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-2024-00803

August 9, 2024

Cindy Callahan
Federal Highway Administration
Oregon Division
530 Center Street NE, Suite 420
Salem, Oregon 97301

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Willamette River: Source Control Improvements Project

Dear Ms. Callahan:

This letter responds to your April 11, 2024, request for initiation of consultation with the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act (ESA) for the subject action. Your request qualified for our expedited review and analysis because it met our screening criteria and contained all required information on, and analysis of, your proposed action and its potential effects to listed species and designated critical habitat.

We reviewed the Federal Highway Administration's (FHWA) consultation request and related initiation package. Where relevant, we have adopted the information and analyses you have provided and/or referenced but only after our independent, science-based evaluation confirmed they meet our regulatory and scientific standards. We adopt by reference here the following sections of the Biological Assessment (BA):

- Sections 1 and 3 for the description of the proposed action, including the purpose and need
- Section 4 for avoidance and minimization measures
- Section 5 for the description of the action area
- Section 6 for the status of species and critical habitat
- Section 7 for the environmental baseline
- Sections 8 and 9 for the effects of the proposed action and cumulative effects

The FHWA and WSP consulting firm contacted the National Marine Fisheries Service (NMFS) on January 30, 2024 to inform the agency of the upcoming stormwater retrofit project. Check-in meetings between the Oregon Department of Transportation (ODOT), WSP consultants, FHWA and NMFS occurred every other week for three months until the final Biological Assessment (BA) was completed and ready for submission to NMFS.

The BA went through three rounds of review by ODOT, WSP consultants, FHWA and NMFS-ODOT Liaisons before finalization. The first review focused on the draft proposed action. The next review was of the first full draft of the BA. Necessary revisions were identified by the

FHWA and NMFS and shared with WSP. After initial revisions were complete, FHWA and NMFS-ODOT Liaisons conducted a final review of the draft BA.

On July 5, 2022, the U.S. District Court for the Northern District of California issued an order vacating the 2019 regulations that were revised or added to 50 CFR part 402 in 2019 ("2019 Regulations," see 84 FR 44976, August 27, 2019) without making a finding on the merits. On September 21, 2022, the U.S. Court of Appeals for the Ninth Circuit granted a temporary stay of the district court's July 5 order. On November 14, 2022, the Northern District of California issued an order granting the government's request for voluntary remand without vacating the 2019 regulations. The District Court issued a slightly amended order two days later on November 16, 2022. As a result, the 2019 regulations remain in effect, and we are applying the 2019 regulations here. For purposes of this consultation and in an abundance of caution, we considered whether the substantive analysis and conclusions articulated in the biological opinion and incidental take statement would be any different under the pre-2019 regulations. We have determined that our analysis and conclusions would not be any different.

The FHWA, in partnership with Oregon Department of Transportation (ODOT), proposes to design and install stormwater Best Management Practices (BMPs) for portions of five main thoroughfares (I-5, I-405, Highway 26, Highway 30, and Highway 30 bypass) and two bridges (Fremont Bridge and St. Johns Bridge) that drain to Portland Harbor in Portland, Oregon. This project proposes to satisfy an agreement with the Oregon Department of Environmental Quality (DEQ) for effects associated with stormwater runoff specific to the Portland Harbor Superfund Site.

The genesis of this project and specific target design standards are established in the commitments ODOT has made with DEQ in its Final Feasibility Study (FS) and Supplemental FS. If the proposed action did not proceed, ODOT would be unable to secure a Source Control Determination from DEQ. The project will treat existing stormwater runoff that discharges to the Willamette River and ultimately the Columbia River via 12 different stormwater outfalls. These outfalls will discharge treated water runoff from the U.S. 30 highway and Forest Park and will improve stormwater treatment at all 12 project sites. The BMPs utilized for the stormwater treatment will treat typical roadway pollutants like zinc, copper, 6-ppd quinone and petroleum products to a water quality standard agreed to by ODOT and DEQ.

We used information in Section 6 of the BA to examine 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. Table 4. of the BA lists the ESA-listed species and critical habitat that does or potentially could occur in the action area. 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. NMFS concurs with the action agency's determinations for all species and critical habitat except for the sunflower sea star, which was recently proposed for listing under the ESA.

The sunflower sea star *Pycnopodia helianthoides* occupies nearshore intertidal and subtidal marine waters shallower than 450 m (~1400 ft) deep from Adak Island, AK, to Bahia Asunción,

Baja California Sur, MX. They are occasionally found in the deep parts of tide pools. The species is a habitat generalist, occurring over sand, mud, and rock bottoms both with and without appreciable vegetation. Critical habitat is currently indeterminable because information does not exist to clearly define primary biological features. Prey include a variety of epibenthic and infaunal invertebrates, and the species also digs in soft substrate to excavate clams. It is a well-known urchin predator and plays a key ecological role in control of these kelp consumers. More information about sea star biology, ecology, and their life history cycle is found in the proposed listing (88 FR 2023).

From 2013 to 2017, the sunflower sea star experienced a range-wide epidemic of sea star wasting syndrome (SSWS) (Gravem et al. 2021; Hamilton et al. 2021; Lowry et al. 2022). While the cause of this disease remains unknown, prevalence of the outbreak has been linked to a variety of environmental factors, including temperature change, sustained elevated temperature, low dissolved oxygen, and decreased pH (Hewson et al. 2018; Aquino et al. 2021; Heady et al. 2022; Oulhen et al. 2022). As noted above, changes in physiochemical attributes of nearshore waters are expected to change in coming decades as a consequence of anthropogenic climate change, but the specific consequences of such changes on SSWS prevalence and severity are currently impossible to accurately predict.

Action Area

"Action area" means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02). Section 5 of the BA describes the action area as follows:

Project Footprint
The project footprint portion of the action area consists of the physical location of the proposed project activities (the project site), as described in Section 3 and shown on Figure 19 of the BA. This portion of the action area includes the physical locations of all activities associated with the proposed action including areas of permanent and temporary ground disturbance, stormwater BMPs, and temporary staging and access areas.

Terrestrial Noise
Construction activities have the potential to temporarily generate low levels of terrestrial noise. The equipment that may be required to construct each BMP would consist of standard construction equipment including paving equipment, excavators, trucks, compressors, and various hand and power tools. The proposed action may also require some installation of steel sheet piles associated with shoring for the deeper excavations. Such activity, if necessary, could be conducted by a combination of vibratory and impact hammers.

Temporarily Elevated Turbidity
Upland construction activities that result in ground disturbance have the potential to temporarily elevate levels of turbidity in receiving waters. The potential for this to occur will be appropriately avoided and minimized by the BMPs established in Section 4 of this document.

Stormwater
The zone of influence associated with stormwater is the area for stormwater constituents that extends from the upstream-most stormwater outfall, down to and including the mouth of the Columbia River where it empties into the Pacific Ocean. This is the point at which stormwater constituent pollutants can no longer be tracked as constituents of a distinct water mass.

Effects to Prey Base for Southern Resident DPS Killer Whale
The zone of influence for potential effects on the prey base for SRKW includes all areas off the Pacific Coast where salmonid species from the Columbia River that are affected by the proposed action are available as prey for SRKW. This area encompasses the whales' entire coastal range from the mouth of the Columbia River and its plume, south as far as central California (Weitkamp 2010; Shelton et al. 2019) and north as far as Southeast Alaska (NMFS 2008d; Hanson et al. 2013; Caretta et al. 2021).

A combination of 15 ESUs and DPSs of ESA-listed fish, Southern Resident DPS Killer Whale and Sunflower Sea Star, which is proposed for listing, are likely to occur within the action area of this project and are listed here:

1. Lower Columbia River Chinook salmon
2. Upper Willamette River Chinook salmon
3. Upper Columbia River spring-run Chinook salmon
4. Snake River spring/summer run Chinook salmon
5. Snake River fall-run Chinook salmon
6. Columbia River chum salmon
7. Lower Columbia River coho salmon
8. Snake River sockeye salmon
9. Lower Columbia River steelhead
10. Upper Willamette River steelhead
11. Middle Columbia River steelhead
12. Upper Columbia River steelhead
13. Snake River Basin steelhead
14. Southern DPS green sturgeon
15. Southern DPS Eulachon
16. Southern Resident DPS Killer Whale
17. Sunflower Sea Star

This project will result in a 'may affect' and 'likely to adversely affect' (LAA) determination for the first 15 ESA fish and Sunflower Sea Star mentioned above. The Southern Resident DPS Killer Whale population may be affected but is not likely to be adversely affected (NLAA) by the proposed action (BA 9.1).

The LAA and NLAA determinations for critical habitat for the associated species will result in the same determinations as those for the species themselves where designated critical habitat exists (BA 9.2).

Environmental Baseline

The "environmental baseline" refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. We used information in Sections 6 & 7 of the BA 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).

One factor affecting the status of ESA-listed species considered in this opinion, and aquatic habitat at large, is climate change. Climate change is likely to play an increasingly important role in determining the abundance and distribution of ESA-listed species, and the conservation value of designated critical habitats, in the Pacific Northwest. These changes will not be spatially homogeneous across the Pacific Northwest. Major ecological realignments are already occurring in response to climate change (IPCC WGII, 2022). Long-term trends in warming have continued at global, national, and regional scales. Global surface temperatures in the last decade (2010s) were estimated to be 1.09 °C higher than the 1850-1900 baseline period, with larger increases over land ~1.6 °C compared to oceans ~0.88 (IPCC WGI, 2021). The vast majority of this warming has been attributed to anthropogenic releases of greenhouse gases (IPCC WGI, 2021). Globally, 2014-2018 were the 5 warmest years on record both on land and in the ocean (2018 was the 4th warmest) (NOAA NCEI 2022). Events such as the 2013-2016 marine heatwave (Jacox et al. 2018) have been attributed directly to anthropogenic warming in the annual special issue of Bulletin of the American Meteorological Society on extreme events (Herring et al. 2018). Global warming and anthropogenic loss of biodiversity represent profound threats to ecosystem functionality (IPCC WGII 2022). These two factors are often examined in isolation, but likely have interacting effects on ecosystem function. Updated projections of climate change are similar to or greater than previous projections (IPCC WGI, 2021). NMFS is increasingly confident in our projections of changes to freshwater and marine systems because every year brings stronger validation of previous predictions in both physical and biological realms. Retaining and restoring habitat complexity, access to climate refuges (both flow and temperature) and improving growth opportunity in both freshwater and marine environments are strongly advocated in the recent literature (Siegel and Crozier 2020).

<u>Importance of populations and sub-populations to species recovery</u>

There are many ESUs and DPSs of ESA-listed fish species occurring within the action area of this proposed project, and a multitude of individual populations, which make up each ESU and DPS. Each population within a species' ESU or DPS plays an important role in the overall recovery of that species. Additionally, PBFs in designated Critical Habitat for these species play an integral role in that recovery process. The ESUs and DPSs of ESA-listed fish occurring in the action area have different extinction risk ratings, abundances of sub-population groups and risk of moving from a threatened to endangered status, all of which impact the species' ability to recover to the point where de-listing is warranted. Ford 2022, as well as each of the recovery plans and 5-Year Reviews listed below include information on the importance of each population within each ESU and DPS, and their potential contribution to recovery.

ESA Recovery Plans & 5-Year Reviews:

- Chinook
  - Upper Columbia Salmon Recovery Board (2007). Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan.
  - ODFW (Oregon Department of Fish and Wildlife) and NMFS (2011). Upper Willamette River conservation and recovery plan for Chinook Salmon and steelhead.
  - NMFS, 2013. ESA recovery plan for lower Columbia River coho salmon, lower Columbia River Chinook salmon, Columbia River chum salmon, and Lower Columbia River steelhead
  - NMFS, 2016. 5-Year Review: Summary & Evaluation of Upper Willamette River Steelhead Upper Willamette River Chinook. West Coast Region, Portland, OR.
  - NMFS, 2017. ESA Recovery plan for Snake River Fall Chinook salmon (*Oncorhynchus tshawytscha*).
  - NMFS, 2017. ESA recovery plan for Snake River spring/summer Chinook salmon (*Oncorhynchus tshawytscha*) & Snake River Basin steelhead (Oncorhynchus mykiss).
  - NMFS, 2022. 5-Year Review: Summary & Evaluation of Lower Columbia River Chinook Salmon, Columbia River Chum Salmon, Lower Columbia River Coho Salmon, and Lower Columbia River Steelhead.
  - NMFS, 2022. 5-Year Review: Summary & Evaluation of Upper Columbia River Spring-run Chinook Salmon and Upper Columbia River Steelhead.
- Chum
  - NMFS, 2013. ESA recovery plan for lower Columbia River coho salmon, lower Columbia River Chinook salmon, Columbia River chum salmon, and Lower Columbia River steelhead.
  - NMFS, 2022. 5-Year Review: Summary & Evaluation of Lower Columbia River Chinook Salmon, Columbia River Chum Salmon, Lower Columbia River Coho Salmon, and Lower Columbia River Steelhead.
- Coho
  - NMFS, 2013. ESA recovery plan for lower Columbia River coho salmon, lower Columbia River Chinook salmon, Columbia River chum salmon, and Lower Columbia River steelhead.
  - NMFS, 2022. 5-Year Review: Summary & Evaluation of Lower Columbia River Chinook Salmon, Columbia River Chum Salmon, Lower Columbia River Coho Salmon, and Lower Columbia River Steelhead.
- Sockeye
  - NMFS, 2015. ESA recovery plan for Snake River sockeye salmon (*Oncorhynchus nerka*).
  - NMFS, 2022. 5-Year Review: Summary & Evaluation of Snake River Sockeye Salmon.
- Steelhead
  - Upper Columbia Salmon Recovery Board (2007). Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan.
  - NMFS, 2009. Middle Columbia River steelhead distinct population segment ESA recovery plan.

  - ODFW (Oregon Department of Fish and Wildlife) and NMFS, 2011. Upper Willamette River conservation and recovery plan for Chinook Salmon and steelhead.
  - NMFS, 2013. ESA recovery plan for lower Columbia River coho salmon, lower Columbia River Chinook salmon, Columbia River chum salmon, and Lower Columbia River steelhead.
  - NMFS, 2024. 5-Year Review: Summary & Evaluation of Upper Willamette River Steelhead Upper Willamette River Chinook.
  - NMFS, 2017. ESA recovery plan for Snake River spring/summer Chinook salmon (*Oncorhynchus tshawytscha*) & Snake River Basin steelhead (Oncorhynchus mykiss).
  - NMFS, 2022. 5-Year Review: Summary & Evaluation of Middle Columbia River Steelhead.
  - NMFS, 2022. 5-Year Review: Summary & Evaluation of Upper Columbia River Spring-run Chinook Salmon and Upper Columbia River Steelhead.
  - NMFS, 2022. 5-Year Review: Summary & Evaluation of Snake River Basin Steelhead.
- Eulachon
  - NMFS, 2017. Endangered Species Act Recovery Plan for the Southern Distinct Population Segment of Eulachon (*Thaleichthys pacificus*).
  - Anderson, R. (2022). 2022 5-Year Review: Summary & Evaluation of Eulachon, Southern DPS.
- Green Sturgeon
  - NMFS, 2018. Recovery Plan for the Southern Distinct Population Segment of North American Green Sturgeon (*Acipenser medirostris*).
  - Vick, P., Krasnow, L., Goldsworthy, M., Meux, B., Wang, S., Coleman, T., & Dudley, P. (2021). Southern Distinct Population Segment of North American Green Sturgeon (*Acipenser medirostris*) 5-Year Review: Summary and Evaluation.

Importance of Physical and Biological Features (PBFs) to Critical Habitat (CH)

Salmon and Steelhead

Section 6.2.1 of the BA thoroughly describes the physical and biological features (PBFs) that have been established for the ESA-listed salmon and steelhead species occurring within the action area. Of the PBFs identified for these ESA-listed fish, only one of them is not present within the action area. Within the entire action area, there are no freshwater spawning sites suitable for the ESA-listed Salmon and steelhead.

While the spawning locations may not be present within the action area, section 6.2.1 highlights the five other PBFs that do occur within the action area that provide habitat to support migration, growth, maturation etc.

Pacific Eulachon

Section 6.2.2 describes the PBFs of CH designated for the Southern DPS of Pacific Eulachon. The CH was established in 2011 and includes the Lower Columbia River and its tributaries.

There are three PBFs associated with this CH and all but one are present within the defined area of the CH occurring in the action area. The spawning sites and migration corridor PBFs are present within the action area. The 'Nearshore and offshore marine foraging habitat with water quality and available prey, supporting juveniles and adult survival' PBF is not present because there are no nearshore or offshore marine areas within the Columbia River. This PBF is present however in the marine portions of the action area that are utilized by Eulachon.

North American Green Sturgeon
Section 6.2.3 describes the PBFs of CH designated for the North American Green Sturgeon. The CH was established in 2009 and includes the mouth of the Columbia River to river mile 46. There are seven PBFs associated with this CH and all but one are present within the defined area of the CH occurring within the action area. Substrates are not suitable for egg deposition and development and there is no known spawning habitat for Green Sturgeon in the Columbia River. Therefore, this PBF is not present within the action area.

Effects of the Action

Under the ESA, "effects of the action" are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (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).

The BA provides a detailed discussion and comprehensive assessment of these effects of the proposed action in Section 8.0 of the initiation package and is adopted here (50 CFR 402.14(h)(3)). NMFS has evaluated this section and after our independent, science-based evaluation determined it meets our regulatory and scientific standards.

The FHWA proposes to authorize funding for the design and installation of stormwater Best Management Practices (BMPs) for portions of five main thoroughfares (I-5, I-405, Highway 26, Highway 30, and Highway 30 bypass) and two bridges (Fremont Bridge and St. Johns Bridge) that drain to Portland Harbor in Portland, Oregon.

The temporary effects of this proposed action are:

- Temporary effects to water quality
- Terrestrial and Underwater Noise

Section 4 of the BA details the avoidance and minimization measures that will be implemented during construction of the project to minimize any potential affects to species and their designated critical habitat.

The long-term effects of this proposed action are:

- Stormwater Quality-related effects
- Long-term maintenance and operation of the BMPs

ODOT may need to modify or install additional BMPs in the future if it becomes necessary to provide additional treatment. Section 8.4 of the BA describes how if additional measures are needed, any effects would be similar to those already considered in this opinion. Additionally, a Maintenance and Operations Plan will be developed to ensure that maintenance activities ensuring proper functioning of stormwater BMPs that meet ODOT maintenance standards (see ODOT Stormwater Facility Maintenance Tables located here) and regulatory requirements (BA 3.5).

The ESA-listed species occurring in the action area will continue to be exposed to stormwater pollutants after this project, with the implementation of the stormwater BMPs, total pollutant delivery to surface waters in the action area from this project will be reduced compared to existing conditions.

Little is known about specific effects of toxic contaminants on sunflower sea stars, or how stress from exposure to such chemicals affects susceptibility to sea star wasting syndrome. Laboratory challenge tests have exposed larval stages of various marine invertebrates to hydrocarbons, heavy metals, pesticides, and other contaminants commonly found in stormwater runoff. Documented impacts range from developmental abnormalities to behavioral augmentation, and mortality is common at concentrations as low as several parts per million (e.g., Hudspith et al. 2017, de Almeida Rodrigues et. al 2022). For juvenile and adult marine invertebrates, including sea stars and other echinoderms, a variety of sublethal behavioral and physiological effects from these toxic contaminants have been documented, but mortality is also possible. Suspended sediment in stormwater may also be a concern as stars that become covered by sediment may experience greater risk of wasting disease. Absent species-specific data for the sunflower sea star, ecologically and physiologically similar species can be used as proxies to state that stormwater runoff is likely to harm, injure, or kill sunflower sea stars, having the greatest effects during the larval life history stage. Proximity of individual stars to stormwater outfalls would also likely be a consideration for effect determinations.

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, such as the Environmental Protection Agency's remediation of the Portland Harbor Superfund Site, are not considered in this section because they require separate consultation pursuant to section 7 of the ESA. Section 8.5 of the BA adequately describes the cumulative effects associated with this project and are incorporated here by reference. In summary, NMFS is not aware of specific non-federal actions that will be taking place within the large action area; however, we assume cities and municipalities will continue to maintain and upgrade existing infrastructure for which they are responsible as the population continues to grow.

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.

Section 6 of the BA describes the species that will likely occur within the action area of this project. Additionally, the species and subpopulation information presented earlier describe that these ESA listed fish species occurring in this action area are facing moderate to high risks of extinction. The listed salmon and steelhead do not have documented spawning grounds in the action area but this area is used for migration and foraging. Section 7 of the BA discusses degraded baseline habitat conditions that these species are currently exposed to and will continue to be exposed to post construction. The temporary and permanent effects of the action discussed in section 8 of the BA will expose these ESA species to multiple different disturbances. Those potential temporary disturbances via turbidity or construction stormwater runoff will be effectively addressed through the proposed avoidance and minimization measures stated in section 4 of the BA. The permanent effects of stormwater post construction will persist through time and continue to expose species to stormwater pollutants. However, the result of the project will result in an incremental improvement in the condition of water quality in the action area and decrease stormwater pollutant contribution through the installation of the proposed stormwater BMPs.

While the projects temporary and permanent impacts are adverse for the threatened and endangered fish in the action area, their effect on the abundance of any specific population is expected to be much too low to alter the productivity, spatial structure, or diversity of any of the component populations. Furthermore, the result of the project will be an incremental improvement in water quality conditions in the action area over baseline conditions. Because the proposed action's small reduction in abundance will not appreciably reduce the productivity, spatial structure or diversity of the affected populations, the action, even when combined with a degraded environmental baseline will not appreciably reduce the likelihood of survival or recovery of any of the listed species considered in this opinion.

The effects to critical habitat from this project will also be permanent. As mentioned before, the proposed project will result in an incremental improvement in water quality in the action area. This improvement will benefit the PBFs in the designated critical habitat for the ESA listed species that will be impacted by this action.

In summary, while the action will adversely affect fish through temporary and permanent disturbances, it is expected to minimally impact population productivity, structure and diversity. Despite permanent effects on critical habitat, the project will improve water quality

incrementally, benefiting the habitat, associated PBFs and listed species. Therefore, the survival and recovery of the ESA listed fish affected by this project is not reduced.

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 LCR Chinook salmon, UCR spring-Chinook salmon, SR spring/summer Chinook salmon, UWR Chinook salmon, SR fall Chinook salmon, CR chum salmon, LCR coho salmon, SR sockeye salmon, UCR steelhead, LCR steelhead, UWR steelhead, MCR steelhead, SRB steelhead, Southern DPS green sturgeon, or Southern DPS eulachon 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 ITS.

Amount or Extent of Take

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

- Decreased water quality and increased sediment during construction of the Willamette River: Source Control Improvements Project
- Adverse effects associated with the impact of post-construction stormwater discharge; and,
- Ongoing operations and maintenance of stormwater facilities

The best available indicator for harm associated with the impact of increased sediment and turbidity due to construction is any visible turbidity in the Willamette River above background levels throughout the project area.

The best available indicator for harm associated with the impact of post-construction stormwater discharge is a combination of stormwater facility design, construction, and maintenance, and operations in accordance with ODOT's agreement with DEQ in the feasibility studies. This will determine whether the stormwater treatment system is operated and maintained in way that continues to minimize the concentration of pollutants in stormwater runoff as designed, and thus reflect the amount of incidental take analyzed in the 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 when reasonable and prudent measures are implemented.

Reasonable and Prudent Measures

"Reasonable and prudent measures" are measures that are necessary or appropriate to minimize the impact of the amount or extent of incidental take (50 CFR 402.02). The FHWA shall:

1. Minimize incidental take associated with construction and operations and maintenance.
2. Minimize incidental take from post-construction stormwater, and ongoing maintenance and operation of stormwater facilities.
3. 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.

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 Federal Highway Administration or any applicant has a continuing duty to monitor the impacts of incidental take and must report the progress of the action and its impact on the species as specified in this ITS (50 CFR 402.14). If the entity to whom a term and condition is directed does not comply with the following terms and conditions, protective coverage for the proposed action would likely lapse.

1. The following terms and conditions implement reasonable and prudent measure 1:
The FHWA shall ensure that construction is completed as described in the proposed action, including all BMPs. If not, take will be exceeded.

2. The following terms and conditions implement reasonable and prudent measure 2:
Stormwater management – In addition to the stormwater conservation measures identified in the proposed action, NMFS adds the following term and condition for post-construction stormwater management.
a. An effective post-construction stormwater management plan must be developed and carried out on this project and must include the following:

i. Describe the proposed maintenance activities and schedule for the treatment facilities.
ii. Include the name, email address, telephone number of a person responsible for designing the stormwater management facilities so that NMFS may contact that person if additional information is necessary.
iii. The proposed action will include a maintenance, repair, and component replacement plan that details what needs to be done, when, and by whom for each facility.
iv. When conveyance is necessary to discharge treated stormwater directly into surface water or a wetland, the following requirements apply:

1. Maintain natural drainage patterns.
2. To the maximum extent feasible, ensure that water quality treatment for highway runoff from all impervious areas is completed before commingling with offsite runoff for conveyance.
3. Prevent erosion of the flow path from the project to the receiving water and, if necessary, provide a discharge facility made entirely of manufactured elements (e.g., pipes, ditches, discharge facility protection) that extends at least to ordinary high water.

3. The following terms and conditions implement reasonable and prudent measure 3:
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.
a. Project completion report. The FHWA must provide a report with the following information within 60 days of completing all construction:

i. As-built drawings of the stormwater treatment BMPs as installed on US 30 and all other locations corresponding to maps and drawings in the figures of Appendix A of the BA, and a table or set of tables as necessary to summarize the final dimensions of the project footprint, including:

(1) The final project pollution-generating impervious surface that is receiving treatment and associated BMPs with maintenance schedules;

ii. A summary of the results of pollution and erosion control inspections, including any erosion control failure, contaminant release, and correction effort.

b. Post Construction Stormwater Management. The FHWA must submit post-construction maintenance monitoring reports to demonstrate monitoring and maintenance is occurring in accordance with the proposed action in an annual monitoring report for a period of three years after project completion.
c. Reporting. Submit all monitoring reports to:

projectreports.wcr@noaa.gov
Attn: WCR-2024-00803

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 offers the following conservation recommendations:

- Identify and implement habitat enhancement or restoration activities in the Willamette River that restore or create off-channel habitat or access to off-channel habitat, side channels, alcoves, wetlands, and floodplains.
- Identify opportunities to treat additional roadway runoff in the project area.

Please notify NMFS if the FHWA 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

Under 50 CFR 402.16(a): "Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and: (1) If the amount or extent of taking specified in the incidental take statement is exceeded; (2) If new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) If a new species is listed or critical habitat designated that may be affected by the identified action."

NLAA Determinations

We reviewed the Federal Highway Administration's consultation request document and related materials. Based on our knowledge, expertise, and your action agency's materials, we concur with the action agency's conclusions that the proposed action is not likely to adversely affect the following NMFS ESA-listed species and/or designated critical habitat: Southern Resident DPS Killer Whale.

ESSENTIAL FISH HABITAT RESPONSE

Thank you also for your request for essential fish habitat (EFH) consultation. NMFS reviewed the proposed action for potential effects on EFH pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation.

We have concluded that the action would adversely affect EFH designated under the Pacific Coast Salmon, Pacific Coast Groundfish and Coastal Pelagic Species fishery management plans.

Magnuson-Stevens Fishery Conservation and Management Act

Section 305(b) of the MSA directs federal agencies to consult with NMFS on all actions or proposed actions that may adversely affect EFH. Under the MSA, this consultation is intended to promote the conservation of EFH as necessary to support sustainable fisheries and the managed species' contribution to a healthy ecosystem. For the purposes of the MSA, EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity", and includes the associated physical, chemical, and biological properties that are used by fish (50 CFR 600.10). Adverse effect means any impact that reduces quality or quantity of EFH, and may include direct or indirect physical, chemical, or biological alteration of the waters or substrate and loss of (or injury to) benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects may result from actions occurring within EFH or outside of it and may include direct, indirect, site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) of the MSA also requires NMFS to recommend measures that can be taken by the action 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 600.905(b)).

EFH Affected by the Proposed Action

The proposed project's action area occurs within EFH for various federally managed fish species within the Pacific Coast Salmon, Pacific Coast Groundfish and Coastal Pelagic Species fishery management plans.

In addition, the project occurs within, or in the vicinity of estuaries which are designated as a habitat area of particular concern (HAPC) for various federally managed fish species within the Pacific Coast Groundfish fishery management plan. HAPC are described in the regulations as subsets of EFH which are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. Designated HAPC are not afforded any additional regulatory protection under the MSA; however, federal projects with potential adverse impacts on HAPC will be more carefully scrutinized during the consultation process.

Adverse Effects on EFH

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

1. Decreasing water quality from construction of the stormwater BMPs on US 30.
2. Adverse effects associated with the presence of the US 30 stormwater BMPs in the environment, separate from effects caused by their construction, including, but not limited to, the impact of post-construction stormwater discharge.

EFH Conservation Recommendations

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

1. Carry out Terms and Conditions to implement Reasonable and Prudent Measures 1, 2 and 3 from the ESA portion of this document.
2. Identify and implement habitat enhancement or restoration activities in the Willamette River that restore or create off-channel habitat or access to off-channel habitat, side channels, alcoves, wetlands, and floodplains.
3. Identify opportunities to treat additional roadway runoff in the project area.

Statutory Response Requirement

As required by section 305(b)(4)(B) of the MSA, the Federal Highway Administration 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 the 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)).

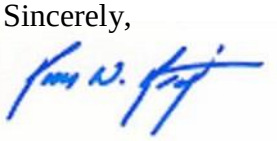
Supplemental Consultation

The Federal Highway Administration 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 (OWCO), in Portland, Oregon.

Please direct questions regarding this letter to Peter Morrow, at peter.morrow@noaa.gov, or (503) 930-5487.

Sincerely,



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Rod Thompson, ODOT
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