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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XC558]

Guidelines for Preparing Stock Assessment Reports Pursuant to the Marine Mammal Protection Act; Final Revisions to Procedural Directive

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

ACTION: Notice of availability; response to comments.

SUMMARY: The National Marine Fisheries Service (NMFS) has incorporated public comments on the draft revisions to the Guidelines for Preparing Stock Assessment Reports Pursuant to the Marine Mammal Protection Act (NMFS Procedural Directive) and is now finalizing the revisions and making them available to the public.

DATES: This final Procedural Directive will be effective as of [*insert date of publication in the FEDERAL REGISTER*].

ADDRESSES: Electronic copies of the Guidelines for Preparing Stock Assessment Reports Pursuant to the Marine Mammal Protection Act (NMFS PD 02-204-01) are available at: *https://www.regulations.gov/docket/NOAA-NMFS-2022-0081* or *https://www.fisheries.noaa.gov/national/laws-and-policies/protected-resources-policy-directives*.

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SUPPLEMENTARY INFORMATION:

Background

Section 117 of the Marine Mammal Protection Act (MMPA) (16 U.S.C. 1361 *et seq.*) requires NMFS and the U.S. Fish and Wildlife Service (FWS) to prepare stock assessments for each stock of marine mammals occurring in waters under the jurisdiction of the United States. These reports must contain information regarding the distribution and abundance of the stock, population growth rates and trends, estimates of annual human-caused mortality and serious injury from all sources, descriptions of the fisheries with which the stock interacts, and the status of the stock. Initial stock assessment reports (SARs) were completed in 1995.

Since 1995, NMFS has convened a series of workshops and developed associated reports (Barlow *et al*., 1995, Wade and Angliss, 1997, Moore and Merrick, 2011) to develop Guidelines for Assessing Marine Mammal Stocks, which, in 2016, were formally established as a NMFS Procedural Directive (NMFS PD 02-204-01). In 2020, NMFS reviewed the guidelines and determined revisions were warranted. On August 25, 2022, NMFS published draft revisions to the guidelines for public review and comment (87 FR 52368). Major revision topics included: (1) incorporating the NMFS Procedural Directive: Reviewing and Designating Stocks and Issuing Stock Assessment Reports under the Marine Mammal Protection Act (NMFS PDS 02-204-03); (2) calculating the minimum population abundance (N_{min}) in post-survey years; (3) addressing sources of bias in the calculation of N_{min}; (4) designating stocks as strategic; (5) improving language related to quantifying and including unobserved mortality and serious injury; (6) including information on "other factors," such as climate change, biologically important areas, and habitat issues; (7) clarifying expectations regarding peer-review, quality assurance, and quality control; and (8) identifying data sources and criteria used for documenting human-caused mortality and serious injury. Other minor revisions were made to improve readability, formatting, and clarity, and ensure consistency with recent revisions to NMFS' Serious Injury Procedural Directive (NMFS-PD 02-038-01). NMFS

is now finalizing the revisions to the guidelines with minor changes in response to public comments. The complete summary of public comments and responses is included in the next section, and the full final revised Procedural Directive is available at: *https://www.regulations.gov/docket/NOAA-NMFS-2022-0081* or *https://www.fisheries.noaa.gov/national/laws-and-policies/protected-resources-policy-directives*.

Comments and Responses

NMFS received comments from the Marine Mammal Commission (Commission), the Atlantic Scientific Review Group (SRG), two non-governmental environmental organizations (Center for Biological Diversity (CBD) and the Natural Resources Defense Council (NRDC)), representatives from the fishing industry (Washington Dungeness Crab Fishermen's Association (WDCFA) and the Hawaii Longline Association (HLA)), and the North Slope Borough, Department of Wildlife Management (NSB). Similar comments from different groups were combined, summarized, and responded to in aggregate below.

Comment 1: A representative from NSB Department of Wildlife Management, who is also an Alaska SRG member, and the Commission both commented on the draft revisions related to co-management between NMFS and Alaska Native Organizations (ANOs). Specifically, NSB encouraged NMFS to take co-management consultation with ANOs as seriously as it takes reviews by the SRGs. To this end, NSB suggested several specific revisions to emphasize how and when in the SAR process NMFS should engage with co-management partners. Similarly, the Commission notes that the guidelines could benefit from providing more specific and clearer guidance on the role of ANOs during the SAR development process and suggest several ways NMFS could provide additional clarity.

Response: NMFS thanks the NSB and Commission for their thoughtful comments and suggestions to further clarify the role of co-management partners, specifically ANOs, in the SAR development and review process. NMFS has incorporated nearly all of the specific edits suggested by NSB in some fashion, which we believe are in line with the more general suggestions made by the Commission.

Comment 2: The CBD, WDCFA, and the Atlantic SRG all provided comments on the draft revisions regarding the topic "Undetected Mortality and Serious Injury." Both CBD and the Atlantic SRG are supportive of the additional guidance provided on this topic. WDCFA acknowledges that undetected mortality and serious injury does indeed occur, specifically as it relates to entanglements in Dungeness crab gear but is concerned that incorporating estimates of unobserved mortality and serious injury based on limited data may cause a bias leading to reductions in the Potential Biological Removal (PBR) estimate for a stock, specifically Pacific Coast Humpback Stocks. They note that when no data to quantitatively assess undetected mortality and serious injury are available, the guidance provided in the draft revisions is justifiable and prudent.

Response: NMFS thanks CBD and the Atlantic SRG for their positive feedback on the draft revisions regarding undetected mortality and serious injury. NMFS agrees with WDCFA that in cases where data are too limited to quantitatively estimate undetected mortality and serious injury, the revisions provide guidance to SAR authors to appropriately characterize the uncertainty and biases associated with the human-caused mortality and serious injury estimates. However, to clarify, in cases where data are available to quantitatively estimate and incorporate unobserved mortality and serious injury for a stock, there is no effect on PBR. Rather, it may be possible to incorporate unobserved human-caused mortality and serious injury into the total human-caused mortality and serious injury, which is then compared to PBR. NMFS also emphasizes that if data are available to quantitatively estimate and, thus, correct for undetected mortality

and serious injury and to apportion this to cause, such methods are still subject to the peer-review requirements laid out within the final revisions and would likely be considered for at least Level 2 review, if not Level 3, as detailed in the new section entitled "3.6 Ensuring Appropriate Peer Review of New Information." In addition, the incorporation of such estimates in the SARs would be subject to public notice and comment.

Comment 3: The HLA, NSB, and Atlantic SRG all commented on the draft revisions that incorporate and reference NMFS Procedural Directive: Reviewing and Designating Stocks and Issuing Stock Assessment Reports under the Marine Mammal Protection Act (NMFS PDS 02-204-03). HLA notes that the guidelines should clarify that NMFS will only designate a demographically independent population (DIP) as a stock if it determines that the DIP meets the definition of a stock under the MMPA. NSB believes the guidelines could be further improved with several specific revisions to address how DIPs are determined in practice. Finally, the Atlantic SRG notes that the draft revisions with respect to this topic are sensible and applauds NMFS for their work on this issue.

Response: We thank the Atlantic SRG for the positive feedback on the revisions related to this topic. In response to HLA's comment, we agree that NMFS should only designate a DIP as a stock if it also meets the definition of a stock under the MMPA. The original draft revisions were indeed meant to imply this, but we have since further revised this section to clarify. Finally, we appreciate NSB's desire to provide further information in the guidelines regarding how DIPs are determined in practice. However, Martien *et al.* (2019) is the best resource for delineating DIPs, and we believe it is more appropriate to direct the reader to this resource rather than to provide further information in these guidelines. In the final guidelines, we note that additional detail on how DIPs are defined in practice can be found in Martien *et al.* (2019).

Comment 4: CBD, NSB, NRDC, the Commission, and the Atlantic SRG all commented on sublethal impacts, including the proposed new "Habitat Issues" section. CBD notes that the new guidelines do not sufficiently direct the SAR authors to quantify the impact of humans on marine mammal prey and recommend having a standalone section on prey. The Commission notes that harmful algal blooms are not specifically listed as a possible concern in the "Habitat Issues" section and given their prevalence and known impacts on marine mammals, they suggest it be added. Somewhat in contrast, NSB encourages NMFS to modify the guidelines to stress that the "Habitat Issues" section should only be a very brief summary. While not a habitat issue per se, both the Atlantic SRG and NRDC commented on the need for the SARs to include further information on non-lethal entanglements, particularly for large whales like the North Atlantic right whale. In particular, the Atlantic SRG questions whether NMFS will incorporate any revisions it makes to its related but separate procedure on serious injury determinations for marine mammals related to better addressing sublethal chronic injuries and/or reproductive impairment that may occur to large whales as a result of entanglement.

Response: NMFS appreciates the constructive feedback on these issues and has made revisions to better address the various points made by the commenters. In the final revised guidelines, we have renamed the "Habitat Issues" section to "Other Factors That May Be Causing a Decline or Impeding Recovery" or "Other Factors" for short and expanded its scope beyond habitat to include all other identified factors, excluding human-caused mortality and serious injury that may be affecting a marine mammal stock. The guidelines specify that this section should be included in SARs for strategic stocks, as required by Section 117 of the MMPA, but can be included in SARs for non-strategic stocks if data indicate other factors are likely causing a decline in or adversely affecting the status of the stock. SAR authors are directed to include information on non-human

causes of mortality and serious injury, as well as human- and non-human-caused sublethal impacts (including non-serious injuries) that may be causing a decline or impeding recovery. Examples of these include (but are not limited to): predation; inter- or intra-specific aggression; effects to prey and habitat; infectious disease; toxins including from harmful algal blooms; contaminants; non-serious injuries from entanglements, vessel strikes, or other human activities; masking and hearing impairment due to noise; and climate change, variability, and environmental factors (*e.g.*, sea surface temperature) that affect marine mammal health, survival, or reproduction.

By expanding the scope of this section, the SARs will more closely align with the specific direction provided by section 117(a)(3) of the MMPA and will provide SAR authors flexibility to address all of the issues brought up by the commenters. However, as recommended by NSB, the guidelines emphasize that the "Other Factors" section should only be a brief summary and rely on and reference supporting publications and existing datasets.

Comment 5: Both the Atlantic SRG and NSB commented on revisions to the "Transboundary Stocks" section. NSB commented on informed interpolation, defined in the guidelines as the use of a model-based method for interpolating density between transect lines, which may be used to fill gaps in survey coverage and estimate abundance and PBR. NSB asked how widely accepted informed interpolation based upon habitat associations is and urged caution with using modeled habitat associations when predicting abundance. The Atlantic SRG noted that the guidance on transboundary stocks is not clear. In a follow up exchange, the Atlantic SRG further clarified that in their view, the guidance as written is really only applicable to N_{min} and not the other aspects of PBR or human-caused mortality and serious injury. Furthermore, it may not sufficiently direct authors to describe the uncertainty that may exist in transboundary situations.

Response: In the draft revisions, guidance on informed interpolation was located both in the "Transboundary Stocks" section, as well as in the "Minimum Population Estimate" section, and similar text was already included in the 2016 version of the guidelines in the "Definition of Stock" section. The issue of extrapolation and interpolation was the subject of a working paper presented at the Guidelines for Assessing Marine Mammal Stocks (GAMMS) GAMMS III workshop (WP–4B); and, as such, we will not go into depth here. A copy of this working paper is available upon request and a summary of the paper and workshop participants' views on this subject can be found in the GAMMS III workshop report (Moore and Merick, 2011). In general, NMFS agrees that informed interpolation should be used with caution and notes that the sentence preceding the one in question reiterates that "In general, abundance or density estimates from one area should not be extrapolated to unsurveyed areas to estimate range-wide abundance." However, to further clarify, we have revised the text to emphasize that informed interpolation may only be appropriate in some cases. We have also now removed where this text was duplicated, preferring to only keep it in the "Minimum Population Estimate" section as this issue is not specific to transboundary stocks. Finally, we note that habitat-based density modeling has been successfully used to estimate abundance of marine mammals in a variety of areas. Such modeling is common for estimating abundance and filling relatively small gaps in survey coverage within a larger overall survey area (*e.g.*, Roberts *et al.*, 2016., Becker *et al.*. 2020 and 2021), and in some cases, with caution, has been used to predict marine mammal density even outside of surveyed areas, as long as modeling is restricted to within the range of an established habitat covariate-density relationship (Mannocci *et al.*, 2017).

In response to the Atlantic SRG's comment and follow up clarifications, we have revised the "Transboundary Stocks" section to provide additional clarity on approaches for adjusting N_{min} as well as other aspects of PBR and further clarified options for

adjusting human-caused mortality and serious injury. In addition, the final guidelines direct SAR authors to summarize any additional uncertainties that may be introduced by adjusting PBR and or human-caused mortality and serious injury estimates.

Comment 6: CBD, HLA, NSB, WDCFA, and the Atlantic SRG all provided comments on the draft revisions related to calculating the minimum population abundance, or N_{min}. CBD and NSB support the draft revisions that remove the 8-year "expiration" of abundance data for use in calculating N_{min}, while WDCFA and the Atlantic SRG do not believe it is appropriate to use data that are 8 years old or older for calculating N_{min}. The Atlantic SRG also notes that NMFS does not use data this old when assessing fish stocks. Both HLA and NSB commented on the proposed guidelines for adjusting older abundance estimates, with NSB cautioning NMFS against simply lowering N_{min} to account for increasing uncertainty with time and HLA request that the draft revisions clarify that adjustments to N_{min} can occur in both directions (increase or decrease).

Response: We thank CBD and NSB for their support on the new revisions. We agree with the WDCFA and the Atlantic SRG that ideally NMFS would have the resources to conduct surveys of marine mammal stocks more frequently than every 8 years. However, having abundance data "expire" after 8 years has created significant challenges for management of marine mammal stocks, which was recognized but not addressed during the last revisions of the guidelines in 2011. Under the new guidelines, it is still possible for abundance estimates to be determined to be unreliable once they are 8 years old or older, but there is flexibility for making such determinations based on the specific situations. Thus, we believe the new guidelines are not inherently in conflict with the previous 8-year expiration guidance, rather they simply provide more flexibility to SAR authors to determine what is appropriate for any given stock, based on the best scientific information available at the time.

On the ASRG's comment that NMFS does not use data 8 years or older to assess fish stocks, first, we note that this statement is not accurate (see Newman *et al.*, 2015). Councils do have policies (with variation between regions on the details) about using assessments to inform management once they are older than a certain number of years (generally 5-10 years), and if data are out of date they may not be deemed acceptable for use in an assessment, but there is no blanket policy on this issue - it is up to the discretion of the assessment scientists and then the peer review panel. We believe this is consistent with what was proposed and is now being finalized here for marine mammal stock assessments. Second, there are drastic differences between fishes and marine mammals in their life histories, as well as their population dynamics given that fishes are generally R-selected while marine mammals are K-selected. Thus, there is a biological basis for different taxonomic groups necessitating differing survey frequencies to achieve similar levels of confidence.

NMFS appreciates NSB's and HLA's comments regarding the assumption that a stock's abundance declines after survey data are 8 years or older. To clarify, the new guidelines do not make such an assumption. For example, if available, a trend analysis can be used to infer population increases or decreases. In the final guidelines, we have provided clarification that adjustments to N_{min} can result in N_{min} increasing, decreasing, or staying the same (within some estimate of error). However, it is true that the uncertainty around abundance estimates increases with time. Consequently, even without assuming a particular trend (increasing, decreasing, stable), when N_{min} is calculated as some percentile of the distribution of possible Ns at some point in the future, it will necessarily decline over time, as this reflects the expanding envelope of uncertainty.

Comment 7: NSB commented on the guidelines related to a stock status with respect to Optimum Sustainable Population (OSP). Specifically, NSB recommended the

guidelines provide a definition of OSP and further information on how OSP is used in practice.

Response: In the final guidelines, we now provide the statutory and regulatory definitions of OSP. In addition, we have provided additional information on how OSP is used in practice by referring the reader to Section 115 of the MMPA. However, the final guidelines do not provide additional guidance as to how to officially determine status relative to OSP, as such a determination requires rulemaking, including public comment and consultation with the Commission, under Section 115 of the MMPA.

Comment 8: The Atlantic SRG and NRDC both request NMFS revise the guidelines with respect to rounding very small PBRs, specifically to round PBR values below 0.2 to two decimal places, noting that this may be more transparent and appropriate for highly endangered stocks with very small PBRs, such as Rice's whale.

Response: We have revised the guidelines to direct SAR authors to round PBR to two decimal places when it is below one.

Comment 9: HLA, the Atlantic SRG, and the Commission commented on the draft revisions related to ensuring appropriate peer review and quality assurance and quality control (QA/QC). The Commission and the Atlantic SRG both support the draft revisions related to this issue, while HLA requests additional clarification. Specifically, HLA requests NMFS clarify that QA/QC review should be performed by the relevant regional science center. HLA notes that if NMFS is going to use the SRGs to meet peer review requirements, then it must ensure that any such review strictly complies with the OMB Peer Review Bulletin.

Response: NMFS thanks the Commission and the Atlantic SRG for their support on the new revisions. NMFS agrees with HLA's assessment that QA/QC review should be performed by the relevant regional science center and has further clarified this in the final revisions. With respect to complying with the OMB Peer Review Bulletin, NMFS

notes that SRG review specifically meets all the necessary requirements. See the SRGs' written charge (Terms of Reference), annual recommendations to NMFS, and NMFS' annual responses, all found on our website (*https://www.fisheries.noaa.gov/national/marine-mammal-protection/scientific-review-groups*).

Comment 10: CBD and NSB both provided comments on the draft revisions related to determining strategic status for stocks. CBD disagrees with NMFS' approach in the draft guidelines for determining strategic status based on MMPA 3(19)(B), preferring that NMFS conduct an independent evaluation or rely on a positive 90-day finding on a petition to list a species under the Endangered Species Act (ESA) to determine strategic status under MMPA 3(19)(B) rather than what is included in the draft revisions, which rely on a proposed ESA-listed status. NSB supports the draft revisions as it relates to determining strategic status under MMPA 3(19)(A), specifically the guidelines that provide for the flexibility to calculate a "critical N_{min}" to inform strategic status.

Response: NMFS thanks NSB for their support and agree that the new guidance on calculating a "critical N_{min}" will be helpful to NMFS in determining strategic status related to MMPA 3(19)(A). As stated in the draft revisions, we disagree with CBD that an independent evaluation under the MMPA should be conducted to determine whether a stock is likely to be listed as threatened within the foreseeable future under the ESA and, thus, qualifies for strategic status under MMPA 3(19)(B). As noted in the draft guidelines, such an evaluation should be conducted under section 4 of the ESA (16 U.S.C. 1533). Furthermore, NMFS disagrees that a positive 90-day finding demonstrates that a stock should be considered "strategic" under section 3(19)(B) of the MMPA. A positive 90-day finding under the ESA simply means that NMFS has determined that the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted and that NMFS will conduct a review of the status of

the species to determine whether listing under the ESA is warranted. It in no way indicates that a species is "likely" to be listed.

Comment 11: WDCFA expressed concern with how long it takes to incorporate new information, specifically abundance data, into SARs, particularly for stocks along the U.S. West Coast.

Response: NMFS acknowledges the concern and agrees that ideally the SARs would contain more recent information. However, existing resources and the necessary data processing, analysis, and peer review do not allow for more expedited updates at this time.

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