon. Pacific Fishery Management Council, Portland, OR. September 2014. 196 p. + appendices.