



NOAA FISHERIES
Pacific Islands Regional Office

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Regulatory Impact Review

**Changes to Longline Bigeye
Tuna Catch Limits**

RIN 0648-BM87

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INTRODUCTION

This document is a regulatory impact review (RIR) prepared under Executive Order 12866, “Regulatory Planning and Review,” (EO 12866).

Executive Order 12866 requires that the economic impacts of proposed government regulations on the national economy be assessed before implementation. EO 12866 states that “[i]n deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory measures, including the alternative of not regulating” (EO 12866, Section 1). The emphasis of the analysis is on expected changes in net benefits that occur as a result of the proposed management measures. The government should choose only those sets of regulations that produce positive benefits while considering social and distributional effects (but certain statutes and international obligations sometimes compel the government to take specific actions despite expected economic and social outcomes). The National Marine Fisheries Service (NMFS) requires that this analysis be done through a regulatory impact review (RIR) for all regulatory actions that are of public interest. The RIR also includes analysis of distributive impacts and the costs of government administration and private compliance with the proposed measures.

This RIR is for NMFS’ promulgation of a rule to implement longline bigeye tuna catch limits adopted by the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (Commission or WCPFC), pursuant to the Western and Central Pacific Fisheries Convention Implementation Act (WCPFC Implementation Act; 16 USC 6901 *et seq.*). The most recent WCPFC decision on tropical tunas is Conservation and Management Measure (CMM) 2023-01 (Bigeye, Yellowfin, and Skipjack Tuna in the Western and Central Pacific Ocean), adopted by the Commission in December 2023.

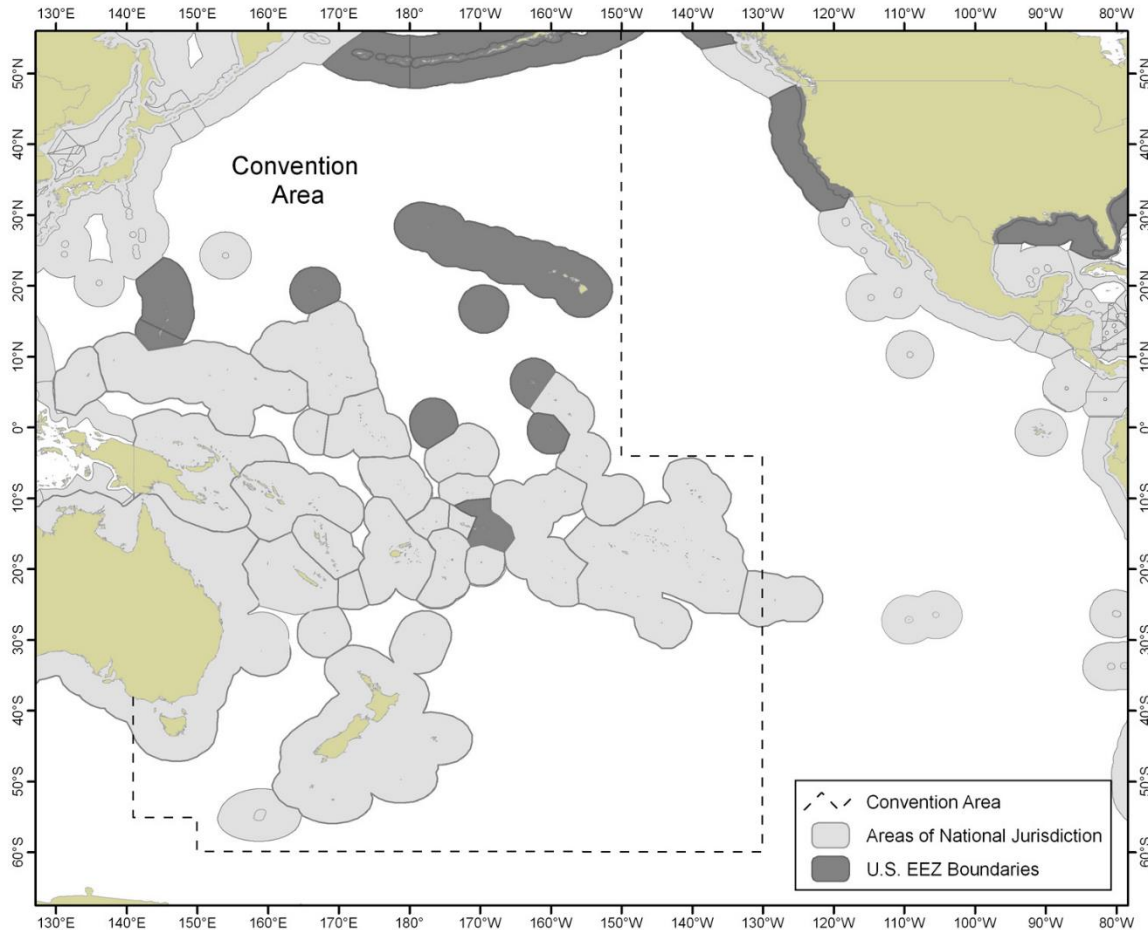
The WCPFC Implementation Act authorizes the Secretary of Commerce (Secretary) to promulgate regulations as may be necessary to carry out the international obligations of the United States under the Act, including the decisions of the WCPFC. The Secretary is directed to consult with the Secretary of State and the agency in which the U.S. Coast Guard is operating in promulgating regulations. The authority to promulgate regulations has been delegated to NMFS.

The Commission was established under the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (Convention). The Commission is comprised of the Contracting Parties to the Convention and fishing entities that have agreed to be bound by the regime established by the Convention (formally, Commission “Members”). Other entities that participate in the Commission include Participating Territories and Cooperating Non-Members. Cooperating Non-Members are admitted on a yearly basis. All these WCPFC participants are generally subject to the obligations set out in conservation and management measures, and they are collectively referred to as “WCPFC members” in this RIR.

The Convention entered into force in June 2004. The full text of the Convention can be obtained from the WCPFC’s website at: <http://www.wcpfc.int/system/files/text.pdf>. The Convention was ratified by, and came into force for, the United States in 2007. The United States thereby became a full Member of the WCPFC after having been a Cooperating Non-Member since the WCPFC’s establishment in 2004.

The area of application of the Convention (Convention Area) is shown in Figure 1. The Convention applies to highly migratory species and fish stocks within the Convention Area, except saurians. The Convention also provides for the conservation and management of non-target, associated and dependent species.

Figure 1: The Convention Area – high seas (in white); U.S. Exclusive Economic Zone (EEZ) (in dark grey); and foreign jurisdictions (“claimed maritime jurisdictions,” in light gray).



Source: NMFS Pacific Islands Regional Office

1. OBJECTIVES

The objective of this action is to satisfy the international obligations of the United States, as a Contracting Party to the Convention, with respect to the domestic implementation of the WCPFC decision on longline bigeye tuna catch limits in CMM 2023-01. WCPFC CMMs are available at <http://www.wcpfc.int/conservation-and-management-measures>.

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.

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 also 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 (American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands (CNMI)). 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.

2. DESCRIPTION OF AFFECTED FISHERIES

The action would affect U.S. longline fisheries in the Convention Area. The longline fishery is described in a 2015 programmatic environmental assessment (2015 PEA; NMFS 2015), 2021 supplemental environmental assessment (2021 SEA; NMFS 2021), as supplemented in the 2024 supplemental environmental assessment (2024 SEA; NMFS 2024a). Those documents are incorporated here by reference.

3. PROBLEM STATEMENT

The purpose of the action is to implement the changes to the longline bigeye tuna catch limits in CMM 2023-01 for the U.S. fleet. The need for the rule is to satisfy the obligations of the United States under the Convention, pursuant to the authority of the WCPFC Implementation Act.

4. Previous Rules and Regulatory Reviews

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. An RIR was developed for this rule (NMFS 2018).

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)).

5. ALTERNATIVES

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

5.1 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.

5.2 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.

5.3 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.

5.4 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 RIR 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 analyses 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.

6. ANALYSIS OF ALTERNATIVES

Four types of economic effects are analyzed: changes in net benefits, distributional changes in net benefits, changes in income and employment, and cumulative effects.

The analysis that follows focuses on the expected benefits and costs of Alternative 1, Alternative 2, and Alternative 3.

6.1 Changes in net benefits

Analytical approach:

All the elements of Alternatives 1-3 are considered to be in effect from 2024-2026, the years that CMM 2023-01 is in effect. The direct effects on the conduct of fishing vessels would be largely limited to that period and its economic impacts accordingly would be short-lived (but see section

6.4 regarding the cumulative impacts of this action with those of other foreseeable future actions).

The analysis is limited to examining changes in net benefits to the United States; changes in net benefits that occur to foreign interests are not relevant in the context of this RIR. Changes in benefits and costs in both the private and public sectors are important with respect to net benefits; effects in both sectors are accounted for in this analysis to the extent possible. In the private sector, benefits may accrue as surpluses to consumers and producers. In the case of fish harvesting operations, producer surplus is reflected in the difference between gross revenues and operating costs. Because of the unpredictability of future Commission decisions, as well as the difficulty in predicting the behavior of fishing businesses, expected changes in benefits and costs can be described only qualitatively.

Effects on fish stocks:

The action would implement, in part, WCPFC conservation and management measures intended to control the fishing mortality rates (i.e., the proportion of a stock that is killed by fishing per unit of time) of two stocks (western and central Pacific Ocean (WCPO) bigeye tuna and WCPO yellowfin). WCPO longline fisheries that target bigeye tuna also incidentally catch yellowfin tuna in substantial amounts. The most recent stock assessments for bigeye and yellowfin tuna in the WCPO suggest that the stocks are not experiencing overfishing nor are they overfished (NMFS 2024b).

The main expected direct effect of implementing the longline bigeye tuna catch limits under Alternative 1 or Alternative 3 would be less U.S. longline fishing effort and less bigeye tuna and other species caught by the fishery in the WCPO, if the catch limits are reached and there is a fishery closure.

Those direct effects can be expected to lead to indirect effects on WCPO stocks of the main target species in the longline fisheries, bigeye tuna, as well as on stocks of fish and non-fish species caught incidentally in the fisheries. Overall, the possible reduction in longline fishing effort could cause a reduction in the fishing mortality rates of these stocks and consequent increases in the stocks' sizes.

However, as shown in Table 1 of the 2024 SEA, total catch for U.S. longline fishing vessels has not exceeded 6,554 mt from 2013-2023, so it is unlikely that a fishery closure would occur in the foreseeable future. As discussed in more detail below, substantial fishery closures have occurred in previous years (2010 and 2015), due to a much lower catch limit being reached, and additional fishing opportunities being unavailable. In 2010, the 3,763 mt catch limit was expected to be reached and the fishery was closed from November 22 to December 31. In 2015, the 3,502 mt catch limit was expected to be reached and the fishery was closed from August 5 to October 13 (NMFS 2022).

Many factors affect the stock status of tropical tunas in the WCPO (such as oceanographic and non-oceanographic conditions and fishing by non-U.S. fleets). Because any effects of the action on fishing mortality rates would be small compared to the stocks' total fishing mortality rates, and because the action would be limited to 2024-2026, any effects on stock sizes would be relatively small and short-lived.

Adult bigeye tuna, skipjack tuna, and yellowfin tuna are considered among the top predators of the tropical or warm pool marine ecosystem (see Chapter 3 of the 2015 PEA for more information). Changes to the WCPO 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 sources 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. Because the direct effects to the three tuna stocks are expected to be relatively minor and short-lived, it is unlikely that any substantial or lasting impacts to the marine ecosystem would occur as a result of the rule.

To gauge the net benefits of the action, the (uncertain and unquantifiable) benefits identified here would have to be weighed against the costs of the action. Those impacts are estimated to the extent possible in the sections that follow, specifically in terms of consumer surplus, producer surplus, and public sector costs.

Comparison of the Alternatives:

Under Alternative 1, NMFS would modify the regulations at 50 CFR 300.224 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 above the status quo. 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.

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).

Under Alternative 3, NMFS would make no changes to the current regulations 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. However, this alternative would also be out of compliance with U.S. obligations under CMM 2023-01, as 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. It is included here as an alternative for purposes of comparative analysis only.

Thus, the effects to longline fisheries and in turn, living marine resources, under Alternative 3 would be similar or identical to the effects to longline fisheries under Alternative 1.

As stated above, the main expected direct effect of implementing the longline bigeye tuna catch limits under Alternative 1 or Alternative 3 would be less U.S. longline fishing effort and less

bigeye tuna and other species caught by the fishery in the WCPO, if the catch limits are reached and there is a fishery closure.

No longline bigeye tuna catch limits would be implemented under Alternative 2, so no fishery closure would be anticipated under Alternative 2. Thus, the potential reduction in fishing effort and associated reduction in catch of bigeye tuna and other species caught in the fishery in the WCPO that could occur under Alternatives 1 or 3, would not occur under Alternative 2. Thus, 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.

Consumer surplus:

Consumer surplus is the difference between what consumers would be willing to pay and what they actually pay for a given good or service.

The impacts of the longline bigeye tuna catch limits for bigeye tuna under Alternative 1 or Alternative 3 would be expected to be generally the same as under the Alternative 2, since a fishery closure is unlikely under Alternative 1 or Alternative 3.

However, if a fishery closure occurred under Alternative 1 or Alternative 3, 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.

Although some consumers in Hawaii probably prefer locally caught bigeye tuna over bigeye tuna from other sources, if acceptable substitutes are available for the time period during which locally caught bigeye tuna is in short supply, this may dampen the impacts to consumers. If, on the other hand, there are constraints to switching sources – for example, if the short duration of a fishery closure makes it impractical for wholesale/retail buyers to establish connections with alternative suppliers, thus limiting the availability of acceptable substitutes, then a fishery closure could result in more limited choices about product sources and higher prices, with consequent adverse impacts on consumer surplus. There is some seasonality in supply and demand of locally caught bigeye tuna. A closure at the end of the year would encompass part of the holiday season, when demand is relatively high.

Although it is difficult to predict the likelihood or magnitude of these effects on consumer surplus, it seems reasonable to conclude that the degree to which the market would shift to alternative sources is positively correlated with the length of the period during which bigeye tuna landings would be prohibited. That period is a function of the size of the limit (relative to the amount expected to be caught under no action) and the magnitude of any race to fish effect that might occur as a result of the action (i.e., if imposition of the limit causes fishing to occur earlier in the year than it otherwise would, the limit would be reached that much faster). The likelihood of shifting to alternative sources would also depend on buyers' expectations regarding closures in future years, which are not known.

The above theoretical assessment of potential impacts on consumer surplus can be supplemented with observations of how the fleet and market responded to the bigeye tuna fishery closure in 2010 (November 22 through December 31), as reported by Richmond et al. (2015) and in 2015 (August 5 through October 13), as reported by NMFS (Ayers 2018).

Examining the expectations of the Hawaii fishing community in advance of the closure, Richmond et al. (2015) found that the biggest fear among fishermen, buyers, and retailers was that the closure would lead to a dramatic decline in the supply and a compensatory increase in price of local bigeye tuna. The study found that the impacts of the closure on the supply of locally caught bigeye tuna was not as great as anticipated by many in the fishing community. 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. Richmond et al. (2015) also found 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 (Ayers et al. 2018). 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. Ayers et al. (2018) 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 (Ayers et al. 2018).

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.

Comparison of the Alternatives:

As stated above, Alternative 1 and Alternative 3 would essentially have the same or similar impacts to fishing operations, and any fishery closure is expected to be of similar duration. Thus, the effect to consumer surplus under Alternative 1 or Alternative 3 would essentially be the same. Under Alternative 2, there would be no risk of fishery closure, so Alternative 2 could have slightly reduced effects on consumer surplus over Alternative 1 or Alternative 3.

Producer surplus:

Producer surplus is the difference between producers' (e.g., fishing businesses') revenues and their costs.

As described above, Alternative 1 or Alternative 3 could lead to increases in the sizes of the two main stocks caught in the fishery, WCPO bigeye tuna and yellowfin tuna, which could enhance the ability of U.S. fishermen to benefit from the stock. However, any such benefits would be minor and short-lived, if they occur at all. At the same time, Alternative 1 or Alternative 3 could adversely impact participants in both the U.S. WCPO longline fisheries by foreclosing certain fishing opportunities. Like the potential benefits of the action, these impacts would be short-lived, if they occur at all, as the proposed action is limited to 2024-2026, and a fishery closure is unlikely.

Based on catch data for recent years, as detailed in Table 1 of the 2024 SEA, the risk of a fishery closure under Alternative 1 or Alternative 3 is low, and the effects on producer surplus under these alternatives would likely be the same as under Alternative 2. Thus, all three alternatives would essentially have no effects on producer surplus.

However, if a fishery closure did occur under Alternative 1 or Alternative 3 it would likely take place towards the end of the year and could have some, unquantifiable effects on producer surplus. As stated above, in the consumer surplus section, a fishery closure in the WCPO could lead to vessels fishing more in the EPO¹, which could in turn mitigate the effects of lost revenues from not fishing at all. It should also be noted that dual permit vessels could also continue to land longline-caught bigeye tuna in Hawaii so long as the fish are not caught in the portion of the U.S. EEZ surrounding the Hawaiian Archipelago (50 CFR 300.224), and thus, might receive higher prices for landed fish than otherwise.

Overall, any effects of Alternative 1 and Alternative 3 on producer surplus would be expected to be minor and short in duration.

¹ Under the regulations implementing Inter-American Tropical Tuna Commission (IATTC) decisions at 50 CFR 300.25(a), NMFS implements a catch limit of 750 mt of bigeye tuna for U.S. longline fishing vessels over 24 meters (m) in length. In the event that the WCPO bigeye tuna fishery is closed and the 750 mt limit is reached in the EPO, only vessels 24 m or less in length would be able to take advantage of the alternative opportunity of deep-setting for bigeye tuna in the EPO.

Public sector costs:

The U.S. government—particularly NOAA Office of Law Enforcement (OLE) and the U.S. Coast Guard—would bear the responsibility and costs of enforcing the prohibitions that would go into effect if and when the bigeye tuna catch limit is reached under Alternative 1 or Alternative 3 in any given year. The costs of the on-the-water and on-the-ground aspects of such enforcement would probably be minimal, as they would be largely conducted in the course of routine patrols and surveillance activities used to enforce a variety of laws. There would also be costs associated with outreach to affected vessel owners and operators.

NMFS would need to monitor bigeye tuna catches with respect to the limits, which would involve faster and more intensive data processing and analysis that would otherwise be conducted in the absence of limits. NMFS would not necessarily have to do this year-round; it could focus on those portions of each year when there is an appropriately high likelihood of the limit being reached within a certain period. Using the monitoring results, NMFS would have to make determinations as to whether and when the limit is likely to be reached, and if such a determination is made, prepare and publish a notice in the *Federal Register* that announces the effective date of the bigeye tuna retention, landing, and transshipment restrictions.

These public sector costs would not occur under Alternative 2, because there would be no limit in place and no possibility of a fishery closure.

Summary of effects on net benefits:

As discussed above, none of the alternatives would be expected to result in marked effects in terms of consumer surplus.

Alternative 1 and Alternative 3 can be expected to have neutral or minor positive incremental effects (relative to Alternative 2) on benefits that the United States can potentially enjoy through the maintenance of productive WCPO bigeye tuna and yellowfin tuna stocks.

Any positive incremental effects of the Alternative 1 or Alternative 3 would be countered by incremental costs to the nation in terms of lower producer surplus, as well as increased public sector costs. These costs cannot be quantifiably predicted with any certainty. Like the benefits expected as a result of Alternative 1 or Alternative 3, the costs to producers under these alternatives would be short-lived, limited to 2024-2026, but it is foreseeable that similar actions would be taken in the future years, in which case the cumulative costs could be substantial and lasting (see discussion of cumulative effects in section 6.4).

Public sector costs associated with Alternative 1 or Alternative 3 are likely greater than for Alternative 2, due to the possibility of a fishery closure.

It is not possible to determine with any certainty whether the benefits of any of the alternatives would outweigh the costs.

6.2 Distributional changes in net benefits

Examples of distributional effects include differential economic impacts according to geographical region and businesses of differing sizes.

The action would apply only to the Hawaii-based longline fisheries. Fisheries involving other vessel types and in other areas of the United States would not be directly affected. To the extent that the action results in the stocks of WCPO bigeye tuna and yellowfin tuna being larger than they otherwise would be (any effects of which would be minor and short-lived), other U.S. fisheries in the Pacific Ocean that exploit the stock, such as purse seine fisheries, would benefit without bearing any costs.

The rule would not appear to have distributional impacts in terms of the sizes of affected businesses.

With respect to the longline bigeye tuna catch limits under Alternative 1 or Alternative 3, as indicated in section 6.1, it is possible that as a result of a post-limit fishery closure, the Hawaii market could switch to alternative sources of bigeye tuna. Such alternative sources could be both foreign and domestic. For example, as described above, fishing businesses in the Hawaii troll and handline fisheries appeared to have responded to the 2010 bigeye tuna longline fishery closure by increasing their production of bigeye tuna during the closure. Thus, the action—if it results in a fishery closure—could result in a shift in benefits to businesses in fisheries like the Hawaii troll and handline fleets. If the alternative sources of bigeye tuna are foreign, there would be no distributional changes (within the United States) in net benefits.

It is possible that Alternative 1 or Alternative 3 could lead to a shift of deep-set longline fishing effort into the EPO. However, the operation of the vessels involved in such shifts is not expected to change in terms of where the vessels are based or where they land their catch, so no distributional economic effects are expected as a result of such shifts.

Alternative 1 or Alternative 3 would have different impacts on dual permit vessels relative to other vessels in the Hawaii longline fleet. Richmond *et al.* (2015) found that the rate at which bigeye tuna were caught and kept by dual permit vessels increased after the start of the 2010 closure, indicating that those fishing businesses may have benefited from the closure and the action in general.

Alternative 1 or Alternative 3 could have different impacts on vessels that engage in the shallow-set fishery relative to those that participate in the deep-set fishery. While virtually all affected vessels engage at least part of the year in the deep-set fishery, less than half of the Hawaii longline fleet has engaged in the shallow-set fishery since 2005.

The proposed action under Alternative 1 or Alternative 3 could have indirect distributional impacts to vessels of different sizes, which might be correlated with business size. As noted above, under the regulations implementing IATTC decisions at 50 CFR 300.25(a), NMFS implements a catch limit of 750 mt of bigeye tuna for U.S. longline fishing vessels over 24 meters (m) in length. In the event that the WCPO bigeye tuna fishery is closed and the 750 mt limit is reached in the EPO, only vessels 24 m or less in length would be able to take advantage of the alternative opportunity of deep-setting for bigeye tuna in the EPO. On the other hand, Richmond *et al.* (2015) found that during the 2010 WCPO bigeye tuna fishery closure some businesses—particularly those with smaller vessels—were less inclined than others to fish in the EPO during the closure because of the relatively long distances that would need to be traveled in the relatively rough winter ocean conditions. Thus, smaller vessels might be expected to find it

more difficult, risky, and/or costly to fish in the EPO during the relatively rough winter months than larger vessels.

As these distributional impacts would be the result of a fishery closure, they would not be expected to take place under Alternative 2.

6.3 Changes in income and employment

If a fishery closure occurred under Alternative 1 or Alternative 3, there could be some adverse effects to income and employment in longline fishing businesses. Such impacts could be passed on to vessel crew members in the form of reduced compensation, and/or to business sectors with backward linkages to the producers, such as businesses that supply the fishing vessels.

A fishery closure could affect business sectors with forward linkages to the producers, such as businesses in Hawaii that market the longline fleet's catches. Such impacts would be expected to be limited to forward-linked businesses that do not fill the gap in local product with bigeye tuna sourced elsewhere. Furthermore, if such substitution does occur, it might not occur at the point of ex-vessel sales. For example, the businesses that buy from the longline vessels (the United Fishing Agency's fish auction in Honolulu being the primary one at present) might not seek alternative supplies while the subsequent buyers do seek alternative supplies. In that case, the action would result in impacts to only that first level of forward-linked businesses. Richmond *et al.* (2015) found that many stakeholders in the longline sector believed that the effects of the impending bigeye tuna fishery closure in 2010 would ripple through the Hawaii seafood economy and possibly result in job losses in support industries, such as at the fish auction, freight companies that ship locally caught seafood abroad, and fishing supply companies. The study did not find these beliefs to be borne out, but it concluded that many bigeye tuna dealers struggled during the closure.

Using an economic input-output table developed for Hawaii and cost-earnings data for Hawaii's fisheries, Arita *et al.* (2013) analyzed how Hawaii's fishing sector, including the longline fishing specifically, impacts household incomes across different socioeconomic categories. The longline fishery sectors were found to have household income multipliers that are relatively small compared those of the Hawaii's non-fishery sectors. For both the deep-set and shallow-set longline sectors, a gain in household income of \$0.71 is expected for every additional \$1 increase in demand. With respect to socioeconomic categories, the study found that the longline sectors have a relatively weak impact on the high-income group, a relatively high impact on the middle-income group, and an impact on low-income group approximately in line with non-fishery averages.

Under Alternative 3, there also could be continued funding of specified fishing agreements with the U.S. Participating Territories, which go towards the Sustainable Fisheries Fund, which is used to support marine fisheries development and conservation. However, 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 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. It is included here as an alternative for purposes of comparative analysis only.

The effects would depend on the funding amounts and the specific fisheries development projects that they are used to support. However, there could be counteracting adverse effects on income and employment in the payers' economies, as they would be transferring to the territories funds that could otherwise be used to generate income and employment in their own economies.

Under Alternative 2, there would be no fishery closure and thus, effects to income and employment would not be expected.

6.4 Cumulative effects

Cumulative effects are the additive effects of this action and other existing and reasonably foreseeable actions (e.g., other fishery regulations). The cumulative effects of the action can be described only qualitatively.

Past actions have been taken into consideration in the baseline conditions described throughout this document.

Other present and reasonably foreseeable future actions include:

- Actions by the United States and other nations to implement any additional management measures adopted by the WCPFC or the IATTC for resources in the affected environment, details of which are unknown at this time.
- Actions by the United States to implement renegotiated terms of the 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.
- Actions by the United States for domestic management of the fisheries that operate in the Pacific Ocean.

As described in section 6.1, Alternative 1 and Alternative 3 have the potential to result in the WCPO stocks of the bigeye tuna and yellowfin tuna being slightly larger than they would be under Alternative 2.

However, given the uncertainty surrounding all the other reasonably foreseeable future actions it is not possible to gauge whether the cumulative beneficial effects of this action would outweigh their cumulative costs.

6.5 Comparison of action alternatives

As discussed throughout this document, all the alternatives would be expected to lead to similar or identical effects. Alternative 1 and Alternative 3 could lead to some additional minor effects if a fishery closure occurs. These effects could include reduced fishing pressure on bigeye tuna and yellowfin tuna and other bycatch species, with some associated effects on consumers, producers and public sector costs.

DETERMINATION OF SIGNIFICANCE UNDER EXECUTIVE ORDER 12866

In accordance with E.O. 12866, NMFS has made the following determinations:

- This rule is not likely to have an annual effect on the economy of more than \$200 million or to adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, territorial, or tribal governments or communities.
- This rule is not likely to create any serious inconsistencies or otherwise interfere with any action taken or planned by another agency.
- This rule is not likely to materially alter the budgetary impact of entitlements, grants, user fees or loan programs or the rights or obligations of recipients thereof.
- This rule is not likely to raise novel or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

Based on these determinations, the rule considered in this RIR is not a “significant regulatory action” for the purposes of E.O. 12866 or E.O. 14094.

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