UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
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PORTLAND, OR 97232-1274

Refer to NMFS No:
WCRO-2024-00884

May 8, 2025

Ralph J. Rizzo
Division Administrator
Federal Highway Administration
711 South Capitol Way
Suite 501 Evergreen Plaza
Olympia, Washington 98501-1284

Re: Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Ridgetop Boulevard NW Improvements Project, Fed Aid #: STPUL-6681(002)

Dear Mr. Rizzo:

This letter responds to your April 25, 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 Biological Assessment (BA). 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. In our biological opinion below, we indicate what parts of your BA we have incorporated by reference and where that information is being incorporated.

We adopt by reference the following sections of the BA:

- Sections 2 and 3 for the location and description of the proposed action;
- Section 4 for the action area;
- Section 5 and Appendix C for species and habitat information;
- Section 6 for the environmental baseline conditions;
- Section 7 for effects of the proposed action; and,
- Appendix A for the Essential Fish Habitat Assessment;

We note where we have supplemented information in the BA with our own data analysis. The BA will be included in the administrative record for this consultation and we will send it to readers of the biological opinion as an email reply attachment to requests sent to david.price@noaa.gov.

In your BA, the FHWA determined that the proposed action was likely to adversely affect ESA-listed species and designated critical habitat, and adversely affect essential fish habitat (EFH) within the action area. We reviewed your BA and determined there was sufficient information to initiate formal consultation on March 24, 2025.

On April 11, 2025, NMFS requested additional information from the Washington State Department of Transportation (WSDOT), the non-federal representative for FHWA, regarding quantity of replaced PGIS, updated stormwater treatment quantity, and clarification on their effects determination for Sunflower Sea Star. On April 24, 2025, all of the requested information was received and consultation resumed.

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

BIOLOGICAL OPINION

Proposed Action

Kitsap County Public Works (County), with funding from the FHWA and support from WSDOT, is proposing widen and improve approximately 2,000 linear feet of Ridgetop Boulevard and 350 linear feet of Mickelberry Road, in order to address capacity and safety deficiencies. Section 3 of the BA discusses the project elements in detail and is being incorporated here and summarized below.

Proposed roadway improvements would include:

- Widening Ridgetop Boulevard from three lanes to five lanes
- Constructing intersection improvements, sidewalks, bicycle lanes, stormwater treatment facilities, street lighting, retaining walls, and landscaping along the corridor

The proposed action would occur in a highly urbanized area in Silverdale, Washington, immediately north of the head of Dyes Inlet (47.654099, -122.680432). The project would not include any in-water work, nor will it result in any physical changes to the existing stormwater outfall facilities.

The project site includes two threshold discharge areas (TDAs): one that drains to Clear Creek prior to Dyes Inlet, and the other that discharges directly into Dyes Inlet. The project area currently includes 4.330 acres of impervious area, 3.663 acres of which are pollution generating impervious surfaces (PGIS), none of which receives water quality treatment. The proposed

action would replace the existing impervious surface area and create 0.853 acres of new impervious surface area, 0.458 of which will be PGIS, resulting in a total of 5.183 acres of impervious surface area, 4.121 acres of which would be PGIS. The proposed stormwater treatment and conveyance facilities would provide enhanced water quality treatment for 0.877 acres, treating all of the new impervious surface area. Treatment would consist of a proprietary filtration system, likely Modular Wetlands®. The remaining 3.244 acres of PGIS would remain untreated.

Construction is anticipated to take approximately 24 months to complete. Several best management practices (BMPs) would be implemented in order to minimize effects to ESA listed species and their habitats.

Status of Species and Critical Habitat

We examined the status of each species that would be adversely affected by the proposed action to inform the description of the species' "reproduction, numbers, or distribution" as described in 50 CFR 402.02. We also examined the condition of critical habitat throughout the designated area and discuss the function of the physical or biological features essential to the conservation of the species that create the conservation value of that habitat. Section 5 and appendix C of the BA describe the status of the species and critical habitat and is being adopted here by reference. We supplement the BA with NMFS' most recent information on status of species and critical habitat, including the influence of climate on each.

One factor affecting the status of ESA-listed species considered in this opinion, and aquatic habitat at large, is climate change. Climate change is systemic, influencing freshwater, estuarine, and marine conditions. Other systems are also being influenced by changing climatic conditions. Here we adapt information from Siegel and Crozer (2020) to describe habitat changes relevant to Pacific salmon and steelhead, prior to describing how these changes result in the varied specific mechanisms impacting these species in subsequent sections.

Forests

Forests are already showing evidence of increased drought severity, forest fire, and insect outbreak (Halofsky et al. 2020). Additionally, climate change will affect tree reproduction, growth, and phenology, which will lead to spatial shifts in vegetation. Halofsky et al. (2018) projected that the largest changes will occur at low- and high-elevation forests, with expansion of low-elevation dry forests and diminishing high-elevation cold forests and subalpine habitats. Forest fires affect salmon streams by altering sediment load, channel structure, and stream temperature through the removal of canopy. predicted decreases in dry-season precipitation, combined with increases in air temperature, will likely contribute to the existing trend toward more extensive and severe forest fires and the continued expansion of fires into higher elevation and wetter forests (Alizedeh 2021).

Freshwater Environments

Forest fires can increase stream temperatures dramatically in short time-spans by removing riparian cover (Koontz et al. 2018), and streams that lose their snowpack with climate change may see the largest increases in stream temperature due to the removal of temperature buffering (Yan et al. 2021). These processes may threaten some habitats that are currently considered refugia.

Malek et al. (2018), predicted that summer evapotranspiration is likely to increase in conjunction with declines in snowpack and increased variability in winter precipitation. Their results suggest that low summer flows are likely to become lower, more variable, and less predictable. Isaak et al. (2018) concluded that most stream habitats will likely remain suitable for salmonids in the near future, with some becoming too warm.

Marine and Estuarine Environments

A recent study projects nearly complete loss of existing tidal wetlands along the U.S. West Coast, due to sea level rise (Thorne et al. 2018). California and Oregon showed the greatest threat to tidal wetlands (100%), while 68% of Washington tidal wetlands are expected to be submerged. Coastal development and steep topography prevent horizontal migration of most wetlands, causing the net contraction of this crucial habitat. Rising ocean temperatures, stratification, ocean acidity, hypoxia, algal toxins, and other oceanographic processes will alter the composition and abundance of a vast array of oceanic species. In particular, there will be dramatic changes in both predators and prey of Pacific salmon, salmon life history traits and relative abundance. For example, in a study of small planktivorous fish, Gliwicz et al. (2018) found that higher ambient temperatures increased the distance at which fish reacted to prey. Perhaps the most dramatic change in physical ocean conditions will occur through ocean acidification and deoxygenation. It is unclear how sensitive salmon and steelhead might be to the direct effects of ocean acidification because of their tolerance of a wide pH range in freshwater (although see Ou et al. 2015 and Williams et al. 2019), however, impacts of ocean acidification and hypoxia on sensitive species (e.g., plankton, crabs, rockfish, groundfish) will likely affect salmon indirectly through their interactions as predators and prey.

Climate change effects on salmon and steelhead

In freshwater, year-round increases in stream temperature and changes in flow will affect physiological, behavioral, and demographic processes in salmon, and change the species with which they interact. Changing freshwater temperatures are likely to affect incubation and emergence timing for eggs, and in locations where the greatest warming occurs may affect egg survival, although several factors impact intergravel temperature and oxygen (e.g., groundwater influence) as well as sensitivity of eggs to thermal stress (Crozier et al. 2021). Changes in temperature and flow regimes may alter the amount of habitat and food available for juvenile rearing, and this in turn could lead to a restriction in the distribution of juveniles, further decreasing productivity through density dependence. For migrating adults, predicted changes in freshwater flows and temperatures will likely increase exposure to stressful temperatures for many salmon and steelhead populations, and alter migration travel times and increase thermal stress accumulation for evolutionary significant units (ESUs) or distinct population segments

(DPSs) with early-returning (i.e. spring- and summer-run) phenotypes associated with longer freshwater holding times (FitzGerald et al. 2020). Rising river temperatures increase the energetic cost of migration and the risk of *en route* or pre-spawning mortality of adults with long freshwater migrations, although populations of some ESA-listed salmon and steelhead may be able to make use of cool-water refuges and run-timing plasticity to reduce thermal exposure (Keefer et al. 2018, Barnett et al. 2020).

Changes in winter precipitation will likely affect incubation and/or rearing stages of most populations. Changes in the intensity of cool season precipitation, snow accumulation, and runoff could influence migration cues for fall, winter and spring adult migrants, such as coho and steelhead. Egg survival rates may suffer from more intense flooding that scours or buries redds. Changes in hydrological regime, such as a shift from mostly snow to more rain, could drive changes in life history, potentially threatening diversity within an ESU (Beechie et al. 2006). Changes in summer temperature and flow will affect both juvenile and adult stages in some populations, especially those with yearling life histories and summer migration patterns (Crozier and Zabel 2006; Crozier et al. 2010; Crozier et al. 2019).

Finally, we examined the likely effects on any listed species and critical habitats that your agency made "not likely to adversely affect" determinations for. Our conclusions regarding the effects of the action on those species and critical habitats is presented below under the heading: NLAA Determinations.

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 4 of the BA describes action area and is being incorporated here by reference. In summary, the terrestrial portion of the action area is defined by the farthest extent of project noise which extends 11,200 feet in all directions from the project footprint. The aquatic portion of the action area is the area which is subject to effects from stormwater runoff from PGIS, which includes the existing stormwater discharge outfall into Dyes Inlet to a point 50 feet in all directions into the tidelands in addition to the existing stormwater discharge outfall into Clear Creek downstream until it enters the estuarian waters of Dyes Inlet.

Environmental Baseline

The "environmental baseline" refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultations, and the impact of State or private actions which are contemporaneous with the consultation in process. The impacts to listed species or designated critical habitat from federal agency activities or existing federal agency facilities that are not within the agency's discretion to modify are part of the environmental baseline (50 CFR 402.02). Section 6 and Appendix C of the BA describe the environmental baseline and are being incorporated here by reference.

Effects of the Action

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

The biological assessment provides a detailed discussion and comprehensive assessment of the effects of the proposed action in Section 7 of the BA, and is adopted here (50 CFR 402.14(h)(3)). NMFS has evaluated this section and after our independent, science-based evaluation, we determined that it meets our regulatory and scientific standards. The following section summarizes the effects analysis from the BA and provides supplemental information for potential effects to sunflower sea star.

Effects to ESA listed species as a result of the proposed action are limited to the exposure to degraded water quality from the release of project-generated stormwater and associated pollutant constituents into Clear Creek and the marine water of Dyes Inlet. The proposed action will increase the area of PGIS in the project area by 0.458 acres, and replace the existing PGIS, resulting in a total of 4.121 total acres of PGIS, where there is currently 3.663 acres. The PGIS in the project area currently receives no stormwater treatment, and the proposed action would create 0.877 acres of enhanced treatment. The remaining 3.244 acres of PGIS would remain untreated. With multiple ESA listed species present within Clear Creek and the marine waters of Dyes Inlet where stormwater containing 6PPD-quinone will be released, the project has the potential to negatively impact these species either directly in the case of PS Chinook, PS steelhead, Bocaccio rockfish and yelloweye rockfish, or indirectly in the case of Southern Resident Killer Whale. Section 7.1.1 of the BA discusses these effects in more detail and is incorporated here by reference.

The FHWA determined that the effects of the proposed action were not likely to adversely affect the Sunflower Sea Star, which is proposed for ESA listing. 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.

Stormwater runoff from urban areas carries a wide variety of toxic contaminants known to affect organismal health and vitality in marine systems. While studies have not been conducted with sunflower sea stars, bioaccumulation of chemicals, with both sublethal and lethal effects, has been documented in various life stages of other mesopredators with planktonic larvae (e.g., herring, rockfish). Using these species as proxies, both sublethal and lethal effects to sunflower sea stars can be presumed, with the greatest impact likely occurring at the larval stage.

Cumulative Effects

"Cumulative effects" are those effects of future state or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the federal action subject to consultation (50 CFR 402.02). Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA. Section 7.2.2 describes the cumulative effects of the proposed action and is being incorporated here by reference. In this case, there are no known state or private activities planned that would have the potential to contribute to cumulative effects.

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.

The status of PS Chinook salmon, PS steelhead trout, and Yelloweye Rockfish is threatened. The status of Bocaccio Rockfish is endangered. As described in section 5.3 of the BA, the use of the action area for each of these species is either limited, or only presumed. While juvenile and adult PS Chinook salmon may be present in both Dyes Inlet and in the Clear Creek estuary, their natal production in Clear Creek would be very low numbers and may be limited to strays from nearby streams and hatcheries. PS steelhead are unlikely to remain in the marine environment long enough to incur harm from stormwater contaminants within Dyes Inlet, however, winter steelhead are documented utilizing Clear Creek from the mouth to approximately 2.5 miles upstream as well as some other tributaries to Dyes Inlet. Yelloweye rockfish are sedentary, deep-water species and not likely to be found in the nearshore portions of the action area, however, juveniles may utilize aquatic vegetation, and larvae may be found throughout Puget Sound as they are widely dispersed by surface water currents so they are presumed to be present in the action area. Bocaccio rockfish are also a deep-water species associated with steep slops of sand or rocky substrates, but there is little information on their frequency of occurrence in Puget Sound waters, so their presence in the action area is only presumed.

The environmental baseline within the action area has been degraded by the effects of human-caused shoreline modification and development, nearby industry, urbanization, agriculture, and road building and maintenance. Factoring in the environmental baseline, each of these species already encounters degraded water quality and exposure to contaminants/pollutants which are limiting factors for recovery of the species considered in this Opinion.

To this we add the effects of the proposed action.

As discussed in section 3 of the BA, there is no in-water work and any effects of upland construction activities are expected to be minimal due to the use of BMPs. The proposed action will, however, have permanent adverse effects on the ESA listed species and designated critical habitat in the action area due to increased amounts of PGIS and discharge of stormwater runoff, which will contribute to the already degraded baseline conditions. The project will add an additional 0.458 acres of PGIS to the existing 3.663 acres, resulting in a total of 4.121 acres of PGIS.

To offset adverse effects to ESA-listed species from increased PGIS, the proposed action includes constructing enhanced stormwater treatment for 0.877 acres of the project footprint. This will treat an equivalent to all of the new PGIS as well as an additional 0.419 acres where there is currently no treatment. However, post-project, only about 21% of total PGIS area will be treated. Treatment will decrease, but not eliminate the potential for contaminants in stormwater. Effects of continued discharge of pollutants, while slightly reduced, are a chronic degradation in the water quality PBF of PS Chinook salmon designated critical habitat.

The action area also includes listed critical habitat for Southern Resident Killer Whale. While SRKW are not likely to be found in the action area itself, PS Chinook and Coho salmon, which are primary prey species for SRKW, are documented to occur within the action area. Adverse effects to these prey species from reduced water quality may result in indirect effects to SRKW due to alteration of their prey base. However, impacts from the proposed action on these prey species will be minimal and therefore are unlikely to appreciably diminish the value of designated SRKW critical habitat.

When we consider the status of threatened and endangered fish populations and degraded environmental baseline conditions within the action area, the proposed action poses a small additional amount of long-term chronic water quality degradation from added PGIS. While permanent contaminant effects may include lethal, sublethal, and behavioral responses to a small number of individual fish, the proposed action should not result in appreciable modification of the baseline conditions for species survival, nor will the proposed action impair ongoing recovery efforts.

The Sunflower Sea Star is proposed for listing throughout its range, and no data exist to suggest anything other than a single, panmictic population, so, to reach a determination of jeopardy, a proposed action would have to impact range-wide population dynamics. We are not currently aware of any habitat types or locations used by sunflower sea stars for mating or spawning, larvae are planktonic, and newly settled juveniles appear in a variety of habitats. We do not

expect any single site-specific action to result in jeopardy, but broad-scale programmatic actions occurring over a substantial portion of the range might result in appreciable reductions in the number, distribution, or reproduction of sea stars.

Conclusion

After reviewing and analyzing the current status of the listed species and critical habitats, 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 PS Chinook salmon, PS Steelhead, Yelloweye Rockfish, and Bocaccio Rockfish, or destroy or adversely modify designated critical habitat for PS Chinook salmon, PS Steelhead, Bocaccio Rockfish, and Southern Resident Killer Whale.

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 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 a result of reduced prey base from degraded water quality (trophic effects), and from direct exposure to contaminants in stormwater runoff, including heavy metals, 6PPD, 6PPD-q, and PAHs.

We cannot estimate the number of PS Chinook salmon, PS Steelhead, Yelloweye Rockfish, Bocaccio Rockfish, or Sunflower Sea Stars[1] that would be exposed to stormwater discharge

[1] The NMFS has not yet promulgated an ESA section 4(d) rule prohibiting take of threatened sunflower sea stars. Anticipating that such a rule may be issued in the future, we have included a prospective incidental take exemption for sunflower sea stars. The elements of this ITS for sea stars would become effective on the date on which any future 4(d) rule prohibiting take of sunflower sea stars becomes effective. Nevertheless, the amount and extent of sunflower sea stars incidental take, as specified in this statement, will serve as one of the criteria for reinitiation of consultation pursuant to 50 C.F.R. § 402.16(a), if exceeded.

events, nor can we estimate the number of fish that would experience adverse effects from reduced prey base and exposure to stormwater with any meaningful level of accuracy. In such circumstances, NMFS provides an "extent of take" which is based on an observable aspect of the proposed action causally related to the harm.

In this case, the extent of take is 4.121 acres of PGIS (3.663 acres of replaced existing and 0.458 acres of new). This extent is easily observable, and is causally related to the source of harm, as a larger impervious area would contribute more stormwater runoff and that increased volume would increase both the area affected and load of contaminants, exposing more individuals of the listed species and their prey. Reinitiation shall be triggered if PGIS in excess of that described in the proposed action is constructed.

The amount and extent of take in this ITS serves two functions: (1) it identifies the quantity of incidental take exempted for the action agency and applicant.; and (2) it serves as a check on NMFS's jeopardy analysis. The amount or extent of take identifies the anticipated level of take NMFS considered in reaching its conclusion that the proposed action will not jeopardize the continued existence of a listed species. If this level of take is exceeded, reinitiation of consultation is triggered to ensure that NMFS's no-jeopardy conclusion remains valid.

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" refer to those actions the Director considers necessary or appropriate to minimize the impact of the incidental take on the species (50 CFR 402.02).

1. Monitor and minimize incidental take associated with operational effects from stormwater throughout all construction phases and long-term maintenance of the newly built PGIS.

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 FHWA 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:
    a. Monitor to ensure the project does not exceed design specifications and creates no more than 4.121 acres of the post construction total PGIS. The FHWA shall provide an as-built report including the total area of both new and replaced PGIS to NMFS within 90 days following project completion. This report should be sent to projectreports.wcr@noaa.gov including "Attn: WCRO-2024-00884" within the subject line.
    b. To minimize take associated with PGIS, construct and maintain stormwater treatment facilities to maximize the removal of stormwater pollutants. Specifically, the FHWA shall require that the County:

        i. Inspect and maintain the new stormwater conveyance system and modular wetlands at least twice a year for a period of three years, and annually thereafter. The recommended timing of the twice annual inspections should take place prior to a first flush event and once immediately after a heavy rain event or at the end of the rainy season. Annual inspections should take place prior to the first flush event.
        ii. Maintain records of inspection and maintenance to document compliance with the maintenance standards provided in the Kitsap County Code as described in Section 3.1.2 of the BA. Records shall be provided to NMFS upon request.
        iii. Provide post construction information describing total PGIS and stormwater facility design, with the as-built report required in 1.a. above.

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).

1. Employ adaptive management of stormwater treatment to address lack of treatment effectiveness, new science, or contaminants of emerging concern.
2. Develop and implement a regular street sweeping maintenance schedule to remove tire particles and contaminants from the roadway.
3. Ensure replanted vegetation in temporarily disturbed areas includes a variety of native plants that will increase their function to filter stormwater runoff particles and contaminants.
4. Participate in a monitoring and reporting program, such as the Washington Department of Ecology Stormwater Action Monitoring (SAM), which monitors stormwater pollutants. The project's treatment facilities can be proposed to the SAM program as a preferred monitoring location to inform BMP effectiveness.

NLAA DETERMINATIONS

We reviewed the FHWA'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 Killer Whale

We do not concur with the action agency's conclusion that the proposed action is not likely to adversely affect Sunflower Sea Star, which is currently proposed for listing under the ESA. We included supplemental information above to address the potential effects to Sunflower Sea Star as a result of the proposed action.

Reinitiation of Consultation

Under 50 CFR 402.16(a): "Reinitiation of consultation is required and shall be requested by the federal agency where discretionary federal involvement or control over the action has been retained or is authorized by law and: (1) If the amount or extent of 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."

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 Fishery Management Plan (FMP), Pacific Coast Groundfish FMP, and the Coastal Pelagic Species FMP. The EFH Analysis in Appendix A of the BA provides a detailed discussion on the proposed action's effects on EFH and is incorporated here by reference. NMFS's conservation recommendations are provided below.

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 occurs within EFH for various federally managed fish species within the Pacific Coast Salmon FMP, Pacific Coast Groundfish FMP, and the Coastal Pelagic Species FMP.

In addition, the project occurs within, or in the vicinity of an estuary, which is designated as a habitat area of particular concern (HAPC) for various federally managed fish species within the Pacific Coast Groundfish FMP. 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 for Pacific Salmon, Pacific Coast Groundfish, and Coastal Pelagic species as follows:

1. Water quality – The proposed action would cause short- and long-term incremental adverse effects on this attribute. Over the life of the expanded roadway, treated and untreated stormwater would discharge residual levels of petroleum-based pollutants, metals, and other contaminants into Clear Creek and Dyes Inlet.
2. Prey availability – The proposed action would cause short- and long-term low level but chronic adverse effects on this attribute. Over the life of the expanded roadway, untreated stormwater would provide a persistent source of contaminants that could be taken up by benthic invertebrates and other important prey species. Prey communities exposed to the various contaminants in stormwater may be reduced in quantity, composition, and quality if they accumulate toxins.

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. Construct additional stormwater treatment facilities or BMPs to provide treatment of runoff from all existing, new, and replaced PGIS.
2. Construct proactive stormwater treatment facilities elsewhere in the watershed where treatment it absent or inadequate to improve water quality in the action area.
3. Ensure replanted vegetation in temporarily disturbed areas includes a variety of native plants that will increase their function to filter stormwater runoff particles and contaminants.
4. Develop and implement a regular street sweeping maintenance schedule to remove tire particles and contaminants from the roadway, especially prior to the onset of predictable fall rains.
5. Contribute to and support local habitat improvement and enhancement projects within the watershed.
6. Participate in a monitoring and reporting program, such as the Washington Department of Ecology Stormwater Action Monitoring (SAM), which monitors stormwater pollutants. The project site can be proposed to the SAM program as a preferred monitoring location to inform BMP effectiveness.

Statutory Response Requirement

As required by section 305(b)(4)(B) of the MSA, the FHWA 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 FHWA 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/welcome. A complete record of this consultation is on file at the Oregon and Washington Coastal Office.

Please direct questions regarding this letter to David Price in the South Washington Coast Branch of the Oregon/Washington Coastal Office at (253) 693-0792 or by electronic mail at david.price@noaa.gov.

Sincerely,

Kathleen Wells
Assistant Regional Administrator
Oregon Washington Coastal Office

cc: Liana Liu, Area Engineer (Olympic Region), FHWA
Cindy Callahan, Senior Biologist, FHWA Washington Division
Jodie Beall, Environmental Biologist, WSDOT Local Programs

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