Pacific Fishery Management Council

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Brad Pettinger, Chair | Merrick J. Burden, Executive Director

July 15, 2024

Ms. Jennifer Quan, Regional Administrator
NOAA NMFS WCR
501 West Ocean Blvd
Long Beach, California 90802-4213

Re: Transmittal of Highly Migratory Species Fishery Management Plan Amendment 8 Incorporating Essential Fish Habitat Modifications

Dear Ms. Quan:

At its November 2023 meeting, the Pacific Fishery Management Council (Council) concluded its periodic review of highly migratory species (HMS) essential fish habitat (EFH) and took final action approving Amendment 8 to the HMS Fishery Management Plan (FMP), which incorporates new and newly available information on EFH into the HMS FMP. Periodic EFH reviews are required by the EFH regulations at 50 CFR 600 Subpart J, and this was the first EFH periodic review since approval of the HMS FMP in 2004.

The Council initiated a review of HMS EFH provisions in 2020, establishing a Review Team to coordinate the review of new and newly available information related to HMS EFH. The team conducted a literature review and synthesis, consulted with the Council's HMS Management Team, the HMS Advisory Subpanel, and Habitat Committee throughout the review process. The review culminated in November 2023 with the Council's approval of HMS EFH modifications. These modifications are contained in revised FMP text (Attachment 1) and an updated HMS FMP Appendix F (Attachment 2), which contains detailed descriptions of HMS life histories, habitat associations, EFH descriptions and maps. This letter constitutes the Council's formal recommendation to the National Marine Fisheries Service (NMFS) to approve Amendment 8 to the HMS FMP, including the updated Appendix F. The revised FMP text and Appendix F include supporting information and rationale for the modifications adopted by the Council. A summary of supporting information and rationale relevant to the major EFH components are briefly described below.

EFH description and identification, and life history summaries

The revised EFH description, identification, and life history summaries are based on work completed by the Southwest Fisheries Science Center, partially supported by NMFS funding. This work included a literature review and summary, public input, and recommendations for modifying elements of HMS EFH, particularly related to species distribution. The revised HMS FMP Appendix F contains the descriptions of overall species distributions, life history summaries, trophic interactions, primary prey species, proposed EFH descriptions, and maps.

Minor modifications to the description and identification of EFH for HMS species are proposed, based on recent and historic information on distribution per life stage, life histories, habitat associations, and prey. The original description and identification were based primarily on fishery-dependent information where data are collected only when and where fishing occurs. Proposed modifications to the description and identification of EFH for HMS species were informed by using current fishery-independent information that was not available when the original EFH descriptions were adopted. Although current fishery-independent information is limited for HMS, it represents an incremental improvement over the fishery-dependent information previously used exclusively to identify HMS EFH.

Essential Fish Habitat Geographic Extent

In defining the geographic extent of EFH, the regulations state "The extent of the EFH should be based on the judgment of the Secretary and the appropriate Council(s) regarding the quantity and quality of habitat that are necessary to maintain a sustainable fishery and the managed species' contribution to a healthy ecosystem" (50 CFR 600.815(a)(1)(iv)(E)). The spatial extent should generally encompass all life stages for each species, though EFH designations are constrained to within the U.S. Exclusive Economic Zone (EEZ). For all the HMS species except the common thresher shark, the seaward extent of EFH is the U.S. West Coast EEZ boundary. The seaward extent of thresher shark EFH approximates 100 nautical miles from shore and reflects the fact that this species' global distribution is closer to shore than other HMS. For five species (bigeye, skipjack, and yellowfin tunas; striped marlin, and dorado), the northern extent of EFH is the latitude line (34° 34' N) just north of Point Conception, California. While these species are known to be present farther north, they are rarer in those waters than the other species in the HMS FMP. The broad distribution of HMS makes it difficult to use a quantifiable metric to define the spatial extent of EFH. Thus, the spatial extent described in Appendix F, though based on the best available information for each species and life stage, is largely qualitative.

Maps and Species Distribution

Members of the HMS EFH Review Team initially attempted to apply a species distribution model (SDM) approach to generate new EFH and species distribution maps. Specifically, the Review Team evaluated AquaMaps, which generates model-based, large-scale predictions of marine species distributions, based on estimates of a species tolerance to various environmental parameters. The method was originally developed to predict global distributions of marine mammals (Kaschner et al. 2006). To take advantage of additional information available in FishBase and other databases and apply it to a wider variety of marine organisms, this modeling approach was modified in collaboration with FishBase. However, when the Review Team tried to utilize the FishBase modeling results for HMS species, it did not produce accurate distribution maps. For instance, the FishBase model output for bigeye tuna indicates moderately high probability of presence off the Pacific Northwest, although this species is known to be rare in EEZ waters off the Pacific Northwest. Consultation with experts confirmed the results were inaccurate and also revealed a lack of confidence in the underlying data (e.g., due to a lack of fisheries in certain areas). Instead, the Review Team decided to develop new maps for this EFH review based on data acquired from 1) existing species distributions in the eastern North Pacific from published sources including the initial EFH descriptions, 2) expert opinion and 3) a review of fishery-dependent data. The development of more robust SDMs is currently underway for HMS in the U.S. West Coast EEZ. Additional information on the development of the maps can be found in

Section 1.1, *Review of Methods*, in Appendix F. The citations for each map are also included in Appendix F.

Fishing Impacts and Minimization Measures
FMPs must contain an evaluation of the potential adverse effects of fishing activities on EFH designated under the FMP and describe actions that could be taken to minimize adverse effects to EFH. This includes effects from fishing activities regulated under this FMP as well as other Federal FMPs. FMPs must also identify any fishing activities not managed under the MSA that may adversely affect EFH. The HMS EFH review process, including the literature review and subsequent discussions among the HMSMT, did not identify any new fishing impacts beyond those already included in the HMS FMP. Thus, the fishing impacts section is proposed to remain essentially status quo. The Review Team focused on potential impacts resulting from removal of prey species, derelict gear/ghost fishing, and vessel dishcharges. The team also described potential management measures to minimize impacts. Updated text, information on prey species, and details related to these potential impacts and minimization measures are included in Chapter 7.4 of the revised FMP text (Attachment 1).

Non-Fishing Impacts and Conservation and Enhancement Measures
FMPs must identify non-fishing activities that have the potential to adversely affect, directly or cumulatively, EFH quantity or quality, or both. FMPs must also describe options to avoid, minimize, or compensate for the adverse effects and promote the conservation and enhancement of EFH. The existing list of non-fishing impacts and conservation measures (described in the HMS FMP) that could adversely affect HMS EFH is still applicable and relevant. A more recent publication by Kiffney et al. (2022) provides a comprehensive description of numerous additional non-fishing activities that may adversely affect HMS EFH, as well as associated conservation measures. These additional activities are applicable to other Federally managed species in addition to HMS, and therefore not all those identified in Kiffney et al. (2022) will apply to HMS. Nonetheless, the publication is considered a very reliable recent compendium of potential non-fishing activities and is incorporated by reference into the HMS FMP.

Habitat Areas of Particular Concern
The EFH regulations encourage the Councils to identify specific types or discrete areas of habitat within EFH as habitat areas of particular concern (HAPCs). HAPCs were considered during development of the HMS FMP and again during the EFH review completed in 2023. Shark pupping and nursery areas within the Southern California Bight (SCB) were considered for HAPC designation, based primarily on the prevalence of juveniles in the region. Migratory routes were also considered as potential HAPCs. However, the review of new information did not generate information that would allow for more precise mapping of such habitats or provide a thorough qualitative description of the HAPC boundaries, and HAPCs were therefore not recommended for adoption. Rather, additional research is being recommended to collect more information. Additional details and rationale can be found in the revised FMP Chapter 7.3 and in Attachment 3 to this letter.

Research and Information Needs
The Council adopted several new and updated Research and Information Needs, which are required to be identified by the EFH regulations. These include research useful for identifying HAPCs, and better understanding habitat associations and the dynamic nature of HMS habitat,

migratory corridors and habitat dependency, including benthic habitats, and potential impacts to EFH from fishing activities. These were developed by the Review Team with input from Council Advisory Bodies and endorsed by the Council. These can be found in Chapter 7.7 of the revised HMS FMP.

Review and Revision Process
The EFH regulations require that FMPs include a description of the EFH review and revision process. The Council's Operating Procedure 22 (COP 22) describes a process to guide all EFH reviews. This process is referenced in FMP Chapter 7.1.

New Regulations and Management Measures
There were no management measures proposed as part of this action, and no regulations are necessary to implement the proposed changes. Therefore, the regulatory deeming process is not necessary.

National Environmental Policy Act (NEPA)
The NMFS West Coast Region (WCR) has determined that this action falls within A1, a category of actions that does not normally have a significant effect on the quality of the human environment; is not connected to a larger action (40 CFR 1501.9(e)(1)); and does not involve extraordinary circumstances precluding use of the categorical exclusion. As such, this action is categorically excluded from further NEPA review. Therefore, an Environmental Assessment or Environmental Impact Statement will not be prepared.

We appreciate the participation and support of the NMFS WCR and the Southwest Fisheries Science Center during this EFH review and revision process. Please contact Mr. Kerry Griffin (Kerry.griffin@noaa.gov) of Council Staff with any questions about the transmittal or implementation of this FMP amendment.

Sincerely,

Merrick J. Burden
Executive Director

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Cc: Ryan Wulff
Rachael Wadsworth
Amber Rhodes

Enclosures: Attachment 1: Proposed HMS FMP Amendment 8 text in underline/strikethrough
Attachment 2: Proposed HMS FMP Appendix F

Attachment 3: Habitat Areas of Particular Concern rationale