

Western
Pacific
Regional
Fishery
Management
Council

September 12, 2023

Wendy Morrison National Marine Fisheries Service, NOAA 1315 East-West Highway, Room 13436 Silver Spring, MD 20910 Via www.regulations.gov

Dear Ms. Morrison:

On behalf of the Western Pacific Regional Fishery Management Council (Council), enclosed are comments on the Advance Notice of Proposed Rulemaking (ANPR) for potential changes to the NMFS guidelines for National Standards 4, 8, and 9. The Council utilized a working group of advisors to assist in this review and development of the comments. However, due to the timing of ANPR deadline, final comments have not been provided to the full Council for final review and approval before transmittal.

Overall, we find that substantial revisions to the NS 4, 8, and 9 guidelines are not necessary at this time to address challenges cited in the ANPR related to changes in environmental conditions, shifting stocks, and consideration of environmental justice. While these challenges are important, we find that the current national standards provide the appropriate level of guidance and flexibility to allow the Councils to meet their responsibility under the MSA taking into consideration regional differences. It is also critical to retain existing language that allows Councils to consider standards "to the extent practicable" as we work to advance consideration of social and economic impacts and improve equity in policy making. Nevertheless, some revisions to NS4 guidelines may be beneficial to make them more flexible, inclusive and data driven, and similarly to NS8 guidelines to be more inclusive, equitable, and comprehensive.

Key findings and recommendations from the working group are summarized below, and the full reports from the working group subgroups for NS4/8 and NS9 are enclosed.

National Standard 4 Findings and Recommendations

In general, there appear to be no major and contentious allocation issues currently in the Western Pacific region, but there is potential for allocation issues in some of the fisheries. That view is predicated on the relative (to other regions) lack of overt conflict, but the fisheries generally lack the resources to get good data on participation by sector and fishery that would allow credible assessment of allocation issues. This is especially the case in the two territories and the Commonwealth that lack any clear separation between "commercial" and "non-commercial" and do not participate in the national Marine Recreational Information Program

(MRIP). Hawaii does participate in MRIP, but the Council's SSC has been on record that MRIP data should not be used for allocations. The State of Hawaii is developing a plan for a non-resident recreational license that could give a sampling frame for those folks only, but there is relatively little useful information on non-commercial (i.e. subsistence, cultural and recreational) levels of participation and by whom. It is also the result of some of the fisheries remaining well below their Annual Catch Limits (ACLs) or international quotas.

- 1. The Western Pacific Region does not appear to have the same level of contention over equity and allocation as some other regions. This may be the result of a general lack of data, well managed fisheries, and culturally-based community interaction styles.
- 2. To fully and credibly assess allocation and equity in the region, there needs to be a much greater and more collaborative effort to characterize the region's fisheries, history, levels of participation, and levels of interest by permitted and potential or locked out participants.
- 3. The fisheries that remain open access lack even the most basic information on participants, participation, interest, and the sharing of benefits. Funding for comprehensive data collection should be provided in order to equitably determine any allocations.
- 4. The NS 4 guidelines should be revised to be more flexible, inclusive, and data driven, including primary data information collections by NOAA. Revised guidelines could be used to more effectively focus developmental research that includes both qualitative and quantitative methodologies and seeks to be as representative as possible. Such an effort would encourage greater cooperation between the Science Center, the state, territorial and Commonwealth agencies, and the Council. It will require additional support to be effective in assessing the realities of equity in allocation. Direct funding to the Council would help, because the Council is best placed to work with indigenous and underserved communities.

National Standard 8 Findings and Recommendations

In general, the concept of "community" as used in the social sciences implies a sense of shared interaction, experience, knowledge, and even a degree of identity. As such, communities are not necessarily confined to a specific geographic location. Community is a fuzzy concept that given enough flexibility can be used in a variety of contexts. It is useful to give a "community" an operational definition for particular contexts, i.e., "here we mean community to include..." It is also useful to give a clear sense of time frame and scale, particularly if community members need to demonstrate historical participation in the fishery. Demographic data is also important for assessing equity, such as understanding if the community participants are dispersed or concentrated. Hence the operating definition of an affected community may be different for different actions, even in the same region or archipelago. Based on this context, below are comments on the NS8 guideline revisions:

- 1. A comprehensive review and re-visitation of the current NS 8 guidance should make the guidance more inclusive, equitable, and comprehensive.
- 2. The guidance should include non-placed based conceptions of fishing communities.
- 3. The guidance should include comprehensive consideration of substantial engagement as well as substantial dependence on the fisheries.

- 4. The guidance should encourage, if not demand, more comprehensive and accurate data collection and explicitly acknowledge social and cultural impacts in addition to economic impacts. It should address issues of access and equity. It should consider issues of scale, community size and geographic range, and historical participation.
- 5. The guidance review should revise the language regarding place and allocation so that fishery participants need not reside in a particular place to be considered for an allocation; this is especially applicable for social and cultural impacts.

National Standard 9 Findings and Recommendations

In general, the existing NS9 guidelines and the MSA Council process provides for sufficient flexibility and adaptability to address future potential changes in bycatch issues. The practicability standards in the guidance should be maintained, as well as flexibility for the Councils to address bycatch issues in a manner that reflects the regional characteristics of fisheries. This regional flexibility allows for bycatch issues to be addressed in the most equitable manner, so that guidance based on bycatch issues from one region does not unnecessarily burden fishing communities in another region that have significantly different bycatch issues. Specific input on the topics for which NMFS requested comments are summarized below:

- 1. Regarding climate issues, the existing guidance and Council processes provide sufficient flexibility and adaptability to address future potential changes in bycatch.
- 2. Regarding EEJ, the existing guidance, along with the normal Council process provides sufficient flexibility to address any future equity issues that may arise. Any changes to the NS9 guidance should retain the flexibility to the Councils to determine the appropriate method and extent of bycatch reduction that is practicable in any fishery as a matter of equity.
- 3. Regarding adding provisions to address bycatch on an ecosystem level, the guidance could benefit from additional considerations of tradeoffs of reducing bycatch of one species to the bycatch of another species.
- 4. Regarding implementing provisions for alternative performance based standards, the existing guidance that allows the Councils to use qualitative measures in the absence of quantitative estimates of impacts when analyzing potential conservation management measures is sufficient.
- 5. Regarding increasing provisions to document bycatch avoidance, any provision to increase documentation should include consideration of cost, capacity, and burden on the fishery participants, and weighed against the benefit of increasing such documentation. The guidance should retain flexibility for the Councils to determine whether increasing documentation for bycatch avoidance is necessary for each fishery.
- 6. Regarding provisions to incentivize reduction of waste when regulatory discards are required, any revisions that would consider incentives to reduce waste must consider costs, practicability and economic impacts. Further, increasing use of bycatch species may necessitate additional monitoring mechanisms to track those species being absorbed into new markets, which should be a consideration under the practicability standard.

In addition, the guidelines should not support the inclusion of "unobserved fishing mortality" as part of the definition of bycatch in the NS9 guidelines, as this is not part of the MSA definition of bycatch. Species interactions with fishing gear must be observable and documented to be considered as bycatch if not retained. "Unobserved mortality" should be

considered as part of natural mortality. Finally, fish released voluntarily in support of conservation or normal fishing practices should not be included in the definition of bycatch. Many species are targeted and released and are not required to be released as part of a fishery science or management program. The NS 9 guidelines should take this growing practice into consideration should future changes be considered.

Should you have questions regarding the comments provided, please contact me at the Council office. Thank you for considering our comments.

Sincerely,

William Sword Chairman Kitty M. Simonds
Executive Director

Enclosures:

- 1) WPRFMC National Standards Review Working Group: NS 4/8 Subgroup Report
- 2) WPRFMC National Standards Review Working Group: NS 9 Subgroup Report

Cc: Will Sword, Chair, American Samoa



Final Report of the National Standard Review Working Group NS4/8 Subgroup

The Council developed a Working Group on National Standard (NS) 4 and National Standard 8 to provide input to the Council on the NMFS request for comments on potential changes to the NS guidelines. The joint Working Group met virtually on July 19, 2023 with the NS 4 and8 subgroup meeting July 31, 2023 to discuss the guidelines, proposed changes and develop recommendations. NS 4 and 9 Members Present: Pua Borges, Savannah Lewis, Gil Kuali'i, Debra Cabrera, Kirsten Leong, Craig Severance, Staff: Josh DeMello, Zach Yamada, Felix Reyes, Felix Penalosa

National Standard 4

National Standard 4 (NS4) (MSA Title III, Section 301(a)(4)) states that "Conservation and management measures shall not discriminate between residents of different States" and that allocation or fishing privileges should be "(A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges." Guidelines created for NS4 provide for the distribution and allocation of the opportunity to participate in a fishery and guidance for regional fishery management councils in the event allocation is needed. The Working Group was tasked with considering climate issues and equity and environmental justice (EEJ) in determining if revisions to the NS4 guidelines needed to be made.

In general, there appear to be no major and contentious allocation issues currently in the Western Pacific region, but there is potential for allocation issues in some of the fisheries. That view is predicated on the relative (to other regions) lack of overt conflict, but the working groups notes that the fisheries generally lack the resources to get good data on participation by sector and fishery that would allow credible assessment of allocation issues. This is especially the case in the two territories and the Commonwealth that lack any clear separation between "commercial" and "non-commercial" and do not participate in the national Marine Recreational Information Program (MRIP). Hawaii does participate in MRIP, but the Council's SSC has been on record that MRIP data should not be used for allocations. The State of Hawaii is developing a plan for a non-resident recreational license that could give a sampling frame for those folks only, but there is relatively little useful information on non-commercial (i.e. subsistence, cultural and recreational) levels of participation and by whom. It is also the result of some of the fisheries remaining well below their Annual Catch Limits (ACLs) or international quotas.

Climate Issues

As climate changes, Western Pacific fisheries will need to deal with any anticipated outcomes of changes in stock distributions, protected species interactions, fuel prices, etc. While there are no anticipated allocation issues due to climate change in the near future, the Hawaii

Uku fishery, Hawaii deep 7 bottomfish fishery, and the Marianas bottomfish fishery could be considered for allocation, if needed. This could happen if ACL are reached and if there were an equitable way to differentiate sectors. In addition, should the Western and Central Pacific Fishery Commission (WCPFC) declare yellowfin tuna, bigeye tuna, or other pelagic species to be in a state of overfishing or overfished, the Council could potentially take action on the Hawaii small-boat troll, handline and even short line fisheries. However this is an international fishery and it isn't clear how NS4 would treat U.S. fisheries negatively impacted by international decisions.

What will be important for the region as it potentially deals with climate change and allocation is the continued flexibility to make those allocations according to regional needs and available data. There is a real concern about reliable data on historical participation in fisheries, since that has often been used to determine allocations in other regions. However, it has also been noted that reliance on historical data could result in equity issues based on who was granted access or prevented from accessing fisheries in the past.

Equity and Environmental Justice Issues

With regard to balancing consideration of changes in stock distributions and/or historical users, marginalized individuals excluded, or new users, the members noted that the Marianas would have significant stock distribution change. All pelagics could change distribution forcing further travel and greater fuel costs affecting the most marginalized participants and future participants. The Marine National Monuments and closures have impacted the Indigenous population who no longer has access to documented traditional fishing grounds. Further, Indigenous people may be hesitant to share knowledge with the government that removed their access, so assessing impact on them is more difficult. In addition, only the commercial, recreational, and charter fishing sectors are listed as types of fishing for allocations (50 CFR 600.325 (c)(3)(ii)). There should be provisions to include other kinds of non-commercial fishing, such as sustenance, subsistence, and traditional indigenous (as identified in fisheries in the Western Pacific 50 CFR § 665.12. Note that none of these types of fishing have formal definitions beyond very specific areas such as sustenance fishing within the original Papahānaumokuākea Marine National Monument).

With regard to the NS 4 guidelines revision to reinforce periodic reviews or use other review triggers, the members noted that these were dependent on area and species. Assessments of what is considered fair and equitable to members of the fishery would be important in establishing any allocations and monitoring equity once allocations are in place. It is critical to have better data on permits, licenses, activity levels, transfers, cost, and possible consolidation to assess equity. Demographic data related to representativeness of participants is also critical. Regular ongoing monitoring and assessment of changes in the fishery could trigger more frequent periodic reviews, and these reviews should be more focused and rigorous. Outreach to assess insider views of potential and ongoing changes as part of regular monitoring could help make periodic reviews timelier since conditions in a fishery can change rapidly.

In order to produce other types of documentation, analyses and approaches, the region generally lacks adequate data to document and assess relative equity, especially for Indigenous

subsistence participants. There is some data for the Council's limited-entry longline fisheries, though that is not regularly updated. Members noted differences in gears, methods, and fishing power between subsistence and longline fishing as well as in fisher's knowledge and access to them. The working group noted the need for flexibility and that lotteries for fishing permits/access carry risk. One suggestion was a mixed approach to allocation based on historical participation and something else for new participants.

Approaches to improve consideration of underserved/underrepresented and previously excluded entrants and new entrants must rely on developing a fuller understanding of our fishing communities and the levels of interest in participating in fisheries. This query assumes that we have people who both want to fish and know of opportunities. It may be that such communities are not participating because they have not been invited or made to feel unwelcome, or they may be fishing but we are unaware of their practices. In general, we don't even know how many people are fishing.

A suggestion was made for a simple but representative survey that looks at levels of interest broken down demographically (age, gender, ethnicity, etc.) would be helpful. This is difficult to get from an underserved community when the effort comes from NOAA. There is a real need to get the word out about opportunities for participation in a culturally appropriate and relevant manner. While it is good to advertise opportunities, there is a cost to participation via typical federal channels that can be a heavy burden to fishing communities. Any approach needs to be culturally appropriate or the communities will remain underserved. Face to face outreach with trusted people is more appropriate in the Western Pacific but may not be possible in practice given low levels of support for these types of efforts. This has resulted in culturally appropriate outreach depending on volunteer efforts which are not sustainable in the long term.

What types of documentation and analyses are needed to ensure fairness and equity? MSA sections currently require consideration and past participation for limited entry programs and limited access privilege programs (LAPPs), and demographic data including ethnicity and cultural affiliation should be useful. Other considerations could be expressions of interest, levels of experience/skill and being representative of underserved communities. The working group noted that it all comes down to data, including qualitative data, gained through some face to face interaction with trusted members of the community: "Good Data=equitable allocation". A need for recreational/noncommercial fishermen to report their data was identified including accounting for other benefits of fishing like health and food security. How do those less tangible benefits factor into relative benefits and hardships imposed by the allocation, and is there equitable distribution? Marine Protected Areas and Marine National Monuments need adequate baselines of interest from those who may have been locked out or forced to relocate effort. They also may create inequity in allocation if sectors of a relocated fleet can't manage additional costs. They should be designed with the possibility of reassessment and reopening to create more equitable access in sectors of the fishery

Other Challenges

The working group noted that subsistence fishing is not defined in the MSA and it varies in how it is used across regions (see https://www.fisheries.noaa.gov/topic/resources-fishing/subsistence-fishing for different approaches to subsistence used in three regions). The

Indigenous peoples in the Western Pacific lack treaty recognition to support Indigenous rights which has resulted in slow progress on providing for subsistence harvest, such as for green sea turtles, a historical practice of the Indigenous peoples of the islands. Many other species of cultural significance to these indigenous cultures and underserved communities lack up to date data to be able to provide accurate assessments and quotas. Defining subsistence and underserved communities through a federal criterion should be helpful when discussing allocations.

Additionally, although the Western Pacific region does not have the allocation issues that other regions experience, the region is impacted by potential outcomes of other region's allocations such as the Billfish Conservation Act.

National Standard 4 Recommendations

- 1. The NS 4/8 Working Group on allocation notes that the Western Pacific Region does not appear to have the same level of contention over equity and allocation as some other regions. This may be the result of a general lack of data, well managed fisheries, and culturally-based community interaction styles.
- 2. The Working Group recommends that to fully and credibly assess allocation and equity in the region, there needs to be a much greater and more collaborative effort to characterize the region's fisheries, history, levels of participation, and levels of interest by permitted and potential or locked out participants.
- 3. The working group notes that this is especially the case for our fisheries that remain open access but lack even the most basic information on participants, participation, interest, and the sharing of benefits. The Working Group recommends that the Council seek funding for comprehensive data collection related to Allocations.
- 4. The NS 4/8 Working Group on Allocation recommends that the Council support revising the NS 4 guidelines to be more flexible, inclusive, and data driven, including primary data information collections by NOAA. Revised guidelines could be used to more effectively focus developmental research that includes both qualitative and quantitative methodologies and seeks to be as representative as possible.
- 5. The working group notes that such an effort would encourage greater cooperation between the Science Center, the state, territorial and Commonwealth agencies, and the Council. It will require additional support to be effective in assessing the realities of equity in allocation. Direct funding to the Council would help, because the Council is best placed to work with indigenous and underserved communities.

National Standard 8

NS 8 ((MSA Title III, Section 301(a)(8))) requires an FMP and other measures taken by the Council "take into account the importance of fishery resources to fishing communities" in order to provide for the sustained participation of—and minimize adverse economic impacts

on—such communities. While resource conservation is the primary objective of MSA, alternatives that provide for minimized impacts and sustained participation for communities would be preferred when the primary objective is also achieved. Considering this and the impacts of climate change and the need for EEJ, the Working Group considered potential revisions needed to the NS 8 guidelines.

In general, the concept of "community" as used in the social sciences implies a sense of shared interaction, experience, knowledge, and even a degree of identity. As such, communities are not necessarily confined to a specific geographic location. Community is a fuzzy concept that given enough flexibility can be used in a variety of contexts. It is useful to give a "community" an operational definition for particular contexts, i.e. "here we mean community to include: ". It is also useful to give a clear sense of time frame and scale, particularly if community members need to demonstrate historical participation in the fishery. Demographic data is also important for assessing equity, such as understanding if the community participants are dispersed or concentrated. Hence the operating definition of an affected community may be different for different actions, even in the same region or archipelago.

The working group notes that NS 8 Guidance and definitions of community should be flexible enough for Councils, Science Centers, and Regional Offices to develop comprehensive and effective fishery impact statements and related NEPA-like biological, cultural, social and economic impact analyses for the fishing communities potentially impacted by Council actions. The current definition of "fishing community" includes the term subsistence fishing which is not defined in the MSA. We would like for this to be defined.

Specific member comments on staff queries under "by catch' noted there is limited bycatch in our region, except in the long line fisheries. In general for the small boat fisheries people sell, share and eat everything they catch, so there is very little waste. Regional Indigenous cultural values lead to full utilization. Potential bycatch that is instead retained and shared can benefit communities in ways other than direct economic benefits, e.g. as a food source. The Working Group agreed that opportunities for bycatch reduction through sharing bycatch with local communities should be explored.

Climate Change

Under "climate change" members noted that it was important to look at climate indicators on land and "Mauka to Makai". These terms roughly translate from Hawaiian as "Mountain to Ocean" and emphasize that what happens on the land affects ocean resources. Rainfall and groundwater discharge affect the base of the nearshore food chain and can bring pollution as well! The use of climate indicators should be open and flexible, include a focus on potentially shifting stocks, and include socioeconomic impacts on local communities and infrastructure.

Environmental Equity and Justice

Under "EEJ", the working group agreed that it was important to modify the language "as a basis for allocation" depending on how a fishing community is defined and noted the importance of considering underserved communities and part-time vs full-time fishermen.

Under "should the definition be changed", the collective response was a strong yes. The working group agreed that the requirement for members to reside in a specific locale should be revisited and the definition of fishing community should be made flexible enough to include non-place-based community definitions such as "communities of interest", "communities of practice", and "communities at sea" These terms have become common in the social science literature and in current guidance documents for social impact assessment. (see references cited).

In shifting terminology and guidance to include the broader term "substantially engaged", the workgroup generally felt that was important and potentially useful, but noted that "substantially dependent" had continued importance and suggested a combination of the two measures, perhaps on a sliding scale. Such measures are inherently subjective, and much more and better data need to be collected and considered to assess the effectiveness and fairness of these ratings. Some fisheries operate from multiple and shifting locations with a variety of levels of participation, especially when crew is given fair consideration. Dependence of local communities via post-harvest distribution through both market and non-market economies should also be considered. No one should be excluded.

With regard to "sustained Participation" members noted the difficulties in fishing as an occupation such as costs, lack of knowledge and knowledge transfer, lack of status, and social criticism. In terms of measures of "community vulnerability", the working group suggested the Council and supporting agencies should not rely solely on population data relative to larger community size, and noted a great need to get better and more current data on a broad range of descriptors and measures that would help assess potential negative and positive impacts on fishing communities. The impacts considered should be broadened from only minimizing adverse economic impacts to also including social and cultural impacts, which may affect community resiliency. This is best done with flexible definitions of fishing communities that can be operationally defined more clearly for particular impact assessments.

National Standard 8 Recommendations

- 1. The NS 4/8 working group on Fishing Communities recommends that the Council support careful and comprehensive review and re-visitation of the current NS 8 guidance. That review should make the guidance more inclusive, equitable, and comprehensive.
- 2. The Working Group recommends that the guidance should include non-placed based conceptions of fishing communities.
- 3. The Working Group recommends that the guidance should include comprehensive consideration of substantial engagement as well as substantial dependence on the fisheries.
- 4. The guidance should encourage, if not demand, more comprehensive and accurate data collection and explicitly acknowledge social and cultural impacts in addition to

- economic impacts. It should address issues of access and equity. It should consider issues of scale, community size and geographic range, and historical participation.
- 5. The guidance review should revise the language regarding place and allocation so that fishery participants need not reside in a particular place to be considered for an allocation; this is especially applicable for social and cultural impacts.

References Cited

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Final Report on National Standard 9 Review Working Group NS9 Subgroup

The Council developed a Working Group on National Standard (NS) 9 to provide input to the Council on the NMFS request for comments on potential changes to the NS guidelines. The joint Working Groups met virtually on July 19 with the NS 9 working group meetings being held on July 26 and August 24, 2023 to review and develop the following recommendations. NS 9 Working Group Members: Clay Tam, Steve Martell, Brent Tibbatts, Domingo Ochavillo, Bryan Ishida, Stuart Chikami, Lino Tenorio and Lynn Rassel. Council Chair, John Gourley led the overall working group effort.

The diverse Pacific Islands cultures represented in the Council's region share a common practice of eating and utilizing most everything caught during a fishing trip, resulting in low bycatch (as defined in MSA) for most fisheries. Very few fisheries target a specific species, and fishermen will retain most species that are caught to consume at home, share with family, friends or their broader community, or to sell, unless minimum size or other state, territorial or federal regulations apply. This is especially the case in fisheries managed under the Council's Fishery Ecosystem Plans (FEPs) for Hawaii, Marianas (Guam and CNMI) and American Samoa, which are all small scale fisheries that utilize selective gear types. In these small-scale, non-longline fisheries, such as the bottomfish fishery, the primary species released are those that are known to have ciguatera (such as *Seriola dumerili*, known in Hawaii as kahala). Fishers may also release fish that are poisonous, such as puffer fish. Sharks are also commonly discarded due to the lack of a market in the region and local regulations prohibiting possession of shark products.

The primary focus of bycatch issues in the region has been with protected species interactions in the Hawaii and American Samoa longline fisheries. The Council has played a proactive role in gathering information, identifying research needs, testing mitigation measures, and adopting regulatory changes to implement bycatch measures over the years. Fish bycatch in the longline fisheries have also been reduced over time through greater utilization of nontarget/incidental species such as monchong (pomfret) and opah (moonfish), which used to be discarded due to low market value but have become popular species utilized by local restaurant chefs. As a result, while each sector of the longline fishery has a primary target species (swordfish for the Hawaii shallow-set longline; bigeye tuna for the Hawaii deep-set longline fishery; and albacore tuna for the American Samoa longline), many other incidental species caught are retained, sold, and contribute to a substantial portion of the fleet's ex-vessel revenue. In 2021, bigeye tuna and swordfish accounted for a total of 69% of the Hawaii longline fleet's revenue, and the remaining 31% came from all other incidental species combined. The main fish bycatch species in the Hawaii and American Samoa longline fisheries are sharks, lancetfish, and snake mackerels, which are discarded due to low demand or market value or regulatory requirements.

In general the NS9 working group finds that the existing guidelines and the MSA Council process provides for sufficient flexibility and adaptability to address future potential changes in bycatch issues. The practicability standards in the guidance should be

maintained, as well as flexibility for the Councils to address bycatch issues in a manner that reflects the regional characteristics of fisheries. This regional flexibility allows for bycatch issues to be addressed in the most equitable manner, so that guidance based on bycatch issues from one region does not unnecessarily burden fishing communities in another region that have significantly different bycatch issues.

Climate Issues

Most fisheries in the Western Pacific Council's region are hook and line gear, which are selective gear types by design, and as such the type of bycatch in the fisheries is not likely to change substantially. While some species distribution shifts are starting to occur in the region, there are considerable uncertainties associated with the effect of climate change on target catch and bycatch. Climate effects may also change or increase the prevalence of ciguatoxic fish, or may introduce new invasive species into the region. Additionally, the Hawaii longline fishery, which is the region's largest commercial fishery, is affected by numerous dynamic factors, such as international competition, market preferences, protected species interactions and associated domestic management measures, and litigation, such that direct climate effects may be challenging to detect. Regardless of the extent of climate effects, it is likely that there will be climate winners and losers, such that some species could fare better than others to the point that interactions with fishing gear increases, which could create new management needs.

The NS9 working group finds that the existing guidance and Council processes provide sufficient flexibility and adaptability to address future potential changes in bycatch. The Western Pacific Council annually reviews bycatch data through the Annual Stock Assessment and Fishery Evaluation (SAFE) Report development process, and changes in bycatch composition or amount of bycatch would be identified through the process for further review, evaluation, and potential management action.

Equity and Environmental Justice Issues

Due to the limited nature of bycatch in the region's fisheries, there are no examples of bycatch in one fishery reducing the amount that the species is available to harvest in another fishery. Therefore, equity issues in bycatch management are not anticipated in the fisheries in the Western Pacific. The NS9 working group finds that the existing guidance, along with the normal Council process provides sufficient flexibility to address any future equity issues that may arise.

The NS9 working group further finds that any changes to the NS9 guidance should retain the flexibility to the Councils to determine the appropriate method and extent of bycatch reduction that is practicable in any fishery as a matter of equity.

Other Challenges

The NS9 working group agrees that the practicability considerations in the existing NS9 guidelines appropriately balance the various complexities of federal fisheries management, as the guidelines provides a list of considerations for the Council but does not prescribe a specific

approach or threshold. NS9's practicability standard for addressing bycatch allows each Council to develop appropriate bycatch measures for each fishery.

NMFS is requesting input on whether the agency should consider adding provisions for 1) adding provisions to address bycatch on an ecosystem level; 2) implementing provisions for alternative performance based standards; 3) increasing provisions to document bycatch avoidance. NMFS is further requesting input on whether revisions should be made to the NS9 guidelines that could encourage provisions to incentivize reduction of waste when regulatory discards are required. The NS9 working group provides the following comments on each of these topics:

Adding provisions to address bycatch on an ecosystem level

The NS9 working group finds that the guidance could benefit from additional considerations of tradeoffs of reducing bycatch of one species to the bycatch of another species. Recent evaluation of sea turtle bycatch in the Hawaii shallow-set longline fishery have shown that avoidance of one sea turtle species (loggerhead turtle) by the fleet may increase bycatch of another sea turtle species (leatherback turtle). In such situations, the Council may find that further reductions in loggerhead turtle interactions is not warranted, and may prioritize reducing bycatch mortality by focusing on improving post-release survival. The guidance could explicitly allow the Councils to consider these types of tradeoffs as part of the practicability standard. Further, the guidance could also allow for the Council to rank order of species of importance to reduce bycatch and bycatch mortality.

Implementing provisions for alternative performance based standards

The NS9 working group supports the existing guidance that allows the Councils to use qualitative measures in the absence of quantitative estimates of impacts when analyzing potential conservation management measures. This is particularly important in the small-scale fisheries in the Western Pacific Council's region, which are data limited and it is impractical to place observers on board. The guidance should continue to maintain flexibility for each Council to determine whether performance based standards are appropriate and how to set them, taking into consideration the diverse nature of fisheries across and within regions.

Increasing provisions to document bycatch avoidance

The NS9 working group was unclear what is meant by "increasing provisions to document bycatch avoidance". Nevertheless, the NS9 working group finds that requiring additional documentation could be particularly burdensome to the region's small-scale fisheries. Any provision to increase documentation should include consideration of cost, capacity, and burden on the fishery participants, and weighed against the benefit of increasing such documentation. As described in other sections above, the guidance should retain flexibility for the Councils to determine whether increasing documentation for bycatch avoidance is necessary for each fishery.

Provisions to incentivize reduction of waste when regulatory discards are required

As described for other potential provisions, the NS9 working group finds that any revisions that would consider incentives for reduction of waste should include consideration of costs, practicability and economic impacts. Regulatory discards in the region's fisheries are often due to state or territorial regulations (e.g., shark possession rules; no taking of female Kona crabs), protected species statutes (e.g., ESA, MMPA), or other federal statutes (e.g., Billfish Conservation Act), rather than a management measure under the Council's FEP. In these cases, increasing use may not be an option, and whether and how further reduction may be needed should be left up to the Council to determine.

Further, increasing use of bycatch species may necessitate additional monitoring mechanisms to track those species being absorbed into new markets, which should be a consideration under the practicability standard.