



WESTERN
PACIFIC
REGIONAL
FISHERY
MANAGEMENT
COUNCIL

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203rd CM

Social Science Planning Committee

May 27, 2025

12 p.m. – 5 p.m.

Hybrid

In-person attendance at Council Office

Final Report

1. Welcome and Introductions

Craig Severance, SSPC chair, welcomed members to the meeting. Members in attendance were Craig Severance, Adam Ayers, Debra Cabrera, Justin Hospital, Kirsten Leong, and Michelle McGregor. SSPC member Noelani Puniwai was excused. Council staff present were Asuka Ishizaki, Zachary Yamada and Mark Fitchett. Others in attendance were Minling Pan (presenter), Thomas Remington (Council contractor/Lynker), and Mark Ladao (public).

2. Approval of Agenda

The agenda was approved.

3. Annual SAFE Reports

A. Socioeconomic Modules 2024 Report Updates

Minling Pan, PIFSC, provided an update on the 2024 Stock Assessment and Fishery Evaluation (SAFE) report socioeconomic module, including commercial landings and revenue, trip costs, and price for bottomfish, ecosystem components species (ECS), pelagic small boat and longline fisheries in American Samoa, Guam, CNMI and Hawaii. New in this year's report is a metric of estimated trip or set level profit (derived from net revenue subtracting fixed and labor costs) for the Hawaii longline fishery and American Samoa longline fishery. In addition, this year's report presented the key findings from the 2022 cost-earnings survey including fleet-wide profitability and profitability variations among vessels for the Hawaii longline fishery. Continuation of the long-term economic data collection program for the longline fisheries remains uncertain due to phasing out of the human observer program as EM is expected to come in.

The SSPC suggested looking at past data for profitability variations among longline vessels, as it may provide an indicator for fleet consolidation over time. SSPC additionally suggested looking at the territory bottomfish data trends in relation to tourism interest over time.

In response to a question from Council staff regarding progress made since the 2024 SSPC meeting when the committee made a recommendation to explore alternative approaches to continue the longline economic data collection program, Pan indicated that several options have been explored. One option explored was to add the data collection fields into the longline electronic logbook, which would necessitate getting a contractor for a software update to add the data fields, as well as potential issues with mixing a mandatory logbook data collection mechanism with a voluntary economic survey. Another option explored was to conduct

interviews in conjunction with the in-person vessel owner and operator protected species workshop, but the workshop is moving more toward hybrid formats and does not provide a broad opportunity for in-person interviews. The program is now considering directly sending the survey to permit holders, but the option has not yet been discussed with industry to evaluate the feasibility. Any changes to protocol would also necessitate Office of Management and Budget (OMB) review, which is highly uncertain at this time.

B. Fisher Observations

Adam Ayers, CIMAR and SSPC member, presented the highlights of the 2024 Fisher Observations annual summit. This effort aims to collect and summarize the region's fishers' at-sea experiences, observations, assessments, and socio-economic environment to augment scientific data collected for the SAFE report. This year's annual summit report will be a combined document for all regions, with separate region-specific reports summarizing the quarterly observations from the AP meetings. Cross-cutting themes from the annual summit included fishing access issues, market access, and abundance of small marlins across the region.

The SSPC discussed ways to continue improving the representativeness of the observations, noting that some of the ideas for getting broader participation for the SEEM process (see next agenda item) could apply for the fishers observations initiative. Members also suggested developing a retrospective analysis now that the initiative has been ongoing for five years, and welcomed feedback on how the information has been used or referenced to date to inform the approach for the retrospective. Council staff indicated that the fishers observation information has been useful in providing context to management actions such as ACL specifications. Members also noted that the information may also be useful for the ecosystem-based fishery management project led by PIFSC. Members also offered overall support for the initiative, noting that it offers important clues and provides communication between the two cultures (i.e., fishermen and scientists).

4. SEEM Process Review

Justin Hospital, PIFSC and SSPC member, provided an overview of the SEEM process review conducted by a SSPC working group (SSPC-WG; members: Hospital, Ayers, Severance) formed at the May 2024 meeting. The SSPC-WG identified numerous benefits to the existing SEEM Process including its ability to identify issues of concern, promote dialogue, build trust, and allow the fishing community to have a voice in the ACL-setting process. The SSPC-WG also identified issues that complicate the existing SEEM Process including concerns of potential overlap with the P* process (accounting for scientific uncertainty), utility and effectiveness of the current scoring methodology, varying community representativeness across SEEM applications, and acknowledgment of the time commitment required for the community to participate. The SSPC-WG developed a report providing a menu of options for potential process revisions intended to sustain the benefits of the SEEM while minimizing current issues. The report specifically provides options related to the desired outcomes, implementation process, trigger process, and participation strategies.

The SSPC supported the WG report and options presented, noting that the existing scoring process provides the “what” and the options provide the “why”. Within the options for outcomes, the SSPC noted adding the objectives and research needs to the existing scoring process provides

a comprehensive package of input, noting that identifying objectives would be the most important, but the research needs help to get to those objectives. Members also reflected on the national workshop of the Scientific and Statistical Committee in 2024, where the SEEM process was presented and considered unique in its approach to addressing National Standard 1 compared to other regions. The SSPC acknowledged that the SEEM process is an approach that the community can get involved in, and is impactful for evaluating alternatives in advancing management.

The SSPC endorsed the report (**Appendix A**) and agreed to have it vetted through the Council's advisory groups for further input.

5. Discussion on Role of SSPC in the Council Process

Severance led a discussion on the role of the SSPC in the Council process. The SSPC in its current form has been in place since 2014 (with several other social science working groups or committees in place since the late 1980s), and Severance is considering stepping down as chair soon, providing an opportunity to discuss how the SSPC operates into the future. The SSPC developed a strategic plan in 2017, which was revisited in 2022 at which point the SSPC determined the plan to still be relevant. The SSPC provides advice and information on all aspects of social science that are relevant to Council needs, including social science planning, research and policy development. Severance emphasized that fishery management is about managing people more than the resources.

The SSPC's accomplishments include assisting with formalizing the Fishers Observations process, as well as conducting SEEM process reviews. SSPC has also provided updates to the 5-yr MSA Research Priorities and provided recommendations/socioeconomic considerations on Council management actions. Within the annual SAFE report development process, SSPC's role was originally envisioned to provide review of the draft modules prior to the Plan Team meetings, but timing has been a challenge and the SSPC has focused more on providing future improvement recommendations in recent years. Additionally, membership/expertise overlap with SSC and Plan Team was considered.

The SSPC discussed the benefits and strengths of the committee, including the opportunity for cross-office and cross-discipline interactions among social scientists, the ability for the SSPC to dive deeper into socioeconomic considerations and social science methodologies offering a different perspective than the Plan Team, and the positioning of the committee to show the direct linkages between social science to management.

The SSPC also examined the need to revisit the membership to enhance geographic and cultural representation, especially in terms of territorial representation and the need to have broader non-agency expertise. Members noted the opportunity to recruit new expertise through the new fishery program cluster hire at the University of Hawaii, and suggested working with those on the UH committee (e.g., SSC member Erik Franklin) to scout new hires.

SSPC further discussed its contribution to the SAFE report process, noting that the committee may provide greatest benefit by having an intersessional meeting later in the year to provide input on the following year's report production. For 2025, the SSPC could review revisions for

the human dimensions section of the report in an intersessional meeting (Danika Kleiber, PIFSC, is leading this effort).

Regarding the relevance of the 2017 strategic plan, the SSPC agreed that a review would be warranted through intersessional meeting. Any revision of the plan could build on the existing plan and should consider alignment with statutory requirements. Hospital volunteered to review social science plans from other Councils.

As next steps the SSPC agreed to consider new membership to revitalize the committee, and plan for an intersessional meeting later in the fall to cover the following topics:

- Review SAFE report human dimensions module changes
- Strategic plan review (with markup of the document in advance)
- Circle back on the SEEM process review feedback (see previous agenda item)

6. Socioeconomic Considerations for Council Actions and Issues

A. Implementation of Electronic Monitoring in Hawaii and American Samoa Longline Fisheries

Mark Fitchett, Council staff, provided an overview of the Pelagic FEP Amendment to authorize the use of EM in the Hawaii and American Samoa longline fisheries, which is scheduled for final action at the June Council meeting. The presentation included an overview of what EM implementation would look like, costs and economic impacts, and alternatives for Council action.

The SSPC discussed different approaches for prioritization of vessels, noting that an objective for adoption would have a different approach than prioritizing representation (for adoption, focus on having those respected in the community to adopt first; if looking for representation in the phase-in period, go for a different approach). Community development theory and diffusion of innovation theory suggest that the way to encourage widespread adoption of a new practice or idea is to select those who are respected in the community, although the theory is based on a uniform culture, whereas the longline fishery is multicultural and multilingual, so leaders of sub-communities may need to be identified.

The SSPC also discussed concerns regarding fisher perspectives of the action being top-down and having limited support, which may justify prioritizing voluntary vessels first before phasing in other vessels. Starting with the randomized assignment for observers with Hawaii deep-set longline vessels may provide greater flexibility for vessels to initially opt out or opt in to EM as an alternative as a way to make the adoption more palatable, as the fishery does not necessitate 100% observer coverage to monitor existing management measures. Prioritizing EM deployment on the deep-set longline vessel would in turn allow the remaining human observer resources to be focused on the shallow-set longline segment, if 100% coverage is needed for that sector.

SSPC members noted that, from a socioeconomic perspective, it would be helpful to understand the full range of the industry's priorities to better understand the perspectives of how the different segments in the fishery may be more acutely affected by cost and other impacts of the action (e.g., ownership groups, such as owner-operators vs hired captain; single proprietor vs multiple vessel owners). Members also noted the potential unfairness with the \$7M observer

program that industry did not have to pay, but a \$2.5M program where the fishermen may now need to pay, with NMFS experiencing a cost-savings. While there was some discussion of non-monetary costs of observers being reduced through EM (e.g., not having to coordinate an extra person aboard the vessel), it may not be seen as equal to incurring the financial burden to install EM.

B. Hawaii and American Samoa Longline Fisheries Crew Training Requirement

Asuka Ishizaki, Council staff, provided an overview of the Pelagic FEP Regulatory Amendment to implement a crew training requirement for the Hawaii and American Samoa longline fisheries, which is scheduled for final action at the June Council meeting. The presentation included the purpose and need for the action, status of the pilot training program, and alternatives for Council action.

The SSPC noted that the available body of literature on the short-term effects of training programs associated with rare events provides support for recurring crew training, and considered the feasibility versus desirability of 1 or 2 year certifications. SSPC also discussed the value of feedback from industry participants as well as a post-hoc assessment, and noted that effectiveness of the training requirement will primarily be monitored through the handling outcomes. Members suggested having someone collect stories on the release effects and sample the different ethnic groups within the fishery, as the impact of one person telling the story can be more relatable and instructive than statistical representations.

C. Annual Catch Limit (ACL) Specifications for Main Hawaiian Islands Uku for 2026 to 2029

Zach Yamada, Council staff, presented an overview of the ACL specifications for MHI uku for 2026-2029, which is scheduled for final action at the June Council meeting. The presentation included the outcomes of the latest stock assessment update, P* and SEEM working group analyses scores to be applied to the specifications, and alternatives for Council action.

The SSPC discussed the cultural and economic importance of uku, noting that uku is a highly prized fish and fishermen take pride in catching it. Members urged the Council to consider the value of the fishery beyond its commercial value.

7. Update on NMFS Socioeconomic Programs and Activities

Hospital provided an update on NMFS socioeconomic programs and activities, which included the following:

- NMFS is working on how to prioritize science in anticipation of budget cuts. On the social science front, NMFS has established a new working group, composed of agency economists, to develop a framework for calculating total economic value that can be compared across sectors, fisheries, and regions.
- NMFS Community Social Vulnerability Indicators (CSVI) have gotten caught up in recent EOs. In response, NMFS has formed a National working group tasked with revamping the social indicators enterprise to more clearly connect to management needs and mandates. Danika Kleiber and Mia Iwane, PIFSC, will be joining the group as regional representatives. The working group is planning to provide a review and an

updated workflow for existing CSVI and propose improved indicators by the end of the calendar year.

- NMFS seafood markets and trade working group has been established to advance emerging agency priorities. Michelle McGregor is part of the national seafood strategy pilot project for highly migratory species, and these groups will document current market challenges and limitations, trade implications, and explore ways to advance the competitiveness of the U.S. seafood industry.

The SSPC discussed the importance of including cultural value, heritage, non-market benefits and informal market considerations in the estimation of total economic value for regional fisheries, especially as practices that may contribute to overall economic stability of fishing communities. SSPC members acknowledged the challenge inherent in this based on past agency valuation efforts, and noted the difficulty in appropriately implementing valuation of these concepts when constrained to currency-based metrics. NCRMP has been working with frameworks like those developed by IPBES which could provide some insight, e.g. see <https://www.ipbes.net/the-values-assessment>).

8. Project Updates

Due to time limitations, members were asked to share any project updates offline.

9. Other Business

No other business was discussed.

10. Public Comment

There were no public comments.

11. Discussion and Recommendations

The SSPC made the following recommendations:

Regarding the SEEM Process Review:

1. The SSPC endorses the SEEM Process Review Working Group report (see **Appendix A**) and recommends the Council vet the Working Group report through the advisory groups for further input in advance of the September Council meeting. The SSPC notes the potential synergy with the fishers observation reports and the potential benefits of more effective community engagement.

Regarding the Role of SSPC in the Council Process:

2. The SSPC forms a working group (Hospital, Severance, Cabrera, Ayers) to further consider the role of the SSPC in the Council process (including review of other Council's social science plans and considering revitalization of membership), in preparation for a strategic plan review at an intersessional SSPC meeting.

Regarding the EM Action Item:

3. The SSPC recommends the Council consider the following socioeconomic factors:
 - a. Approach for prioritization would depend on the objectives - if the objective is broad-scale adoption, priority should be placed on having fishermen who are

respected within the fleet (noting community development theory, diffusion of innovation theory, and adoption of innovation guidelines); if objective is representativeness of the fleet, a different approach would be taken.

- b. Consider testing implementation through the DSL sector, where there is greater flexibility for observer coverage rate to work out the details as a way to address concerns about the implementation being top-down associated with possible loss of revenue
- c. Consider industry's priorities more broadly to get a better perspective of how the action may affect different segments more acutely (e.g., ownership groups, such as owner-operators vs. hired captain; single proprietor vs. multiple vessel owners)
- d. Note potential unfairness with the \$7M observer program that industry did not have to pay, but a \$2.5M program where the fishermen may now need to pay, with NMFS experiencing a cost-savings

Regarding the Crew Training Action Item:

- 4. The SSPC recommends the Council consider a 2-year expiration for the crew training certificates, noting social science research on short-lived effects of training programs especially for rare events while balancing the retraining burden if the majority of the crew turn over within about 2 years. Having a 2-year expiration would help ensure crew that return to the fishery at a later time to be retrained with the latest information.

Regarding the Uku ACL Action Item:

- 5. The SSPC recommends the Council consider the multi-sector and multi-cultural nature of the fishery, as well as social and cultural importance of the uku fishery.

Meeting adjourned at 5:40pm.

Appendix A

WPFMC Social Science Planning Committee (SSPC) SEEM Review Working Group Report and Recommendations Executive Summary

The May 2024 WPFMC SSPC meeting resulted in the following recommendation to establish the SSPC SEEM Review Working Group (SSPC-WG):

The SSPC forms a working group to review the SEEM process (Hospital, Ayers, Severance) and will report out at the 2025 SSPC meeting.

SSPC SEEM Review Working Group Member affiliations

- Justin Hospital (NOAA Fisheries, Pacific Islands Fisheries Science Center)
- Adam Ayers (Cooperative Institute for Marine and Atmospheric Research)
- Craig Severance (Chair, WPFMC SSPC)

Process:

The SSPC-WG met on three occasions

- February 12, 2025: SSPC-WG and Council staff discussed WPFMC perspectives and objectives for the SEEM Process.
- February 26, 2025: SSPC-WG discussed pros/cons of the current SEEM process and explored objectives for a revised SEEM Process.
- April 2, 2025: SSPC-WG discussed format and plan for working group report

Key Highlights of SSPC-WG SEEM Review:

1. The SSPC-WG identified numerous *benefits* to the existing WPFMC SEEM Process including its ability to identify issues of concern, promote dialogue, build trust, and allow the fishing community to have a voice in the ACL-setting process.
2. The SSPC-WG identified *issues* that complicate the existing WPFMC SEEM Process including concerns of potential overlap with the P* process (accounting for scientific uncertainty), utility and effectiveness of the current scoring methodology, varying community representativeness across SEEM applications, and acknowledgment of the time commitment required for the community to participate.
3. The SSPC-WG offers a menu of options for SEEM process revisions that we hope will sustain the benefits of the SEEM while minimizing current issues.

Key Recommendations

1. Solicit input from the SSPC to improve upon SSPC-WG-suggested options
2. Solicit input from the WPFMC Advisory Panels to determine fisher perspectives and preferences towards options presented in the SSPC-WG SEEM Review report, specifically as it relates to the
 - a. Desired SEEM outcomes
 - b. SEEM implementation process
 - c. SEEM trigger process
 - d. SEEM participation strategies

WPRFMC Social Science Planning Committee (SSPC) SEEM Review Working Group Report

Justin Hospital
Adam Ayers
Craig Severance
Asuka Ishizaki

SEEM Motivation, History, Current Considerations

The omnibus amendment to the Fishery Ecosystem Plans for the Western Pacific Region (WPRFMC, 2011b) established the process for specifying annual catch limits (ACL). The specification process included a qualitative method for determining P* ([acceptable] probability-of-overfishing) as part of the acceptable biological catch (ABC) control rule, and a similar qualitative construct for setting ACLs. The dimensions used for the ACL qualitative construct includes the following factors: (1) Social; (2) Economic; (3) Ecological; and (4) Management Uncertainty (SEEM). The amendment did not specify the criteria or scoring values within the dimensions under the recognition that SEEM analyses will be unique for each fishery.

The first SEEM analysis was conducted for the 2011 Main Hawaiian Islands (MHI) Bottomfish stock assessment processes through a committee established at the 150th Council meeting in March 2011 (WPRFMC, 2011a). This committee established the original methodology for the SEEM analysis. Since then, SEEM analyses have been conducted in conjunction with P* processes for stock assessments in the region. SEEM working groups were implemented for the following assessments; 2011 MHI Deep 7 bottomfish, 2014 Reef fisheries for Hawai'i, the Marianas, and Guam; 2015 Territorial bottomfish (American Samoa, CNMI, Guam); and 2018 MHI Deep 7 bottomfish fishery. To address variability in the implementation of the SEEM, an effort to improve standardization was completed in 2019, resulting in the SEEM* framework (Hospital et al., 2019). The SEEM* has been applied for the 2019 MHI Kona Crab, 2020 MHI uku, 2023 American Samoa BMUS, and 2024 MHI Deep 7 bottomfish assessments.

Procedurally, community input in the stock assessment process has increased significantly since the 2011 omnibus amendment established the P* and SEEM constructs within the ACL specification process. Stock assessment scientists now conduct local, in-person data workshops with fishing communities as part of their regular assessment workflow (Yau and Oram, 2016; Iwane et al., 2023). These workshops allow fishing communities to voice concerns with and provide insights into the data used in stock assessment models and share observations on fishery conditions that can improve assessment models. Stock assessment scientists take these concerns into account and provide feedback to communities in-person on how they addressed previous community issues and concerns. These meetings highlight some of the issues related to the scientific uncertainty underlying stock assessment models (covered under the P* process), but also allow the fishing community to get their perspective and on-the-water observations heard by scientists and managers. Additionally, a fisher-led initiative in 2020 to

solicit and synthesize fisher observations have become operationalized in recent years (WPRFMC, 2021; Ayers et al., 2022). Fisher observations have become a standing agenda item at quarterly advisory panel meetings and an annual summit is held to review fishing conditions from a community perspective. The fisher observations have been structured to address Social, Economic, Ecological, and Management considerations and directly feed into future SEEM* discussions. Fisher observations are published as PIFSC data reports and narrative summaries are now routinely included in Council's Annual SAFE Reports. The information exchanges facilitated by data workshops and fisher observations were one of the primary reasons the SEEM process was conceived, to provide a mechanism for community input in the stock assessment process.

SSPC SEEM Review WG Process

The SSPC SEEM Review WG (SSPC-WG) was composed of 3 members: Justin Hospital (PIFSC/ESD, SSPC member), Craig Severance (SSPC Chair), and Adam Ayers (CIMAR, PIFSC/ESD). The SSPC-WG was charged with reviewing SEEM objectives and developing a strategy to consider revising the SEEM process. The SSPC-WG met virtually 3 times (twice in February and once in April), in order to discuss issues and derive recommendations among the group. Key discussion topics discussed during the meetings are listed below organized across some broad themes:

- **Importance of including fishing community perspectives** (to what extent is this already being captured in stock assessment data workshops and fisher observations?; SEEM as an opportunity to prioritize/reprioritize research topics/fishery data gaps; feedback on fishery data, models, etc.; 'issue-spotting' for scientists and managers;)
- **Technical considerations:**
 - *Issues with scoring during the SEEM process* (fishing community reluctance, at times, to provide scores; potential double-counting with the the P* in the 'Ecological' dimension; concept of discounting may not be considered; perhaps the scoring construct does not need numbers; potential for negative scoring due to importance of SEEM categories to the community to counteract P* reductions); varying levels of preparation of WG members;
 - *Time commitment of serving on a SEEM WG* (currently an afternoon/half-day, perhaps a full day if WG members travel from a neighboring island in Hawai'i or when joint P* and SEEM meetings are held; unsure what travel commitments might be in other jurisdictions);
 - *Importance of setting aside enough time for discussion during a SEEM WG;*
 - *Editing SEEM questions* (to address scoring, discounting, double-counting, etc.);
- **Triggers for a SEEM process** (benchmark stock assessment; upon receiving a stock assessment, AP triggers a SEEM based upon fishing community concerns, etc.);
- **Improving community participation/representation** (including representatives and voices from different fishery sectors; including ecological/ecosystem expertise that SEEM processes may lack; even developing representative panels with rotating service terms);

Based upon these themes, the SSPC-WG devised 4 key issues and developed a suite of process options that could improve future SEEM applications. These process options up for consideration include:

- Defining SEEM outcomes
- SEEM implementation
- Process to trigger a SEEM
- Representative community and expert participation

Process Options Identified by the SSPC SEEM Review Working Group

SEEM Outcomes: What are the most meaningful/preferred outcomes from the SEEM process?

In considering potential revisions to the WPRFMC SEEM process, the SSPC-WG recognized the need to first determine the outcomes desired from the process. The objective of the SEEM WG is to deliver information on each of the SEEM dimensions for the qualitative construct for setting annual catch limits (ACLs). Council staff and SSPC-WG members agreed that a significant value of the SEEM process is to ensure the fishing community is able to get their perspectives considered in the management process.

The current SEEM* process (Hospital, et al. 2019) is structured to motivate discussion among SEEM working group (WG) members around fishery conditions in the context of Social, Economic, Ecological factors, as well as the topic of Management Uncertainty. There are example trigger questions provided in the framework, but the process is designed to be flexible and responsive to concerns relevant to the group convened. As an example, in the 2020 uku SEEM WG meeting draft report, WG members highlighted several state-federal management issues that complicate allocative management options, including variability in non-commercial data collected, the lack of non-commercial management, how sector-based allocation might create conflict, and other potential impacts (WPRFMC, 2020). The 2024 MHI Deep 7 bottomfish SEEM WG also included an important discussion with several comments by the fishing community regarding skepticism over use of non-commercial data in assessments, potential of underreporting by commercial participants, the impact of shark depredation on assessments and other issues. In general however, there was a consensus that management had improved since the previous SEEM WG meeting in 2018 (WPRFMC, 2024). Thus insights from the SEEM WGs provide important context about potential management changes, community feedback on SEEM issues, and shifts in perspectives over time, which are critical inputs to the Council process. While the existing fisher observations process (Ayers, et al. 2022) facilitates community input towards SEEM considerations, the SEEM* structures stock-specific community input in the context of stock assessment outcomes.

The current framework also affords a scoring rubric that allows the group to arrive at consensus scores that translate to a recommended percentage reduction in the probability of overfishing, if any, in the ACL-setting process on account of social, economic, or ecological (SEE) factors affecting the fishery. In considering management uncertainty (M*) the working group considers

this criteria in two parts: management and monitoring. Based on the results on the SEEM analysis, the Council may apply a percentage reduction in the probability of overfishing through the establishment of an annual catch target (ACT) in situations where in-season monitoring is feasible and fishery management agencies have the ability to close the fishery, when needed.

Some concerns regarding the current framework include questions about potential overlap between the ecological element of the SEEM and the P* process, which focuses on scientific uncertainty, and whether this could create a situation of double-counting. Similarly, given the nature of the P* and SEEM process, the fishing community has expressed concerns about the strictly additive nature of these parallel processes that can only result in reductions in the acceptable probability of overfishing, with no way for SEEM to counteract P* reductions. There have also been concerns expressed at recent SSC meetings questioning the need for the P* [and SEEM process] either due to the fact most regional fisheries are not facing pressure of exceeding the annual catch limits, and noting that some factors outlined in the P* [and SEEM process] may not be applicable to all fisheries or may overlap across processes.

Therefore, the SSPC-WG proposes additional outcomes that could be pursued through a SEEM working group that would ensure the fishing community is able to get their perspectives considered in the management process, while minimizing the need to arrive at a consensus score that can only serve to further reduce the acceptable probability of overfishing in the ACL-setting process. However, this scoring procedure can still be utilized in situations where the SEEM working group deems necessary.

Status Quo	Process Addition Options
<p>Community observations and feedback on SEEM considerations</p> <p>Consensus decision on a score that translates to either</p> <p>a) proposed percentage reduction, if necessary, in the probability of overfishing risk (in addition to P* reduction), based on "SEE" considerations for ACL-setting decisions.</p> <p>b) proposed percentage reduction, if necessary, in probability of overfishing risk (in addition to P* reduction), based on "M*" considerations for the establishment of an annual catch target (ACT), where feasible.</p>	<p>A. Define community-based fishery management objectives, priorities, and/or define metrics to measure success of fishery management alternatives using a SEEM perspective.</p> <p>B. Develop a list of priority research questions and/or management strategy topics that can inform the stock assessment process and fishery management</p>

SEEM Implementation: What is the most appropriate process to implement a SEEM?

Implementation procedures are intrinsically linked to the desired outcomes of the SEEM process, as described above. Potential SEEM implementation strategies for the SEEM outcome options are presented below.

The current SEEM* framework involves a discussion of SEEM considerations, followed by a scoring process based on the rubric outlined in the methods document (Hospital et al., 2019). The current process results in a WG report that outlines key SEEM considerations important to the fishing community and an associated recommended score for the “SEE” components and/or the “M*” component. Different outcomes will result in different implementation strategies. However, elements of the existing SEEM* framework can always be employed, as desired by the working group convened.

Outcome Option	Implementation Strategies
Status Quo	The SEEM* WG currently implements the SEEM according to existing methods (Hospital et al, 2019)
Option A. <i>Community-based Fishery Objectives</i>	<p>The SEEM WG could prioritize existing Fishery Ecosystem Plan (FEP) objectives to highlight which are most important for the fishery under evaluation.</p> <p>In addition to, or alternatively, SEEM WG could define their own objectives and associated metrics to allow Council to evaluate fishery management alternatives through the ACL-setting process giving consideration to these community-defined priorities.</p>
Option B. <i>Research and Management Priorities</i>	Utilizing a SEEM perspective and/or building off the trigger questions outlined in the existing methods, the SEEM WG could list and prioritize research questions or management strategies they feel are necessary for improved stock assessment process outcomes and fishery management.

SEEM Trigger: What is the most appropriate process to initiate a SEEM?

Another discussion point tackled by the SSPC-WG related to the process necessary to initiate the SEEM process, as the omnibus amendment does not specify when or how to initiate the SEEM process. As previously stated, given that the probability of overfishing associated with current exploitation levels in regional fisheries are currently low, the SSC has inquired into whether the efficiency of the current process can be improved, perhaps by evaluating the need for the SEEM [and P*] prior to initiating the working group. The SSPC-WG also reflected on the time commitment required by the community to actively participate in the SEEM process, and have provided the following process options available to further define when a SEEM is necessary to implement.

Trigger Option	Process Option
Status Quo	A SEEM is initiated by Council recommendation upon the approval of each stock assessment by the SSC.
Option A. <i>Discretion of Council / Advisory Committee</i>	<p>Upon receiving a draft stock assessment, the relevant Advisory Panel and/or SSC and/or Council may consider if they have any “SEEM” related concerns based on the model, results, or ACL risk table outcomes.</p> <ul style="list-style-type: none"> - Council and/or Council advisory group(s) may request a SEEM to address “SEEM” considerations - Alternatively, if Council and/or Council advisory groups are comfortable with the stock assessment model, results, and ACL risk table options. <u>No SEEM may be required.</u>
Option B. <i>Fixed schedule</i>	<ul style="list-style-type: none"> a. A SEEM may be initiated after each benchmark stock assessment to outline “SEEM” considerations from the community perspective to inform the update stock assessment. b. A SEEM may be required after each update stock assessment to outline “SEEM” considerations from the community perspective to inform the next benchmark assessment.

Participation: What is the best way to ensure the diversity of the fishing community is adequately represented in SEEM implementation?

A final issue addressed by the SSPC-WG related to ensuring representative participation from the fishing community and individuals with relevant expertise in the SEEM process. Upon reflection of past SEEM applications, representation from the fishing community, managing agencies, and scientific expertise has varied considerably.

For example, the composition for select SEEM meetings is described below.

- 2015 Territorial Bottomfish SEEM WG included 6 individuals; including 3 from PIFSC, 2 from PIRO, 1 SSC member, and did not include any representatives from the territories.
- 2020 uku SEEM WG included 9 individuals, including 3 from the State of Hawai'i Division of Aquatic Resources (HDAR); 3 from the uku fishing community; with 1 person each from PIFSC/Ecosystem Sciences Division, PIRO/Sustainable Fisheries Division, and 1 from the SSC.
- 2024 MHI Deep 7 bottomfish SEEM WG included 15 participants and was composed of 3 individuals from HDAR; 2 from PIFSC; 1 from PIRO, 1 from the SSC; and 8 from the fishing community. Notably, the 2024 MHI Deep 7 meeting included a much larger contingent from the fishing community, but both recent meetings had 3 members from HDAR, including the chair of both groups.

In recognition of the diverse motivations and expertise within regional fishing communities, the SSPC-WG would welcome opportunities for future SEEM groups to ensure that they are reflective of the community and encourage steps that can promote active participation from multiple perspectives.

	Participation Process Option
Status Quo	Collection of fishing community members (AP members, other Council committee members, local fishers) and agency representatives, based on expertise and availability, as coordinated by Council staff.
Option A. <i>Define relevant community perspectives / fishery sectors</i>	Relevant Advisory Panel (AP) to define expertise and/or fishery sectors that are necessary to ensure a representative SEEM process. This would provide the AP with initial input into the voices they feel are relevant for the SEEM WG panel.
Option B. <i>Community partnerships</i>	Council could formally partner with local organizations (PIFG, HFACT, Conservation International-Hawaii, Boat Clubs, popular press, social media, etc.) to recruit diverse fishery participants that align with fishery sectors and/or perspectives who agree to regularly participate in SEEM meetings.

Conclusion and Next Steps

This report offers a summary of SSPC-WG deliberations and suggested process alternative options that we hope will sustain the benefits of the SEEM process while minimizing perceived issues with the current SEEM*. The SSPC-WG welcomes feedback on the proposed alternatives from Council staff, the SSPC, and WPFMC Advisory Panels. The SSPC-WG can further refine this document, as needed, to improve the SEEM* and ensure fishing community perspectives inform and improve the ACL-setting process for fisheries across the Pacific Islands Region.

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