SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR A RULE TO IMPLEMENT DECISIONS OF THE WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION FOR:

CHANGES TO BIGEYE TUNA CATCH LIMITS IN LONGLINE FISHERIES

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RIN 0648-BM87

July 2024

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Appendix A *Programmatic Environmental Assessment for the Implementation of Decisions of the Western and Central Pacific Fisheries Commission on Management of Tropical Tunas in the Western and Central Pacific Ocean from 2015-2020 (July 2015)*

Appendix B *Supplemental Environmental Assessment to Update through 2025: Programmatic Environmental Assessment for the Implementation of the Decisions of the Western and Central Pacific Fisheries Commission on Management of Tropical Tunas in the Western and Central Pacific Ocean from 2015-2019 (May 2021)*

Chapter 1 Background

This supplemental environmental assessment (SEA) applies the CEQ's 2020 NEPA Regulations, as modified by the Phase 1 revisions. because review of the proposed action began on June 14, 2024 which preceded the effective date of CEQ's Phase 2 NEPA regulations (July 1, 2024). The proposed action analyzed in this SEA is a rule, as described below. NMFS prepared this SEA according to the requirements of NOAA Administrative Order (NAO) Section 216-6A, "Compliance with the National Environmental Policy Act, Executive Orders 12114, Environmental Effects Abroad of Major Federal Actions; 11988 and 13690, Floodplain Management; and 11990, Protection of Wetlands" and the associated Companion Manual. NAO 216-6A requires review under NEPA, CEQ regulations, and other related authorities including review of environmental consequences on the human environment prior to making a decision.

This rule would implement a recent decision adopted by the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC or Commission). The Commission's decision changes the WCPFC bigeye tuna catch limit for U.S. longline fishing vessels from 3,554 metric tons (mt) to 6,554 mt. This action is necessary for the United States to satisfy the obligations of the United States under the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (Convention), to which it is a Contracting Party.

The rule is part of an ongoing management action NMFS described in a programmatic environmental assessment (PEA) prepared in 2015 (NMFS 2015) and a supplemental environmental assessments (SEA) prepared in 2021 (NMFS 2021a). The PEA and SEA analyzed NMFS' domestic implementation of the conservation and management measures on tropical tunas in the western and central Pacific Ocean (WCPO), adopted by the Commission, pursuant to the Western and Central Pacific Fisheries Convention Implementation Act (WCPFCIA; 16 USC 6901 et seq.). Refer to Chapter 3 for a summary of the sections of the 2015 PEA and 2021 SEA that are incorporated by reference in this document and updates to those sections for the purposes of this SEA.

NMFS is required to prepare a supplemental NEPA analysis if there are substantial changes in the proposed action or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. The proposed action is generally within the range of alternatives considered in the 2021 SEA, but not specifically considered in the 2021 SEA. The following is new information available since publication of the 2021 SEA, including the sections of this SEA where the information is addressed.

1. NMFS published a final rule on WCPFC requirements to safeguard fishery observers and establish pre-trip notifications for observer placement (86 FR

35653; July 7, 2021). See Section 3.2.2 of this SEA for further discussion of this information.

2. NMFS published a final rule to prohibit the use of wire leaders in the Hawaii deep-set longline fishery and to require the removal of fishing gear from any oceanic whitetip shark caught in all of the regional domestic longline fisheries (87 FR 25153; April 28, 2022). See Sections 3.3.2 and 3.7of this SEA for further discussion of this information.

3. NMFS published a final rule to implement WCPFC decisions on International Maritime Organization Numbers, fish aggregating device design requirements, and bycatch mitigation measures for sharks and mobulid rays (see 88 FR 30671; published May 12, 2023). See Section 3.2.2 of this SEA for further discussion of this information.

4. NMFS published a biological opinion on the authorization of the American Samoa longline fishery on May 15, 2023 (American Samoa BiOp).[1] The American Samoa BiOp concluded that the American Samoa longline fishery is not likely to jeopardize the continued existence of the endangered leatherback sea turtle; threatened green sea turtles in the East Pacific, East Indian-West Pacific, Southwest Pacific; endangered green sea turtles in the Central West Pacific and Central South Pacific; threatened olive ridley sea turtles and olive ridley sea turtles from the endangered Mexico breeding population; endangered hawksbill sea turtles; threatened oceanic whitetip sharks; endangered Indo-West Pacific scalloped hammerhead sharks; and threatened giant manta ray. The American Samoa BiOp sets forth reasonable and prudent measures (RPMs), as well as specific terms and conditions (T&Cs) for implementing those RPMs, to minimize impacts from the fishery on the listed species. NMFS is considering appropriate methods for implementing those RPMs and T&Cs, which could lead to some new requirements on the fleet.

   The American Samoa BiOp concluded that the following listed species are not likely to be adversely affected by the American Samoa longline fishery: South Pacific loggerhead sea turtle; sperm whale; chambered nautilus; *Acropora globiceps; Acropora jacquelineae; Acropora retusa; Acropora speciose; Euphyllia paradivisa,* and *Isopora crateriformis*.

   See Section 3.8 of this SEA for further discussion of this information.

[1] Biological Opinion for the Authorization of the American Samoa Longline Fishery (American Samoa BiOp; NMFS 2023a).

5. NMFS published a biological opinion for the authorization of the Hawaii deep-set longline fishery on May 18, 2023 (HI DSLL BiOp).[2] The HI DSLL BiOp concluded that the Hawaii deep-set longline fishery is not likely to jeopardize the continued existence of the threatened giant manta ray; threatened Indo-West Pacific distinct population segment (DPS) scalloped hammerhead shark; threatened oceanic whitetip shark; threatened Central North Pacific, East Indian-West Pacific, East Pacific, and Southwest Pacific DPSs of green sea turtles; endangered Central West Pacific and Central South Pacific DPSs of green sea turtles; endangered leatherback sea turtles and North Pacific DPS loggerhead sea turtles; threatened and endangered populations of olive ridley sea turtles; endangered sperm whale; and endangered main Hawaiian Islands insular DPS false killer whale. The HI DSLL BiOp sets forth RPMs, as well as specific T&Cs for implementing those reasonable and prudent measures, to minimize impacts from the fishery on the listed species. NMFS is considering appropriate methods for implementing those RPMs and T&Cs, which could lead to some new requirements on the fleet.

   The HI DS LL BiOp also concluded that the following threatened and endangered species are not likely to be adversely affected by the deep-set longline fishery: black abalone, white abalone, corals, Southern Resident killer whale, Central California Coast coho salmon, Central Valley spring-run chinook salmon, Sacramento River winter-run Chinook salmon, Hawaiian monk seal, South Pacific loggerhead, hawksbill sea turtle, eastern Pacific scalloped hammerhead shark, California Coast steelhead, California Central Valley steelhead, southern California coast steelhead, southern North American green sturgeon, blue whale, fin whale, Mexico humpback whale, North Pacific right whale, and sei whale. Additionally, the biological opinion concluded that critical habitats designated for the following species are not likely to be adversely affected by the proposed action: black abalone, Sacramento River Winter-Run Chinook Salmon, Central California Coast Coho Salmon, Steller Sea Lion, California Coast Steelhead, Southern North American Green Sturgeon, leatherback sea turtle, Hawaiian monk seal, and main Hawaiian Islands insular false killer whale.

   See Section 3.8 of this SEA for further discussion of this information.

6. Subsequent to publication of the 2021 SEA, some new information has been produced regarding the applicable stocks of bigeye tuna and yellowfin tuna.

   a. A new WCPFC stock assessment of yellowfin tuna in the WCPO was published in 2023 (Magnusson et al., 2023). The general conclusions of this assessment include:

[2] Biological Opinion on the Authorization of the Hawaii Deep-Set Longline Fishery (HI DS LL BiOp; NMFS 2023b).

i. The spawning potential of the stock has become more depleted across all model regions until around 2010, after which it has become more stable, or shown a slight increase.
ii. Average fishing mortality rates for juvenile and adult age-classes have increased throughout the period of the assessment, although more so for juveniles which have experienced considerably higher fishing mortality than adults.
iii. In the recent period a sharp increase in juvenile fishing mortality is estimated, while adult fishing mortality has stabilized.
iv. No models from the uncertainty grid, including estimation uncertainty, estimate the stock to be below the Limit Reference Point (LRP) of 20%$SB_{F=0}$.
v. Assessment results suggest that the yellowfin stock in the WCPO is not overfished, nor undergoing overfishing.

b. A new WCPFC stock assessment of bigeye tuna in the WCPO was published in 2023 (Day et al, 2023). The general conclusions of this assessment include:
i. The spawning potential of the stock has become more depleted across all model regions until around 2010, after which it has become more stable.
ii. Average fishing mortality rates for juvenile and adult age-classes have increased throughout the period of the assessment until around 2000, after which they have stabilized, but with high inter-annual variability for juveniles. Juveniles have experienced considerably higher fishing mortality than adults.
iii. No models from the uncertainty grid, including estimation uncertainty, estimate the stock to be below the LRP of 20% $SB_{F=0}$.
iv. Assessment results suggest that the bigeye stock in the WCPO is not overfished, nor under-going overfishing.

c. Table 14 of the 2021 SEA lists the EPO stock of yellowfin tuna as experiencing overfishing. The EPO stock of yellowfin tuna is no longer considered to be experiencing overfishing under the NMFS stock status determination criteria (NMFS 2024a).

See Section 3.5 of this SEA for further discussion of this information.

7. WCPFC Conservation and Management Measure 2023-01, "Conservation and Management Measure (CMM) for Bigeye, Yellowfin, and Skipjack Tuna in the

Western and Central Pacific Ocean," went into effect in February 2024. CMM 2023-01 includes new language regarding management measures for U.S. longline and purse seine fisheries. The major changes include the following: (1) increase of the U.S. longline bigeye tuna catch limit from 3,554 mt to 6,554 mt; deletion of previously-included language authorizing attribution of U.S. longline bigeye tuna catch to the U.S. Participating Territories to the Commission (American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands (CNMI)) for vessels fishing under agreements with the U.S. Participating Territories; reduction of purse seine fish aggregating device (FAD) prohibition periods from three months to one and a half months each calendar year on the high seas and exclusive economic zones (EEZs) in the area of application of the Convention (Convention Area); and reduction of additional purse seine FAD prohibition periods on just the high seas from two months to one month each calendar year.

CMM 2023-01 is discussed throughout this SEA.

8. NMFS published a final rule, effective April 1, 2024, to modify seabird interaction mitigation measures in the Hawaii deep-set longline fishery (89 FR 15062; published March 1, 2024). The measures require Hawaii deep-set longline vessels that set fishing gear from the stern to use a tori line (i.e., bird scaring streamer) in place of thawed, blue-dyed bait and strategic offal (i.e., fish, fish parts, or spent bait) discharge when fishing above latitude 23° N.

   See Section 3.2.2. of this SEA for further discussion of this information.

9. On March 12, 2024, NMFS issued a supplement to the 2019 biological opinion for the Hawaii shallow-set longline fishery.[3] The Hawaii Shallow-Set BiOp considered the potential effects associated with fishing in the Hawaii shallow-set longline fishery on endangered North Pacific Ocean loggerhead turtles. The Hawaii Shallow-Set BiOp concluded that the continued operation of the fishery was not likely to jeopardize the continued existence of the North Pacific loggerhead sea turtle. The HI Shallow-Set BiOp sets forth RPMs, as well as specific T&Cs for implementing those reasonable and prudent measures, to minimize impacts from the fishery on the listed species. NMFS is considering appropriate methods for implementing those RPMs and T&Cs, which could lead to some new requirements on the fleet.

   See Section 3.8 of this SEA for further discussion of this information.

[3] Supplemental Biological Opinion on the Continued Authorization of the Hawaii Shallow-Set Longline Fishery (HI Shallow-Set BiOp; NMFS 2024b).

10. Several new Executive Orders have been issued relevant to environmental justice analysis. These include:
    a. Executive Order 14096, "Executive Order on Revitalizing Our Nations Commitment to Environmental Justice for All";
    b. Executive Order 13985, "Executive Order on Advancing Racial Equity and Support for Underserved Communities through the Federal Government";
    c. Executive Order 14031, "Executive Order on Advancing Equity, Justice, and Opportunity for Asian Americans, Native Hawaiians, and Pacific Islands"; and
    d. Executive Order 14008, "Executive Order on Tackling the Climate Crisis at Home and Abroad."

See Section 3.9 of this SEA for further discussion of this information.

This SEA includes specific analysis to take into consideration the new information available since publication of the 2021 SEA and focuses on analysis of the rule described above and below. This SEA analyzes implementation of the rule from 2024 through 2026.

1.1 Background on Commission Management

The Commission has adopted decisions on tropical tunas management for many years, and NMFS has implemented the relevant provisions via rulemakings since 2009. At its Fourteenth Regular Session, in December 2017, the Commission adopted Conservation and Management Measure (CMM) 2017-01, "Conservation and Management Measure for Bigeye, Yellowfin and Skipjack Tuna in the Western and Central Pacific Ocean." CMM 2017-01 included provisions for purse seine fishing effort limits, restrictions on the use of fish aggregating devices (FAD) for purse seine fishing vessels, specific catch retention provisions for purse seine fishing vessels, and longline bigeye tuna catch limits, among others. At its Fifteenth Regular Session, in December 2018, the Commission adopted Conservation and Management Measure (CMM) 2018-01, "Conservation and Management Measure for Bigeye, Yellowfin and Skipjack Tuna in the Western and Central Pacific Ocean," which replaced CMM 2017-01 but included similar provisions. CMM 2018-01 went into effect on February 13, 2019, and remained in effect until February 10, 2021. At its Seventeenth Regular Session, in December 2020, the Commission adopted CMM 2020-01, "Conservation and Management Measure for Bigeye, Yellowfin and Skipjack Tuna in the Western and Central Pacific Ocean," which included provisions that are identical to those of 2018-01, and were in effect until February 15, 2022. At its Eighteenth Regular Session, in December 2021, the Commission adopted CMM 2021-01, "Conservation and Management Measure for Bigeye, Yellowfin and Skipjack Tuna in the Western and Central Pacific Ocean," which was in effect until February 15, 2023. At the recent Twentieth Regular Session, in

December 2023, the Commission adopted CMM 2023-01, which entered into effect on February 16, 2024, and remains in effect until February 15, 2027. CMM 2023-01 was similar to CMM 2021-01 but differed as described below and in Section 1.2.

This CMM is available at: https://cmm.wcpfc.int/measure/cmm-2023-01. Many of the provisions of CMM 2023-01 have already been implemented by NMFS or will be implemented in separate rulemakings. This rule would implement the changes to the longline bigeye tuna catch limit for the United States.

Table 3 in CMM 2023-01 establishes a 6,554 mt longline bigeye tuna catch limit for the United States per calendar year. CMM 2023-01 does not include the language of Paragraph 9 of CMM 2021-01, which provided for attribution of catch to U.S. Participating Territories for vessels operating under agreements with the U.S. Participating Territories. Accordingly, Table 3 specifies that in recognition of the deletion of Paragraph 9, catch and effort of U.S. flagged Hawaii-based longline vessels will no longer be attributed to U.S. Participating Territories, and that future attribution for the U.S. Participating Territories shall remain separate. Thus, the language in CMM 2023-01 no longer authorizes an exemption from the limit for catch by vessels operating under specified fishing agreements with U.S. Participating Territories.

1.2 Background on Longline Bigeye Tuna Catch Limits

By final rule published in the *Federal Register* on July 18, 2018 (83 FR 33851), NMFS implemented the longline bigeye tuna catch limit specified in CMM 2017-01 for U.S. commercial fishing vessels fishing in the Convention Area. The limit has remained the same in the more recent WCPFC decisions on tropical tunas, and was the same under CMM 2021-01. Under NMFS regulations at 50 CFR 300.224, the current longline bigeye tuna catch limit for U.S. fishing vessels is 3,554 mt per calendar year with certain exceptions. The exceptions include bigeye tuna landed in the U.S. Participating Territories, bigeye tuna caught by vessels with an American Samoa Longline Limited Access Permit, and bigeye tuna caught by Hawaii-based U.S. vessels included in a specified fishing agreement with American Samoa, Guam, or CNMI under 50 CFR 665.819.

Regarding the third exception (codified at 50 CFR 300.224(d)), NMFS has limited the total amount of catch that may be attributed to U.S. Territories under this arrangement to no more than 3,000 mt per year. (See 88 FR 39201; published June 15, 2023). A specified fishing agreement means an agreement between a U.S. participating territory and the owner or a designated representative of a fishing vessel or vessels holding a valid permit issued under 50 CFR 665.801. An agreement provides access to an identified portion of a catch or fishing effort limit and may not exceed the amount specified for the territory and made available for allocation. The identified portion of a catch or fishing effort limit in an agreement must account for recent and anticipated

harvest on the stock or stock complex or fishing effort, and any other valid agreements with the territory during the same year not to exceed the territory's catch or fishing effort limit or allocation limit (50 CFR 665.819(c)).

1.4 Background on Public Involvement Process

The 2015 PEA and 2021 SEA were published for public review and comment. NMFS is publishing the rule and associated analytical documents, including this SEA, for public review and comment. NMFS anticipates the existing 3,554 mt longline bigeye tuna catch limit to be reached as early as mid-summer. In order to relieve this restriction and provide clarity to the regulated community, NMFS must make effective the new 6,554 mt catch limit as soon as possible. Prior notice and opportunity for public comment are unnecessary because the new limit is relieving a regulatory restriction, and also would be contrary to the public interest because the fishery would close under a codified limit that is no longer supported by applicable law (CMM 2023-01). NMFS would, however, consider and respond to public comments received on the interim final rule and would accordingly make any appropriate revisions. Stakeholders and industry groups were involved with the development of this action as active participants in WCPFC negotiations leading to the adoption of CMM 2023-01.

Chapter 2 Alternatives Considered

This SEA includes analysis of the alternatives described in this chapter.

2.1 Alternative 1 (Agency's Preferred Alternative)

Under Alternative 1, NMFS would modify the regulations at 50 CFR 300.224(a) so that the longline bigeye tuna catch limit would be changed to 6,554 mt per calendar year, and would be in effect until amended or replaced. As noted above, CMM 2023-01 prohibits attribution of catch of U.S. longline vessels operating under agreements to the U.S. Participating Territories. Accordingly, approval of specified fishing agreements under 50 CFR 300.224(d) is no longer authorized. NMFS will update the regulatory provision at 300.224(d) as part of a future rulemaking. This alternative would be consistent with CMM 2023-01, which became effective in February 2024.

2.2 Alternative 2 (No Catch Limits in Place)

Under Alternative 2, NMFS would take regulatory action to remove the codified 3,554 mt longline bigeye tuna catch limit at 50 CFR 300.224(a) and there would be no longline bigeye tuna catch limits in place. This alternative would be in effect until replaced by a limit. This alternative would not be consistent with U.S. obligations under CMM 2023-01 to implement a 6,554 mt longline bigeye tuna catch limit for U.S. fisheries.

2.3 Alternative 3 (No-Action Alternative)

Under Alternative 3, NMFS would make no changes to the current regulations at 50 CFR 300.224(a) and the longline bigeye tuna catch limit would remain at 3,554 mt, and this alternative would be in effect until amended or replaced. Under this alternative, NMFS would continue to authorize attribution of catch under specified fishing agreements up to 3,000 mt per year. Thus, authorized catch under this alternative would be 6,554 mt, or the same as under Alternative 1. This alternative would not be consistent with U.S. obligations under CMM 2023-01 to implement a 6,554 mt longline bigeye tuna catch limit for U.S. fisheries. This alternative would also be out of compliance with U.S. obligations under CMM 2023-01, as CMM 2023-01 expressly prohibits attribution of catch vessels operating under specified fishing agreements to the U.S. Participating Territories. It is included here as an alternative for purposes of comparative analysis only.

2.4 Other Alternatives

As stated above, the language in CMM 2023-01 expressly prohibits attribution of catch of U.S. longline vessels operating under specified fishing agreements to the U.S. Participating Territories. Accordingly, while this action does not update the specified fishing agreement exemption regulatory provision at 300.224(d), NMFS does not expect to approve any specified fishing agreements going forward. Under Alternative 1, NMFS would not approve any specified fishing agreements and total authorized catch would be limited to 6,554 mt under the U.S. limit. Thus, the impacts of the removal of the specified fishing agreement exemption have already been considered as part of the analysis of Alternative 1. Accordingly, this EA does not analyze in further detail an alternative which removes the regulatory provision of 300.224(d).

NMFS considered whether to analyze an alternative numerical longline bigeye tuna catch limit greater than 3,554 mt and lower than 6,554 mt per calendar year. However, based on previous analysis included in the 2015 PEA and 2021 SEA, where NMFS analyzed a longline bigeye tuna catch limit of 5,000 mt per calendar year, NMFS concluded that the impacts of such an alternative would be generally the same as the alternatives considered in depth in this document and also would not be consistent with U.S. obligations under CMM 2023-01.

NMFS identified no other alternatives for implementation of the proposed action.

Chapter 3 Supplemental Environmental Analysis

This chapter provides an analysis of the direct, indirect, and cumulative environmental effects that could be caused by the implementation of the proposed rule described in Chapter 2 of this SEA under each of the three alternatives described in Chapter 2. The analysis includes the new information available since publication of the 2015 PEA and 2021 SEA (see description of this information in Chapter 1 of this document). The chapter begins with a summary of the sections of the 2015 PEA and 2021 SEA that are incorporated by reference in this document and provides updates to those sections for the purposes of this SEA.

3.1 Summary of Sections of 2015 PEA and 2021 SEA Incorporated by Reference

The 2015 PEA is included in Appendix A of this document and the 2021 SEA is included in Appendix B of this document.

3.1.1 Purpose and Need

As stated in Section 1.1 of the 2021 SEA, Chapter 1 of the 2015 PEA provides more detailed background information on Commission decisions, the Convention, and the United States' domestic implementation of WCPFC decisions under the authority of the WCPFCIA.

Chapter 1 of the 2015 PEA includes the following purpose and need statement:

> The purpose of NMFS' domestic implementation of WCPFC decisions on tropical tunas from 2015 to 2020 is to contribute to the underlying objectives of the Commission's management of tropical tuna stocks in the WCPO, which, as stated in CMM 2014-01, are to reduce or maintain their respective fishing mortality rates at levels no greater than those rates associated with maximum sustainable yield, and as reflected in the Commission's limit reference points for these stocks, are to avoid the spawning stocks becoming smaller than 20 percent of the estimated spawning stock size in the absence of fishing. The need for the domestic implementation of WCPFC decisions on tropical tunas is to satisfy the obligations of the United States as a Contracting Party to the Convention, pursuant to the authority of the WCPFCIA.

The 2021 SEA updates the analysis in the 2015 PEA to include analysis of WCPFC decisions on tropical tunas through the end of 2025. Thus, the modified purpose and need statement in the 2021 SEA is as follows:

> The purpose of NMFS' domestic implementation of WCPFC decisions on tropical tunas through 2025, is to contribute to the underlying objectives of the Commission's management of tropical tuna stocks in the WCPO, which, as stated in CMM 2018-01, are, pending the establishment of harvest strategies, and any implementing CMM, to provide for a robust transitional management regime that ensures the sustainability of bigeye, skipjack, and yellowfin tuna stocks. The need for the domestic implementation of WCPFC decisions on tropical tunas and WCPFC decisions that require immediate action is to satisfy the obligations of the United States as a Contracting Party to the Convention, pursuant to the authority of the WCPFIA.

CMM 2023-01 includes harvest strategies and interim objectives for bigeye tuna, skipjack tuna, and yellowfin tuna and is in effect through 2026.

For bigeye tuna, pending agreement on a target reference point the spawning biomass depletion ratio ($SB/SB_{F=0}$) is to be maintained at or above the average $SB/SB_{F=0}$ for 2012-2015.

For skipjack tuna, the spawning biomass of skipjack tuna is to be maintained on average at a level consistent with the target reference point contained in CMM 2022-01 on an interim Management Procedure for Skipjack Tuna.

For yellowfin tuna, pending agreement on a target reference point the spawning biomass depletion ratio ($SB/SB_{F=0}$) is to be maintained at or above the average $SB/SB_{F=0}$ for 2012-2015.

Thus, the modified purpose and need statement for this SEA is as follows:

> The purpose of NMFS' domestic implementation of WCPFC decisions on tropical tunas through 2026, is to contribute to the underlying objectives of the Commission's management of tropical tuna stocks in the WCPO, which, as stated in CMM 2023-01 includes specific harvest strategies and interim objectives for bigeye tuna, skipjack tuna, and yellowfin tuna. The need for the domestic implementation of WCPFC decisions on tropical tunas and WCPFC decisions that require immediate action is to satisfy the obligations of the United States as a Contracting Party to the Convention, pursuant to the authority of the WCPFCIA.

3.1.2 Proposed Action and Alternatives

Chapter 2 of the 2015 PEA describes the proposed action and alternatives in detail. The proposed action is NMFS' domestic implementation of the Commission's conservation and management measures, pursuant to the WCPFCIA, on the "tropical tunas" or bigeye tuna, yellowfin tuna, and skipjack tuna from 2015 through the end of 2020. Eleven alternatives (the No-Action Alternative[4] and ten action alternatives) are analyzed in depth in the 2015 PEA. Each of the action alternatives includes specific longline bigeye tuna catch limits.

The 2015 PEA analyzed the following range of options for the longline bigeye tuna catch limits, included within the ten action alternatives analyzed in the PEA:

1) A limit of 3,554 mt in 2015, followed by 5,000 mt per year through 2020.

2) A limit of 2,090 mt per year (50% of the 2004 catch) from 2015 through 2020, or a 50% reduction from the baseline, which would likely be the lowest reduction of bigeye tuna catch prescribed by the Commission in the reasonably foreseeable future.

The 2021 SEA analyzed the following range of options for the longline bigeye tuna catch limits, included within the twelve action alternatives analyzed in the SEA:

1) A limit of 3,554 mt per year in the years 2021-2025.

2) A limit of 5,000 mt per year in the years 2021-2025.

3) A limit of 2,090 mt per year (50% of the 2004 catch) from 2021 through 2025, or a 50% reduction from the baseline, which would likely be the lowest reduction of bigeye tuna catch prescribed by the Commission in the reasonably foreseeable future.

This SEA analyzes three specific alternatives, as described in Section 2.4 of this document.

3.1.3 Affected Environment

Chapter 3 of the 2015 PEA contains detailed information on the affected environment, which is the physical and biological environment in which the U.S. purse seine fishery operates in the WCPO. The chapter includes information on the following resources: (1) physical environment, climate change, and habitat change; (2) description of the U.S. WCPO purse seine fishery; (3) description of the U.S. WCPO longline fisheries; (4) description of Convention Area HMS fisheries; (5) description of target species of the

[4] Under the No-Action Alternative, NMFS would not implement WCPFC decisions on tropical tunas, and thus no longline bigeye tuna catch limits would go into effect.

fisheries analyzed in the 2015 PEA (albacore (*Thunnus alalunga*), bigeye tuna (*Thunnus obesus*), skipjack tuna (*Katsuwonus pelamis*), swordfish (*Xiphias gladius*) and yellowfin tuna (*Thunnus albacares*); (6) non-target species; (7) other biological resources; and (8) protected resources.

The 2021 SEA updated the affected environment sections of the 2015 PEA with new information available since publication of the 2015 PEA.

This SEA includes new information available since publication of the 2021 SEA, as described in Chapter 1 of this document. Section 3.2 of this SEA also includes updated information on the longline fisheries operating in the Convention Area relevant to the analysis of the Alternative 1, Alternative 2, and Alternative 3 in this document.

3.1.4 Impacts Analyses

Chapter 4 of the 2015 PEA examines the direct and indirect environmental impacts that would be expected to result from implementation of each of the action alternatives as well as the No-Action Alternative, which are described in Chapter 2 of the 2015 PEA. Chapter 5 of the 2015 PEA presents the cumulative impacts analysis. Chapter 2 of the 2021 SEA provides an analysis of the direct, indirect, and cumulative environmental effects that could be caused by the implementation of the alternatives analyzed in that document. The 2021 SEA incorporates by reference and builds from the analysis in the 2015 PEA to analyze the No-Action Alternative and the 12 action alternatives included in that document.

Sections 3.3 to 3.10 of this document supplement the analysis in the 2015 PEA and 2021 SEA to take into consideration the new information available since publication of the 2021 SEA. The analysis focuses on analysis of the three alternatives described in Chapter 2 of this document.

3.2 Updated Information on the U.S. Longline Fisheries in the Convention Area

This section includes updated information to supplement Section 1.3.3 of the 2021 SEA, which is relevant to the specific analysis in this SEA.

3.2.1 Catch and Effort Information for Longline Bigeye Tuna Catch

Data from 2013-2023 indicates that the total catch of bigeye tuna attributed to the United States, American Samoa, CNMI, and Guam did not exceed 6,554 mt in any calendar year. See Table 1 below:

	United States	American Samoa	CNMI	Guam	Total
2013	3,654	389	492		4,535
2014	3,823	318	1,000		5,141
2015	3,427	557	999	856	5,839
2016	3,748	657	879	932	6,216
2017	2,948	1,393	999		5,340
2018	3,393	851	993		5,237
2019	3,459	1,545	999		6,003
2020	3,546	1,586	926		6,059
2021	3,748	435	1,500		5,683
2022	3,237	1,568	552		5,357
2023	3,553	406	1205		5,164

Table 1. United States plus all Territory Catch, 2013-2022. NMFS unpublished data.

The estimated total number of longline vessels operating in the WCPFC area in recent years was as follows (for the United States and U.S. Participating Territories): 151 in 2018; 156 in 2019; 146 in 2020; 150 in 2021; and 153 in 2022 (WCPFC 2023).

3.2.2 Additional New Information

As stated in Chapter 1, NMFS published a final rule on WCPFC requirements to safeguard fishery observers and establish pre-trip notifications for observer placement (86 FR 35653; July 7, 2021).

The new requirements for observer safety and pre-trip notifications are changes to reporting requirements. NMFS completed a categorical exclusion memo for the final rule to implement those requirements and described the effects of those requirements on longline fishing operations as follows:

The proposed action may affect the operations of longline fisheries if an observer safety event would result in the curtailment of a fishing trip. Over 2015-2019, NOAA Office of Law Enforcement has charged six cases of harassment against purse seine and longline vessels in the Pacific Islands Region, which equates to approximately one observer safety event per year. Therefore, the events that would trigger the new observer safety requirements would be expected to happen rarely. The categorical exclusion memo incorporated the document *Regulatory Impact Review for a Rule to Implement Decisions of the Western and Central Pacific Fisheries Commission for: Requirements to Safeguard Fishery Observers* by reference. That document provided detailed analysis of the

potential economic impacts from the new observer safety requirements and concluded that there generally would be minimal or trivial economic impacts. Although the new requirements could result in a change of timing, effort and harvest level of any individual trip, the categorical exclusion memo concluded that the new requirements would not individually or cumulatively have a significant effect on the quality of the human environment.

As stated in Chapter 1, NMFS published a final rule to implement WCPFC decisions on International Maritime Organization Numbers, fish aggregating device design requirements, and bycatch mitigation measures for sharks and mobulid rays (see 88 FR 30671; published May 12, 2023). This final rule implements some new requirements for U.S. fishing vessels operating in the Convention Area. NMFS published an environmental assessment, *Environmental Assessment for a Rule to Implement Decisions of the Western and Central Pacific Fisheries Commission for: Fish Aggregating Device Design Requirements in Purse Seine Fisheries, IMO Number Requirements, and Bycatch Restrictions* (2021 EA; NMFS 2021b) to analyze the environmental effects of the new requirements.

The 2021 EA analyzed the following requirements for longline fishing vessels: 1) requirement to obtain an IMO number; 2) requirement to haul any incidentally caught shark alongside the vessel before releasing, in order to facilitate better species identification; 3) prohibition on targeted fishing for mobulid rays; 4) prohibition on retaining on board, transshipping, or landing any mobulid ray; 5) requirement to release any mobulid ray, as soon as possible, alive and unharmed, to the extent practicable; and 6) requirement to allow and assist WCFPC observers in the collection of mobulid ray samples when requested to do so by an observer.

The analysis in the 2021 EA indicated that the change in IMO number requirements may minimally affect reporting and recordkeeping activities of a small number of vessel owners and operators. The requirement to obtain an IMO number would be a one-time requirement; once a number has been issued for a vessel, the vessel would be in compliance for the remainder of its life, regardless of changes in ownership. There would be minimal labor costs associated with completing the online form necessary to obtain an IMO number. Completing and submitting the application form (which can be done online and requires no fees) would take about 30 minutes per applicant, on average. Assuming a value of labor of approximately $26 per hour and communication costs of about $1 per application, the (one-time) cost to each affected entity would be about $14. Therefore this requirement would not be expected to substantially affect the fishing patterns and practices of U.S. longline vessels in the WCPO.

The analysis in the 2021 EA also concluded that the shark species identification requirement would not substantially affect the fishing patterns or practices of the fleet or cause substantial operational changes to the fisheries. Because of existing regulations, it was expected that under current fishing practices, sharks were being released as they are

brought to the side of the vessel, such as by cutting the line or removing the hook. For vessels where this was not the current fishing practice, the release requirement could cause minor operational changes if it led to greater intervention and time on the part of crew members to haul the fish alongside the vessel before release. However, the 2021 EA concluded that it was not likely that this requirement would substantially affect the fishing patterns or practices of the fleet or cause substantial operational changes to the fishery.

Regarding the mobulid ray requirements, the 2021 EA indicated that because mobulid rays are caught incidentally in small numbers in the Hawaii longline and American Samoa longline fisheries, and they are retained on occasion, the no-retention requirement could lead to minor effects on vessel operations.

As stated in the 2021 EA, the shark and mobulid ray provisions are intended to reduce adverse impacts from fishing operations on shark and ray species. This SEA incorporates the 2021 EA by reference. Please see the 2021 EA for additional information.

As stated in Chapter 1 of this SEA, NMFS published a final rule to prohibit the use of wire leaders in the Hawaii deep-set longline fishery and to require the removal of fishing gear from any oceanic whitetip shark caught in all of the regional domestic longline fisheries (87 FR 25153; April 28, 2022). The new requirements regarding wire leaders and for gear removal in longline fisheries were analyzed by NMFS in an environmental assessment (EA; NMFS 2022). The 2022 EA concluded that the main environmental effect from the implementation of the new requirements was the likely reduction in mortality of oceanic whitetip sharks from interactions in the Hawaii deep-set longline fishery (see Table 39 of NMFS 2022). The 2022 EA concluded that the overall effects to the ongoing operations of the Hawaii longline fisheries would not be substantial. Thus, the new requirements would not substantially change the proposed action under Alternatives 1, 2, or 3. This SEA incorporates the 2022 EA by reference. Please see the 2023 EA for additional information.

Also as stated in Chapter 1 of this SEA, NMFS published a final rule to modify seabird interaction mitigation measures in the Hawaii deep-set longline fishery (89 FR 15062; published March 1, 2024). The measures require Hawaii deep-set longline vessels that set fishing gear from the stern to use a tori line (i.e., bird scaring streamer) in place of thawed, blue-dyed bait and strategic offal (i.e., fish, fish parts, or spent bait) discharge when fishing above latitude 23° N. The mitigation measures were analyzed by NMFS in an environmental assessment (EA; NMFS 2023c). The 2024 EA concluded that the new mitigation measures would substantially reduce seabird interactions, including interactions to albatross, some species of which are ESA-listed. That EA is incorporated by reference here.

3.3 Analysis of Effects to the U.S. Longline Fleets

The direct and indirect effects to the U.S. longline fleets from implementation of the three alternatives described in Chapter 2 of this SEA could include economic effects and effects on fishing patterns and practices. NMFS has prepared a Regulatory Impact Review (RIR; 2024c) for the rule, published along with the proposed rule. NMFS prepared the RIR under Executive Order 12866, which provides an analysis of the potential economic impacts of the rule to the fleet and to the nation. This SEA incorporates the RIR by reference.

3.3.1 Alternative 1: (Agency's Preferred Alternative)

Under Alternative 1, NMFS would modify the regulations at 50 CFR 300.224(a) so that the longline bigeye tuna catch limit would be changed to 6,554 mt per calendar year.

Alternative 1 is not expected to lead to any increase in fishing effort or catch in the fishery. The proposed limit of 6,554 mt represents the current total authorized annual catch consisting of (a) 3,554 mt (the U.S. limit codified at 50 CFR 300.224(a)) plus (b) 3,000 mt (maximum amount attributed to U.S. territories under the exception at 50 CFR 300.224(d)). Because the specified fishing agreement arrangement is no longer authorized pursuant to CMM 2023-01, total bigeye tuna catch by Hawaii-based U.S. vessels would be limited to 6,554 mt under this alternative.

Under Alternative 1, if bigeye catch meets the 6,554 mt limit, NMFS would close the longline fishery for the remainder of the calendar year. However, based on fishing patterns in recent years (see Table 1 above), it appears unlikely that the 6,554 mt limit would be reached, and thus unlikely that a fishery closure would be implemented. It is most likely that fishing patterns would remain consistent with recent years, so even with attribution of all catch to the United States, the 6,554 mt limit would not be expected to be reached.

In addition, if any closure occurred, it would be most likely to occur at the end of the year, given the fishing patterns in recent years. If a closure did occur, the regulations at 50 CFR 200.224 detailing the applicable prohibitions would apply. These prohibitions include no retention, transshipment, or landing of longline-caught bigeye tuna (subject to certain exceptions), no fishing with longline gear inside and outside of the Convention Area (subject to certain exceptions), and gear stowage requirements (subject to certain exceptions).

As stated in the RIR, if a closure occurred, there could be a reduced supply of local fresh bigeye tuna in the Hawaii market. This may lead to higher prices for locally caught fresh bigeye tuna or substitutes such as bigeye tuna from other sources.

Based on analyses of prior closure periods, as described in the RIR, vessels longlining for bigeye tuna in the eastern Pacific Ocean (EPO) and vessels permitted to fish in both the Hawaii and American Samoa longline fisheries or "dual-permit" longline vessels increased their bigeye tuna production after the closure. Those two sources, along with vessels in the Hawaii troll and handline fisheries, provided a continuing supply of local bigeye tuna to the Hawaii market during the closure. The production of bigeye tuna, in numbers of fish, of the Hawaii longline fleet (including EPO-caught fish) during December 2010 was 23 percent less than the average production during the five previous Decembers. The average weight of the fish was 11 percent less than the average weight from the previous five Decembers (possibly linked to differing biological conditions in the EPO). Smaller bigeye tuna tend to be of lower value than larger fish, but the average price of longline-caught bigeye tuna during December 2010 was found to be 33 percent greater in December 2010 than the average from the previous five Decembers. The analysis also indicated that most tuna buyers reported the average quality of tuna entering the auction to have declined significantly over the course of the closure, presumably due to the longer hold times involved in trips to the EPO. The study found indications that during the closure there was an increase in the amount of lower quality bigeye tuna (and lower prices for those grades) and a decrease in availability of high- and medium-grade bigeye tuna (and higher prices for those grades). Information gathered in the study suggested that impacts to consumers in Hawaii might have been greater (i.e., prices might have been greater) if it were not for the severe snowstorms on the U.S. east coast about the same time, which hindered shipments to the U.S. east coast, leaving a greater supply in the Hawaii market.

NMFS conducted interviews during the 2015 closure, and the most frequently mentioned concerns related to equity issues across the fleet in terms of permitting and vessel size, distress over the financial impacts of regulation and potential market-based solutions to improve the longline fishing industry. During the 2015 closure, dual permitted vessels were able to fish in the WCPO, and vessels under 24 m in size were able to fish in the EPO (vessels greater than 24 meters were subject to a 500 mt limit in the EPO which was reached on August 12) so there continued to be some supply of local bigeye tuna to the Hawaii market. Analyses also found that bigeye supply was reduced during the closure resulting in price increases and greater volatility in prices for tuna. Fishermen who were able to continue to fish were able to benefit from the market conditions, but regardless of their ability to fish, all expressed equity concerns about the domestic management of the global fishery.

In the event of a WCPO closure in any of the years 2024-2026, it can be expected that, as in 2010 and in 2015-2018, bigeye tuna would continue to be supplied to consumers in Hawaii and elsewhere from the longlining in the EPO and from dual permit vessels, from U.S. WCPO fisheries other than longline fisheries, and from foreign sources.

Also, under Alternative 1 because the limits would be set on a calendar year basis, the "race to fish" effect would be expected at the beginning of the calendar year. A race to

fish could cause vessel operators to forego vessel maintenance or to fish in weather or ocean conditions than they otherwise would not, which could affect human safety and the performance of the vessel and the fishing gear and its crew. This race to fish effect could also be expected in the time period between when a fishery closure is announced and when the closure takes place. The degree of the race to fish effect cannot be predicted with certainty. However, given that fishing effort and catch is dependent on many other factors (e.g., ocean conditions and market conditions), it is unlikely that any adverse effects would be substantial.

3.3.2 Alternative 2 (No Catch Limits in Place)

Under Alternative 2, NMFS would implement the No-Action Alternative of no longline bigeye tuna catch limits in place. Under this alternative, there would be no numerical restrictions on longline bigeye tuna catch for U.S. fishing vessels and no fishery closure could occur, and thus, no direct effects on U.S. longline fishing. Based on information from previous years, as shown in Table 1 above, the total longline bigeye tuna catch for the United States and U.S. Participating Territories in previous years has not met or exceeded 6,554 mt. Thus, NMFS expects that under this alternative, even with no catch limits in place, the amount of catch would be similar to the amount of catch under the other alternatives – near or below 6,554 mt. However, this alternative would not satisfy U.S. obligations under CMM 2023-01.

Under this alternative, U.S. longline fisheries would continue to be managed under other existing regulatory requirements but no WCPFC longline bigeye tuna catch limits.

There are unlikely to be indirect effects to the fleet under this alternative. However, it is conceivable that under this alternative the indirect effects (or long-term effects) would be that the objectives of the proposed action would be less likely to be reached, for the sustainability of tropical tuna stocks would be less likely to be reached, because the specific management measures would not be in effect. This could be expected to adversely affect the catch rates of the longline fisheries to maintain catch levels and the profitability of fishing businesses. However, many other factors affect the stock status of tropical tunas in the WCPO (such as oceanographic conditions and fishing by non-U.S. fleets). Thus, NMFS expects negligible indirect effects to the fleets in the short and long term under this alternative.

3.3.3 Alternative 3: (No-Action Alternative)

Under Alternative 3, NMFS would make no changes to the current regulations at 50 CFR 300.224(a) and the U.S. longline bigeye tuna catch limit would remain at 3,554 mt. Under Alternative 3, if U.S. bigeye catch meets the 3,554 mt limit, NMFS would close the U.S. longline fishery for the remainder of the calendar year. For the purpose of this analysis, an additional 3,000 mt (maximum amount attributed to U.S. territories under the

exception at 50 CFR 300.224(d) in prior years) would continue to be authorized (although NMFS does not have the discretion to continue to authorize specified fishing agreements, as doing so would be inconsistent with CMM 2023-01). Thus, the effects to longline fisheries would be similar or identical to the effects to longline fisheries under Alternative 1.

3.4 Analysis of Effects on Physical Environment and Climate Change

The new information available since publication of the 2021 SEA would not change the analysis of effects on the physical environment and climate change presented in Section 2.5 of the 2021 SEA because there is no new information relevant to the physical environment and climate change that would affect the analysis presented in the 2021 SEA. None of the alternatives would be expected to cause direct or indirect effects to the physical environment of the WCPO. In addition, none of the alternatives would be expected to contribute to climate change.

Implementation of Alternative 1 or 3 could marginally increase fuel use, if vessels in the fleet steam to locations farther than they otherwise would, due to any fishery closure that leads vessels to seek opportunities in locations than they otherwise would. However, such a fishery closure could also cause an overall decrease in fuel use if there is an overall decrease in fishing effort. The overall fuel use of the fleet would be expected to depend more on other factors (fuel price, market conditions, oceanographic changes affecting the location of the target tunas, etc.), and the action alternatives would not be expected to lead to increased emissions of greenhouse gases affecting climate change.

3.5 Analysis of Effects on Bigeye Tuna, Skipjack Tuna, and Yellowfin Tuna

Some of the NMFS stock status information has changed since publication of the 2021 SEA. As stated in Chapter 1:

e. A new WCPFC stock assessment of yellowfin tuna in the WCPO was published in 2023 (Magnusson et al., 2023). The general conclusions of this assessment include:
    i. The spawning potential of the stock has become more depleted across all model regions until around 2010, after which it has become more stable, or shown a slight increase.
    ii. Average fishing mortality rates for juvenile and adult age-classes have increased throughout the period of the assessment, although more so for juveniles which have experienced considerably higher fishing mortality than adults.

iii. In the recent period a sharp increase in juvenile fishing mortality is estimated, while adult fishing mortality has stabilized.
iv. No models from the uncertainty grid, including estimation uncertainty, estimate the stock to be below the Limit Reference Point (LRP) of 20%$SB_{F=0}$.
v. Assessment results suggest that the yellowfin stock in the WCPO is not overfished, nor undergoing overfishing.

f. A new WCPFC stock assessment of bigeye tuna in the WCPO was published in 2023 (Day et al, 2023). The general conclusions of this assessment include:
   i. The spawning potential of the stock has become more depleted across all model regions until around 2010, after which it has become more stable.
   ii. Average fishing mortality rates for juvenile and adult age-classes have increased throughout the period of the assessment until around 2000, after which they have stabilized, but with high inter-annual variability for juveniles. Juveniles have experienced considerably higher fishing mortality than adults.
   iii. No models from the uncertainty grid, including estimation uncertainty, estimate the stock to be below the LRP of 20% $SB_{F=0}$.
   iv. Assessment results suggest that the bigeye stock in the WCPO is not overfished, nor under-going overfishing.

g. Table 14 of the 2021 SEA lists the EPO stock of yellowfin tuna as experiencing overfishing. The EPO stock of yellowfin tuna is no longer considered to be experiencing overfishing under the NMFS stock status determination criteria (NMFS 2024a).

The new information does not affect the overall analysis in Section 2.6 of the 2021 SEA on effects to bigeye tuna, skipjack tuna, and yellowfin tuna.

Because fishing patterns and practices of the longline vessels would not change substantially, and because many other factors contribute to the status of the stocks (fishing activities by non-U.S. fleets, oceanographic conditions, etc.), the direct and indirect effects to bigeye, yellowfin, and skipjack tuna from the alternatives analyzed in this EA would not be expected to be substantial or vary much between alternatives. However, if a fishery closure occurred under Alternative 1 or Alternative 3, there could an overall reduction in fishing effort as compared to Alternative 2, so there is a small potential for greater impacts on the status of the stocks under Alternative 2. However,

again, such a closure would be expected to occur late in the year and not be expected to substantially change the fishing patterns and practices of the fleet. Thus, all of the alternatives would be expected to have negligible impacts to the overall status of the stocks in the short and long term because many other factors contribute to the status of the stocks, as explained above.

Adult bigeye tuna, skipjack tuna, and yellowfin tuna are considered among the top predators of the tropical or warm pool marine ecosystem. Changes to the stocks of these species could lead to trophic interactive effects, including increased competition for prey species with other top predators. Larval and juvenile tunas are also a significant source of food for other marine species, such as fish, seabirds, porpoises, marine mammals, and sharks. Thus, increases in larval and juvenile tuna could increase the food available for these other species. It is unlikely that the effects of Alternative 1, Alternative 2, or Alternative 3 to the stocks of bigeye, skipjack and yellowfin tuna would be large enough to impact the marine ecosystem. Overall, the alternatives would not be expected to cause substantial effects on biodiversity and ecosystem function.

3.6 Analysis of Effects on Other Target Fish Species

The new information available since publication of the 2021 SEA presented in Chapter 1 does not affect other target fish species. Thus, the analysis presented in Section 2.7 of the 2021 SEA remains unchanged. As stated in Section 2.7 of the 2021 SEA, the other target fish species include albacore and swordfish, which are targeted by U.S. longline vessels.

Under Alternative 2, the longline bigeye tuna catch limits would not be implemented. Thus, it is not expected that there would be substantial direct or indirect effects to albacore and swordfish. Under Alternative 1 or 3, implementation of the longline bigeye tuna catch limits could lead to increased fishing pressure on swordfish, if the Hawaii-based longline fleet increases fishing for swordfish in the Convention Area after the catch limits are reached and there is a fishery closure. However, since a fishery closure under Alternative 1 or 3 is unlikely and would likely be short in duration, if it occurs, it is unlikely that these alternatives would lead to substantial impacts on swordfish.

3.7 Analysis of Effects on Non-Target Fish Species

Non-target species caught in longline fisheries are described in Section 1.3.7 of the 2021 SEA and include billfish, non-ESA listed sharks, and other fish. As described in Chapter 1 and Section 3.2.2, above the new mitigation measures for sharks (wire leader and identification requirements) and mobulid rays (non-retention and handling requirements) would not substantially effect fishing operations but could have some potential for reducing adverse effects from fishing on sharks and rays. Thus, the new information

available since publication of the 2021 SEA would not substantially change the analysis of effects on non-target fish species presented in Section 2.8 of the 2021 SEA. As described in Section 2.8 of the 2021 SEA, because vessels in the Hawaii-based longline fleet do not generally catch large amounts of other non-target fish species, the overall direct and indirect effects on non-target fish species would not be expected to be substantial.

3.8 Analysis of Effects on Protected Resources

This section evaluates the new information on protected resources available since publication of the 2021 SEA.

As stated in Chapter 1 of this SEA, NMFS published the American Samoa BiOp, HI longline BiOp, and Hawaii Shallow-Set BiOp (supplement) after publication of the 2021 SEA.

NMFS has evaluated the impacts of the Hawaii deep-set, Hawaii shallow-set, and American Samoa longline fisheries on ESA-listed species pursuant to Section 7 of the ESA. As discussed in Section 1.3.3 of the 2021 SEA, the Hawaii shallow-set fishery targets swordfish and the American Samoa longline fishery targets albacore, with only incidental catch of bigeye tuna, so these fisheries are not expected to be impacted by the proposed action in the same manner as the Hawaii deep-set longline fishery.

In the (HI DSLL BiOp, NMFS evaluated the fishery operating under a U.S. longline bigeye tuna catch limit of 3,554 mt and a limit of 3,000 mt attributed to the U.S. Participating Territories under specified fishing agreements, for a combined total effort of up to 6,554 mt. See page 29 of the HI DSLL BiOp, which describes the proposed action as authorization of the fishery under the current management regime, which includes, among other measures, that the fishery operates under a catch limit codified at 50 CFR 300.224 (i.e., 3,554 mt), and that NMFS authorizes up to an additional 3,000 mt to vessels operating under specified fishing agreements with U.S. Participating Territories.

The majority of the new information regarding protected resources available since publication of the 2021 SEA and discussed in Section 3.2.2 of this document was available prior to the publication of the American Samoa BiOp, HI DSLL BiOp, and Hawaii Shallow-Set BiOp, and thus, was included in the analysis of baseline conditions in those documents, as appropriate. The final rule on seabird mitigation measures was published more recently and is discussed in more detail below.

NMFS determined in the American Samoa BiOp, HI DS LL BiOp, and Hawaii Shallow-Set BiOp that these fisheries are not likely to jeopardize any ESA-listed species or result in destruction or adverse modification of critical habitat. For a detailed discussion of this

analysis, please refer to the American Samoa BiOp, HI DS LL BiOp, and Hawaii Shallow-Set BiOp.

Alternative 1 and 3 to implement the longline bigeye tuna catch limits are within the scope of the action evaluated by those documents, as is Alternative 2, as longline bigeye tuna catch and effort by U.S. longline fishing vessels is expected to remain essentially the same as in recent years under any of the alternatives analyzed in this SEA.

As stated above, in the HI DSLL BiOp, NMFS evaluated the fishery operating under a U.S. bigeye tuna catch limit of 3,554 mt and a limit of 3,000 mt attributed to the U.S. Participating Territories under specified fishing agreements, which is the same as under Alternative 3. As discussed throughout this document, Alternative 1 would have identical effects on fishing operations to Alternative 3, as the catch limit would also total 6,554 mt, and thus the effects on ESA-listed species from both Alternative 1 and Alternative 3 have been fully analyzed in the HI DS LL BiOp.

Under Alternative 2, interactions with protected species might be above those associated with Alternatives 1 or 3, since the fishery will be operating under no catch limit. However, Alternative 2 would also be expected to result in no more than a total of 6,554 mt of longline bigeye tuna caught by U.S. fishing vessels in the WCPO, as catch in recent years has not reached or exceeded 6,554 mt (see Table 1, above), and thus NMFS believes the effects on ESA-listed species from Alternative 2 have also been fully analyzed in the HI DS LL BiOp.

Overall, implementation of Alternative 1, Alternative 2, or Alternative 3, is not expected to lead to effects on ESA-listed species beyond what have already been considered in the American Samoa BiOp, HI DS LL Biop, and Hawaii Shallow-Set BiOp.

In addition, as discussed in Section 3.2.2, the new seabird mitigation measures would substantially reduce seabird interactions, including interactions to albatross from the Hawaii deep-set longline fishery, some species of which are ESA-listed.

The American Samoa longline fishery is listed as a Category II fishery under the regulations implementing the MMPA, meaning that it is a commercial fishery determined to have occasional incidental mortality and serious injury of marine mammals. See 89 FR 12257 (published February 16, 2024) for the List of Fisheries for 2024.[5] Implementation of alternatives analyzed in this SEA is not expected to cause any impacts to marine mammals not previously considered or authorized by the commercial taking exemption under section 118(c) of the MMPA, as no substantial changes to fishing operations would be expected, as described above.

[5] The Category II designation has not changed since publication of the 2015 PEA.

The Hawaii deep-set longline fishery is listed as a Category I fishery under the regulations implementing the MMPA, meaning that it is a commercial fishery determined to have frequent incidental mortality and serious injury of marine mammals. See 89 FR 12257 (published February 16, 2024) for the List of Fisheries for 2024.[6] Implementation of alternatives analyzed in this SEA is not expected to cause any impacts to marine mammals not previously considered or authorized by the commercial taking exemption under section 118(c) of the MMPA, no substantial changes to fishing operations would be expected, as described above. The fishery is authorized to incidentally take ESA-listed marine mammals through June 13, 2027, under MMPA 101(a)(5)(E) (89 FR 50270; June 13, 2024).

The Hawaii shallow-set longline fishery is listed as a Category II fishery under the regulations implementing the MMPA, meaning that it is a commercial fishery determined to have occasional incidental mortality and serious injury of marine mammals. See 89 FR 12257 (published February 16, 2024) for the List of Fisheries for 2024.[7] Implementation of alternatives analyzed in this SEA is not expected to cause any impacts to marine mammals not previously considered or authorized by the commercial taking exemption under section 118(c) of the MMPA, as no substantial changes to fishing operations would be expected, as described above.

Alternative 1 and Alternative 3 would not affect the following areas designated as Essential Fish Habitat (EFH) or Habitat Areas of Particular Concern (HAPC): ocean or coastal habitats; historic properties listed in or eligible for listing in the National Register of Historic Places; or National Wildlife Refuges or National Monuments. Such resources would not be affected because any potential changes in fishing patterns and practices from a fishery closure would take place in areas of the ocean far from shorelines and would not affect the seafloor or benthic habitats since longline fishing does not involve contact with the seafloor (see Chapter 3 of the 2015 PEA for a description of longline fishing). Also, because any effects to fish stocks would be minor or negligible, as discussed above, any pelagic fish habitat designated as EFH, including the water column, or HAPC, would not be expected to experience any adverse effects from implementation of Alternative 1 or Alternative 3. In other words, the small effects on the stocks would be unlikely to lead to any adverse physical, chemical, or biological alterations to fish habitat (e.g., an increase in predator or prey leading to trophic interactive effects leading to effects on habitat). In addition, commercial fishing is already prohibited in the Monuments. Shipwrecks would be the only known cultural objects potentially within the affected environment. However, as stated above, longline fishing operations do not come into contact with the seafloor, so any changed operations would not be expected to affect any material from shipwrecks, which typically rests on ocean bottoms.

[6] The Category II designation has not changed since publication of the 2015 PEA.

[7] The Category II designation has not changed since publication of the 2015 PEA.

Similarly, continued fishing under Alternative 2 under no longline bigeye tuna catch limit would also not be expected ocean or coastal habitats; historic properties listed in or eligible for listing in the National Register of Historic Places; or National Wildlife Refuges or National Monuments. Such resources would not be affected because longline fishing does not involve contact with the seafloor (see Chapter 3 of the 2015 PEA for a description of longline fishing). Also, because any effects to fish stocks would be minor or negligible, as discussed above, any pelagic fish habitat designated as EFH, including the water column, or HAPC, would not be expected to experience any substantial effects – either beneficial or adverse – from implementation of Alternative 2, as the small effects on the stocks would be unlikely to lead to any indirect effects to fish habitat (e.g., an increase in predator or prey leading to trophic interactive effects leading to effects on habitat). In addition, commercial fishing is already prohibited in the Monuments. Shipwrecks would be the only known cultural objects potentially within the affected environment. However, as stated above, longline fishing operations do not come into contact with the seafloor, so any changed operations would not be expected to affect any material from shipwrecks, which typically rests on ocean bottoms.

Overall, under Alternative 1 or Alternative 3, a fishery closure could lead to a minor reduction in any potential adverse effects to protected resources from a reduction in fishing effort.

3.9 Analysis of Environmental Justice Impacts including Specific Analysis on American Samoa, CNMI, and Guam

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," states that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

Executive Order 14096, "Executive Order on Revitalizing Our Nations Commitment to Environmental Justice for All," provides that NEPA review should include analysis of impacts on communities with environmental justice concerns, based on the best available information, and includes meaningful involvement by communities with environmental justice concerns.

The recently issued executive orders relevant to environmental justice analysis include:

- Executive Order 13985, "Executive Order on Advancing Racial Equity and Support for Underserved Communities through the Federal Government";
- Executive Order 14031, "Executive Order on Advancing Equity, Justice, and Opportunity for Asian Americans, Native Hawaiians, and Pacific Islands"; and
- Executive Order 14008, "Executive Order on Tackling the Climate Crisis at Home and Abroad."

This section evaluates new information relevant to environmental justice impacts of the proposed action under Executive Order 12898 and Executive Order 14096. The analysis also considers the equity and justice principles set forth in President Biden's Executive Orders 13985, 14031, and 14008. For additional economic analysis required specifically under Executive Order 12866, please see the RIR.

The Magnuson-Stevens Act defines a fishing community as "a community that is substantially dependent upon or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew, and fish processors that are based in such communities" (16 U.S.C. § 1802(17)). NMFS further specifies in the National Standard guidelines that a fishing community is "a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries dependent services and industries (for example, boatyards, ice suppliers, tackle shops)".

NMFS is not adopting specific criteria to define an environmental justice population group of concern in this SEA. However, NMFS believes there is sufficient information to characterize the populations in American Samoa, Guam, and CNMI as communities with environmental justice concerns, as the populations may fall under more than one of the typically-identified groups of concern, including as communities that engage in fishing for community, recreational, subsistence, and cultural purposes.

As discussed throughout this SEA, CMM 2023-01 does not include the language of Paragraph 9 of CMM 2021-01, which provided for attribution of catch to U.S. Participating Territories for vessels operating under agreements with the U.S. Participating Territories. CMM 2023-01 also states that catch and effort of U.S.-flagged Hawaii-based longline vessels will no longer be attributed to U.S. Participating Territories, in accordance with the deletion of Paragraph 9. Thus, the language in CMM 2023-01 no longer authorizes an exemption from the limit for catch by vessels operating under specified fishing agreements with U.S. Participating Territories. NMFS does not expect to approve any specified fishing agreements going forward, per the language of CMM 2023-01 stated above.

Hawaii-based longline fishing vessels have been entering into fishing agreements with the U.S. Participating Territories for attribution of longline bigeye tuna catch in some manner since 2011 (WPFMC 2014). The U.S. Participating Territories have received direct funds from these agreements to support marine fisheries development and conservation. As NMFS does not expect to approve such agreements going forward due to the language of CMM 2023-01, the fishing communities of the U.S. Participating Territories could experience adverse effects from the Commission's decision to remove Paragraph 9 from the CMM.

Under Alternative 1, in which catch is limited to 6,554 mt and NMFS would not approve specified fishing agreements, there is a potential for the communities in American Samoa, CNMI, and Guam to lose out on funding that they otherwise would have gotten from these arrangements. This funding could have been used to support marine fisheries development in the U.S. Participating Territories. Accordingly, there is a greater potential for environmental justice impacts under Alternative 1 than there is under Alternative 3 (in which NMFS would continue to approve specified fishing agreements). However, as discussed throughout this SEA, NMFS does not have discretion to approve specified fishing agreements going forward, per the Commission's language of CMM 2023-01.

NMFS continues to consider the implementation of the recently issued executive orders – Executive Order 13985, Executive Order 14031, and Executive Order 14008 –in relation to the U.S. Participating Territories as part of the negotiating priorities of the United States in WCPFC discussions. NMFS also continues to consider any other appropriate action to mitigate adverse economic impacts to U.S. Participating Territories under U.S. laws and mandates, including working with U.S. Participating Territories to identify potential other areas of funding for fisheries development and conservation.

3.10 Cumulative Impacts Analysis

Section 2.12 of the 2021 SEA presents the analysis of cumulative impacts and supplements the cumulative impacts analysis in Chapter 5 of the 2015 PEA and Section 1.9 of the 2019 SEA. This section supplements the cumulative impacts analysis in those documents. The timeframe for this analysis is the three-year period from 2024 through 2026, because this is the time period for which the direct and indirect effects of Alternatives 1, 2, and 3 have been analyzed in this SEA, and the time period covered that CMM 2023-01 would be in effect.

The cumulative impacts analysis in the 2021 SEA took into consideration the following reasonably foreseeable future actions:

- Actions by the United States and other nations to implement any additional management measures adopted by the Commission for resources in the affected environment, details of which are unknown at this time;
- Actions by the United States and other nations to implement IATTC management measures for tropical tunas, the details of which are unknown at this time;
- Actions by the United States to implement a renegotiated Treaty on Fisheries between the Governments of Certain Pacific Island States the Government of the United States of America, the specific details of which are unknown at this time; and
- Actions by the United States for domestic management of the fisheries that operate in the Pacific Ocean, the specific details of which are unknown at this time.

The following sections update the cumulative impacts analysis for resources in the affected environment included in the 2021 SEA.

3.10.1 Cumulative Impacts to Physical Resources and Climate Change

As discussed above, and building from the analysis in the 2021 SEA, Alternatives 1, 2, and 3 would not be expected to have substantial impacts on physical resources in the WCPO or contribute to climate change. The actions identified in this chapter would similarly not be expected to substantially impact physical resources in the WCPO, since they are fishery management actions that would not be expected to impact physical resources. Based on all information to date, the other actions are also not expected to lead to a large increase in greenhouse gas emissions that would affect climate change. Thus, the cumulative impacts to physical resources and climate change from implementation Alternatives 1, 2, or 3 would not be expected to be substantial.

3.10.2 Cumulative Impacts to Bigeye, Skipjack, and Yellowfin Tuna in the WCPO

As discussed above, if a fishery closure occurs under Alternative 1 or Alternative 3, there could be some increased potential for a small reduction of adverse effects on the stocks of bigeye and yellowfin tuna in the WCPO over Alternative 2, but overall the effects to the stocks of WCPO bigeye tuna, yellowfin tuna, and skipjack tuna under any of the action alternatives are not expected to be substantial.

The details of the other future actions are unknown, and thus, specific assessment of each of their potential contributions to cumulative impacts on the stocks of bigeye tuna, skipjack tuna, and yellowfin tuna is not possible at this time. However, given the Commission's articulated objectives in CMM 2023-01 and the current status of the stocks, it is likely that future actions will be consistent with the objectives of CMM 2023-01.

Thus, the cumulative impacts from the identified past, present, and future actions on the stocks of bigeye tuna, yellowfin tuna, and skipjack tuna in the WCPO would likely be beneficial in comparison to operation of the fishery absent the management measures that are being or would be implemented under the identified actions. However, it is unknown whether the current status of the stocks will change as a collective result of all of these actions – though this is difficult to predict without knowing the details of the future actions or the results of the implementation of the present actions. Based on all information to date, the cumulative impacts from implementation of Alternative 1,

Alternative 2, or Alternative 3, would not be expected to lead to substantial cumulative impacts on the status of the stocks of bigeye tuna, skipjack tuna, and yellowfin tuna in the WCPO.

3.10.3 Cumulative Impacts to Other Target or Non-target Fish Species in the WCPO

As stated above, Alternatives 1, 2, or 3, would not be expected to have substantial effects on other target or non-target fish species. Given that the other actions are fishery management actions, they would similarly be expected to have minor effects on other target or non-target species if focused on management of the fisheries that target the same stocks, or effects that would decrease fishing pressure on the other non-target fish species if focused on management of those species, and thus, the cumulative effects on other target or non-target fish species would not be expected to be adverse or substantial.

3.10.4 Cumulative Impacts to Protected Resources in the WCPO

As discussed above, Alternatives, 1, 2, or 3 would not be expected to increase or decrease interactions with protected resources, although it is possible there would be slight reduction in interactions with protected species under Alternative 1 or 3 as compared to Alternative 2, if there were a fishery closure under Alternative 1 or 3. Based on all information to date, the other actions are not expected to have substantial effects on protected resources. Thus, the cumulative effects on protected resources would not be expected to be substantial.

3.10.5 Cumulative Impacts to Environmental Justice

As indicated above, the new language in CMM 2023-01 affecting specified fishing agreements with U.S. Participating Territories could lead to adverse economic effects on U.S. Participating Territories. In addition, NOAA has issued a notice of intent to conduct scoping and prepare a draft environmental impact statement for the proposed designation of a National Marine Sanctuary for the Pacific Remote Islands Area (88 FR 23624; April 18, 2023). At this time, NMFS is not able to predict whether the sanctuary designation will be completed and if so, the scope or extent of any associated regulations. Thus, NMFS is unable to determine at this time if these actions have the potential to cumulatively lead to a significant impact on the communities of American Samoa, Guam, or CNMI, or any other environmental justice population.

Consultation

Table 4 lists the agencies, NOAA units, and entities that were contacted for information.

Table 4: List of agencies and offices contacted

NMFS – Headquarters – Office of International Affairs, Trade, and Commerce
NMFS – Pacific Islands Regional Office – Sustainable Fisheries Division
NMFS – Pacific Islands Fisheries Science Center
NMFS – West Coast Regional Office – Sustainable Fisheries Division
NMFS – Southwest Science Center
NOAA Office of Law Enforcement
North Pacific Fishery Management Council
Pacific Fishery Management Council
Department of State – Office of Marine Conservation
U.S. Coast Guard – 14th Coast Guard District
Western Pacific Fishery Management Council

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