



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
7600 Sand Point Way NE, Bldg. 1
Seattle, Washington 98115

Agenda Item J.3
Attachment 1
September 2016

June 13, 2016

150413WCR2014SF00171:AR

Ms. Catherine Kilduff
Center for Biological Diversity
351 California Street, Suite 600
San Francisco, CA 94104

Dear Ms. Kilduff,

The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) has reviewed your letter dated April 8, 2014, which included a petition for rulemaking under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and public comments on your petition.

Your first request was to amend the Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species (HMS FMP) and its implementing regulations to categorize Pacific bluefin tuna (PBF) as a prohibited species until the stock is rebuilt, or, in the alternative, to establish annual catch limits and a permanent minimum size requirement to protect age classes 1 and 2. Your second request was to amend the HMS FMP to establish specific values for PBF reference points. Given the role of the Pacific Fishery Management Council (Council) under the MSA in developing and amending the HMS FMP and its implementing regulations, NMFS refers these specific requests, as well as NMFS' input on these matters, to the Council for further consideration.

Although not deemed a part of your request for a rulemaking under the MSA, and therefore not referred to the Council for further consideration, NMFS also considered the requests in your letter to develop recommendations to the Secretary of State and Congress to end PBF overfishing at the international level.

Detailed responses to the requests in your letter are included in the enclosed document: *The National Marine Fisheries Service's Response to a Petition from the Center for Biological Diversity Requesting a Rulemaking to Prohibit Fishing for Pacific Bluefin Tuna*.

NMFS shares your concerns about the status of the PBF stock and will continue to work with the Council and relevant regional fisheries management organizations to develop and implement management measures to rebuild PBF. As described in the enclosed response, NMFS has implemented various management measures to conserve PBF applicable to both the U.S. commercial and recreational sectors under the Tuna Conventions Act and MSA, and remains



committed to working with other PBF fishing nations to establish an effective rebuilding plan, reference points, and harvest control rules for the long-term conservation of PBF.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Stelle, Jr.", with a long horizontal flourish extending to the right.

William W. Stelle, Jr.
Regional Administrator

Enclosure

**THE NATIONAL MARINE FISHERIES SERVICE'S RESPONSE TO A
PETITION FROM THE CENTER FOR BIOLOGICAL DIVERSITY
REQUESTING A RULEMAKING FOR
PACIFIC BLUEFIN TUNA**

**Prepared by:
Sustainable Fisheries Division
NMFS West Coast Region
June 2016**

Introduction

The U.S. Department of Commerce's National Marine Fisheries Service (NOAA Fisheries or NMFS), an agency within the National Oceanic and Atmospheric Administration (NOAA), received a petition from the Center for Biological Diversity (CBD), a non-governmental organization, on April 9, 2014. In the petition, CBD asserted that Pacific bluefin tuna (PBF) are not adequately protected under the existing Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species (HMS FMP). Specifically, CBD petitioned NMFS under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) to amend the HMS FMP and revise the implementing regulations for the HMS FMP to include PBF as a prohibited species until the stock is rebuilt, thereby placing a moratorium on retention of PBF by U.S. fishing vessels. As an alternative, the CBD requested that NMFS establish annual catch limits and a permanent minimum size requirement to protect age classes 1 and 2. Additionally, CBD requested that NMFS amend the HMS FMP to establish specific reference points for PBF to guide science-based management of the stock. Outside of the scope of its petition for rulemaking, CBD requested that NMFS develop recommendations to the Secretary of State and Congress to prohibit all fishing on the high seas, and end PBF overfishing at the international level.

Citing legal responsibilities outlined in section 304(i) of the MSA, CBD requested that NMFS undertake a rulemaking based on its assertion that the Pacific Fishery Management Council (Pacific Council) failed to meet its statutory duty to develop recommendations for domestic regulations in response to NMFS' determination that the PBF stock is overfished and subject to overfishing (78 FR 41033, July 9, 2013). In its 2013 status determination for the PBF stock, NMFS noted that section 304(i) of the MSA applied because the condition of the stock was owed to excessive international fishing pressure, and because there were no management measures under international agreements in place to end overfishing. Accordingly, NMFS notified the Pacific Council on April 8, 2013, of its duties under section 304(i) to develop recommendations for international actions to end overfishing and for domestic regulations addressing the relative impact of U.S. fishing vessels on the stock.¹ The Pacific Council sent a letter on April 1, 2014, within the 1-year deadline of section 304(i), regarding their obligations to address both the relative impact of the U.S. fleet as well as international

¹ The April 8, 2013, letter from the NMFS Regional Administrator to Pacific Council Chair Dan Wolford may be downloaded here: http://www.pcouncil.org/wp-content/uploads/D4a_ATT1_PBF_OVERFISHED_JUN2013BB.pdf

recommendations to end overfishing and rebuild the PBF stock. NMFS has since worked with the Pacific Council and the two regional fishery management organizations (RFMOs) that manage PBF to develop and implement measures to reduce fishing mortality on the stock, effectively taking into account the relative impact by U.S. fleets. These measures are consistent with the conservation advice of scientific advisors for ending overfishing and rebuilding the stock. These measures are described below in NMFS' detailed response to the petitioner.

Public Input

NMFS published a notice in the *Federal Register* on July 24, 2014, (79 FR 43017) announcing that the petition contained enough information to effectively consider its substance, and to solicit public comments and information on both the rulemaking and non-rulemaking requests in the petition. NMFS specifically requested that the public provide comments on the social, economic, and biological impacts from implementing any of the petitioner's requests to assist NMFS in its evaluation and in determining what rulemaking action(s), if any, were appropriate. The public comment period closed on September 22, 2014.

NMFS received 29 written comments, 2 emails, and 431 individually submitted electronic comments via the Federal e-Rulemaking Portal. Most of the comments are available online;² however, some of the comments were not posted because they contained inappropriate language, such as profanities. CBD submitted several electronic comments, with 23,826 identical form letters attached from its members. The majority of distinct comments came from the recreational fishing community, specifically sportfishing anglers, as well as the commercial passenger fishing vessel (CPFV) industry.

Response to the Petition

In preparing a response, NMFS considered each of the petitioner's requests in terms of its: 1) efficacy in ending overfishing and rebuilding the stock, keeping in mind the statutory responsibility to address the relative impacts of U.S. commercial and recreational fisheries; 2) relevance to international and domestic efforts underway; and 3) implications for fishing communities. NMFS restricted its evaluation to the impacts of the U.S. West Coast-based fleets on PBF, as these fishing activities are managed under the HMS FMP, which is the focus of the petition. CBD did not request revisions to the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region. NMFS also considered public comments on the petitioner's requests. Given the role of the Pacific Council in rulemakings pertaining to the HMS FMP, NMFS refers CBD's request for rulemaking and changes to the HMS FMP to the Pacific Council for further consideration, as well as NMFS input on these matters as set forth in this document.

² Most of the comments submitted can be found here: <http://www.regulations.gov/#!documentDetail;D=NOAA-NMFS-2014-0076-0001>

Request 1: NMFS should add PBF to the list of prohibited species in the HMS FMP. Doing so would be symbolically powerful, and would have little to no economic impact on U.S. fishermen.

CBD asserts that because of the overfished status of PBF, a moratorium or ban on U.S. fishing for PBF³ is necessary to recover the population to healthy levels. CBD asserts that without immediately imposing additional domestic protections, PBF face irreversible and irreparable harm from ongoing overfishing. CBD indicates that regardless of "...U.S. catch represent[ing] only a small portion of the Pacific bluefin tuna caught worldwide, NMFS still has a duty to take the steps it can to slow or reduce overfishing."

CBD suggests that a moratorium on retention of PBF would send a strong message to other nations that fish for PBF. CBD speculates that such an action by the United States could help persuade Mexico and Japan to follow a similar zero-harvest strategy. Further, CBD states that such an action by the United States would be symbolically powerful and "precedent setting" towards establishing that "...past fishing effort should confer responsibility on a nation to reduce overfishing."

CBD offers several reasons why a prohibition on retention of PBF would not have a major economic impact on U.S. fishermen. The petitioner contends that U.S. vessels do not target PBF and sport fishermen cannot sell their catch; therefore, the economic impact from listing PBF as a prohibited species in the HMS FMP would be minimal. CBD acknowledges that a prohibition on retention of PBF may weaken U.S. negotiating power in the RFMOs but that the U.S. catch is so minimal that U.S. fisheries have "little left to lose."

Public Input on Request 1: The majority of the individual comments (i.e., non-form letters) opposed a prohibition on fishing for PBF, and many expressed concerns about the potential hardship to fishing communities. As an alternative to a prohibition, many commenters considered the suitability of other management measures for reducing fishing mortality. A few individual commenters and all of the form letters submitted by CBD expressed support for banning U.S. fishing for PBF.

Of the individually submitted comments, 323 included rationales for opposing a moratorium on fishing for PBF, and 253 included suggestions for alternative management measures. NMFS did not assume that the commenters that proposed alternative measures also opposed the prohibition. However, such an inference may not have been unreasonable given the context of some of their comments. A small minority of the public comments expressed support for a full moratorium both in U.S. waters as well as on the high seas. These comments ranged from one sentence stating "I support banning

³ CBD calls for a prohibition on fishing for PBF, but later clarifies that it is requesting that NMFS list PBF as a prohibited species, which would thereby prohibit retention as opposed to prohibiting catch or certain fishing activities. Many of the comments submitted by the public, including the form letters submitted by CBD, refer to a prohibition, moratorium, or ban on U.S. fishing for PBF, as opposed to a prohibition on retention; therefore, NMFS generally refers to a moratorium, ban, or prohibition on fishing when discussing public comments and certain aspects of CBD's petition. However, NMFS more often refers to a prohibition on retention of PBF, as formally requested by CBD, throughout this response.

tuna fishing” to others stating that no other alternatives satisfied the responsibility of the United States to prevent overfishing. The 23,826 form letter comments from CBD’s members were identical in content and supported a ban on fishing for Pacific bluefin tuna in U.S waters and a closure of the high seas.

The majority of individually submitted comments (i.e., non-form letters) were received from the recreational fishing sector—primarily from private citizens and members and anglers of the CPFV industry. These comments were clear about opposing any type of PBF prohibition. Many of the commenters (190 individuals) expressed their opinions that the recreational sector has a small impact on the health of the overall PBF stock. Numerous commenters (75 individuals) shared their perspective that the availability of PBF in the eastern Pacific Ocean (EPO) has been better in recent years. Many of the comments received from sportfishing anglers also described the particular allure of being able to catch a PBF. Most of these commenters described PBF as “boat shy,” and difficult to catch. This particular behavior was also cited as a motivating factor for booking a fishing trip. Others expressed that they like the unique flavor of PBF.

A large number of public comments (122) expressed concerns about the potential economic impacts on the U.S. fishing industry if a moratorium on fishing for PBF were imposed. A comment received from the Sportfishing Association of Southern California (SAC) stated that “...a moratorium will most certainly place incredible strain on the health of southern California’s most important fishing fleet, and that this would be realized through reduced fishing opportunity, fewer customers, jobs, and other direct and indirect economic benefits.” This sentiment was similarly expressed in many of the comments received from private recreational anglers. The SAC also explained that “[d]uring years of high bluefin tuna abundance, the various other species of tuna are often absent from U.S. waters. Thus, bluefin tuna become the primary species targeted by anglers.” The SAC asserted that, “[i]n the absence of access to bluefin tuna, a large portion of the CPFV fleet will likely be forced out of offshore activities if there is nothing else to pursue.” A comment received from the California Wetfish Producers Association (CWPA), an organization that represents the coastal purse seine fleet that primarily targets coastal pelagic species (CPS), mentioned that a “prohibition and/or further restrictions would seriously harm the commercial CPS fishermen who target [b]luefin when they are available in southern [California] waters.” The CWPA went on to mention that the CPS fleet relies on a complex of species, all of which have seasonal peaks in abundance and occur off southern California. The CWPA also reminded the agency of the “...critical importance of acting through international accord, not unilaterally, to resolve perceived problems with the [b]luefin tuna resource.”

NMFS’ Response to Request 1: There is little evidence to suggest that imposing a unilateral prohibition on the retention of PBF by U.S. West Coast fishermen would either end overfishing or have a consequential impact on reducing overfishing. NMFS has already implemented management measures to address the relative impacts of the U.S. fleet, including measures developed by the Pacific Council to address fishing mortality by the recreational sector. Analysis suggests a prohibition would result in significant economic impacts to U.S. fisheries and fishing communities. Working with the Pacific

Council, NMFS will continue to work through RFMO processes to build consensus with other PBF-fishing nations to reduce international fishing mortality.

There is no scientific evidence that a unilateral PBF retention prohibition implemented by the United States would be an effective way to end overfishing or rebuild the stock. As mentioned in the petition, the catch of PBF by the U.S. West Coast-based fleets represents a small proportion of the total Pacific-wide catch^{4,5}(see Table 1); therefore, a unilateral retention prohibition imposed on U.S. fishermen would have a negligible contribution to ending overfishing and rebuilding the stock. For vessels that catch PBF incidentally, a prohibition on retention would likely necessitate regulatory discarding of PBF, which may limit the potential conservation gains of listing PBF as a prohibited species.

Table 1: U.S. catch of Pacific bluefin tuna relative to the Pacific-wide catch (metric tons) from 2008 through 2013 (ISC, 2015).⁶

Year	U.S. Commercial Catch	U.S. Recreational Catch	Pacific-wide Catch (by all Pacific RFMO-member nations)
2008	1	63	24,508
2009	416	156	19,440
2010	1	88	17,852
2011	118	225	17,068
2012	42	400	14,840
2013	11	809	11,325
2014	406	398	17,065
Total	995	2,139	122,098

NMFS does not agree with CBD’s argument that a unilateral prohibition on PBF retention by the United States would send a strong message to Japan and Mexico to do the same. The United States participates in two RFMOs that manage PBF—the Inter-American Tropical Tuna Commission (IATTC) implemented domestically by the Tuna Conventions Act (TCA) of 1950, as amended, and the Western and Central Pacific Fisheries Commission (WCPFC), implemented domestically by the Western and Central Pacific Fisheries Convention Implementation Act. Working in these RFMOs, Japan, Mexico, and the United States have agreed, with the other members, on management measures for PBF since 2011 for the western and central Pacific Ocean (WCPO) and since 2012 for the EPO. To date, NMFS has not received indication that other nations would emulate a unilateral action by the United States to prohibit retention of PBF.

⁴ NMFS reviewed the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific’s (ISC) data for recent (2008-2014) catch of Pacific bluefin tuna and found that U.S. West Coast fisheries constitute approximately 2.6 percent of the Pacific-wide catch in metric tons; however, in 2013, U.S. recreational catch alone accounted for about 7 percent of Pacific-wide total catch, which was before NMFS imposed significantly more restrictive bag limits in 2015. Catch records for 2015 have yet to be finalized. See Table 1.

⁵ NMFS regards the relatively high 2011 through 2013 recreational catch as an anomaly due to CPFVs and private recreational anglers fishing next to the PBF net pens, which serve as fish aggregating devices (FADs), in northern Baja California, Mexico. NMFS has been informed by Mexico’s National Aquaculture and Fishing Commission that they will begin enforcing Mexican law requiring recreational sportfishing to remain 250 m away from commercial fishing activities, such as the PBF pens, beginning in 2015.

⁶ The full report can be found here: http://isc.fra.go.jp/reports/isc/isc15_reports.html

NMFS expects restrictions on catch and effort to continue as the preferred international strategy for addressing overfishing and rebuilding the PBF stock. International conservation and management measures have progressively become more restrictive. Based on resolutions adopted by the IATTC⁷ and the WCPFC⁸ in 2014, PBF fishing nations have undertaken domestic actions to further reduce their respective catch and effort to aid in the rebuilding of PBF. NMFS has implemented both commercial and recreational fishing restrictions to reduce fishing mortality, which take into account the relative impacts of the U.S. fleets on the stock.

With regard to economic impacts, NMFS disagrees with CBD's position that a prohibition on PBF retention would have a minimal economic effect on U.S. fishermen that catch PBF. Whether caught due to direct or incidental fishing effort, PBF is a marketable species and is economically important to U.S. West Coast commercial fishermen who target HMS. The commercial coastal purse seine fleet opportunistically targets PBF when they are in the U.S. waters of the Southern California Bight (SCB). While the primary targets for this fleet are small coastal pelagic species (CPS), such as Pacific sardine, Pacific mackerel and market squid, PBF is part of their fishing portfolio, both historically and currently; revenue from PBF constitutes about 2 to 4 percent of their total revenue from fishing over a 10-year period. PBF are incidentally caught by other U.S. commercial fleets, such as the large-mesh drift gillnet (DGN) fishery, the albacore surface hook-and-line fishery, and the deep-set longline fishery. For the DGN fishery, the annual average PBF revenue share is about 3 percent. Revenues of the surface hook-and-line fleet are nearly all from albacore; PBF landings represented less than a 1 percent share of their total revenue in the 2009 to 2013 timeframe. The deep-set longline fleet primarily targets tuna species, including PBF, outside of the U.S. exclusive economic zone (EEZ); however, landings and ex-vessel data are confidential for this fleet, which has constituted fewer than three vessels. Because the availability of PBF to the U.S. commercial fleet varies with ocean conditions, so too does the percent share of revenue from PBF catch.

U.S. recreational fishermen and support industries would also be impacted by a PBF retention prohibition. Although U.S. West Coast recreational fishermen are prohibited from selling their catch, allowing recreational anglers to catch and retain PBF generates positive regional economic impacts, including personal enjoyment of, and willingness to pay for, recreational fishing trips. NMFS expects that economic impacts of a PBF retention prohibition would be concentrated on the recreational fishing community located in southern California. The CPFV fleet targeting PBF primarily operates out of San Diego County, with a limited amount of additional effort originating from Los Angeles and Orange Counties. Based on a recent economic impact study that used CPFV logbook data from the 2008 to 2013 fishing seasons, a moratorium on U.S. West Coast-based PBF retention (e.g., considered equivalent to reducing the current PBF bag limit

⁷ Resolution C-14-06 can be found here: <http://www.iattc.org/PDFFiles2/Resolutions/C-14-06-Conservation-of-bluefin-2015-2016.pdf>

⁸ CMM 2014-04 can be found here: <https://www.wcpfc.int/doc/cmm-2014-04/conservation-and-management-measure-establish-multi-annual-rebuilding-plan-pacific>

from 10 to 0 fish) could result in an estimated loss of up to \$13.8 million in annual direct trip expenditures, \$25.8 million in annual gross sales, and 178 full-time and part-time jobs within southern California due to a decrease in the number of CPFV trips that target PBF (5,275 angler days in U.S. waters and 56,338 angler days in Mexico waters) (Stohs, 2016). The degree of severity would depend upon the extent anglers substitute PBF trips with trips targeting other HMS species (e.g., yellowfin tuna, albacore) and groundfish species (rockfish, cabezon, greenling, lingcod, scorpionfish, etc.). In years when other HMS that CPFV anglers normally target are unavailable, these impacts could be more severe.

Alternative to Request 1: *As an alternative to a prohibition on the catch of PBF, CBD requests that NMFS establish (1b) annual catch limits (ACLs) and (1c) a permanent minimum size limit to protect age 1 and 2 PBF.*

CBD asserted that "... in the absence of Council recommendations for domestic regulations to address the impact of U.S. fishing vessels on PBF, NMFS must act to fulfill Congress's intent to address international overfishing." CBD recognized that NMFS guidelines do not require ACLs for internationally managed stocks. However, CBD regarded the implementation of ACLs, if not a retention prohibition, as a necessary step towards ending overfishing and rebuilding the PBF stock.

CBD also requested a minimum size measure. CBD asserted that a permanent size limit will allow the small fish that migrate to the EPO to increase in size before capture, thereby increasing yield for U.S. fishermen and spawning stock biomass (SSB). CBD did not provide specific suggestions for implementation of a size limit. However, CBD did furnish some studies regarding post-release survivability.

Public Input on Alternative to Request 1: *Many of the public comments suggested consideration of alternative measures, as opposed to a prohibition, to aid in the rebuilding of PBF. None of the comments specifically mentioned use of ACLs under the MSA, but some considered size limits as a potential alternative.*

While comments from fishing interests appeared to unanimously oppose CBD's proposal to prohibit all PBF fishing, many of these same commenters did say they were open to some type of alternative, less restrictive measure as one of potentially several solutions for ending overfishing and rebuilding the stock. Suggested alternative measures included further reducing catch limits for the commercial sector (mentioned in 110 comments, of which the majority were submitted by recreational anglers) and bag limits, imposing size restrictions, limiting the time period of the fishing season, and/or implementing fish tag programs for the recreational sector. One or several of these alternative measures were mentioned in 134 comments. No comments were received from the commercial fishing sector regarding size limits.

NMFS' Response to Alternative to Request 1: *When CBD sent its petition on April 8, 2014, it might not have realized that the Pacific Fishery Management Council had, 7 days before on April 1, already responded formally to NMFS under section 304(i) of the*

MSA, in response to the notice it had received that PBF is overfished and subject to overfishing. NMFS is pleased to report that meaningful measures have been implemented to aid in the rebuilding of PBF and to address the relative impacts of the U.S. fleet. NMFS does not regard the application of ACL requirements to the U.S. portion of the PBF catch as an effective mechanism to end international overfishing. Further, NMFS is not convinced that implementing size limits would yield conservation gains when applied to U.S. EPO fisheries, or that such a measure would be accepted by other PBF fishing nations.

Annual Catch Limits: The requirement for ACLs in U.S. fisheries began in 2007 when the MSA was reauthorized and amended. ACLs represent the amount of fish that can be caught by a fishing sector over a period of one year, and are aimed at managing fishing mortality on target species. ACLs are different from a complete prohibition in that fishing is allowed until the catch limit is reached, at which point further fishing for the year will be prohibited. Because this conservation strategy works on an annual basis, the fishery then reopens the following year and operates until the same or modified ACLs are reached. Neither the Pacific Council nor the Western Pacific Council adopted ACLs for PBF because it is a transboundary stock under international management, and as such meets the criteria for exemption from ACL requirements (see paragraph (h)(2)(ii), of the National Standard 1 guidelines; 50 CFR 600.310).

As a member of both the IATTC and WCPFC, NMFS is obligated to implement conservation and management measures adopted by these Commissions and has the authority to do so under the Tuna Conventions Act (TCA) and the Western and Central Pacific Fisheries Convention Implementation Act, respectively. NMFS has imposed PBF catch limits for U.S. commercial fisheries in the EPO under the TCA. Imposing additional catch limits under the authority of MSA would result in additional costs for U.S. industry for little additional conservation gain.

Size Limits: NMFS considers CBD's request for a size limit to mean that any PBF of year classes 1 and 2 that are caught by U.S. fisheries would have to be released. The International Commission for the Conservation of Atlantic Tunas has used size limits as a management measure for Atlantic bluefin tuna (ABFT) since 1998; however, NMFS is not convinced that such a measure would be an effective management tool for fisheries that catch PBF in the EPO. Unlike catch or retention limits, a size limit regulation is less likely to prohibit or deter targeting of PBF. Compared to fishing for ABFT, selectivity and post-release survivability associated with fishing for PBF along the U.S. West Coast is expected to be lower. Maunder and Aires-da-Silva (2014) argue that unless a fishery can completely control its selectivity, or unless released fish have a high survival rate, it is very difficult to implement and evaluate the effects of a minimum size limit.

For recreational fisheries, Bartholomew and Bohnsack (2005) note that many factors dictate post-release survivability, including the angling duration, tackle configuration, hook type, anatomical hook location, and handling procedures. For example, the majority of anglers on U.S. West Coast CPFVs that fish tuna use J hooks, which can lead to more soft tissue and gill damage to the fish. PBF caught on trolling gear could suffer even

greater damage because most trolling lures use large J hooks, double J hooks, and treble hooks. Additionally, landing and handling fish to measure them presents challenges for anglers and crew, especially during the commotion of a “good bite” (M. Thompson, pers. comm.). Paying customers on CPFVs could demand that fish be landed and measured, even if experienced crew considered the fish to be undersize based on appearance. Further, most tuna respond vigorously when removed from the water and brought on deck, and vessels equipped with U. S. Coast Guard-required non-skid surfaces could damage the skin and fins of the fish. Lastly, fish may suffer sublethal physiological effects post release (Cooke and Schramm, 2011).

NMFS acknowledges the comment letter received from CBD that disputed the Pacific Council’s Highly Migratory Species Management Team’s (HMSMT) perspective that size limits are impractical due to uncertainty in post-release survival.⁹ NMFS appreciates that CBD offered two scientific studies on post-release survival, which NMFS agrees show promise for the survivability of post-release ABFT. One study was based on a troll fishery, in which the fish were primarily hooked on the mouth. The authors of this study noted that fish would be more likely to swallow chunk bait—the primary method used by West Coast CPFVs—therefore, those fish may be more likely to sustain internal damage from the hook than the fish examined in their study (Marcek and Graves, 2014). The second study used experienced captains and anglers to investigate the post-release mortality of giant ABFT using custom-made, barbless circle hooks and releasing the fish without being brought onboard the boat (Stokesbury et al., 2011). Because the U.S. West Coast fisheries catch smaller-sized fish with different gear types than those of the studies, the positive conclusions regarding post-release survivability of ABFT may not directly apply to PBF, especially fish caught in the EPO. Rather, NMFS agrees with Maunder and Aires-da-Silva (2014) that, at this time, limiting catches is a more practical approach for the conservation of the stock in fisheries that generally catch juveniles, such as those that catch PBF in the EPO.

Domestic Actions: To date, NMFS has completed several rulemakings under the TCA to implement PBF commercial catch limits for the EPO (78 FR 33240, June 4, 2013; 79 FR 28448, May 16, 2014; 79 FR 68133, November 14, 2014) and, on July 8, 2015, implemented the U.S. commercial catch limit of 600 metric tons (mt) for 2015 and 2016 combined, and not to exceed 425 mt in either year (80 FR 38986). The IATTC initially adopted, by consensus in 2011, a resolution with commercial catch limits for nations fishing PBF in the EPO, including Mexico and the United States, and the IATTC has resolved to have catch limits in place for each year since; the catch limits for 2015 and 2016 are based on language contained within IATTC Resolution C-14-06. This resolution was based on a joint proposal between the United States, Mexico, and Japan, and reduces the commercial catch limits in the EPO by 40 percent consistent with recommendations of the IATTC scientific staff, which called for 25 to 40 percent reductions in PBF catch from the EPO.

On July 28, 2015, NMFS also implemented a reduction in the daily PBF bag limit and

⁹ The HMSMT conveyed their perspective in Agenda Item G.4.b, HMSMT Report, which can be found here: http://www.pcouncil.org/wp-content/uploads/G4b_HMSMT_Rpt2_PBF_SEPT2014BB.pdf

possession limit for U.S. West Coast recreational fisheries (80 FR 44887). Resolution C-14-06 instructed IATTC Members to take meaningful measures to reduce catches of PBF by their “sportfishing vessels operating under its jurisdiction to levels comparable to the levels of reduction applied under this resolution to the EPO commercial fisheries until such time that the stock is rebuilt.” The U.S. Delegation worked with the IATTC to adopt requirements in Resolution C-14-06 that would be complimentary to measures being considered by the Pacific Council to address the relative impact of the U.S. recreational fleet by reducing the existing PBF bag limit to a substantially lower level.¹⁰ The Pacific Council took final action at its November 2014 meeting (i.e., less than a month after the IATTC adopted Resolution C-14-06), and recommended a 2-fish daily bag limit and a 6-fish possession limit for PBF, which NMFS implemented in 2015. The bag limits apply to U.S. vessels regardless of whether catching PBF in U.S. waters or in Mexico’s waters and returning to U.S. waters. NMFS projects that the new bag and possession limits will result in an approximately 30 percent reduction in fishing mortality given recent U.S. recreational annual catch averages—a reduction that is consistent with IATTC scientific staff advice.¹¹

Request 2: *CBD requested that NMFS identify specific values for reference points used to determine if overfishing is occurring or if the stock is overfished, such as maximum fishing mortality threshold (MFMT) and the minimum stock size threshold (MSST).*

CBD’s petition requests that NMFS amend the HMS FMP to establish PBF reference points. CBD asserts that reference points have “...the potential to greatly increase awareness and improve management, thus should be a priority in amending the FMP.” CBD considers reference points essential to science-based management, including preventing overfishing, determining acceptable biological catch, and achieving rebuilding targets. CBD commented that, “[w]ithout the establishment of reference points, scientific advisors are unable to give [conservation] advice” and that the “lack of specific values for PBF reference points has already crippled scientists’ ability to provide conservation advice.”

Public Input on Request 2: *One comment was submitted that addressed reference points.*

The sole comment letter that addressed reference points was submitted by CBD and again reiterated that NMFS amend the HMS FMP to include specific reference points for evaluating PBF status.

NMFS’ Response to Request 2: *NMFS agrees with CBD that reference points assist in science-based management. Despite the lack of specific values to define certain status determination criteria (SDC) for PBF in the HMS FMP, NMFS has continued to make stock status determinations based on the best scientific information available, notify the*

¹⁰ Previous regulations for the recreational fishery included a bag limit of 10 bluefin tuna per angler per day with a possession limit of 30 bluefin tuna (three daily bag limits) in the U.S. EEZ. Mexico’s regulations set a bag limit of five PBF and a possession limit of 15 PBF (3 daily bag limits) in Mexico’s EEZ.

¹¹ NMFS acknowledges the comment letter received from CBD, which disputed this catch savings estimate. However, NMFS’ original estimate was verified in a more recent analysis that considered catch savings, whether based on the 2013 fishing season or the average of the 2008 through 2013 fishing seasons.

Pacific Council of these determinations, and adhere to obligations under MSA 304(i). Nonetheless, given the availability of subsequent years of PBF stock assessments, continued work to evaluate reference points, and the Pacific Council's upcoming biennial management cycle, NMFS encourages the Council to consider the adequacy of the FMP reference points and/or proxies for the PBF stock.

As described in paragraph (b)(2)(iv) of the MSA National Standard 1 guidelines, reference points include SDC, including MFMT and MSST or their proxies, maximum sustainable yield (MSY), acceptable biological catch (ABC), and ACLs. Because PBF is an internationally assessed and managed stock and meets the international exemption criteria of the National Standard 1 guidelines, an ABC and ACL was not included in the HMS FMP. However, the HMS FMP includes SDC and an estimate for MSY based on a mean of stock-wide catches from 1995 to 1999. These reference points are guideposts for managing the PBF stock and require being able to determine and monitor the effects of fishing. However, the effects of fishing are often difficult to determine for HMS species like PBF. For example, trends in catch and effort may reflect more than abundance, as fishing success may be affected by schooling behavior and/or environmental effects on the availability of species. Though SDC are included in the HMS FMP, specific values for MFMT and MSST have not been identified for PBF. Rather, NMFS uses these guideposts in concert with other available biological reference points to evaluate the status of the PBF stock.

NMFS determined stock status conditions of PBF based on information available in PBF stock assessments conducted by the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific (ISC) (e.g., 78 FR 41033, July 9, 2013; 80 FR 12621, March 10, 2015). The ISC is the primary scientific body that routinely conducts stock assessments on temperate tuna and tuna-like species for the North Pacific, and its PBF Working Group (PBFWG) is responsible for conducting PBF stock assessments. The ISC's PBFWG routinely reports stock size and fishing mortality relative to a range of biological reference points (e.g., ISC, 2014). NMFS considers these PBF assessments to be the best scientific information available for the purpose of determining PBF stock status conditions under the MSA and notifying the respective Councils of their responsibilities under MSA section 304(i). NMFS works with the Pacific Council to ensure that results of international assessments and status updates for management unit stocks of the HMS FMP, including PBF, are routinely made available to the public in the Stock Assessment and Fishery Evaluation reports.

Biological reference points and the actions to be taken if the points are exceeded are also a part of the precautionary approach to fisheries management as stated in Article 7.5.3 of the Food and Agricultural Organization of the United Nations' Code of Conduct for Responsible Fisheries and Article IV of the Antigua Convention governing the IATTC. The ISC has been evaluating the performance of management strategy scenarios for meeting a range of rebuilding targets and schedules for the PBF stock.¹² The WCPFC,

¹² This scenario specified a 50 percent reduction of juvenile catches from the 2002-2004 average level and fishing effort no greater than the 2002-2004 level for the WCPO, and a 50 percent reduction of catches from 5,500 metric tons for the EPO (ISC, 2014).

IATTC, the Pacific Council, and NMFS take the ISC's conservation advice into account when adopting management measures for the purpose of rebuilding the PBF stock.

The fact that specific reference points have not yet been adopted by the IATTC or the WCPFC does not preclude the Pacific Council from developing reference points in accordance with National Standard 1. Ideally, there would be some continuity in reference points selected for the purposes of international and domestic management of fishing on the PBF stock; however, the Pacific Council and NMFS are not required to adopt reference points that are identical to those that may be adopted by the IATTC or WCPFC.

Request 3 (not part of the petition for rulemaking): Aside from the petition for rulemaking discussed above, citing to section 304(i) of the MSA, 16 USC § 1854(i), CBD requests that NMFS develop and submit recommendations to the Secretary of State and Congress, for international actions that will end overfishing in the fishery and rebuild the affected stocks. Specifically, CBD suggests recommendations that include: (1) establishing a high seas moratorium on all fishing, (2) implementing a Pacific-wide minimum size for PBF catch, and (3) achieving a steep reduction in PBF quota for all countries in order to meet rebuilding targets that are based on established reference points.

High Seas Moratorium on All Fishing: CBD argues that to address some of the fundamental problems plaguing the international management of highly migratory species, NMFS should consider recommending that the Secretary of State and Congress encourage international action to close the high seas to all fishing. NMFS interprets this request as written: "all fishing," and not just PBF fishing. CBD offers that scientific support for closing the high seas to fishing "is growing and includes support for both economic reasons and population dynamics."

Pacific-Wide Minimum Size: To protect juvenile fish from fishing mortality, CBD asks that NMFS recommend to Congress and the Secretary of State that a minimum size be implemented Pacific-wide for PBF, noting that the majority of the total catch of PBF is currently less than a year old. CBD maintains that these recommendations are necessary for rebuilding the PBF stock, as well as for maintaining migrations from spawning grounds to the EPO. CBD adds that a minimum size limit has the potential to allow PBF time to migrate to the EPO, "potentially reestablishing the historical range."

Steep Reductions in Catch based on Established Reference Points: CBD urges the United States to continue pushing the two North Pacific RFMOs to achieve steep reductions in PBF "quota for all countries in order to meet rebuilding targets that are based on established reference points." CBD notes their support for the United States' recommendation on the creation of a rebuilding plan at the WCPFC annual meeting in 2013. CBD also states that in the "case where a Council manages a fish for which no internationally-set reference points exist, the Council should propose reference points for consideration by the Pacific RFMOs." CBD continues, stating that without specific reference points and rebuilding targets, managers are unlikely to make the cuts necessary

to rebuild PBF. Finally, CBD suggests that the United States recommend precautionary reference points to the RFMOs.

Public Input on Request 3: *NMFS received a few individually submitted comments in support of a high seas moratorium. All public comments that included references to establishing or reducing catch limits, size limits, and reference points were discussed with regard to the petitioner's alternative to request one and request two.*

NMFS received 32 individually submitted comments in support of fishing closures on the high seas. Additionally, the 23,826 form letters expressed support for closing the high seas to fishing. Commenters who opposed the prohibition of PBF catch under the HMS FMP could also be construed as possibly opposing closing the high seas to fishing given the context of many of their comments.

NMFS' Response to Request 3: *While not a part of CBD's request for rulemaking under MSA, the agency sees merit in CBD's request for international recommendations. MSA section 304(i), which the petition cites as the basis for this request, imposes an obligation on fishery management councils (or the Secretary, in the case of management of highly migratory species in the Atlantic Ocean) to develop recommendations for international actions that will end overfishing and rebuild the stock. In a letter dated April 1, 2014, the Pacific Fishery Management Council already made recommendations in response to MSA section 304(i). NMFS is not convinced, at this time, that either closing the high seas to fishing or establishing size limits for PBF would be effective management tools for rebuilding the PBF stock or serving U.S. national interests. Lastly, and as stated in NMFS' response to request 2, NMFS agrees with CBD's perspective that reference points and rebuilding targets aid in science-based management. NMFS will continue to work with the U.S. Delegations to the IATTC and WCPFC to promote their adoption and use in determining international conservation and management measures.*

High Seas Moratorium on All Fishing: NMFS does not consider closing the high seas to all fishing as a management strategy likely to rebuild PBF or garner consensus among RFMO fishing nations at this time. CBD states that scientific support for closing the high seas (i.e., waters seaward of national EEZs) to fishing is growing, both in terms of economic and fish population benefits. However, the petition does not provide a strong body of reference materials to support this position. The conservation benefits of closing the high seas to fishing, at least in terms of changes in total catch, are likely to be determined by the degree of movement of the targeted species, the mobility of vessels, and the opportunities to exploit the stock in alternative areas (Davis et al., 2012). While some conservationists and researchers have recently proposed using reserves for managing highly-mobile pelagics (e.g., tunas), their effective use presents special challenges due to the high mobility of both the stocks and harvesters, limited scientific knowledge on the expected benefits, and significant governance challenges (Kaplan et al. 2014). For example, Santana-Garcon et al. (2014) mention that the monitoring of pelagic species, both in large and small spatial area closures, is required to better understand how mobile species respond to spatial closures. So far, that has proven difficult to measure. CBD, too, mentioned that high seas closures would be worth evaluating; however, the

petitioner offered no further suggestions regarding mechanisms for conducting these evaluations.

In addition to concerns about the scientific uncertainty regarding the conservation benefits of stopping all fishing on the high seas, NMFS has concerns about the degree to which fishing mortality of PBF would be limited by closing the high seas, since vessels of the United States and other nations utilize the high seas only to a limited extent for harvesting PBF. Most of the U.S. commercial catches of PBF in the EPO are taken by purse seine vessels, and nearly all of the purse seine catches have been made west of Baja California and California, within about 100 nautical miles of the coast, between about 23°N and 35°N (IATTC, 2014). Similarly, most of the U.S. recreational PBF catch occurs in the EEZs of Mexico and the United States. In the western Pacific Ocean, PBF is primarily caught from Taiwan to Hokkaido, with troll, purse seine, trap, drift net, and other gear, in coastal or nearshore areas. Pacific-wide, catches of PBF on the high seas are primarily taken by the longline fleets of Japan, Korea, and Chinese Taipei; however, these fleets catch small amounts of PBF on the high seas in comparison to catches from other fishing grounds (Bayliff, 2000; ISC, 2014).

Lastly, closing the high seas to fishing may undermine national interests and international cooperation on the conservation and management of other HMS fisheries. U.S.-based HMS fisheries have a strong dependency on the high seas as part of their fishing operations in both the EPO and WCPO. The High Seas Fishing Compliance Act, enacted in 1996, requires that all commercial fishing vessels registered in the United States have a permit to fish on the high seas. NMFS issues these permits for harvesters fishing seaward of 200 miles offshore. As of March 2015, there were 285 vessels permitted to fish on the high seas in the Pacific Ocean. These U.S. vessels, as well as those of other member nations of the IATTC and WCPFC, are subject to numerous conservation and management measures to control fishing activity on the Pacific high seas.

Pacific-Wide Minimum Size: NMFS is reticent at this time to promote new approaches to reducing fishing mortality on juveniles (see the Response to Petition Request 1, above, regarding the efficacy of minimum size limits). Given the recently adopted PBF fishing restrictions by both the IATTC and WCPFC, which will be evaluated as part of the 2016 stock assessment, NMFS expects to gain insights as to whether different approaches for addressing juvenile catches should be implemented.

Steep Reductions in Catch based on Established Reference Points: Both North Pacific RFMOs adopted measures to reduce fishing mortality and address PBF overfishing, beginning with the WCPFC in 2011 and the IATTC in 2012. Initially, the WCPFC management measures were effort-based, but now include both catch-based and effort-based measures. The IATTC has always managed PBF with catch-based management measures. As previously mentioned, both RFMOs adopted (and NMFS implemented) more restrictive measures for 2015 and 2016 than in previous resolutions. In 2016, both RFMOs are expected to adopt new measures and make progress towards a rebuilding plan for PBF based on the 2016 ISC stock assessment.

Throughout the petition and specifically in this particular request, CBD emphasizes the importance of setting specific reference points and rebuilding targets. NMFS agrees that establishing international reference points is an important action to take; yet, generally, sees the importance of the RFMOs adopting reference points designed to keep the stock size and the fishing mortality rate in “safe zones” as having been eclipsed by the need to rebuild the stock. The United States and Japan submitted competing proposals for a PBF rebuilding plan during the September 2014 meeting of the Northern Committee (NC), which is a subsidiary body of the WCPFC that develops recommendations for PBF management measures. The United States proposed a rebuilding target of 20 percent of SSB, but Japan’s proposal for a rebuilding target of historical median SSB (42,592 mt) was ultimately included in the NC’s recommendation to the WCPFC for an “initial” rebuilding goal, to be reached with at least 60 percent probability within 10 years. The WCPFC later adopted the NC’s recommendation at its December 2014 annual meeting. WCPFC Conservation and Management Measure (CMM) 2014-04 establishes an interim target for rebuilding the stock.¹³ The United States submitted a proposal to the 89th Meeting of the IATTC¹⁴ encouraging the adoption of a more ambitious rebuilding target by the IATTC, and also submitted a proposal for a PBF rebuilding plan to the NC at its 11th Annual Meeting in September 2015.¹⁵ Neither proposal was adopted. The United States plans to submit proposals intended to accelerate the rebuilding of the stock at the upcoming IATTC and NC meetings.

In regards to long-term reference points, NMFS generally views the schedule set forth in CMM-2014-04 (i.e., development and consideration of reference points and harvest control rules for the long-term management of PBF at the NC’s meetings in 2015 and 2016) as a reasonable alternative for achieving the CBD’s objectives. CMM 2014-04 also set expectations for reviewing the rebuilding plan in regard to the results of the 2016 assessment and amending it, if necessary, to ensure that rebuilding is consistent with the long-term management framework. The ISC is also working with fishery managers and stakeholders to develop an operating model for evaluating candidate management strategies for PBF.¹⁶ In the interest of promoting the adoption of conservative international reference points, the United States submitted a proposal for a precautionary management framework for PBF to the NC for their 11th Annual Meeting.¹⁷ Although the management framework proposal, as well as other rebuilding plan proposals, was not adopted in 2015, NMFS remains committed to working with the U.S. Delegations to the IATTC and WCPFC to encourage adoption of appropriate and compatible reference points by both Commissions, and Pacific-wide application of a long-term management framework for PBF to rebuild the stock and avoid overfishing.

¹³ WCPFC CMM-2014-04 can be found here: <http://www.wcpfc.int/system/files/CMM%202014-04%20Conservation%20and%20Management%20Measure%20to%20establish%20a%20multi-annual%20rebuilding%20plan%20for%20Pacific%20Bluefin.pdf>

¹⁴ U.S. proposal on PBF for the 89th Meeting of the IATTC can be found here: <https://www.iattc.org/Meetings/Meetings2015/June/PDFs/Proposals/IATTC-89-PROP-J-1-USA-Bluefin-rebuilding-plan-REV2-clean.pdf>

¹⁵ U.S. proposal to NC11 on a PBF rebuilding plan can be found here: <https://www.wcpfc.int/system/files/NC11-DP-03%20%28PBF%20rebuilding%20plan%29.pdf>

¹⁶ Materials for an ISC management strategy evaluation (MSE) workshop can be found here: http://isc.ac.affrc.go.jp/reports/isc_mse_workshop.html

¹⁷ U.S. proposal to NC11 for a precautionary management framework for PBF can be found here: <https://www.wcpfc.int/system/files/NC11-DP-02%20%28PBF%20Precautionary%20Management%20Framework%29.pdf>

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