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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 223

[Docket No. 160105011-7999-03]

RIN 0648-XE390

Endangered and Threatened Wildlife and Plants; Final Rule to List the Giant

Manta Ray as Threatened Under the Endangered Species Act

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: We, NMFS, announce a final rule to list the giant manta ray (*Manta birostris*) as threatened under the Endangered Species Act (ESA). We have reviewed the status of the giant manta ray, including efforts being made to protect this species, and considered public comments submitted on the proposed rule as well as new information received since publication of the proposed rule. We have made our final determinations based on the best scientific and commercial data available. At this time, we conclude that critical habitat is not determinable because data sufficient to perform the required analyses are lacking; however, we solicit information on habitat features and areas in U.S. waters that may meet the definition of critical habitat for the giant manta ray.

DATES: This final rule is effective [*insert date 30 days after date of publication in the FEDERAL REGISTER*].

ADDRESSES: Endangered Species Division, NMFS Office of Protected Resources (F/PR3), 1315 East West Highway, Silver Spring, MD 20910. Copies of the petition, status review report, and **Federal Register** notices are available on our website at <http://www.fisheries.noaa.gov/pr/species/fish/manta-ray.html>.

FOR FURTHER INFORMATION CONTACT: Maggie Miller, NMFS, Office of Protected Resources, (301) 427-8403.

SUPPLEMENTARY INFORMATION:

Background

On November 10, 2015, we received a petition from Defenders of Wildlife to list the giant manta ray (*M. birostris*), reef manta ray (*M. alfredi*) and Caribbean manta ray (*M. c.f. birostris*) as threatened or endangered under the ESA throughout their respective ranges, or, as an alternative, to list any identified distinct population segments (DPSs) as threatened or endangered. The petitioners also requested that critical habitat be designated concurrently with listing under the ESA. We found that the petitioned action may be warranted for the giant manta ray and reef manta ray and announced the initiation of status reviews for these species, but found that the Caribbean manta ray is not a taxonomically valid species or subspecies for listing, and explained the basis for that finding (81 FR 8874, February 23, 2016). On January 12, 2017, we published a proposed rule to list the giant manta ray as a threatened species under the ESA and made a 12-month determination that the reef manta ray did not warrant listing under the ESA (82 FR 3694). We solicited information on the proposed listing determination, the development of proposed protective regulations, and designation of critical habitat for the giant manta

ray, and the comment period was open through March 13, 2017. This final rule provides a discussion of the information we received during and after the public comment period and our final determination on the petition to list the giant manta ray under the ESA.

Listing Species Under the Endangered Species Act

We are responsible for determining whether species are threatened or endangered under the ESA (16 U.S.C. 1531 *et seq.*). To make this determination, we first consider whether a group of organisms constitutes a “species” under section 3 of the ESA, then whether the status of the species qualifies it for listing as either threatened or endangered. Section 3 of the ESA defines species to include “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” On February 7, 1996, NMFS and the U.S. Fish and Wildlife Service (USFWS; together, the Services) adopted a policy describing what constitutes a DPS of a taxonomic species (61 FR 4722). The joint DPS policy identified two elements that must be considered when identifying a DPS: (1) the discreteness of the population segment in relation to the remainder of the species (or subspecies) to which it belongs; and (2) the significance of the population segment to the species (or subspecies) to which it belongs.

Section 3 of the ESA defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range” and a threatened species as one “which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Thus, in the context of the ESA, the Services interpret an “endangered species” to be one that is presently in danger

of extinction. A “threatened species” is not presently in danger of extinction, but is likely to become so in the foreseeable future (that is, at a later time). In other words, the primary statutory difference between a threatened and endangered species is the timing of when a species is or is likely to become in danger of extinction, either presently (endangered) or in the foreseeable future (threatened).

When we consider whether a species might qualify as threatened under the ESA, we must consider the meaning of the term “foreseeable future.” It is appropriate to interpret “foreseeable future” as the horizon over which predictions about the conservation status of the species can be reasonably relied upon. The foreseeable future considers the life history of the species, habitat characteristics, availability of data, particular threats, ability to predict threats, and the ability to reliably forecast the effects of these threats and future events on the status of the species under consideration. Because a species may be susceptible to a variety of threats for which different data are available, or which operate across different time scales, the foreseeable future is not necessarily reducible to a particular number of years.

Additionally, as the definition of “endangered species” and “threatened species” makes clear, the determination of status can be based on either assessment of the rangewide status of the species, or the status of the species in a “significant portion of its range.” A species may be endangered or threatened throughout all of its range or a species may be endangered or threatened throughout only a significant portion of its range. The Services published a final policy to clarify the interpretation of the phrase “significant portion of its range” (SPR) in the ESA definitions of “threatened species”

and “endangered species” (referred to as the “SPR Policy,” 79 FR 37577; July 1, 2014).

The policy expressly recognizes that the SPR phrase provides an independent basis for listing and sets out the following principles:

(1) If a species is found to be endangered or threatened throughout only an SPR, the entire species is listed as endangered or threatened, respectively, and the ESA’s protections apply to all individuals of the species wherever found.

(2) A portion of the range of a species is “significant” if the species is not currently endangered or threatened throughout its range, but the portion’s contribution to the viability of the species is so important that without the members in that portion (i.e., if the members were hypothetically lost), the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range.

(3) The range of a species is considered to be the general geographical area within which that species can be found at the time USFWS or NMFS makes any particular status determination. This range includes those areas used throughout all or part of the species’ life cycle, even if they are not used regularly (e.g., seasonal habitats). Lost historical range is relevant to the analysis of the status of the species, but it cannot constitute an SPR.

(4) If a species is endangered or threatened throughout an SPR, and the population in that significant portion is a valid DPS, we will list the DPS rather than the entire taxonomic species or subspecies.

The statute also requires us to determine whether any species is endangered or threatened throughout all or a significant portion of its range as a result of any one or a

combination of the following five factors: the present or threatened destruction, modification, or curtailment of its habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; the inadequacy of existing regulatory mechanisms to address identified threats; or other natural or manmade factors affecting its continued existence (ESA section 4(a)(1)(A)-(E)).

To make a listing determination, we first determine whether a petitioned species meets the ESA definition of a “species.” Next, using the best available information gathered during the status review for the species, we assess the extinction risk of the species. In assessing the extinction risk of the giant manta ray, in conjunction with the section 4(a)(1) factors, we considered demographic risk factors, such as those developed by McElhany et al. (2000), to organize and evaluate the forms of risks. The demographic risk analysis is an assessment of the manifestation of past threats that have contributed to the species’ current status and also informs the consideration of the biological response of the species to present and future threats. The approach of considering demographic risk factors to help frame the consideration of extinction risk has been used in many of our previous status reviews (see <http://www.nmfs.noaa.gov/pr/species> for links to these reviews). In this approach, the collective condition of individual populations is considered at the species level according to four demographic viability factors: abundance and trends, population growth rate or productivity, spatial structure and connectivity, and genetic diversity. These viability factors reflect concepts that are well-founded in conservation biology and that individually and collectively provide strong indicators of extinction risk.

Scientific conclusions about the overall risk of extinction faced by the giant manta ray under present conditions and in the foreseeable future are based on our evaluation of the species' demographic risks and ESA section 4(a)(1) threat factors. Our assessment of overall extinction risk considered the likelihood and contribution of each particular factor, synergies among contributing factors, and the cumulative impact of all demographic risks and threats on the giant manta ray.

Section 4(b)(1)(A) of the ESA requires us to make listing determinations based solely on the best scientific and commercial data available after conducting a review of the status of the species and after taking into account efforts being made by any State or foreign nation or political subdivision thereof to protect the species. Therefore, prior to making a listing determination, we also assess such protective efforts to determine if they are adequate to mitigate the existing threats. In evaluating the efficacy of existing domestic protective efforts, we rely on the Services' joint *Policy on Evaluation of Conservation Efforts When Making Listing Decisions* ("PECE"; 68 FR 15100; March 28, 2003) for any conservation efforts that have not been implemented, or have been implemented but not yet demonstrated effectiveness.

Summary of Comments

In response to our request for public comments on the proposed rule, we received information and/or comments from 25 parties. The large majority of commenters supported the proposed listing determination but provided no new or substantive data or information relevant to the listing of the giant manta ray. We also directly solicited comments from the foreign ambassadors of countries where the giant manta ray occurs

and received a response from the Aquatic Resources Authority and the Ministry of the Environment of Panama and the Fisheries and Aquaculture Regulatory Department of Guatemala, both in support of the proposed listing determination. Summaries of the substantive public comments received and our responses are provided below and organized by topic.

Comments on ESA Section 4(a)(1) Factors

Comment 1: One commenter stated that the giant manta ray is widely distributed over vast tropical oceans and, therefore, is not a vulnerable species tied to specific restricted habitats. The commenter further noted that according to their own literature search, manta rays do not appear to have any predators, and the commenter did not know of any reports of manta rays being eaten by sharks. The commenter concluded that because the manta ray has only one pup per birth, this indicates very low predation on the young. Finally, the commenter stated that there are no existing or historical commercial or sport fisheries for manta rays in U.S. waters and, thus, the stock has not been affected by any fisheries.

Response: We note that the commenter did not provide any references that were not already considered and included in the status review report and proposed rule. While we agree that the giant manta ray is a wide-ranging species, we pointed out in the proposed rule that habitat preference for the species varies by region. And while the species may show low habitat specificity, we noted that manta rays frequently rely on offshore reefs for important life history functions (e.g., feeding, cleaning).

We disagree that manta rays do not have any predators. As noted in the proposed rule, manta rays are frequently observed with shark-inflicted bites, and killer whales have been recorded preying on manta rays. We also note that the number of young does not provide an indication of predation rates on young. While the predation rate on young manta rays is unknown, the status review reports that after birth, young mantas need a period of minutes before they can swim properly, meaning they would be at risk of predation during this time. Additionally, because mantas do not provide any parental care to their offspring, the survival rate of the young may depend on the mother's choice of birth site. However, at this time, manta ray pupping and nursery grounds are unknown. Therefore, we are aware of no information to support the commenter's conclusion that there is very low predation on manta ray young.

Finally, while we do not dispute that there are no known existing or historical commercial or sport fisheries for manta rays in U.S. waters, this does not mean that U.S. fisheries are not contributing to the mortality rates of giant manta rays. As stated in the status review and proposed rule, giant manta rays are sometimes caught as bycatch in the U.S. bottom longline and gillnet fisheries operating in the western Atlantic. Additionally, manta rays have been identified in U.S. bycatch data from fisheries operating primarily in the Central and Western Pacific Ocean, including the U.S. tuna purse seine fisheries, the Hawaii-based deep-set and shallow-set longline fisheries for tuna, and the American Samoa pelagic longline fisheries. However, given the low estimates of *M. birostris* bycatch in U.S. fisheries, we concluded that impacts from this mortality on the species are likely to be minimal.

Comments on Available Data, Trends, and Analysis

Comment 2: One commenter stated the available information on abundance declines was insufficient to imply a rangewide decline. The commenter noted that many of the declines described in the status review were in highly populous areas or where targeted fishing for mobulids occurs, and that both the status review and proposed rule state that giant manta rays may be stable where they are not subject to fishing. Additionally, the commenter states that the documented declines are not based on systematic abundance surveys and rely heavily on anecdotal information.

Response: We proposed to list the giant manta ray based on its status in a significant portion of its range (SPR). Our proposal is not based on our assessment of the status throughout the range. We agree that the available information on abundance trends is lacking throughout the species range, but within the relevant SPR, the best available data indicate that the species has suffered population declines of significant magnitude (up to 95 percent in some places). We note that these declines are largely based on trends in landings and market data, diver sightings, and anecdotal observations. While we would also like to have systematic abundance survey data, this type of data is not currently available, nor did the commenter provide any such data. Under the ESA, we are required to use the best available data to make our listing determinations, and we have determined that the best available data, along with the evidence of threats to the species (i.e., overutilization and inadequacy of existing regulatory mechanisms), indicate that the species is likely to become in danger of extinction within the foreseeable future throughout a significant portion of its range.

Comment 3: One commenter suggested that the longline catch-per-unit-effort (CPUE) data from the Western and Central Pacific Ocean (WCPO) should be viewed circumspectly, and that further analysis is warranted to discern the cause of the reduction in *M. birostris* catch as presented in Tremblay-Boyer and Brouwer (2016). Additionally, the commenter argues that the WCPO purse seine catch data (Tremblay-Boyer and Brouwer 2016) does not indicate a decline, and that the bycatch data for the Eastern Pacific Ocean (Hall and Roman 2013) are variable or do not exhibit a strong trend. As such, the commenter asserts that the available evidence suggests only localized depletion and does not support a threatened status for *M. birostris* throughout the Indo-Pacific and Eastern Pacific (i.e., the relevant significant portion of its range).

Response: In the status review and proposed rule, we noted that the available WCPO CPUE longline data presented in Tremblay-Boyer and Brouwer (2016), while short, indicates that the giant manta ray is observed less frequently in recent years compared to 2000-2005. Based on the distribution of longline effort from 2000-2015 in the Western and Central Pacific Fisheries Commission longline fisheries, effort has been concentrated around Indonesia and the Philippines (Williams and Terawasi 2016), where significant declines in the species have been observed. Additionally, Williams and Terawasi (2016) note that there has been a growth in the domestic fleets operating in the South Pacific over the past decade, with effort clearly increasing between 2004 and 2015. Therefore, we think it is reasonable to assume that the noted declines in observations of the giant manta ray in the WCPO may be a result of fishery-related mortality and an associated decrease in the abundance of the species in the region. While the commenter

suggested that the decline may be due to some aspect of the fishery that has made *M. birostris* less catchable, they did not provide, nor are we aware of any information that supports that assumption.

In terms of the WCPO purse seine data (presented in Tremblay-Boyer and Brouwer (2016)), we noted in the status review that these data show strong reporting bias trends (as observer reporting in the purse seine fisheries to species-level became more prevalent after 2008), and, therefore, should not be used to assess abundance trends. The bycatch data for the Eastern Pacific Ocean (Hall and Roman 2013), mentioned by the commenter, is also discussed in the status review. While the current data do not exhibit a strong trend, overall, they do show a substantial increase in the catch and bycatch (defined as individuals retained for utilization and individuals discarded dead, respectively) of manta rays in purse seines in the Eastern Pacific Ocean since 2005. For example, prior to 2005, catch and bycatch remained below 20 t per year (data from 1998-2004), but by 2005, it was around 30 t and jumped to around 150 t in 2006 (Hall and Roman 2013). In 2008, catch and bycatch had dropped to 40 t and, in 2009, decreased further to less than 10 t (Hall and Roman 2013). In 2015, catches of manta and mobula rays by Inter-American Tropical Tuna Commission (IATTC) large purse seine vessels with observers on board in the Eastern Pacific Ocean (EPO) was 71 t (IATTC 2016). As mentioned in the status review, the estimated average annual capture for giant manta rays by IATTC purse seine vessels operating in the EPO was 135 individuals (based on data from 1993-2015). We have also become aware of a recent preliminary productivity and susceptibility analysis (PSA) that was not included in the draft status review (Miller and

Klimovich 2016). This preliminary PSA suggests that giant manta rays are one of the most vulnerable species to overfishing in the EPO purse-seine fisheries (Duffy and Griffiths 2017). Specifically, the PSA compared 32 species and calculated vulnerability scores as a combination of the species' productivity and susceptibility to the fishery (Duffy and Griffiths 2017). In all three of the models run, giant manta rays were always one of the top five most vulnerable species to the EPO purse seine fisheries (Duffy and Griffiths 2017). Because effort in this fishery coincides with high productivity areas where giant manta rays are likely to aggregate, and have been observed caught in sets, we find that this continued fishing pressure in the EPO purse-seine fisheries is likely to lead to substantial declines in *M. birostris* throughout this portion of its range and potential extirpations within the foreseeable future, with evidence of significant declines already observed off Cocos Island, Costa Rica (a protected area for manta rays).

Given the migratory nature of the species, as well as the significant fishing pressure and threats of overutilization and inadequacy of existing regulatory mechanisms to address those threats, further supported by available data indicating the vulnerability of the species to overfishing and declines in giant manta ray populations throughout this portion of its range, we disagree with the commenter and find that the available evidence indicates that *M. birostris* is likely to be in danger of extinction in the foreseeable future throughout the Indo-Pacific and Eastern Pacific portion of its range.

Comment 4: One commenter provided manta/mobula ray CPUE data from the Hawaii deep-set and shallow-set longline fisheries and the American Samoa longline fishery based on unpublished NMFS observer data.

Response: We have updated the final status review report with this information. The CPUE data further support our findings that catch of manta rays is low in these fisheries. Specifically, the observer data indicate that the CPUE (individuals per 1,000 hooks) has ranged between < 0.001 and 0.003 in the Hawaii deep-set longline fishery since 2002, with approximately 20 percent observer coverage. In the Hawaii shallow-set longline fishery, CPUE has ranged between 0 and 0.005 since 2004, with 100 percent observer coverage. In the American Samoa longline fishery, CPUE has ranged between < 0.001 and 0.003 since 2007, with approximately 20 percent observer coverage. While we find that this new data supports our conclusion that impacts from these U.S. fisheries on the status of giant manta rays are likely minimal, we do not find that it changes our analysis or conclusions regarding the extinction risk of the giant manta ray throughout a significant portion of its range due to overutilization in non-U.S. fisheries.

Comment 5: One commenter requested that the final rule expressly state that the Hawaii-based longline fisheries have only very rare interactions with manta rays, and negligible, discountable, and insignificant indirect effects on *M. birostris*. The commenter provides Hawaii-based and American Samoa longline bycatch data from 2011 to 2013 to support this argument.

Response: We have updated the final status review report with the provided bycatch data from 2011 and 2012. The status review already presented the bycatch information from 2013. It is not necessary to present detailed information in this rule about specific fisheries that do not appear to be significantly affecting the status of *M. birostris*, because this rule is focused on explaining the basis for our conclusion regarding

the listing status of the species. Available details on particular fisheries and their associated impacts can be found in the final status review of the species (Miller and Klimovich 2017). As mentioned in our response to *Comment 4*, based on available U.S. bycatch data from fisheries operating primarily in the Central and Western Pacific Ocean, including the Hawaii-based deep-set longline fisheries, the status review concludes that impacts on the giant manta ray are likely to be minimal. The additional data further support this finding.

Comment 6: One commenter provided personal observations from aerial surveys of manta rays off of St. Augustine, Florida. The commenter noted that the surveys were done from 2009-2012, and that they personally observed vast schools of mantas, with it not unusual to observe over 500 manta rays per 6-8 hour day of aerial survey. The commenter noted that unpublished results from aerial surveys also document significant numbers of manta rays from 2011-2013, and that additional aerial surveys are underway at this time.

Response: We thank the commenter for this general information and have included it in the final status review (Miller and Klimovich 2017) as a personal communication from the commenter. However, without more specific information regarding these aerial surveys and the associated data (including survey methods and manta ray identification protocols, specific counts of individuals, composition of schools (i.e., males, females, juveniles, adults), seasonal and geographical information), we find that information is still severely lacking on population sizes, distribution, and trends in abundance of *M. birostris* within this portion of its range. As such, this general

information does not change our conclusion from the proposed rule regarding the demographic risks to the species or the overall extinction risk of the species throughout its range and within the Indo-Pacific and eastern Pacific SPR.

Comment 7: The Aquatic Resources Authority of Panama and the Ministry of the Environment of Panama submitted a comment supporting our proposal to list the giant manta ray as threatened. In terms of Panamanian data, they noted that landings are reported by general category and not by species, and, therefore, no information is available on the landing or occurrence of *Manta* species in the Panamanian fisheries. However, in general, rays appear to be a sporadic resource and possibly associated with net fishing, but this cannot be verified based on the available data.

While the data on the species is lacking in Panamanian waters, the Panama Environment Ministry and the Aquatic Resources Authority of Panama noted that the available information indicates that the species should be protected and pointed to the IATTC resolution (C-15-04) that prohibits the retention, transshipment, storage, landing, and sale of all devil and manta rays taken in its large-scale fisheries.

Response: We thank the Aquatic Resources Authority of Panama and the Ministry of the Environment of Panama for their comment in support of our conclusion that the species warrants listing as a threatened species under the ESA.

Comment 8: One commenter provided new information regarding the trophic level position of the giant manta ray and potential geographical differences in body sizes of the species. The commenter noted that the new information, which indicates that the diet of giant manta rays off Ecuador is predominantly of mesopelagic origin (as opposed

to surface zooplankton) and that body size may vary by region due to prey availability or fishing pressure, should be taken into consideration during the development of critical habitat, recovery plans, and potential fishery regulations for giant manta rays.

Response: We reviewed the new information regarding the trophic level position (Burgess et al. 2016) and potential body-size differences (McClain et al. 2015); however, we do not find that this new information changes any of our conclusions regarding the threats to the giant manta ray or the extinction risk analysis of the species. In the development of critical habitat, recovery plans, or any other regulations for the conservation of the giant manta ray, we will consider this along with all other available information.

Comments on Foreseeable Future

Comment 9: One commenter stated that NMFS neglected to define the “foreseeable future” and that without a temporal unit of measure to evaluate the species’ future status, NMFS cannot rationally make conclusions about the future status.

Response: We disagree with the commenter that we did not define the “foreseeable future” as a temporal unit of measure. In fact, in the status review and proposed rule, we defined the “foreseeable future” as extending out several decades (>50 years). We note that because the giant manta ray is susceptible to a variety of threats for which different data are available, and which operate across different time scales, the foreseeable future is not reducible to a particular number of years, nor does the ESA require that we identify a specific year or period of time as the foreseeable future. We also noted in the status review that the appropriate time horizon for “foreseeable future”

is not limited to the period that status can be quantitatively modeled or predicted within predetermined limits of statistical confidence. Because neither the ESA nor implementing regulations define “foreseeable future,” the term is ambiguous, and Congress has left broad discretion to the Secretary to determine what period of time is reasonable for each species. See “Memorandum Opinion: The Meaning of ‘Foreseeable Future’ in Section 3(20) of the Endangered Species Act” (M-37021, Department of the Interior Office of the Solicitor, January 16, 2009). The appropriate timescales for analyzing various threats will vary with the data available about each threat. The foreseeable future considers factors such as the life history of the species (including generational length), habitat characteristics, availability of data, particular threats, ability to predict threats, and the ability to reliably forecast the effects of these threats and future events on the status of the species under consideration. In making our final listing determinations we must synthesize all available information and forecast the species’ status into the future only as far as we reliably are able based on the best available scientific and commercial information and best professional judgment.

As discussed in the status review and proposed rule, we considered the giant manta ray’s life history traits, noting that it would likely take more than a few decades for management actions to be realized and reflected in population abundance indices, and the impact of present threats to the species. We found that the time frame extending out several decades (>50 years) would allow for reasonable predictions regarding the impact of current levels of fishery-related mortality on the biological status of the giant manta

ray as well as impacts on giant manta ray habitat from climate change and the potential effects on the status of the species.

Comments on Significant Portion of its Range Analysis

Comment 10: One commenter stated that we inconsistently evaluated the threat of fisheries to the Atlantic portion of the giant manta ray population. The commenter notes that we concluded in the proposed rule that overutilization is unlikely to be a threat to *M. birostris* in the Atlantic Ocean; however, in the SPR analysis, we found that the impact of targeted catch and bycatch in the Atlantic Ocean would be a significant contributing factor to the extinction risk of the species without the members in the SPR. The commenter asserts that if we do not consider targeted catch and bycatch to be a threat to the species in the Atlantic Ocean, and if extirpation of giant manta rays in the Indo-Pacific and eastern Pacific would not result in a shift in effort to the Atlantic Ocean, then it is unlikely that extirpation of the SPR would result in increased impacts from fisheries in the remaining portions of the species' range.

Response: We disagree with the commenter that we inconsistently evaluated the threat of fisheries in the Atlantic portion of the giant manta ray's range and that, by extension, our conclusion regarding the identified SPR is not supported. Our determination that the Indo-Pacific and eastern Pacific portion is biologically "significant" rests on the contributions the members in that portion make to the overall viability of the species. It does not depend on any assumptions or projections as to shifts in threats that would occur if the members in the portion were hypothetically lost, but

rather to the reduction in the species' ability to withstand continuing threats (e.g., fishing) without those members.

When we conducted the SPR analysis, we noted the absence of known areas exhibiting source-sink dynamics, which could affect the survival of the species, but that the largest subpopulations and records of individuals of the species come from the Indo-Pacific and eastern Pacific portion. In the Atlantic, the only available data on populations were records of over 70 individuals from the Flower Garden Banks Marine Sanctuary (Gulf of Mexico) and 60 manta rays from waters off Brazil. As mentioned previously, these observations, coupled with the low presence of the species in Atlantic fisheries data, led us to conclude that Atlantic *M. birostris* populations are likely small and sparsely distributed. New information submitted during the public comment period also provided numbers from off the east coast of Florida (>90 individuals); however, these data do not change our previous conclusion. If the species was hypothetically extirpated within the Indo-Pacific and eastern Pacific portion of the range, only the potentially small and fragmented Atlantic populations would remain. The demographic risks associated with small and fragmented populations discussed in the proposed rule, such as demographic stochasticity, depensation, and inability to adapt to environmental changes, would become significantly greater threats to the species as a whole, and coupled with the species' inherent vulnerability to depletion, indicate that even low levels of mortality would portend drastic declines in the population. Because of these risks, we concluded that without the animals in the Indo-Pacific and eastern Pacific, even minimal targeted fishing of the species by artisanal fishermen and bycatch mortality from the purse seine,

trawl, and longline fisheries currently operating in the Atlantic would become significant contributing factors to the extinction risk of the species, placing the species in danger of extinction within the foreseeable future throughout its range. We found that the Indo-Pacific and eastern Pacific portion of the giant manta ray's range qualifies as "significant" under the SPR Policy because this portion's contribution to the viability of *M. birostris* is so important that, without the members in this portion, the giant manta ray would be likely to become in danger of extinction within the foreseeable future, throughout all of its range.

Comment 11: One commenter suggested that we should analyze whether there are more geographically-defined or regional populations of giant manta rays that could compose an SPR and analyze the status of those populations. The commenter asserts that there is no support to conclude that the entire Indo-Pacific and eastern Pacific portion of the giant manta range is an SPR and theorizes perhaps smaller portions could be SPRs that may be endangered instead of threatened.

Response: The commenter is correct that there are theoretically infinite ways to divide a species' range into potential SPRs. However, the SPR Policy does not require exhaustively analyzing all potential configurations, but rather sets out a rule of reason -- that the Services will evaluate an area as a potential SPR only where there is substantial information indicating both that a particular portion may be biologically "significant" and that the species may be either endangered or threatened in that portion. We must base our decision to focus on a particular portion on the best available scientific and commercial information. The commenter does not provide information to support

analyzing any particular portions that are likely to meet the two tests of the SPR Policy. Nor do we have additional information to support the identification of alternate, smaller SPRs. The commenter cited a study (McClain et al. 2015) that found some geographic variability in disc width sizes among giant manta ray individuals that may be associated with fishing pressure or differences in food availability; however, the study cautions that these differences may be a result of “uneven sampling across different regions or differences in methodologies.” Additionally, the authors stated that the size distribution was not “significantly different from normal” when the data were combined for all the regions. Other than this paper, the commenter makes only general suppositions regarding the potential presence of smaller portions that they believe may be significant under the SPR Policy, and cites to the status review and proposed rule statements regarding declining subpopulations in the Indo-Pacific and eastern Pacific as support.

During our analysis of the best available information, we found that threats were concentrated in the Indo-Pacific and eastern Pacific portion of the species’ range, based on data from the smaller regional populations, and concluded that this portion meets the definition of an SPR under the SPR Policy. We note that the SPR Policy does not specify how portions are to be geographically identified or require exhaustive analyses to determine all possible geographic combinations of members or areas that may comprise an SPR. However, in our demographic and SPR analysis, we found no information to demonstrate that *M. birostris* is composed of source-sink populations in any specific portion of its range, which could affect the survival of the species and may meet the specific standard of the SPR Policy to qualify it as biologically significant. Additionally,

although we found data to suggest specific populations throughout the Indo-Pacific and eastern Pacific are in decline, there was no information to suggest that the loss of any one of these populations would place the species in danger of extinction, or render it likely to become so in the foreseeable future, throughout all of its range. The commenter did not provide any new information that suggests this would be the case. However, we did find that loss of *all* of the populations in the Indo-Pacific and eastern Pacific portion of the species' range would place the species in danger of extinction within the foreseeable future throughout all of its range. We state that the largest subpopulations and records of individuals of the species come from this portion and, without it, the species would have to rely only on its members in the potentially small and fragmented Atlantic populations for survival (see response to *Comment 10* for further details). We therefore disagree with the commenter and find no rationale for conducting additional SPR analysis.

Comment 12: One commenter contended that the proposed rule failed to provide the required analysis and information to satisfy the legal requirements of the ESA in the context of the SPR analysis. The commenter asserted that there are two underlying errors: 1) NMFS failed to conduct a “detailed analysis” to support its conclusion that the Indo-Pacific and eastern Pacific portion of the giant manta ray’s range is significant under the SPR Policy; and 2) NMFS failed to engage in a “separately” and similarly “detailed analysis” to determine whether the giant manta ray is endangered or threatened in the portion of its range found to be significant.

Response: In regards to the first claim, we disagree with the commenter that we failed to conduct a “detailed analysis” with respect to our determination that the Indo-

Pacific and eastern Pacific portion of the giant manta ray's range is "significant" under the SPR Policy. As required by the SPR Policy, we examined whether the members of the species within the identified portion of the giant manta ray's range are so important to the viability of the species that, without them, the species would be in danger of extinction or likely to become so within the foreseeable future throughout all of its range. In conducting this analysis, we considered what the composition of the species would be if, hypothetically, members of the Indo-Pacific and eastern Pacific portion were extirpated (lost). We noted that the species would have to rely on only its members in the Atlantic for survival. As previously discussed in the proposed rule within the **Demographic Risk Analysis** section (82 FR 3708; January 12, 2017) and summarized in our response to *Comment 10*, the best available data suggest that the populations within the Atlantic are small and sparsely distributed, so the demographic risks of the species would increase to the point that the species would likely become endangered within the foreseeable future throughout its range. The demographic risk analysis, which examined abundance, spatial distribution, productivity, and diversity of giant manta rays, specifically discussed the risks associated with small and fragmented populations. We did not find it necessary to repeat this same information within the SPR analysis section but rather referred back to the previous, detailed discussion of demographic risks for small and sparsely distributed populations. While the commenter argues that this discussion falls short of the analytical standards set forth in the SPR Policy, specifically citing that the analysis must consider the contribution of the portion to the viability of the species using concepts of redundancy, resiliency and representation, we note that the SPR Policy

also states that these concepts can be considered in terms of abundance, spatial distribution, productivity, and diversity of the species, as was done in this analysis. *See* 79 FR at 37581. Additionally, while the commenter suggests our discussion is conclusory and speculative, the commenter provides no additional data for us to consider. As such, we reiterate that we used the best available information, as required by the ESA, to conduct our SPR analysis, we fully analyzed all of that information, and we provided a detailed explanation of our analysis to support our conclusions.

With respect to the second claim, we disagree with the commenter that we failed to conduct a separate, detailed analysis of whether the giant manta ray is endangered or threatened in the portion of its range that we found to be “significant.” In conducting our extinction risk analysis, which considered all of the information from the detailed demographic risk analysis and threats assessment, we concluded that giant manta ray populations within the Indo-Pacific and eastern Pacific portion of its range (i.e., the SPR) are at a “moderate risk of extinction,” and we explained the basis for that conclusion in the proposed rule. We defined “moderate risk of extinction” within the status review (and cited to this definition within the proposed rule) as a species that “. . . is on a trajectory that puts it at a high level of extinction risk in the foreseeable future.” A “high level of extinction risk” was defined to mean that a species “is at or near a level of abundance, productivity, spatial structure, and/or diversity that places its continued persistence in question . . . [or] faces clear and present threats (e.g., confinement to a small geographic area; imminent destruction, modification, or curtailment of its habitat; or disease epidemic) that are likely to create imminent and substantial demographic

risks.” In our overall determination, we found that a “moderate risk of extinction” equates to a threatened status, as the species is on a trajectory toward a status where its continued persistence is in question (where it is in danger of extinction) in the foreseeable future. To the extent there was any ambiguity in the analysis set forth in the proposed rule, we clarify here that the species is likely to become in danger of extinction within the foreseeable future within the Indo-Pacific and eastern Pacific portion, which correlates to “threatened” status. However, we cannot end our analysis there. The ESA also directs us to take into account conservation efforts after conducting a review of the status of the species and before making our determination. Therefore, we conducted the SPR analysis to evaluate the risk of extinction of the giant manta ray, but then proceeded to look at conservation efforts to determine whether the identified risk level is reduced as a result of such efforts before coming to our final determination. As we did not find that conservation efforts significantly altered the extinction risk for the giant manta ray to the point where it would not be in danger of extinction in the foreseeable future, we made our final determination that the giant manta ray is likely to become in danger of extinction within the foreseeable future throughout a significant portion of its range and therefore proposed to list it throughout its range as a threatened species.

Comment 13: Two commenters argued that the giant manta ray is in danger of extinction in the identified SPR and, therefore, should be listed as an endangered species. One commenter states that NMFS did not fully take into account the migratory nature of the giant manta ray and its large range when it proposed to list the species as threatened. The commenter cites to the declines of over 80 percent in certain commercial fishing

hotspots in the SPR where giant manta rays feed and aggregate during migrations through the region, and argues that the impairment of these portions increases the vulnerability of the species to threats, placing the entire species in danger of extinction. The other commenter argues that the observed declines of 80-95 percent in the SPR should be interpreted as the SPR being at a high risk of extinction. One commenter also states that our own conclusions in the proposed rule satisfied the SPR Policy threshold for “likely to go extinct throughout a significant portion of its range.” Finally, the same commenter states that if NMFS lists the species as threatened, it has circumvented the analysis of determining whether the species is in danger of extinction in any portion of its range, instead basing its conclusion on the worldwide decline of the species.

Response: We disagree with both commenters. We also note that neither commenter provided any new information that was not already considered in the status review and proposed rule. As such, the commenters’ claims are based on their own interpretation of the data and the SPR Policy. Below, we discuss our rationale for listing the giant manta ray as threatened within an SPR and explain key aspects of the SPR Policy.

First, we disagree with the statement that we did not consider the migratory nature of the giant manta ray or its large range when evaluating the species’ extinction risk. In fact, its global range and the lack of available information on the abundance, life history, and ecology of the species in the Atlantic portion of this range was the reason why the declines observed in the Indo-Pacific and eastern Pacific portion were found not to translate to overall declines in the species throughout its *entire* range. We also considered

the migratory nature of the species when we examined threats to the species. For example, in our discussion of the adequacy of existing regulatory mechanisms, we noted that current national protections for the species may not be adequate to protect it from overutilization, primarily because the species is pelagic and migratory and not confined to these protected areas. Additionally, when evaluating the overall risk of extinction of the species, we noted that although larger, and seemingly stable populations of the species still exist (including within areas of the Indo-Pacific and eastern Pacific), its migratory behavior means the species will continue to face fishing pressure throughout this portion through the foreseeable future. However, we disagree that declines of 80-95 percent in local populations within the SPR establish that the species is at a high risk of extinction. As stated in the proposed rule, despite these declines, larger subpopulations of the species still exist within the SPR. In fact, the only two available subpopulation estimates of *M. birostris* (from Mozambique and Ecuador) suggest that these populations are not so critically small in size that they are likely to experience extreme fluctuations that could lead to depensation or otherwise put the populations in danger of extinction at this time. In addition, we note that elsewhere in the SPR, current and accurate abundance estimates are unavailable for the giant manta ray, as the species tends to be only sporadically observed. In terms of other demographic risks, we note that the available information does not indicate any changes in the reproductive traits of the species or the natural rates of dispersal among populations (particularly within the SPR), or any evidence that the species is presently strongly influenced by stochastic or depensatory processes within the SPR. As such, the best available information does not indicate that

the species is presently in danger of extinction within the SPR. However, due to continued fishing pressure within the SPR and the inadequacy of existing regulatory measures to control this fishing pressure, we concluded that overutilization is a threat to the remaining *M. birostris* populations that places the species within the SPR on a trajectory to be in danger of extinction in the foreseeable future.

Second, one of the commenters equates a statement in the proposed rule that extirpations of those populations that have experienced substantial declines and are still subject to fishing, particularly in the Indo-Pacific and eastern Pacific portions of the species' range, would inherently increase the overall risk of extinction for the entire species (see 82 FR 3694; January 12, 2017) to indicating that the species is "likely to go extinct" throughout an SPR. The commenter further goes on to incorrectly interpret our statement to mean that the Indo-Pacific and eastern Pacific portions are increasing the vulnerability of the species to threats to the point where the entire species is in danger of extinction. The statement in the proposed rule referenced by the commenter was made in our analysis of the demographic risk that current abundance and trends in abundance pose to the species. To clarify, the statement in the proposed rule that the hypothetical loss of the animals in the SPR would cause an "inherent increase" in the overall risk of extinction for the species does not mean that the species is actually now at the level where it is considered to be in danger of extinction. Rather, it means that the species would be at a higher risk of extinction if, hypothetically, the members in the portion were no longer in existence and providing contributions to the species than the species is

currently. In fact, as already discussed, we concluded the species would likely become endangered within the foreseeable future without that portion.

Third, one of the commenters presents an argument that the entire species is in danger of extinction due to the impairment of the species within the SPR, and that we should therefore conclude that the giant manta ray is in danger of extinction throughout the SPR. Specifically, the commenter states that the species has experienced declines in certain fishing hotspots or aggregation areas and that “[t]he impairment of these portions of the species’ range increases the vulnerability of the species to the threats it faces to the point that the entire species is in danger of extinction.” The commenter thus asserts that we should have concluded that the giant manta ray is endangered in an SPR, and that we inappropriately reached a threatened status conclusion simply because the species is not endangered in every part of its range. The commenter further states that if we list the species as threatened, it indicates that we only looked at the worldwide decline and did not consider whether the species is endangered in some portions of its range. Contrary to this assertion, we did consider whether the species was endangered or threatened in any significant portion of its range. As outlined previously, after evaluating the species’ extinction risk throughout its range (worldwide), we reached a conclusion that the species was not threatened or endangered range wide. Thus, we next conducted an SPR analysis. As stated in the proposed rule, and in the SPR Policy (79 FR 37577; July 1, 2014), in order to identify only those portions that warrant further consideration under the SPR Policy, we must determine whether there is substantial information indicating both that (1) a particular portion of the range may be “significant” and (2) the species may be in

danger of extinction in that portion or likely to become so within the foreseeable future. The policy further explains that, depending on the particular facts of the situation, it may be more efficient to address the question of whether any identified portions are “significant” first, but in other cases it will make more sense to examine the status of the species in the identified portions first. In the case of the giant manta ray, we first examined whether there were any portions of the range where the species is in danger of extinction (endangered) or likely to become so in the foreseeable future (threatened) and, finding that there were, we then evaluated whether those portions were “significant” under the SPR Policy. We concluded that the species is threatened in the Indo-Pacific and eastern Pacific portion of its range, and that this portion is “significant” under the SPR Policy. As previously explained, the best available information does not indicate that the species is presently in danger of extinction within the SPR; and therefore, we disagree with the commenter that the species should be listed as endangered.

Lastly, the commenter makes assertions about the status of the species that are not supported in the record. Specifically, the commenter states: “Under any reasonable reading of the ESA, the rapid decline of individuals in these areas and their *likelihood of extinction* in the foreseeable future would indicate that the species should be listed as endangered.” (Emphasis added.) The commenter’s assertions that the species is likely to become extinct within the foreseeable future is not supported in the record. We found that the best available scientific and commercial information indicates that the species is likely to become “endangered” (in *danger* of extinction) “within the foreseeable future” within the SPR. 16 U.S.C. 1532(20). Thus, the species meets the definition of

“threatened” within the SPR. We have not stated, and could not on the present record conclude, that the species is “likely to become *extinct* within the foreseeable future” – a much more grave prediction – either within the SPR or throughout its range. (Note that a finding that the portion is “significant,” while based on an assumed *hypothetical loss* of the members in the portion for the sake of analysis, is not actually a prediction of such loss.) Because we have found that the species is threatened in the SPR, per the SPR Policy, we are listing the species as threatened throughout its range.

To summarize from the proposed rule, after examining and considering all of the available information on the species, including life history and abundance data as well as current and future threats to the species, we concluded that the species was not in danger of extinction or likely to become so within the foreseeable future throughout its range. However, applying the SPR Policy, we determined that the Indo-Pacific and eastern Pacific portion of the species’ range qualified as an SPR. In evaluating the extinction risk of the species within this portion, we took into consideration the demographic risks of the species, the information on observed declines of the species in certain fishing areas, and the factors under section 4(a)(1). However, we also noted that there is considerable uncertainty regarding the current abundance of *M. birostris* throughout this portion, with evidence that large subpopulations of the species still exist, such as off Mozambique and Ecuador. The proposed rule also mentioned that numbers of giant manta rays identified through citizen science in Thailand’s waters have been increasing over the past few years, and actually surpass the estimate of identified giant mantas in Mozambique, possibly indicating that Thailand may be home to the largest aggregation of giant manta rays

within the Indian Ocean. Because neither commenter provided any new information to consider regarding abundance, population declines, or threats in this SPR, our conclusion that the species is likely to become in danger of extinction within the foreseeable future, and thus is threatened, within the SPR remains the same, and, per the SPR Policy, we are listing it as threatened throughout its range under the ESA.

Comment 14: One commenter states that the intention to list the giant manta ray as threatened is unwarranted due to an almost complete lack of scientific evidence. The commenter notes that there is no conclusive threat in North American waters, and that the threatened conclusion is based on one article in the literature. The commenter further goes on to state that there are no fisheries for manta rays in North American waters or evidence of the species being overfished in U.S. waters, and notes that manta rays are protected from direct fishing pressure in Mexico, Brazil, and Florida and are listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Response: We disagree with the commenter that the listing of the giant manta ray as threatened is unwarranted. We also disagree that our conclusion was based on one article in the literature. As noted in the proposed rule, we considered the best available scientific and commercial information including the petition, public comments submitted on the 90-day finding (81 FR 8874; February 23, 2016), the draft status review report (Miller and Klimovich 2016), and other published and unpublished information, and have consulted with species experts and individuals familiar with manta rays to come to our determination. Based on the available data, we concluded that the giant manta ray is not

in danger of extinction or likely to become so throughout its entire range, but is threatened within an SPR. As thoroughly discussed in the proposed rule and status review, the giant manta ray faces concentrated threats within the SPR, with estimated take of the species frequently greater than the observed individuals in the area and evidence of declines in sightings and landings of the species of up to 95 percent in some places. Efforts to address overutilization of the species through regulatory measures are inadequate within the SPR, with targeted fishing of the species despite prohibitions and bycatch measures. Based on the demographic risks and threats to the species within the SPR, we determined that the species is likely to become in danger of extinction within the foreseeable future throughout the SPR.

We do not posit that there are fisheries for manta rays in North American waters, or that the species is being overfished in U.S. waters. As the final status review (Miller and Klimovich 2017) and proposed rule state, manta rays are observed as bycatch in the purse seine, trawl, and longline fisheries operating in the Atlantic Ocean. In our analysis of the species' status throughout its entire range, we conclude that it is unlikely that overutilization as a result of bycatch mortality is a significant threat to the species in the Atlantic Ocean; however, we caveat this statement with the fact that information is severely lacking on population sizes and distribution of *M. birostris* in the Atlantic as well as current catch and fishing effort on the species throughout this portion of its range. However, as noted in our response to *Comment 10*, in conducting the SPR analysis, we found that even minimal targeted fishing of the species by artisanal fishermen and bycatch mortality from the purse seine, trawl, and longline fisheries operating in the

Atlantic would become significant contributing factors to the extinction risk of the species if the species was extirpated within the SPR, which would place the species in danger of extinction within the foreseeable future throughout its range.

Comments on Similarity of Appearance Listing

Comment 15: Two commenters stated that when NMFS finalizes its decision on the giant manta ray, it should also “list” the reef manta ray under the similarity of appearance provision in the ESA. One of the commenters notes that both species are morphologically similar and that products from the giant and reef manta rays are practically impossible to distinguish in the international trade market (citing Wu 2016).

The other commenter notes the exponential demand for manta ray gill plates in the trade and argues that the gill plates in all nine species of manta rays look “almost identical.” The commenter further states that once a manta ray gill plate has been removed and dried, it is “almost impossible” to identify it to species. The commenter asserts that release of the “Field Identification Guide of the Prebranchial Appendages (Gill Plates) of Mobulid Rays for Law Enforcement and Trade Monitoring Applications” by the Manta Trust non-profit (Manta Trust 2011) was evidence of “how difficult it is for law enforcement to distinguish between each species gill plates” and that this is an “extremely difficult task.” The commenter further goes on to state that law enforcement will also be unable to use capture locations or depths to help determine the species of manta ray because they inhabit an overlapping range of habitat. The commenter contends that the difficulty in distinguishing between the reef and giant manta ray gill plates is an additional threat to the giant manta ray because fishermen will be able to continue to

target the giant manta ray and pass off the gill plates as reef manta rays. Additionally, the commenter contends that listing the reef manta ray will “substantially facilitate the enforcement and further the policy” of the ESA because it will allow the giant manta ray population to increase and deter fishermen from catching them due to the higher likelihood that they will be caught by law enforcement. The commenter concludes that the reef manta ray must also be protected under the ESA to avoid misidentification of the manta ray gill plates and to discourage fishermen from disregarding the species of manta ray that they catch.

Response: Section 4 of the ESA (16 U.S.C. 1533(e)) provides that the Secretary may, by regulation of commerce or taking, and to the extent he deems advisable, treat any species as an endangered or threatened species even though it is not listed pursuant to Section 4 of the ESA when the following three conditions are satisfied: (1) such species so closely resembles in appearance, at the point in question, a species which has been listed pursuant to Section 4 of the ESA that enforcement personnel would have substantial difficulty differentiating between the listed and unlisted species; (2) the effect of this substantial difficulty is an additional threat to an endangered or threatened species; and (3) such treatment of an unlisted species will substantially facilitate the enforcement and further the policy of the ESA (16 U.S.C. 1533(e)(A)-(C)).

In terms of the similarity of appearance of the gill plates assertion by the commenter, we first note that there are not nine species of manta rays, as stated by one of the commenters, but nine species of mobula rays. Manta rays are currently split into two species. We assume that the commenter was also referring to mobula rays in their

statement that “all nine species of manta rays look almost identical.” Furthermore, the Manta Trust field identification guide cited by the commenter (Manta Trust 2011) explicitly states that “[g]ill plates from the two species of manta rays can be visually identified from the other species.” The guide explains that if the gill plate size is larger than 30 cm, is uniform brown or black in color, and has smooth filament edgings, then it belongs to a manta species (Manta Trust 2011). The guide concludes that “Manta ray gill plates can easily be distinguished from the traded mobula ray species’ gill plates using this simple visual ID Guide. The size, colour patterning, and filament edging of the gill plates can be used as an effective and easy indicator to determine the species of origin [sic]” (Manta Trust 2011). Based on this new information, we do not find that enforcement officials will have difficulty identifying manta ray gill plates from other mobula ray gill plates.

In terms of identifying manta ray gill plates to species level, the information provided by the commenters did not discuss this issue, nor do we have information available in our files that would allow us to conclude that enforcement personnel would have substantial difficulty in attempting to differentiate between the two manta ray species. Additionally, even if these products from the two species closely resemble each other in appearance, we do not find that this resemblance poses an additional threat to the giant manta ray, nor do we find that treating the reef manta ray as an endangered or threatened species will substantially facilitate the enforcement of current ESA prohibitions or further the policy of the ESA, for the reasons explained below.

As described in the proposed rule, the significant operative threats to the giant manta ray are overutilization by foreign commercial and artisanal fisheries in an SPR (i.e., the Indo-Pacific and Eastern Pacific) and inadequate regulatory mechanisms in foreign nations to protect these manta rays from the heavy fishing pressure and related mortality in these waters outside of U.S. jurisdiction. In fact, the take and trade of the species by persons under U.S. jurisdiction were not identified as significant threats to the giant manta ray. As such, we do not find that treating the reef manta ray as a threatened species would substantially further the conservation of the giant manta ray under the ESA.

Regarding the potential take of giant manta rays by U.S. fishermen, which is primarily in the form of bycatch in U.S. fisheries, we do not find that the reef manta ray so closely resembles the giant manta ray in appearance such that enforcement personnel would not be able to differentiate between these two species when caught or landed. In fact, as noted in the status review, many physical characteristics, including coloration, dentition, denticles, spine morphology, and size, can be used to distinguish between the giant manta ray and the reef manta ray. For example, the chevron color variant of *M. birostris* can be distinguished from the chevron *M. alfredi* color type by its dark (black to charcoal grey) mouth coloration, medium to large black spots that occur below its fifth gill slits, and a grey V-shaped colored margin along the posterior edges of its pectoral fins (Marshall et al. 2009). In contrast, the chevron *M. alfredi* has a white to light grey mouth, dark spots that are typically located in the middle of the abdomen, in between the five gill slits, and dark colored bands on the posterior edges of the pectoral fins that only

stretch mid-way down to the fin tip (Marshall et al. 2009). Additionally, only *M. birostris* has a caudal thorn and prominent dermal denticles that gives their skin a much rougher appearance than that of *M. alfredi* (Marshall et al. 2009). Based on these distinguishing characteristics, we do not find that enforcement personnel would have substantial difficulty in attempting to differentiate between the giant and reef manta ray species in the bycatch of U.S. fisheries. Furthermore, we note that the reef manta ray does not occur in the Atlantic Ocean, so any manta rays caught by U.S. fisheries in this portion of the giant manta ray range would easily be identified as *M. birostris*.

Regarding trade, the main threat to the giant manta ray is the international mobulid gill plate trade. As stated in the status review and proposed rule, since the 1990s, the gill plate market has significantly expanded, which has increased the demand for manta ray products, particularly in China. These gill plates are used in Asian medicine and are thought to have healing properties. However, as noted in the final status review (Miller and Klimovich 2017) and proposed rule, Indonesia, Sri Lanka, and India presently represent the largest manta ray exporting range state countries, with Chinese gill plate vendors also reporting mobulid gill plates from other regions as well, including Malaysia, China, Taiwan, Vietnam, South Africa, Thailand, Australia, Philippines, Mexico, South America (e.g., Brazil), the Middle East, and the South China Sea (CMS 2014; Hau et al. 2016; O'Malley et al. 2017). We found no information to indicate that the United States has a significant, or even any, presence in the international mobulid gill plate trade.

Additionally, and as explained in the *Protective Regulations Under Section 4(d) of the ESA* section below, because we find that the United States is not a significant contributor to the threats facing the giant manta ray, we have determined that protective regulations pursuant to section 4(d) are not currently necessary and advisable for the conservation of the species. Therefore, even if there may be some degree of difficulty in differentiating reef manta rays and giant manta rays, or their gill plates, we do not find that U.S. enforcement personnel will be faced with this task to the extent that necessitates treating the reef manta ray as a listed species to further the conservation of the giant manta ray under the ESA. Ultimately, given the threats to the species as discussed in the final status review (Miller and Klimovich 2017) and proposed rule, any conservation actions for giant manta ray that would bring it to the point that the measures of the ESA are no longer necessary will need to be implemented by foreign nations.

For the reasons above, we do not find it advisable to further regulate the commerce or taking of the reef manta ray by treating it as a threatened species based on similarity of appearance to the giant manta ray.

Comments on Establishing Protective Regulations Under Section 4(d) of the ESA

Comment 16: Two commenters requested that we consider not issuing protective regulations pursuant to section 4(d) of the ESA as U.S. fisheries are not contributing significantly to the primary threat of overutilization of the giant manta ray. One of the commenters noted that there are no directed fisheries for giant manta rays in the U.S. Western Pacific Region, and incidental catches are rare. Additionally, the commenter pointed out that we considered the impact on the giant manta ray from the Hawaii-based

longline and American Samoa longline fisheries to be minimal. Similarly, the other commenter asserted that the Hawaii-based commercial longline fisheries pose no risk to the giant manta ray and, therefore, application of the take prohibition to these fisheries is not necessary or advisable for the conservation of the species. Another commenter urged NMFS to consider exempting a very small number of giant manta rays for collection for public aquarium display.

In contrast, one commenter urged NMFS to promulgate a section 4(d) rule to make it unlawful to take a giant manta ray, especially for its gill plate. Additionally, the commenter stated that the rule should prohibit the trade or sale of manta ray gill plates in the United States and also include habitat protection to ensure ecosystems that giant manta rays depend on remain intact. Similarly, another commenter formally petitioned NMFS under the Administrative Procedure Act (APA), 5 U.S.C. 553(e), to extend the ESA section 9(a) prohibitions to giant manta rays.

Response: Under the ESA, if a species is listed as endangered, the ESA section 9 prohibitions automatically apply and any “take” of, or trade in, the species is illegal, subject to certain exceptions. In the case of a species listed as threatened, section 4(d) of the ESA gives the Secretary discretion to implement protective measures the Secretary deems necessary and advisable for the conservation of species. Therefore, for any species listed as threatened, we can impose any or all of the section 9 prohibitions if we determine such measures are necessary and advisable for the conservation of the species.

However, after a review of the threats and needs of the giant manta ray, we have determined that protective regulations pursuant to section 4(d) are not currently necessary

and advisable for the conservation of the species. The basis for this determination is provided in detail in the *Protective Regulations Under Section 4(d) of the ESA* section below; please see that section for more information.

Comments on Designating of Critical Habitat

Comment 17: Two commenters stated that NMFS should designate critical habitat in U.S. waters concurrently with the final listing. One commenter states that these areas should include aggregation sites along the west coast of the United States and the Pacific Trust Territories (the Marianas, the Carolines, and the Marshalls Island groups), the east coast of the United States, the coasts of Hawaii, and anywhere else the species lives in U.S. waters. The commenter notes that there are at least two known aggregation sites that should be designated with the final listing: the area within and surrounding the Flower Garden Banks National Marine Sanctuary, and a site off the coast of St. Augustine, Florida. Similarly, the other commenter also mentions that giant manta rays often use the Flower Gardens Banks National Marine Sanctuary and may also aggregate off the east coast of South Florida.

Response: Section 4(a)(3)(a) of the ESA (16 U.S.C. 1533(a)(3)(A)) requires that, to the extent prudent and determinable, critical habitat be designated concurrently with the listing of a species. However, if critical habitat of such species is not then determinable, the Secretary may extend the time period for designation by one additional year (16 U.S.C. 1533(b)(6)(C)(ii); 50 CFR 424.17(b)).

Critical habitat is defined in section 3 of the ESA (16 U.S.C. 1532(3)) as: (1) The specific areas within the geographical area occupied by a species, at the time it is listed in

accordance with the ESA, on which are found those physical or biological features (a) essential to the conservation of the species and (b) that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed upon a determination that such areas are essential for the conservation of the species.

In the proposed rule to list the giant manta ray (82 FR 3694; January 12, 2017), we requested information describing the quality and extent of habitats for the giant manta ray, as well as information on areas that may qualify as critical habitat for the species in U.S. waters. We stated that specific areas that include the physical and biological features essential to the conservation of the species, where such features may require special management considerations or protection, should be identified. While the commenters provided the general locations of known giant manta ray aggregation areas within the U.S. Gulf of Mexico, and a potential aggregation area off the U.S. east coast, the commenters did not provide, nor do we have, any information on the physical or biological features of these sites that might make these aggregation areas essential to the conservation of the species. Additionally, the commenters provided no information on specific areas that may meet the definition of critical habitat within the other locations that they listed. We also note that critical habitat shall not be designated in foreign countries or other areas outside U.S. jurisdiction (50 CFR 424.12(g)); and, therefore, we cannot designate critical habitat in the waters of the commenter's requested Pacific Trust Territories, specifically the Republic of the Marshall Islands, Federated States of Micronesia, or the Republic of Palau.

We received no other information regarding critical habitat from public comments. After reviewing the comments provided and the best available scientific information, we conclude that critical habitat is not determinable at this time because data sufficient to perform the required analyses are lacking. Specifically, we find that sufficient information is not currently available to: 1) identify the physical and biological features essential to conservation of the species at an appropriate level of specificity, particularly given the uncertainty surrounding the species' life history characteristics (e.g., pupping and nursery grounds remain unknown) and migratory movements, 2) determine the specific geographical areas that contain the physical and biological features essential to conservation of the species, particularly given the global range of the species, and 3) assess the impacts of the designation. (See also the *Critical Habitat* section for additional information.) However, public input on features and areas in U.S. waters that may meet the definition of critical habitat for the giant manta ray is invited. Additional details about specific types of information sought are provided in the *Information Solicited* section later in this document. Input may be sent to the Office of Protected Resources in Silver Spring, Maryland (see **ADDRESSES**). Information received will be considered in evaluating potential critical habitat for this species.

Comments on Development of a Recovery Plan

Comment 18: One commenter noted that NMFS should develop a comprehensive recovery plan following the ESA listing of the giant manta ray.

Response: Once a species is listed as threatened or endangered, section 4(f) of the ESA generally requires that we develop and implement recovery plans that must, to the

maximum extent practicable, identify objective, measurable criteria which, when met, would result in a determination that the species may be removed from the list.

Development of a recovery plan will be considered through a separate effort subsequent to this rulemaking.

Comments on the “Not Warranted” Final Determination for the Reef Manta Ray

The Federal Register document announcing the 12-month finding on the petition to list giant and reef manta rays under the ESA (82 FR 3694; January 12, 2017) solicited public comments only on the proposal to list the giant manta ray as a threatened species. However, we also received a few comments from one commenter concerning the final 12-month “not warranted” determination for the reef manta ray. Although that determination is a final agency action and thus not subject to public comment or an obligation to respond to such comment, we nevertheless reviewed the comments on the 12-month “not warranted” determination and take this opportunity to provide responses for additional clarity below.

Comment 19: The commenter stated that the SPR analysis was inadequate, and that NMFS did not identify any portion of the range as biologically significant to determine whether the reef manta ray may be in danger of extinction in that portion now or in the foreseeable future. Thus, the commenter asserts that NMFS relied on an inadequate SPR analysis to conclude that the risk of extinction is low throughout the species’ entire range.

Response: We disagree with the commenter regarding the adequacy of the SPR analysis. As discussed above, the SPR Policy explains that, after identifying any portions

that warrant further consideration, depending on the particular facts of the situation, NMFS may find it is more efficient to address the question of whether any identified portions are “significant” first, but in other cases it will make more sense to examine the status of the species in the identified portions first. In the case of the reef manta ray, we chose to look at the second issue first; that is, we first considered whether the species is in danger of extinction, or likely to become so in the foreseeable future, in any particular portion of its range. We found that in waters off Mozambique and the Philippines, *M. alfredi* has suffered declines from targeted fishing, with this overutilization likely causing the members in this portion to experience a higher risk of extinction relative to the species overall. Additionally, we identified waters off Indonesia, Papua New Guinea, and Kiribati as portions of the species range where the species is likely at higher risk of extinction relative to the species overall, due to concentrated threats. Having concluded the species is likely at higher risk than the overall species in these portions (but without reaching the point of definitively concluding that the species is threatened or endangered there for the time being), we moved on to the second part of the SPR analysis, which requires us to determine whether any of these portions meet the SPR Policy’s test of “significant.” Again, as stated in the proposed rule, we found that the hypothetical loss of the members of the species within any or all of these portions would not put the entire species in danger of extinction throughout all of its range now or in the foreseeable future. This is because the remaining populations, which include some of the largest identified *M. alfredi* populations, benefit from national protections that prevent overutilization of the species and are not showing evidence of decline. Because we did

not have any evidence to establish that the loss of animals in any or all of the at-risk portions would place the entire species in danger of extinction now or in the foreseeable future, there was no basis to conclude any of the potentially at-risk portions were “significant.” Because the “significance” prong of the analysis was not met, it was unnecessary to continue to evaluate whether the species may be threatened or endangered in those portions. We also note that the commenter did not provide any new information regarding these portions or their significance under the SPR Policy. As such, we find that our SPR analysis was adequate.

Comment 20: The commenter stated that we did not analyze any potential DPSs for reef manta rays and suggests that the reef manta ray population in the Indo-Pacific may comprise a potential SPR and DPS.

Response: The commenter did not provide any species-specific information to indicate that potential DPSs of reef manta rays exist, nor do we have any such information. We are not required to consider listing DPSs of a species unless we are petitioned to evaluate a specific population or populations for listing as a DPS(s), and the petitioner has provided substantial information that the population(s) may be warranted for listing as DPS(s). Furthermore, as stated in the DPS Policy, Congress instructed the Services that listing of DPSs is to be done sparingly and only when the biological evidence supports such a listing (61 FR 4722; February 7, 1996). In the status review, we state that additional studies (including genetic sampling) are needed to better understand the population structure of the species throughout its range (particularly given the uncertainties in the species’ range, habitat use, and life history characteristics), indicating

a lack of available data that may provide insight into the “discreteness” or “significance” of populations under the DPS Policy.

We also note that the commenter did not provide any species-specific information to support the suggestion that the reef manta ray population in the Indo-Pacific may comprise a potential SPR and DPS. Under the SPR Policy, if a species is found to be endangered or threatened throughout a significant portion of its range, and the population(s) in that significant portion is a valid DPS, we will list the DPS rather than the entire taxonomic species or subspecies. However, because we did not identify any SPRs for reef manta rays, there was no basis for evaluating whether any SPRs were DPSs.

Comment 21: The commenter asserted that if we list the giant manta ray under the ESA, then we must also propose to “list” the reef manta ray pursuant to the ESA’s similarity of appearance provision. The commenter stated that they are petitioning NMFS to reconsider listing the reef manta ray under the ESA under the APA, 5 U.S.C. 553(e).

Response: The similarity of appearance provision of the ESA allows the Secretary to treat non-listed species as if they were listed species, if certain conditions are met and to the extent the Secretary determines it is advisable to do so. We disagree with the commenter’s request to apply this provision to the reef manta ray and address this issue more fully in our response to *Comment 15*. With regard to reconsidering the listing of the reef manta ray under the APA, we do not find the requested action to be warranted at this time. In making our 12-month finding that the reef manta ray does not warrant listing, we considered the best available information on the species’ biology, ecology, life

history, threats, and demographic risks to determine the species' overall risk of extinction. The commenter did not provide any new information to consider in support of their request, and, as such, our conclusion remains the same. We would also like to note that petitions for listing species under the ESA (including reconsiderations) must follow the implementing regulations issued jointly by the Services at 50 CFR 424.14.

Summary of Changes from the Proposed Listing Rule

We did not receive, nor did we find, data or references that presented substantial new information that would cause us to change our proposed listing determination. We did, however, make several revisions to the final status review report (Miller and Klimovich 2017) to incorporate, as appropriate, relevant information received in response to our request for public comments and information we collected after publication of the proposed rule.

Specifically, we updated the status review to include new information regarding: the seasonal occurrence of manta rays off the northern Yucatan peninsula (Hacohen-Domené et al. 2017), the diet and trophic levels of the two manta ray species (Couturier et al. 2013; Burgess et al. 2016; Rohner et al. 2017a; Stewart et al. 2017), life history parameters for *M. birostris* (Nair et al. 2015; Rohner et al. 2017a), personal observations (F. Young, pers. comm. 2017) and estimates of manta rays off the east coast of Florida (Kendall 2010), time-series analysis of manta ray sightings off Mozambique (Rohner et al. 2017b), gill plate market prices and trends (Hau et al. 2016; O'Malley et al. 2017), landings of mobula rays in India (Nair et al. 2015; Zacharia et al. 2017), landings of manta rays off New Zealand (Jones and Francis 2017), landings of manta rays off Peru

(Alfaro-Cordova et al. 2017), bycatch (NMFS 2016) and CPUE (Western Pacific Regional Fisheries Management Council pers. comm. 2017, citing NMFS Pacific Islands Observer Program unpublished data) of manta rays in U.S. fisheries, longline effort in the Pacific (Williams and Terawasi 2016), manta ray catch and bycatch data in the eastern Pacific (Hall and Roman 2013; IATTC 2016), and PSA results for giant manta rays in the eastern Pacific Ocean (Duffy and Griffiths 2017). As noted above, with more detailed discussion in many of the previous comment responses, consideration of this new information did not alter any conclusions (and in some cases further supported our conclusions) regarding the threat assessment or extinction risk analysis for either manta ray species. Thus, the conclusions contained in the status review and determinations based on those conclusions in the proposed rule are reaffirmed in this final action.

Species Determination

We are aware that a recent taxonomic study has suggested that *Manta birostris* and *Manta alfredi* may actually be closely related to the Chilean devil ray (*Mobula tarapacana*), with genetic analyses that demonstrate support for nesting these species under the genus *Mobula* rather than *Manta* (White et al. 2017). However, we note that the study still recognized both manta rays as distinct species (but referred to them as *Mobula birostris* and *Mobula alfredi*). Until the genus name change is formally accepted by the scientific community, we continue to recognize *Manta birostris* as a species under the genus *Manta*. As such, we consider *Manta birostris* to be a taxonomically-distinct species that meets the definition of “species” pursuant to section 3 of the ESA and is eligible for listing under the ESA.

Summary of ESA Section 4(a)(1) Factors Affecting the Giant Manta Ray

As stated previously and as discussed in the proposed rule (82 FR 3694; January 12, 2017), we considered whether any one or a combination of the five threat factors specified in section 4(a)(1) of the ESA are contributing to the extinction risk of the giant manta ray and result in the species meeting the definition of “endangered species” or “threatened species.” The comments that we received on the proposed rule, as well as new information we collected since publication of the proposed rule, provided information that was either already considered in our analysis, was not substantial or relevant, or was consistent with or reinforced information in the status review and proposed rule, and thus, did not change our conclusions regarding any of the section 4(a)(1) factors or their interactions. Therefore, all of the information, discussion, and conclusions regarding the factors affecting the giant manta ray contained in the final status review report (Miller and Klimovich 2017) and the proposed rule is reaffirmed in this final action.

Extinction Risk

As discussed previously, the status review evaluated the demographic risks to the giant manta ray according to four categories—abundance and trends, population growth/productivity, spatial structure/connectivity, and genetic diversity. As a concluding step, after considering all of the available information regarding demographic and other threats to the species, we rated the species’ extinction risk according to a qualitative scale (high, moderate, and low risk). The information received from public comments on the proposed rule, as well as new information we collected since publication of the proposed

rule, was either already considered in our analysis, was not substantial or relevant, or was consistent with or reinforced information in the status review report and proposed rule, and thus, did not affect our extinction risk evaluation for the giant manta ray. Our conclusion regarding the extinction risk for the giant manta ray remains the same. Therefore, all of the information, discussion, and conclusions on the extinction risk of the giant manta ray contained in the final status review report and the proposed rule is reaffirmed in this final action.

Protective Efforts

In addition to regulatory mechanisms (considered under ESA section 4(a)(1)(D)), we considered other efforts being made to protect giant manta rays (pursuant to ESA section 4(b)(1)(A)). We considered whether such protective efforts sufficiently ameliorated the identified threats to the point that they would alter the conclusions of the extinction risk analysis for the species. None of the information we received on the proposed rule affected our conclusions regarding conservation efforts to protect the giant manta ray. Thus, all of the information, discussion, and conclusions on the protective efforts for the giant manta ray contained in the final status review report and proposed rule are reaffirmed in this final action.

Final Determination

We have reviewed the best available scientific and commercial information, including the petition, the information in the final status review report (Miller and Klimovich 2017), the comments of peer reviewers, public comments, and information that has become available since the publication of the proposed rule (82 FR 3694;

January 12, 2017). None of the information received since publication of the proposed rule altered our analyses or conclusions that led to our determination for the giant manta ray. Therefore, the determination in the proposed rule is reaffirmed in this final rule and stated below.

Based on the best available scientific and commercial information, and after considering efforts being made to protect *M. birostris*, we find that the giant manta ray is not currently endangered or threatened throughout its range. However, the giant manta ray is likely to become an endangered species within the foreseeable future throughout a significant portion of its range (the Indo-Pacific and eastern Pacific portion). This portion satisfies the test for “significance” from the SPR Policy because, without the members in that portion, the species would be likely to become in danger of extinction in the foreseeable future throughout all of its range. For the reasons discussed in the proposed rule, we do not find that this significant portion meets the criteria of a DPS. Therefore, we have determined that the giant manta ray meets the definition of a threatened species and, per the SPR Policy, list it as such throughout its range under the ESA.

Effects of Listing

Conservation measures provided for species listed as endangered or threatened under the ESA include recovery actions (16 U.S.C. 1533(f)); Federal agency requirements to consult with NMFS under section 7 of the ESA to ensure their actions are not likely to jeopardize the species or result in adverse modification or destruction of critical habitat should it be designated (16 U.S.C. 1536); designation of critical habitat, if

prudent and determinable (16 U.S.C. 1533(a)(3)(A)); and prohibitions on taking and certain other activities (16 U.S.C. 1538, 1533(d)). In addition, recognition of the species' imperiled status through listing promotes conservation actions by Federal and State agencies, foreign entities, private groups, and individuals.

Identifying Section 7 Conference and Consultation Requirements

Section 7(a)(2) (16 U.S.C. 1536(a)(2)) of the ESA and NMFS/USFWS regulations (50 CFR part 402) require Federal agencies to consult with us to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species or destroy or adversely modify critical habitat. Our section 7 regulations require the responsible Federal agency to initiate formal consultation if a Federal action may affect a listed species or its critical habitat (50 CFR 402.14(a)). Examples of Federal actions that may affect the giant manta ray include: fishery harvest and management practices, military activities, alternative energy projects, dredging in known giant manta ray aggregation sites (e.g., observed feeding and cleaning sites), point and non-point source discharge of persistent contaminants in known giant manta ray aggregation sites, toxic waste and other pollutant disposal in known giant manta ray aggregation sites, and shoreline development in known giant manta ray aggregation sites.

Critical Habitat

Critical habitat is defined in section 3 of the ESA (16 U.S.C. 1532(5)) as: (1) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features (a) essential to the conservation of the species and (b) that may require special management

considerations or protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed upon a determination that such areas are essential for the conservation of the species. “Conservation” means the use of all methods and procedures needed to bring the species to the point at which listing under the ESA is no longer necessary. 16 U.S.C. 1532(3). Section 4(a)(3)(A) of the ESA (16 U.S.C. 1533(a)(3)(A)) requires that, to the maximum extent prudent and determinable, critical habitat be designated concurrently with the listing of a species. Designations of critical habitat must be based on the best scientific data available and must take into consideration the economic, national security, and other relevant impacts of specifying any particular area as critical habitat.

At this time, we find that critical habitat for the giant manta ray is not determinable because data sufficient to perform the required analyses are lacking. Specifically, we find that sufficient information is not currently available to: 1) identify the physical and biological features essential to conservation of the species at an appropriate level of specificity, particularly given the uncertainty regarding habitats required to support its life history (e.g., pupping and nursery grounds remain unknown) and migratory movements, 2) determine the specific geographical areas that contain the physical and biological features essential to conservation of the species, particularly given the global range of the species, and 3) assess the impacts of the designation. Therefore, public input on features and areas in U.S. waters that may meet the definition of critical habitat for the giant manta ray is invited. Additional details about specific types of information sought are provided in the *Information Sought* section later in this

document. Input may be sent to the Office of Protected Resources in Silver Spring, Maryland (see **ADDRESSES**). Please note that we are not required to respond to any input provided on this matter.

Protective Regulations Under Section 4(d) of the ESA

We are listing the giant manta ray (*Manta birostris*) as a threatened species. In the case of threatened species, ESA section 4(d) gives the Secretary discretion to determine whether, and to what extent, to extend the prohibitions of section 9(a)(1) of the ESA (16 U.S.C. 1538(a)(1)) to the species, and authorizes us to issue regulations necessary and advisable for the conservation of the species. We have evaluated the needs of and threats to the giant manta ray and have determined that protective regulations pursuant to section 4(d) are not currently necessary and advisable for the conservation of the species.

As described in the proposed rule, the significant operative threats to the giant manta ray are overutilization by foreign commercial and artisanal fisheries in a significant portion of its range (i.e., the Indo-Pacific and eastern Pacific) and inadequate regulatory mechanisms in foreign nations to protect these manta rays from the heavy fishing pressure and related mortality in these waters outside of U.S. jurisdiction. The take and trade of the species by persons under U.S. jurisdiction were not identified as significant threats to the giant manta ray.

Regarding potential take, as stated in the proposed rule, giant manta rays may be caught as bycatch in U.S. fisheries; however, given the rarity of the species in the U.S. bycatch data, current levels were found to be negligible and determined to only have a minimal impact on the status of the giant manta ray. Furthermore, in many portions of the

species' range, and particularly in the SPR, current U.S. fishery regulations as well as U.S. state and territory regulations prohibit the retention of manta rays by persons under U.S. jurisdiction. For example, in the eastern Pacific Ocean, U.S. commercial fishing vessels are prohibited from retaining on board, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of a mobulid ray caught by vessel owners or operators in the IATTC Convention Area (81 FR 50401, August 1, 2016). The state of Hawaii prohibits any person from knowingly capturing or killing a manta ray within state marine waters (HI Rev Stat 188-39.5 (2016)), and in Florida, it is illegal to harvest, possess, land, purchase, sell, or exchange any or any part of species of the genus *Manta* and *Mobula* in state waters (FL Admin Code 68B-44.008). In Guam, it is unlawful for any person to possess, sell, offer for sale, take, purchase, barter, transport, export, import, trade or distribute ray parts (including manta rays), unless for subsistence, traditional, or cultural sharing purposes (Article 1, Chapter 63 of Title 5, Guam Code Annotated, Sec. 63114.2), and in the Commonwealth of the Northern Mariana Islands, it is illegal to feed, take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, any ray (including manta rays), alive or dead, or any part thereof (Public Law No. 15-124). Additionally, as noted in the final status review report (Miller and Klimovich 2017), established Marine Protected Areas (MPAs) that limit or prohibit fishing also exist that cover areas with observed giant manta ray presence, including off Guam (Tumon Bay Marine Preserve), within the Gulf of Mexico (Flower Garden Banks National Marine Sanctuary), and in the Central Pacific Ocean (Pacific Remote Islands Marine National Monument).

Overall, current management measures that are in place for fishermen under U.S. jurisdiction appear to directly and indirectly contribute to the infrequency of interactions between U.S. fishing activities and the threatened giant manta ray. As such, we do not believe these activities are contributing significantly to the identified threats of overutilization and inadequate regulatory measures. We, therefore, do not find that developing regulations under section 4(d) to prohibit some or all of these activities is necessary and advisable (considering the U.S. interaction with the species is negligible and its moderate risk of extinction is primarily a result of threats from foreign fishing activities).

Additionally, as mentioned in the status review and proposed rule, manta rays were included on Appendix II of CITES at the 16 Conference of the CITES Parties in March 2013, with the listing going into effect on September 14, 2014. Export of manta rays and manta ray products, such as gill plates, require CITES permits that ensure the products were legally acquired and that the Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species (after taking into account factors such as its population status and trends, distribution, harvest, and other biological and ecological elements). Although this CITES protection was not considered to be an action that decreased the current listing status of the threatened giant manta ray (due to its uncertain effects at reducing the threats of foreign domestic overutilization and inadequate regulations, and unknown post-release mortality rates from bycatch in industrial fisheries), it may help address the threat of foreign overutilization for the gill plate trade by ensuring that international trade of this threatened species is

sustainable. Regardless, because the United States does not have a significant (or potentially any) presence in the international gill plate trade, we have concluded that any restrictions on U.S. trade of the giant manta ray that are in addition to the CITES requirements are not necessary and advisable for the conservation of the species.

Therefore, because we find that the United States is not a significant contributor to the threats facing the giant manta ray, we have determined that protective regulations pursuant to section 4(d) under the ESA are not currently necessary and advisable for the conservation of the species. Any conservation actions for the giant manta ray that would bring it to the point that the measures of the ESA are no longer necessary will ultimately need to be implemented by foreign nations.

Information Solicited

We request interested persons to submit relevant information related to the identification of critical habitat of the giant manta ray, including specific areas within the geographical area occupied by the species that include the physical and biological features essential to the conservation of the species and where such features may require special management considerations or protection. Areas outside the occupied geographical area should also be identified if such areas themselves are essential to the conservation of the species. ESA implementing regulations at 50 CFR 424.12(g) specify that critical habitat shall not be designated within foreign countries or in other areas outside of U.S. jurisdiction. Therefore, we request information only on potential areas of critical habitat within waters under U.S. jurisdiction.

Section 4(b)(2) of the ESA requires the Secretary to consider the “economic

impact, impact on national security, and any other relevant impact” of designating a particular area as critical habitat. Section 4(b)(2) also gives the Secretary discretion to consider excluding from a critical habitat designation any particular area where the Secretary finds that the benefits of exclusion outweigh the benefits of including the area in the designation, unless excluding that area will result in extinction of the species. For features and areas potentially qualifying as critical habitat, we also request information describing: (1) activities or other threats to the essential features or activities that could be affected by designating them as critical habitat; and (2) the positive and negative economic, national security and other relevant impacts, including benefits to the recovery of the species, likely to result if these areas are designated as critical habitat. We seek information regarding the conservation benefits of designating areas within waters under U.S. jurisdiction as critical habitat. In keeping with the guidance provided by the Office of Management and Budget (2000; 2003), we seek information that would allow the monetization of these effects to the extent possible, as well as information on qualitative impacts to economic values.

Information reviewed may include, but are not limited to: (1) scientific or commercial publications; (2) administrative reports, maps or other graphic materials; (3) information received from experts; and (4) comments from interested parties. Comments and data are particularly sought concerning: (1) maps and specific information describing the amount, distribution, and use type (e.g., foraging or migration) of giant manta ray habitats, as well as any additional information on occupied and unoccupied habitat areas; (2) the reasons why any habitat should or should not be determined to be critical habitat

as provided by sections 3(5)(A) and 4(b)(2) of the ESA; (3) information regarding the benefits of designating particular areas as critical habitat; (4) current or planned activities in the areas that might be proposed for designation and their possible impacts; (5) any foreseeable economic or other potential impacts resulting from designation, and in particular, any impacts on small entities; (6) whether specific unoccupied areas may be essential to provide additional habitat areas for the conservation of the species; and (7) potential peer reviewers for a proposed critical habitat designation, including persons with biological and economic expertise relevant to the species, region, and designation of critical habitat. We solicit information from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party (see **ADDRESSES**).

References

A complete list of references used in this final rule is available upon request (see **ADDRESSES**).

Classification

National Environmental Policy Act

The 1982 amendments to the ESA, in section 4(b)(1)(A), restrict the information that may be considered when assessing species for listing. Based on this limitation of criteria for a listing decision and the opinion in *Pacific Legal Foundation v. Andrus*, 657 F. 2d 829 (6th Cir. 1981), NMFS has concluded that ESA listing actions are not subject to the environmental assessment requirements of the National Environmental Policy Act (NEPA).

Executive Order 12866, Regulatory Flexibility Act, and Paperwork Reduction Act

As noted in the Conference Report on the 1982 amendments to the ESA, economic impacts cannot be considered when assessing the status of a species. Therefore, the economic analysis requirements of the Regulatory Flexibility Act are not applicable to the listing process. In addition, this final rule is exempt from review under Executive Order 12866. This final rule does not contain a collection-of-information requirement for the purposes of the Paperwork Reduction Act.

Executive Order 13771, Reducing Regulation and Controlling Regulatory Costs

This rule is not an E.O. 13771 regulatory action because this rule is exempt from review under E.O. 12866.

Executive Order 13132, Federalism

In accordance with E.O. 13132, we determined that this final rule does not have significant Federalism effects and that a Federalism assessment is not required.

List of Subjects in 50 CFR Part 223

Endangered and threatened species.

Dated: January 17, 2018.

Samuel D. Rauch, III,
Deputy Assistant Administrator for Regulatory Programs,
National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 223 is to be amended as follows:

PART 223—THREATENED MARINE AND ANADROMOUS SPECIES

1. The authority citation for part 223 continues to read as follows:

Authority: 16 U.S.C. 1531-1543; subpart B, § 223.201-202 also issued under 16 U.S.C. 1361 *et seq.*; 16 U.S.C. 5503(d) for § 223.206(d)(9).

2. In § 223.102, amend the table in paragraph (e) by adding an entry for “Ray, giant manta” in alphabetical order under the “Fishes” subheading to read as follows:

§ 223.102 Enumeration of threatened marine and anadromous species.

* * * * *

(e) * * *

Species ¹			Citation(s) for listing determination(s)	Critical habitat	ESA rules
Common name	Scientific name	Description of listed entity			

Fishes					

Ray, giant manta	<i>Manta birostris</i>	Entire species	83 FR [Insert FEDERAL REGISTER page where the document begins], [Insert date of publication in the FEDERAL REGISTER]	NA	NA

¹Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991).

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[FR Doc. 2018-01031 Filed: 1/19/2018 8:45 am; Publication Date: 1/22/2018]