**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-2024-01892**

December 17, 2024

Erin Kendle
United States Maritime Administration (MARAD)
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Re: Endangered Species Act Section 7(a)(2) Biological Opinion, Letter of concurrence, Conference Letter of Concurrence Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Tribal One Ko'Kwel Wharf Improvements Project

Dear Ms. Kendle:

This letter responds to your August 7, 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 United States Maritime Administration's (MARAD) consultation request and related initiation package, submitted on behalf of Tribal One. Tribal One has been granted a MARAD Port Infrastructure Development Program grant (grant) to rehabilitate the dock associated with Ko'Kwel Wharf. 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 document(s) we have incorporated by reference and where that information is being incorporated.

We adopt by reference the following sections of the Biological Assessment (BA):

- Section 1.3 for the description of the action area;
- Section 2 for the description of the proposed action, including project components and procedures;
- Section 3 for the status of the species and critical habitat, cumulative effects, and effects of the proposed action;
- Section 4 for the analysis of effects on essential fish habitat (EFH).

Additionally, the U.S. Army Corps of Engineers requested to be included as an Action Agency in this consultation because they are evaluating a Nationwide Permit verification request from the MARAD and may authorize the project pursuant to Section 10 of the Rivers and Harbors Act (RHA).

On April 3, 2024, Greg Matuzak with Greg Matuzak Environmental Consulting LLC, reached out for early coordination with NMFS to discuss the overall project details and the Section 7 consultation process for the project. NMFS suggested developing and submitting a BA. On August 7, 2024, NMFS received a request for formal consultation from MARAD with a BA on the proposed action. The BA was reviewed by NMFS and it was determined that additional information was needed pertaining to pile removal/replacement to initiate consultation. On August 30, 2024, NMFS sent an email requesting additional information to clarify the number of piles underneath the structure and how many are to be repaired/replaced, pile material, and a description of how piles will be repaired. That same day, Mr. Matuzak provided the additional information pertaining to piles. NMFS sent another request for information on September 3, 2024, requesting information on turbidity monitoring. On September 5, 2024, Mr. Matuzak confirmed that there will be no turbidity monitoring for this project and provided clarifying details that support this decision. With this, all information was received and formal consultation was initiated on that date.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on May 6, 2024 (89 Fed. Reg. 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 Fed. Reg. 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, except we note that we have included offsetting reasonable and prudent measures in the incidental take statement (an option that was not included in the section 7 regulations prior to 2024).

The proposed action is to repair the structural integrity and improve the load capacity of the dock within the Ko'Kwel wharf facility along the shoreline of Coos Bay in the City of North Bend, Oregon, by rehabilitating the existing timber dock of the wharf. This will allow loaded trucks, conveyors, and other service equipment to load and discharge vessels without the current operating restrictions. Additionally, the existing dock does not have typical berthing fenders designed to dissipate energy, but rather relies on inherent flexibility of the timber structure and cautious operation of approaching vessels. The proposed rehabilitation of the facility is vital for the continued use of the facility and will allow Tribal One to continue to keep the Ko'Kwel Wharf facility a viable alternative to industry located in southwestern Oregon and provide economic incentive to help attract new business, as well as making it safer to use. The Proposed Action includes two components: 1) Rehabilitation of the dock, and 2) development of shore power.

Rehabilitation of the dock includes:

- Replacing the 891 feet of defective stringers and present bull rail with a concrete edge beam
- Replacing ten defective cap beams and six defective sub-caps

- Removing and replacing up to 400 timber piles with steel piles using a vibratory hammer, and possibly an impact hammer to finalize the installation of any individual pile that needs greater force to conclude pile-driving
- Adding a marine camel to the dock to service smaller vessels
- Removal of current pile fendering system and replacing it with steel fendering piles and a rubber energy dissipating element every twenty feet along the face of the existing structure

There are a total of 2,406 piles underneath the existing structure. The project will replace up to 400 of the existing creosote-treated timber piles with steel piles. This will remove approximately 17% of the existing treated wood from the water column associated with the current structure. Existing piles and concrete will be removed at least one foot below the mudline within the footprint of the existing dock and its substructure. All construction will take place from the upland area within the wharf facility. If any work occurs on the face of the dock, then barges and other in-water construction vessels will be used. All in-water work will be conducted in the authorized in-water work window (IWWW) of October 1 through February 1. No piles are to be repaired under this project, and no treated wood will be used as part of deck replacement. If an impact hammer is needed to finalize any individual piles, it is estimated that up to 50 blows, or one to two minutes or hammering, will be needed per pile to seat them. A bubble curtain will be used when/if any impact hammering is needed.

The second component of the project will be to develop shore power at the wharf. A 6-inch polyvinyl chloride (PVC) conduit will be placed underground to bring power to a sectional cabinet vault near the dock face. The power then can be used by vessels at the dock instead of continuing to run the boats engines for power. This will take place completely outside the waters the Coos Bay estuary, thus the development will have no in-water work, and thus no effect on ESA-listed species included within this biological opinion.

**BIOLOGICAL OPINION**

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.

There are three ESA-listed fish species, two marine mammals, and one proposed-to-be-listed sea star species within the action area:

- Oregon Coast (OC) ESU of coho salmon *(Oncorhynchus kisutch)*,
- Southern DPS of Pacific eulachon *(Thaleichthys pacificus)*,
- Southern DPS of North American green sturgeon *(Acipenser medirostris)*,
- Central America and Mexico DPS Humpback whales *(Megaptera novaeangliae)*,
- Southern Resident DPS of killer whale *(Orcinus orca)*,
- Sunflower Sea Star (*Pycnopodia helianthoides*) *
  *Proposed for listing as a threatened species under the ESA

The action area also includes critical habitat for OC coho salmon and green sturgeon. Sections 3.2 and 3.3 of the BA describe the status of ESA listed species and designated critical habitats and is being adopted here, with the following information provided by NMFS to supplement the status of the proposed for ESA-listing sunflower sea star.

*Sunflower Sea Star*

The sunflower sea star (*Pycnopodia helianthoides*) was proposed to be listed as threatened throughout its range under the ESA on March 16, 2023 [88 FR 2023]. Though this species was not included in the BA provided by MARAD, we are including them in this BO since their species' range falls within the action area for this project. This species occupies nearshore intertidal and subtidal marine waters shallower than 450 m (~1400 ft) deep from Adak Island, AK, to Bahia Asunción, Baja California Sur, Mexico. 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 and not proposed for designation 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 16212).

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). 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.

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" 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). NMFS incorporates by reference Section 1.3 of the BA. In summary, the action area in this case includes:

- The physical footprint of each of the proposed projects, which includes the limits of all proposed construction activities (the project site).
- The terrestrial and aquatic areas which could be affected by noise and vibration extending beyond the project footprint in exceedance of species' thresholds.
- The anticipated extent of any temporarily elevated turbidity during project activities.

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).

NMFS supplements here the environmental baseline. ESA-listed species within the Coos Bay estuary are exposed to reduced water quality and lack of suitable riparian and aquatic habitat, and are subject to restricted movement and altered behavior due to urbanization and land/water use practices that have limited access to historically available habitat. Presently, the action area contains creosote-treated timber piles that contaminate the water column and expose ESA-listed species to polycyclic aromatic hydrocarbons (PAHs). PAHs also contaminate the surrounding sediment up to two meters from where the treated timber pile has been driven (Evans et al. 2009). NMFS expects water quality conditions to improve for ESA-listed species and others in the action area with the proposed removal of up to 400 treated timber piles.

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 BA provides a detailed discussion and comprehensive assessment of the effects of the proposed action throughout Section 3.2 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.
A summary of the specific effects are as follows:

- Temporary increase in suspended sediments and associated contaminants from the removal and replacement of pilings;
- Temporary increase in noise during in-water pile installation and removal that may elicit behavioral responses from ESA-listed species and other species; and,
- Long-term interference with life history functions from repairing and maintaining the overwater structure.

"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.

NMFS completed a cumulative effects analysis of the proposed action to supplement the analysis provided in Section 3.4 of the BA. The Coos Bay estuary is heavily influenced by urbanization and development that has and continues to alter habitat quality for ESA-listed species over time. Specific continuing actions without anticipated Federal ESA assessment include:

- Continued land use modification and water quality impairment from agriculture practices,
- Continued water quality (temperature, discharge, etc.) impairment resulting from climate change,
- Continued streambank development and loss of habitat,
- Continued dredging and dredge material depositing, and
- Continued habitat and water quality improvement from restoration and recovery activities.

The effects from the private, state and local land use impacts will continue to stress OC coho salmon and green sturgeon of the Coos Bay populations and reduce the quality and function of their designated critical habitat. These effects will also continue to impact present adult eulachon. NMFS anticipates that the level of these land use stressors will continue at present levels of effect into the foreseeable future (NMFS 2016).

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).

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.

Climate change and human development have and continue to adversely impact critical habitat creating limiting factors and threats to the recovery of ESA listed species within the action area. Climate change will likely result in a generally negative effect on stream flow and temperature. Non-federal plans to mitigate climate change are largely unknown but may have localized benefits that extend to species and habitat within the Coos Bay estuary as a whole. When these influences are considered collectively, we expect trends in habitat quality to remain flat or degrade gradually over time. This will, at best, further stress population abundance and productivity for the species affected by this consultation. In a worst-case scenario, we expect population abundance trends to decline. For OC coho salmon, eulachon, and green sturgeon, we expect a negative trend with respect to climate change and land use induced water temperature and water quality impairment.

As described in Section 3.2 of the BA, OC coho salmon, eulachon, and green sturgeon may be present in the action area. Only OC coho and green sturgeon critical habitat occur in the action area. Eulachon could be present, but occurrence would be rare. The value of critical habitat within Coos Bay estuary for OC coho and green sturgeon is extremely important but is limited by poor water quality, altered hydrology, sediment quality, and overall habitat connectivity. Coos Bay estuary. The action area is along the shoreline and within an area that habitat has already been degraded from industrial and urban development. The rehabilitation of the wharf prolongs the impact of the structure into the future on critical habitat. Though there will be immediate impacts from turbidity, sound, and in-water work, the removal and replacement of up to 400 creosote-treated timber piles will provide some benefit to these ESA-listed species and their critical habitat, as well as other species, by improving water quality conditions over the long term. However, the Coos Bay estuary is vital to the Coos OC coho salmon population and their anadromous life histories. New development and expansion of commercial facilities in the future will further degrade estuarine habitat and impact migration and rearing for OC coho salmon and other ESA-listed species. This goes against the long-term ecological goals identified in the Strategic Action Plan for Coho Recovery (SAP) (CBCP 2020).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 the OC coho salmon ESU, southern DPS of Pacific eulachon, and the North American southern DPS of green sturgeon or destroy or adversely modify any of these species 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 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: (1) a few juvenile and/or adult OC coho salmon, eulachon, and green sturgeon will be harassed, injured, or killed by the construction machinery working in the water; (2) altered juvenile behavior and increased predation caused by turbidity and noise; and (3) reduced long-term productivity of habitat by extending the life of the overwater structure and maintaining over water shading which can disrupt migration and increase predation.

The NMFS anticipates the proposed action covered by this opinion is reasonably certain to result in altered behavior, injury, death, or reduced annual productivity (annual long-term) of a few OC coho salmon, eulachon, and green sturgeon. However, accurately quantifying the number of each of these species harmed by any of these pathways is not possible because injury and death of individuals in the action area is a function of habitat quality, competition, predation, and the interaction of processes that influence genetic, population, and environmental characteristics. These biotic and environmental processes are highly variable and interact in ways that may be random or directional, and may operate across broad temporal and spatial scales. The precise distribution and abundance of fish within the action area, at the time of the action are not a simple function of the quantity, quality, or availability of predictable habitat resources within that area. Rather, the distribution and abundance of fish also show wide, random variations due to biological and environmental processes operating at much larger demographic and regional scales.

While this uncertainty makes it impossible to quantify take in terms of numbers of animals harassed, injured or killed, and the extent of habitat altered by the take pathways identified above, NMFS can instead designate the expected level of take in terms of the extent of take allowed. The best available indicators for the extent of take from this project include the total number of treated timber piles that are removed and replaced under the dock, and the number and duration of hammer strikes used per pile, if needed, to seat the replacement piles. These indicators are proportional to the amount of take because they best integrate the likely take pathways associated with the project actions and are the most practical and feasible indicators to measure.

As described in the BA, up to 400 treated timber piles will be removed and replaced. Therefore, take would be exceeded if the number of piles replaced exceeds 400. Additionally, if an impact hammer is needed, no more than 50 blows per pile will be required to seat one pile, which is approximately one to two minutes of hammering per pile. Take would be exceeded if greater than 50 blows per pile are used, and/or the duration of hammering each pile exceeds two minutes. The NMFS determined that this level of incidental take is not likely to result in jeopardy to the listed species.

**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. Tribal One will minimize incidental take associated with project construction by ensuring that all BMPs described in the Proposed Action and this Opinion are implemented and reported, as appropriate.
2. Tribal One will 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 MARAD/Tribal One 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. Work window: To minimize the effects to juvenile salmonids and other listed fish species, the applicant must limit all activities conducted below ordinary high water to the in-water work window of October 1 through February 1.
    b. Notice to contractors: Before beginning work, the applicant must provide all contractors working onsite with a complete list of reasonable and prudent measures, and terms and conditions intended to minimize the amount and extent of take resulting from in-water work.
    c. Minimize the take from pile removal and placement: MARAD/Tribal One should ensure that the removal and installation of piles is constrained to the shortest

possible period, vibratory pile driving is used to the maximum extent possible, use of a bubble curtain if an impact hammer is needed to fully seat piles, and that any broken piles are removed three feet below the mudline.

2. The following terms and conditions implement reasonable and prudent measure 2:
    a. Reporting: Tribal One shall provide NMFS (projectreports.wcr@noaa.gov) and Alyssa.garcia@noaa.gov (use subject line "Attn:WCRO-2024-01892") within 90 days of completion of the proposed action a report that includes the following:
        i. The total number of days and the dates associated of in-water work below the ordinary high-water mark (OHWM);
        ii. The total number of adult and juvenile OC coho salmon, eulachon, green sturgeon, and any other listed species encountered during IWWW;
        iii. The final number of timber piles removed and replaced.

**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). Since there will be a benefit to ESA-listed species from removing treated piles from the water column, no conservation recommendations are suggested.

**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."

**NLAA DETERMINATIONS**

We reviewed MARAD 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 of killer whale
- Central America DPS and Mexico DPS of Humpback whales

Additionally, NMFS concludes that the proposed action is not likely to adversely affect the proposed to be ESA-listed sunflower sea star. The sunflower sea star is proposed for listing throughout its range, and no data exists 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 settles 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.

## 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) (PFMC 2024), the Pacific Coast Groundfish FMP (PFMC 2023), and Coastal Pelagic Species FMP (PFMC 2019).

### 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 (PFMC 2024), the Pacific Coast Groundfish FMP (PFMC 2023), and

Coastal Pelagic Species FMPs (PFMC 2019). EFH designated under the Pacific Coast Groundfish FMP was not included within the BA, but NMFS has determined that it should be included.

EFH for groundfish includes over 90 species that cover a large and ecologically diverse area (PFMC 2023). The amount of information known about life histories and habitats for each of these species varies in entirety, from a thorough understanding of some species, and little to no information on others. Groundfish EFH is identified as all waters and substrate within depths less than or equal to 3,500 m to mean higher high water level (MHHW), seamounts in depths greater than 3,500 m as mapped in the EFH assessment geographic information system (GIS), and designated HAPCs that are not already included within the above criteria.

The proposed project occurs within the Coos Bay estuary, which is designated as a habitat area of particular concern (HAPC) for various federally managed fish species within the Pacific Coast Salmon and the Pacific Coast Groundfish FMPs. HAPCs 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. We adopt by reference Section 3 and Section 4.2 of the BA for the description of the effects to EFH, with the inclusion of the additional effects on EFH from project actions.

The following are additional effects on EFH that may result from the Project as determined by NMFS:

- Reduced forage from removal and burial of benthic organisms.
- Maintaining permanent overwater structure shading in shallow water habitat.

However, the removal of treated timber piles will benefit EFH in the long-term. Therefore, NMFS has no additional EFH conservation recommendations to provide at this time. This concludes the EFH consultation.

**Supplemental Consultation**

The MARAD 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 in Portland, Oregon.

Please direct questions regarding this letter to Alyssa Garcia, ESA Consultation Biologist in the Oregon Washington Coastal Office at (503) 939-4827 or alyssa.garcia@noaa.gov if you have any questions concerning this consultation, or if you require additional information.

Sincerely,

Kathleen Wells
Assistant Regional Administrator
Oregon Washington Coastal Office

cc: Greg Matuzak, Greg Matuzak Environmental Consulting LLC
Ray Doering, Tribal One
Tyler Krug, U.S. Army Corps of Engineers

**References:**

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