

HMS Roadmap Workshop: Expanding Options for HMS Fisheries

June 6-7, 2024

DoubleTree San Diego-Mission Valley, San Diego, California

Workshop Summary Report

Pacific Fishery Management Council Convenor's Preface

Council involvement in West Coast HMS fisheries stems from the development and implementation of its Highly Migratory Species Fishery Management Plan (HMS FMP) in 2004. Rising concern about bycatch, especially of protected species, prompted various Council actions over the ensuing 20 years. These actions mainly focused on two fisheries targeting swordfish: shallow-set pelagic longline, which is not authorized under the FMP but occurs outside the U.S. Economic Exclusive Zone and lands fish on the West Coast, and large mesh drift gillnet (DGN). As early as 2006, the Council began looking at using exempted fishing permits (EFPs) as a means to test bycatch mitigation methods in the DGN fishery.

Beginning in 2014, involvement in these issues prompted the Council to take a strategic look at its potential actions by drafting a Swordfish Management and Monitoring Plan. This Plan remained a living document, as the Council periodically revisited it and considered how it wanted to move forward with potential management actions. Given changes in the management landscape in the intervening years, in 2023 the Council decided the document was valuable but needed to capture the current state of the fisheries and asked the HMSMT and HMSAS to draft a new document while broadening its scope to all HMS gears and associated species. This new document became the HMS Roadmap. An important component of this revisioning was to convene a facilitated workshop with participation by the HMSAS, HMSMT, and other interested stakeholders able to attend.

A central theme of the Council's vision, reflected in the Roadmap's goals, is the search for fishing methods that are economically viable and have acceptable levels of bycatch, especially of protected species. Since the implementation of the HMS FMP in 2004, the Council has facilitated the consideration of EFPs to explore innovative approaches to HMS fisheries. A multi-year process of considering proposals to test deep-set buoy gear, a low bycatch alternative method for targeting swordfish, in concert with the development of management measures for a new fishery using this gear, underscored the Council's commitment to using EFPs to innovate. With this in mind, the workshop was a venue to brainstorm the use of EFPs to explore ways to increase West Coast HMS landings while keeping bycatch at acceptable levels.

Workshop Introduction and Objectives

Kit Dahl, Staff Officer, Pacific Fishery Management Council, welcomed attendees to the workshop. Dr. Scott McCreary, Principal, CONCUR, Inc., and workshop moderator, reviewed the workshop's purpose and agenda. The workshop focused on identifying ideas to inform the development of the Highly Migratory Species (HMS) Roadmap. The workshop purpose was to engage fishery participants and other stakeholders, the HMS Advisory Subpanel, and the HMS Management Team

in collaborative, solution-oriented discussions to identify approaches to increase landings of HMS species fisheries through the use of exempted fishing permits (EFPs). The workshop began with concise framing presentations. The majority of the meeting was devoted to small group discussions and brainstorming organized around a structured set of guiding questions (see Attachment 1 for the workshop agenda).

Workshop Participants

Approximately 64 people participated in the workshop. They included commercial and recreational fishery participants; fisheries agency staff; Pacific Fishery Management Council (PFMC or the Council) members and staff; HMS Advisory Subpanel and Management Team members; and nongovernmental organizations, university representatives, and gear experts. The list of participants with their affiliations is included in Attachment 2.

Framing Presentations

Three brief framing presentations provided background on the HMS fishery, HMS Roadmap terminology, and issuance of EFPs, and lessons learned. The presentations are included in Attachment 3. Summaries of the presentations are provided below.

HMS Roadmap: History and Perspectives, John Ugoretz, Program Manager, California Department of Fish and Wildlife

Discussions regarding a swordfish monitoring and management plan (SMMP) began in 2014. Various mitigation measures that had been actively implemented reduced bycatch of protected species and reduced participation in the fishery and landings. Even so, bycatch remained a concern for the large mesh drift gill net fishery. Fishermen began testing other gear types like deep-set buoy gear. This motivated the Council to consider a more holistic approach to managing the swordfish fishery. A draft SMMP was developed in 2015 with goals to reduce protected species bycatch, reduce unmarketable finfish catch and increase economic viability of the fishery. The intent was to look at all feasible gear types in light of a bycatch reduction goal.

Other management changes occurred that highlighted the need for an updated SMMP. In 2018, the Council modified its approach to bycatch monitoring in the drift gillnet (DGN) fishery and adopted a regression tree method for bycatch estimation. Also in that year, California passed SB 1017 which established a sunset date for California large mesh drift gillnet permits and a transition program to buy back drift gillnets and California permits. In 2023 Congress passed the Driftnet Modernization and Bycatch Reduction Act which sunsets drift gillnet fishing nationally by 2028. These actions led the Council to pause the finalization of proposed SMMP edits and consider a new HMS roadmap. While the SMMP provided important background and guidance for NMFS actions including consideration of EFPs, the focus of the original document was on drift gillnet bycatch reduction and the consideration of a west coast permitted pelagic longline fishery.

The Council and stakeholders share a desire to enhance domestic HMS catch, increase economic viability of the fishery, and improve the effectiveness of the EFP process. In March 2024, the Council adopted a set of HMS Roadmap goals to support innovation of fishing methods, test fishing practices that are both economically viable and minimize bycatch, support overall economic

viability of HMS fisheries, promote climate-ready fisheries, engage fishery participants, and support recreational HMS fishing opportunities. This workshop's discussions are intended to inform the development of the HMS Roadmap.

HMS Roadmap Terms, Liz Hellmers, Senior Environmental Scientist, California Department of Fish and Wildlife

Once the Council decided to move forward with a new document to replace the SMMP, it became clear that there were many commonly used terms that were not well understood or were interpreted differently by different stakeholders. To promote common understanding, definitions of terms were presented to the Council in March 2024 and were adopted in draft form for use at this workshop and in the Roadmap document (see Attachment 5). The definitions are not final, and input and refinement are still welcomed. The key terms are: bycatch, climate-ready fishery, commercial volume of landings, economic discards, economic production, economic viability, economic waste, fish, high quality, minimize, regulatory discards, supporting resilience in fishery operations, underutilized resource, trade leakage/transfer effect.

Federal Review and Issuance of EFPs and Lessons Learned, Amber Rhodes, Fishery Policy Analyst, NOAA Fisheries, West Coast Region, Sustainable Fisheries Division

EFPs provide explicit *exemptions* from existing regulations—they are not *experimental* fishing permits. The National Marine Fisheries Service (NMFS) has the authority to issue EFPs. The EFPs specify the regulations from which the user is exempt (the scope) and cover terms and conditions such as fishing configuration and operational specifications, mitigation measures, and monitoring and reporting requirements. NMFS has decades of experience issuing EFPs to target HMS species. A key lesson learned with issuing EFPs to fish with deep-set buoy gear is that unexpected outcomes may require changes to terms and conditions. As an example, a loggerhead take during deep-set buoy gear EFP operations prompted a change in terms and conditions concerning the deployment of the surface portion of the gear.

Federal regulations direct NMFS's review of EFPs (50 CFR 600.745). Regulations associated with the HMS FMP (50 CFR 660.18) recognize NMFS' authority to issue EFPs; these regulations could be amended based on Council recommendations. The EFP process currently employed by the Council and NMFS is described in the HMS FMP. It requires applicants to submit an EFP application to the Council prior to a formal submission to NMFS. The final application and Council recommendations are provided to NMFS for review and issuance of the EFP. As part of the review process, NMFS Sustainable Fisheries Division assesses impacts to the environment under the National Environmental Policy Act and consults with other federal entities pursuant to applicable federal laws. For example, consultation with NMFS Protection Species Division and the US Fish and Wildlife Service may be required under the Endangered Species Act (ESA) to assess the potential effects of EFP activities on any ESA-listed marine species, seabirds, and migratory birds. Throughout the Council review and subsequent federal review process, EFP terms and conditions are developed. Once federal review is complete, EFPs are issued. Federal review of new EFP fishing configurations is a large workload. One lesson learned is that premising federal review on a static set of terms and conditions can make for an equally large workload to approve an adjustment to the terms and conditions associated with an EFP. For example, when changing terms and conditions is desired due to unexpected events occurring, such as loggerhead take in deep-set buoy gear EFP

operations. To counter this circumstance, federal review should consider the possibility and benefit of some adaptations over time to make effective use of the data gathering and active learning functions of EFPs.

Monitoring and reporting requirements are essential to ensuring the data collection function of EFPs. Supporting data collection and aggregation can be a big investment for NMFS. The agency must decide what data to collect from EFPs and how to use the data to assess potential impacts, especially in view of the potential to scale up the use of a particular fishing practice. It can be important to integrate observer data with logbook and landing data to make the most of limited data in such circumstances. Data management and extraction, including considering how best to query data sets, are also important. EFP holders are required by regulation to submit a report of their catches and other requested information after concluding their EFP fishing. The Council requires EFP holders to submit annual reports. EFP holders are also required to maintain logbooks documenting their fishing activity and catch. Building on lessons learned from past EFP data collections and reporting, NMFS and the Council could seek to better aggregate and summarize information in the annual reports and increase transparency and availability of the data collected during EFP fishing.

EFPs can be used to advance learning and address fishery issues. For example, we can consider using EFPs to collect data on dynamic ocean modeling tools to validate predictions with on-water experiences of EFP vessel operators and crew, develop electronic monitoring methods, and conduct sampling to learn more about species life histories or post-fishery interaction conditions and survivability. In these ways and others, the value of reports by EFP holders can be enhanced to further understanding of species distributions, species interactions with fisheries, utility of fishery tools, and interpretation of any aggregated data sets the EFPs might produce.

Discussion Session Report Outs

Attendees participated in six separate discussion sessions in small groups (eight to 11 people) during the course of the two-day workshop. Discussion session topics were as follows:

- PFMCM-NMFS actions for EFPs (two discussions sessions were held on this topic)
- Bycatch minimization strategies and metrics
- Fishing configurations and methods
- Economic considerations
- Funding opportunities

Each topic was explored through a series of guiding questions. The questions are provided in Attachment 4. As (by design) the guiding questions overlapped to some extent and the breakout groups arrived at many recurring themes or parallel observations, the summary below integrates the discussions. Key points reported from the discussion sessions are provided below.

PFMCM-NMFS Actions for EFPs: What actions can the Council take to streamline NMFS's review and issuance of EFPs?

This discussion session focused on identifying constraints to participation in the EFP process, encouraging participation in the process, recommending approaches to streamline the review

process and timeline for EFPs, improving collaboration between NMFS and the Council in the process, and more clearly communicating information required in EFP applications. Long timelines from application to issuance of EFPs and lack of understanding about how to navigate the process were mentioned as key constraints to participation. Key points from the discussion are summarized below.

Increase participation in the EFP process: Participation in the EFP process could be encouraged by increasing awareness of the EFP program, setting up a preapplication process, providing guidance and assistance to participants, and reducing the time from application to issuance of EFPs. Advertising and setting clear expectations around EFPs were mentioned as ways to increase awareness, including emphasizing that EFPs are intended to gather data to test harvest methods that differ from what is currently permitted. Designated agency points of contact could work with applicants in a pre-application process to develop proposals and screen out ideas that are not supported by fishery managers.

Provide focused guidance and assistance to EFP applicants: Guidance and assistance could include providing general guidelines and metrics for the types of EFPs in which the Council and NMFS are interested, developing an online tutorial for EFP applications with a checklist, videos and frequently asked questions for potential applicants, and simplifying the application process. Designating agency liaisons, providing technical support to guide applicants through the process, and working with consortia of fishermen to facilitate the application process for a group of applicants interested in the same EFP were recommended by attendees.

Streamline the EFP review process and timeline: Participants wanted to see the timing from idea generation and EFP application to EFP authorization reduced and had several suggestions for streamlining the application and review process. These included shortening the Council review and approval process to just one meeting at which the Council reviews a complete proposal (perhaps in March when fishing activity is reduced), using a preapproved checklist especially for existing fishing methods, beginning the process with NMFS to get an ok for Council review, considering a programmatic approach that covers multiple similar EFPs, establishing review and approval timelines, and having defined tolerance levels for specific adverse outcomes. Participants suggested pooling similar EFPs for concurrent review.

Enhance collaboration between NMFS and the Council to reduce EFP review and approval time: Attendees shared several ideas for enhancing agency collaboration with the aim of reducing EFP review and approval times. These included having fishery participants work directly with NMFS *first* on concepts being considered, prescreening applications to get ideas that are ready to go, having applications go first to NMFS, and having the NMFS public comment period overlap with a Council meeting so that Council recommendations are received during the comment period. A fast-track approval process was suggested for EFPs that are ready to go. Setting expectations on the timing of approval and making the process trackable for applicants like package tracking were also suggested.

Provide clear process information and technical assistance in multiple formats: Requirements for applications could be more clearly communicated by establishing clear expectations about content and format, clear guidelines for applications, specific parameters or descriptors to address (e.g., bycatch and gear), and a clearly laid-out process. An application template with prompts for

fields (like that for deep-set buoy gear) would be helpful. Attendees recommended providing a key contact person/liaison to help applicants develop proposals and to respond to questions and posting a page on the Council website with key application information including videos and tutorials.

Bycatch Minimization Strategies and Metrics: What metrics or indicators and management strategies are available to support bycatch minimization?

This discussion session focused on identifying species for which bycatch minimization is most important, how to prioritize bycatch minimization strategies, how to evaluate progress toward bycatch minimization including the use of electronic monitoring, and policies to support bycatch minimization. Key points from the discussion are summarized below.

Minimize bycatch of protected species: Minimizing bycatch of protected species including endangered species, species for which take would cause the fishery to shut down, and species at high risk was identified as most important by many attendees. Other species to prioritize include nonmarketable species, species with long handling time, and species which can damage gear or are dangerous to handle. Bycatch of species that are recovering or have healthy populations should not be prioritized.

Consider costs and benefits when prioritizing strategies to minimize bycatch: Prioritization of bycatch minimization strategies should take place in the context of costs (time and money) and benefits. Strategies to minimize bycatch of critically endangered species are more important. Minimizing bycatch of species that have recovered is deemed relatively less important and is more challenging to accomplish for fishery participants. Some attendees expressed that there are many regulatory processes and approaches to reduce bycatch already and that developing additional bycatch minimization strategies should not be a priority; instead, existing strategies should be fine-tuned based on data from EFPs. Analysis of EFP activities should distinguish between lethal and nonlethal bycatch and look at survivability of nontarget species. Whenever possible, low bycatch gear should be prioritized.

Clear metrics and indicators for bycatch minimization are needed: Some attendees lacked knowledge of metrics and indicators used to evaluate progress toward bycatch minimization and wanted to see metrics better communicated. Metrics that would be useful included the ratio of bycatch to catch, the ratio of marketable to unmarketable species caught, bycatch per unit effort, bycatch compared to catch per unit effort (CPUE), post-release mortality rates of bycatch, annual catch of bycatch, and reduction rates of bycatch over time. Attendees also suggested a focus on mortality rates of bycatch across all metrics. It would be helpful to establish benchmarks regarding how much bycatch is acceptable for a given level of commercial volume. Stock health assessments and an evaluation of data over time were recommended. Performance metrics and goals for bycatch minimization should be included in EFPs but fishery participants encouraged flexibility to allow for learning and improvement over time.

A broad range of ideas for policies to support bycatch minimization was discussed:

Policies/marketing campaigns to educate consumers to reduce reliance on imported fish with higher bycatch would be beneficial. Developing markets for less desirable species so they are no longer counted as bycatch was another idea. Integrating data from both human observers and

electronic monitoring into a unified database was recommended to provide more comprehensive fishery characterization regarding bycatch and broader aspects of the fishery. Attendees encouraged flexibility regarding policies and goals for bycatch minimization with a focus on individual accountability and enforcement rather than penalizing an entire fleet. The use of market-driven best handling practices and dynamic ocean modeling and management tools were encouraged to help reduce bycatch. One suggestion was for the Council to provide bycatch minimization guidance to reduce interaction with protected species including recommendations for depth of fishing, time of day fished, etc. Finally, fishery participants wanted recognition that they are *already* taking many steps to reduce bycatch. They urged the Council to consider prioritizing economic viability and data collection in addition to bycatch minimization. Better defining the Council's role vs. NMFS Protected Resources Division's responsibility regarding bycatch reduction policies was also mentioned as a useful policy direction.

Electronic monitoring can be valuable: In the context of bycatch minimization and monitoring, electronic monitoring can be accurate and an alternative to human observers. Cost is a concern, however, as it may not be cheaper than observers. Compensation/subsidies may be needed for electronic monitoring. Ownership, storage, and analysis of data is important and electronic monitoring data should be made available to fishery participants from whom it has been gathered.

Fishing Configurations and Methods: What types of gear configurations and fishing practices are consistent with Roadmap goals?

This discussion session focused on the types of fishing configurations and practices that should be tested with EFPs, including a focus on vessel size and specific geographic areas. Additionally, the session discussed characteristics of gear configurations and fishing methods that provide for economic viability and contribute to a climate-ready fishery.

Viability of gear types relates to vessel size: Different gear types are suitable for vessels of different sizes. For example, deep-set buoy gear is better for smaller vessels. Smaller vessels are more impacted by weather and larger vessels require more catch to be viable. Larger vessels are better suited to carry observers and large gear, and small vessels may require electronic monitoring. Gear types that are compatible with existing vessels and drift gillnet boats in particular should be prioritized.

Fishing configurations and practices to be tested with EFPs should meet Roadmap goals and be scalable: Fishing configurations and practices that increase CPUE relative to existing practices, are designed to reduce interactions with and minimize bycatch of protected species, that provide a high-quality product, and that reduce the use of plastics in the ocean should be tested. Additional considerations for gear configurations to be tested included those that are cost effective, do not require large capital investments or reconfiguration, and are long-lasting and safe methods. Configurations should be able to target a variety of species. Some specific ideas of configurations to be tested included configurations with more hooks (e.g., 100 hooks), innovative variations on deep-set buoy gear, and mobile gear types that can be used for diverse fishing opportunities or moved from boat to boat. Attendees wanted to see a receptive environment for new ideas that allows flexibility for EFPs to adapt based on what is and is not working. Some expressed a preference for general performance metrics rather than specific criteria for gear, vessel size, and geographic area to allow for experimentation.

Identifying specific geographies for testing may depend on the EFP: The geographic area in which testing should occur may depend on the EFP itself. Attendees suggested that EFPs should be allowed everywhere except in permanently closed areas. It may be helpful to allow test fishing in a specific area and adjust accordingly. The Pacific Leatherback Conservation Area may be an appropriate area for testing EFPs with additional turtle protections when necessary. Dynamic area closures based on sea surface temperature could also be considered. The Council should use technology, science, and triggers to make timely management decisions.

Economically viable fishing methods are those with which the most fish are caught for the least cost: Methods with high CPUE and that require less upfront economic outlays and minimal reconfigurations will be more economically viable. Economic viability will vary based on vessel characteristics. Long-lasting gear types also enhance economic viability.

A mobile fleet and mobile gear contribute to achievement of a climate-ready HMS fishery: A fleet that can readily move to where the fish are will help with climate readiness. Mobile gear configurations that can be moved from boat to boat and/or allow fishery participants to target multiple species and use the same EFP will also enhance climate readiness. Access to infrastructure and processors at different ports is also important.

Economic Considerations: What economic factors need to be considered in assessing EFP concepts?

This discussion session focused on defining economic viability with respect to fisheries and fishing communities and identifying constraints to economic viability of HMS fisheries including market-based challenges associated with competition posed by foreign-caught HMS fish. Additionally, the discussions identified economic factors to be considered in assessing economic viability of fishing configurations/practices and in fostering climate-ready HMS fisheries.

Economic viability includes fishery participants, processors, recreational fishing, and the community: For a fishery, economic viability means that fishery participants can afford gear and equipment needed to fish, make and sell catch, make a profit, support a family, and continue business in California. Economic viability includes generating a living wage for all fishery participants, sustaining fishery-related infrastructure, and providing economic benefits to communities through access to well-managed fisheries. An economically viable fishery will also encourage recruitment of new participants.

Economic viability of HMS fisheries is constrained by high operating costs, regulations, consumer behavior, and foreign imports. High costs of vessels and gear, regulatory restrictions on gear and allowable fishing areas, cheap imported fish in the marketplace, the high cost of operating on the West Coast, high fuel costs, and the cost of limited entry permits all constrain economic viability and make it difficult for new (young) people to get into the fishery.

The low cost and price of imported fish is the major market-based challenge for HMS fish; tariffs and marketing/education could help address this concern: HMS fish are competing with lower priced imports from fisheries that are not operating at as high standards (e.g., have higher rates of bycatch). The price for HMS swordfish goes down over the season as lower priced imports come into the market, making it harder for HMS fishery participants to sell at a profit. Recreational vessels

also don't operate under the same regulatory constraints and, although illegal, may sell their catch surreptitiously at a lower price. If more HMS fish were caught, this would help the fishery compete with foreign imports. The high cost of operating on the West Coast is also a challenge. Tariffs and import barriers on foreign product that does not comply with regulatory standards imposed on domestic fisheries could help domestically caught HMS compete. Marketing and education efforts for consumers, focusing on high quality and sustainability, could increase consumer interest in HMS products.

Economic viability of HMS fisheries can be enhanced: Scaling up fishing operations would allow more revenue to be generated and would enhance the viability of the fisheries. One way this could be accomplished is by allowing more pieces of deep-set buoy gear to be fished. A focus on EFPs for vessels operating in the Southern California Bight could help make these vessels economically viable. An EFP for multiple vessels with an overall effort cap that allows vessels to allocate the fishing effort amongst themselves was suggested as an opportunity to enhance economic viability. Flexibility and speed in issuing EFPs would help enhance economic viability. Providing real-time information on where the resource is would also contribute to economic viability. Subsidies for commercial fishing would also help.

Many economic factors could be considered in assessing economic viability of fishing configurations and practices: Economic viability could be considered as a criterion for review in EFP applications based on information on vessel characteristics, operating costs, and expected catch and revenue; however, attendees cautioned that this should not be used to filter out or reject applications. The scalability of EFP ideas to the fishery is a key factor. The price that fishery participants can get for fish, the optimum yield from a target stock, and desired CPUE for a range of vessel types/sizes are additional economic factors to be considered. Fuel costs and the cost of fishing gear and other equipment are important. Attendees advocated for fewer constraints on EFPs and flexibility in gear types and fishing locations. They noted that economic viability requires adaptability over seasons and years. Involvement in multiple fisheries and multiple vessels can make fishing more economically viable for fishery participants.

Identifying and managing climate-ready fisheries requires flexibility: Attendees mentioned that the fleet needs to be flexible and adaptable to changing species ranges. Similarly, flexibility, adaptability, and speed are needed in issuing EFPs. The Council and NMFS should focus on creating opportunities for fishery participants. Boats should be allowed to roam and go where the fish are. Area closures can limit adaptability if species' ranges change. Processing capacity and support operations need to be sustained across a range of different ports. Real-time information on conditions is needed for fishery participants to harvest the resource efficiently and avoid unwanted catch.

Funding Options: What funding opportunities exist to support testing under EFPs and how can those opportunities be leveraged?

This discussion session focused on identifying barriers to obtaining funding for testing under EFPs, facilitating applications for funding, leveraging funding sources, and identifying new funding sources. Key points from the discussion are summarized below.

Obtaining funding is challenging for EFP applicants: Barriers to obtaining funding for EFPs include lack of information/knowledge about funding sources, complexity of applying for funding, and stiff competition for available funding, e.g., Saltonstall-Kennedy and Bycatch Reduction Engineering Program grants. Additionally, the long timeframe for applying for and receiving funding and the need to provide proof of concept in order to receive funding for EFPs are significant barriers.

Provide funding information and assistance with grant applications: The Council and NMFS could assist EFP applicants with identifying funding sources and writing/submitting grant applications. Ideas included having the Council and NMFS establishing a “one-stop shop” for EFPs and grant applications, having the Council determine whether proposals require a funding subsidy to make them viable, providing information on available funding sources, and developing a consistent grant template. Assistance could be provided by Council/NMFS staff, an NGO, or Sea Grant staff. The Pflieger Institute of Environmental Research’s ability to obtain funding to support developing and submitting an EFP for deep-set buoy gear was cited as an example of this. Steps such as shortening the timeframe for EFP review, approval and receiving funding, and solving the problem of needing funding to do the EFP but needing an approved EFP to get funding would also be helpful.

Consider additional potential funding sources for EFPs: Participants shared ideas for additional potential funding sources for EFPs including funding from private sources such as industry, foundations and marketing boards; government seafood subsidies (akin to those in the federal Farm Bill); tariffs on seafood imports that don’t meet US conservation standards; and swordfish tags sold to recreational fishermen. Funding from the National Seafood Strategy and the Bycatch Reduction Engineering Program were mentioned as potential funding sources. It was suggested that the Saltonstall-Kennedy grant application process could be revised to prioritize support for innovative fishing methods.

Next Steps and Workshop Closing

Kit Dahl expressed appreciation for the time, effort, and participation of attendees and presenters. He explained that a workshop summary will be made available in the September Council meeting briefing materials, with the Council and advisory bodies considering the workshop results at the November 2024 Council meeting. The HMS Advisory Subpanel and Management Team will provide recommendations to the Council and the Council will consider ideas for improving the EFP process in the context of the HMS Roadmap.

Attachments

Attachment 1: Workshop Agenda

Attachment 2: Workshop Participant List

Attachment 3: Framing Presentation Slides

Attachment 4: Workshop Breakout Session Questions

Attachment 5: HMS Roadmap Terms and Goals

Attachment 1: Workshop Agenda

AGENDA

HMS ROADMAP WORKSHOP: EXPANDING OPTIONS FOR HMS FISHERIES

JUNE 6-7, 2024, 9AM -4PM

DOUBLE TREE BY HILTON SAN DIEGO-MISSION VALLEY, SHUTTERS WEST

Day 1 – Thursday, June 6, 2024

9:00 AM	9:10 AM	Workshop Agenda Scan/ Simple Ground Rules —Objectives - Identify aspects of EFPs that may limit the number of EFPs and EFP applicants - Consider approaches to streamline the timing and process for EFPs - Identify promising fishing practices and gear configurations - Identify criteria to be used to define successful EFPs Simple ground rules to support discussion; roles of breakout session moderators and rapporteurs explained
9:10 AM	9:30 AM	Brief Round of Introductions
9:30 AM	9:50 AM	Framing Remarks #1: State of Play in the California HMS Fishery— California and Council perspectives - John Ugoretz, Program Manager, California Department of Fish and Wildlife
9:50 AM	10:05 AM	Framing Remarks #2: Guiding Terms for Workshop Discussions – Liz Hellmers, California Department of Fish and Wildlife
10:05 AM	10:25 AM	Framing Remarks #3: Federal Review and Issuance of EFPs and Lessons Learned - Amber Rhodes, NOAA Fisheries Sustainable Fisheries Division
10:25 AM	10:40 AM	Break
10:40 AM	10:55 AM	Overview of Breakout Session Topics and Goals for Discussion Groups - What actions can the Council take to help streamline the National Marine Fisheries Service's review and issuance of exempted fishing permits - What metrics or indicators and management strategies are available to support bycatch minimization? - What types of gear configurations and fishing practices are consistent with Roadmap goals? - What economic factors need to be considered in assessing EFP concepts? - What funding opportunities exist to support testing under EFPs and how can those opportunities be leveraged?
10:55 AM	11:40 AM	PFMC-NMFS Actions for EFPs: 1st Round of Questions (breakout groups)
11:40 AM	12:25 PM	Bycatch Minimization Strategies and Metrics: 1st Round of Questions (breakout groups)
12:25 PM	1:25 PM	Lunch
1:25 PM	2:10 PM	Bycatch Minimization Strategies and Metrics: 2nd Round of Questions (breakout groups)
2:10 PM	2:55 PM	Fishing Configurations and Methods: 1st Round of Questions (breakout groups)
2:55 PM	3:10 PM	Break
3:10 PM	3:55 PM	Fishing Configurations and Methods: 2nd Round of Questions (breakout groups)
3:55 PM	4:15 PM	Pairs of moderators and rapporteurs confer; outline reports out for Day One
4:15 PM	4:45 PM	Day 1 Report Outs
		Adjourn

9:00 AM	9:10 AM	Reconvene, Observations from Day One
9:10 AM	9:15 AM	Recap Session Breakout Instructions
9:15 AM	10:00 AM	Economic Considerations: 1st Round of Questions (breakout groups)
10:00 AM	10:45 AM	Economic Considerations: 2nd Round of Questions (breakout groups)
10:45 AM	10:55 AM	Break
10:55 AM	11:40 AM	Funding Options: Round of Questions
11:40 AM	12:25 PM	PFMC-NMFS Actions for EFPs: 2nd Round of Questions (breakout groups)
12:25 PM	1:25 PM	Lunch
1:25 PM	1:45 PM	Pairs of moderators and rapporteurs confer
1:45 PM	2:05 PM	Day 2 Report Outs/Synthesis
2:05 PM	2:15 PM	Break
2:15 PM	3:00 PM	Final Wrap Up and Planned Next Steps
3:00 PM	3:15 PM	Public Comment Workshop conveners particularly welcome comments on Workshop topics that raise new information or perspectives not stated in the breakout sessions.
3:15 PM	3:30 PM	Closing
		Adjourn

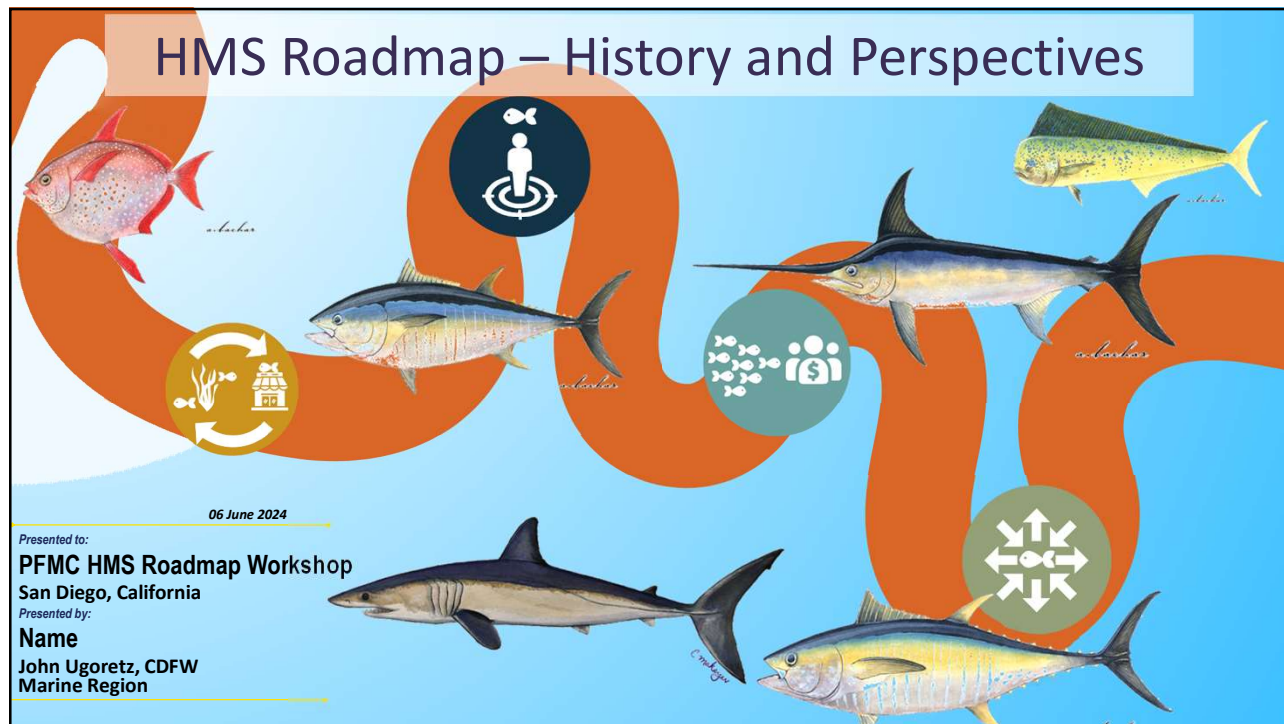
Attachment 2: Workshop Participant List

Name and Interest Group Affiliation

Scott Aalbers, Conservation/NGO	Chugey Sepulveda, Conservation/NGO
Aaron Barnhill, Commercial Fisheries	Sarah Shoffler, Government
Jack Bateman, Commercial Fisheries	Owyn Snodgrass, Government
Gary Burke, HMSAS	Stephen Stohs, HMSMT
Norm Campbell, Recreational Fisheries	William Sutton, HMSAS
Heather Colley, Government	Christa Svensson, Council
Mike Conroy, HMSAS	Pamela Tom, HMSAS
Matthew Craig, HMSMT	John Ugoretz, Council
Christopher Dahl, Staff	Jody Van Neikirk, Government
Phillip Dionne, HMSMT	Charles Villafana, Government
Douglas Dirkse, Commercial Fisheries	Waldo Wakefield, Conservation/NGO
Ben Enticknap, Conservation/NGO	Jessica Watson, HMSMT
Brad Erisman, Government	Natalie Webster, Commercial Fisheries
Chris Fanning, Government	Andrew White, Government
Douglas Fricke, HMSAS	Tonya Wick, Government
John Gauvin, Commercial Fisheries	Clayton Wraith, HMSAS
John Gibbs, Commercial Fisheries	Annie Yau, Government
Lyf Gildersleeve, HMSAS	Jon Yokomizo, HMSAS
Joshlyn Hardwick, Commercial Fisheries	
Karter Harmon, HMSMT	
Greg Harold, Commercial Fisheries	
Mr. Gregory Harold, Commercial Fisheries	
David Haworth, Commercial Fisheries	
Elizabeth Hellmers, HMSMT	
Jacob Isaac-Lowry, Conservation/NGO	
Kelsey James, Government	
Matt Johnson	
Donald Krebs, Commercial Fisheries	
Robert Kurz, Recreational Fisheries	
Theresa Labriola, Conservation/NGO	
Lynn Langford Walton, Commercial Fisheries	
Janelle Louie, Commercial Fisheries	
Josh Madeira, HMSAS	
Gary Maganaris, HMSAS	
Markus Medak, Commercial Fisheries	
Emily Miller, CA Sea Grant	
Stephen R Mintz, Commercial Fisheries	
Nicole Nasby Lucas, Government	
Emily Nazario, UC Santa Cruz	
Corey Niles, Council	
Robert Osborn, HMSAS	
Nathan Perez, Commercial Fisheries	
Amber Rhodes, HMSMT	
Dave Rudie, HMSAS	
Alan Sarich, HMSMT	

Attachment 3: Framing Presentation Slides

- HMS Roadmap: History and Perspectives, John Ugoretz, Program Manager, California Department of Fish and Wildlife
- HMS Roadmap Terms, Liz Hellmers, Senior Environmental Scientist, California Department of Fish and Wildlife
- Federal Review and Issuance of EFPs and Lessons Learned, Amber Rhodes, Fishery Policy Analyst, NOAA Fisheries, West Coast Region, Sustainable Fisheries Division



1

SMMP

- 2014 – Swordfish planning discussions begin
- 2015 – Draft SMMP developed with goals to:
 1. Reduce protected species bycatch in the swordfish fishery through mitigation, gear innovation, and individual accountability.
 2. Reduce unmarketable finfish catch in the swordfish fishery through mitigation, gear innovation, and individual accountability.
 3. Support the economic viability of the swordfish fishery so that it can meet demand for a fresh, high quality, locally-caught product
- 2018 – Council discusses SMMP edits

2

Management Changes

- 2018 - Council adopts regression tree method for bycatch estimation
- 2018 – California passes SB 1017, sunseting CA DGN permits
- 2019 – Council decides not to proceed with discussion on a West Coast shallow-set longline permit
- 2023 – U.S. passes Driftnet Modernization and Bycatch Reduction Act, sunseting all DGN fishing by 2028

3

3

Roadmap Need

- SMMP historically provided necessary background for NMFS actions, including EFP consideration
 - But focused on DGN and Longline
- Continued desire to enhance West Coast HMS catch
- Shared interest in improving EFP processes
 - Application process
 - Considerations for Council support
 - Evaluation of performance

4

4

Roadmap Goals

Council Adopted Goals (March 2024):

- A. Support innovation and development of multi-species HMS fishing methods to increase the domestic supply of and meet the demand for swordfish and other marketable species.
- B. Support and test fishing practices that have the potential to be economically viable while minimizing unmarketable, prohibited, and protected species bycatch.
- C. Support the economic viability of West Coast commercial fisheries for swordfish and associated marketable species through a diverse range of HMS fishing methods.
- D. Promote Climate-Ready Fisheries and fisheries resilience by developing flexibility in management and other tools to account for changes in HMS distributions, ecosystem structure and function, and the communities dependent on HMS fisheries.
- E. Engage fishery participants to preserve knowledge and help bolster resilience in future fisheries.
- F. Support recreational HMS fishing opportunities.

5

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Thank You

6

6

HMS Roadmap Terms

PFMC HMS Roadmap Workshop

San Diego, CA

June 6, 2024

Liz Hellmers, CA Dept Fish & Wildlife/HMSMT

1

1. Bycatch: For the discussion here the term “bycatch” is used in a broad context and includes marine mammals and birds, as well as fish (see definition 8 below) that are harvested in a fishery but are not sold or kept for personal use, including economic and regulatory discards (see definitions 4 and 11 below).

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2. Climate-Ready Fishery: A fishery that incorporates available climate and ecosystem environmental data to support management decisions and the resilience of communities and ecosystems that depend on it.
3. Commercial Volume of Landings: A volume of fish or seafood harvested and landed over a specified time period which is necessary for commercial operations to be practicable.

4

4. Economic discards: For discussion here, fish which are a target of a fishery, but which are not retained because they are of an undesirable size, sex, or quality, or for other economic reasons.

5

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5. Economic production: The use of technology, expert knowledge, labor and energy in the harvesting, processing, and distribution of fish and seafood products for commercial purposes.

6

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5. Economic production: The use of technology, expert knowledge, labor and energy in the harvesting, processing, and distribution of fish and seafood products for commercial purposes.
6. Economic viability: The ability to generate sustained revenue to cover operating costs, including a source of livelihood to producers, and providing a sufficient return on capital investment such that it encourages ongoing participation in the operations.

7

7. Economic waste: A loss of economic value due to inefficient allocation or utilization of resources, such as using production processes with higher operating costs or which produce less catch or revenues than the most efficient methods available.

8

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8. Fish: The term “fish” means finfish, mollusks, crustaceans, and all other forms of marine animal and plant life other than marine mammals and birds.

9

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8. Fish: The term “fish” means finfish, mollusks, crustaceans, and all other forms of marine animal and plant life other than marine mammals and birds.
9. High quality: Fishery products that are landed/supplied in such a condition that yields above average financial return.

10

10. Minimize: Reduce to a level that meets the Council's conservation goals while considering the balance between conservation and economic viability, as it relates to bycatch, discards, and negative impacts to protected and prohibited species.

11

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12

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11. Regulatory discards: Fish that are caught but discarded because regulations do not allow fishermen to retain the fish.
12. Supporting resilience in fishery operations: Decision making processes that encourage innovation and adaptability of fisheries, management flexibility, and promotion of economic viability.

13

13. Underutilized Resource: A situation where available resources are not being fully utilized or harvested efficiently to their maximum potential as allowed under applicable laws and regulations.

14

13. Underutilized Resource: A situation where available resources are not being fully utilized or harvested efficiently to their maximum potential as allowed under applicable laws and regulations.

14. Trade Leakage/Transfer Effect: The set of aggregate shifts induced by natural resource decision-making – in activity footprints, and consequences for stakeholders and communities, target and non-target species, ecological integrity and overall performance, at whatever scale, from local to global.

In the context of west coast HMS fisheries, the reduction of domestically supplied swordfish is causing an increase in imports from nations with far less stringent management regimes on protected species and other species of concern.

• 89 FR 47106



**NOAA
FISHERIES**

Federal Review and Issuance of EFPs and Lessons Learned

Amber Rhodes
Sustainable Fisheries Division
West Coast Region

1

Overview (with Lessons Learned Threaded in)

- What are EFPs?
 - Purpose
 - Nature of the Permit
- Federal Review Requirements
(Compliance)
 - EFP Regulations
 - NEPA
 - ESA
 - Other Federal Consultations
- Monitoring and Data Collection
- Reporting



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2

What are EFPs?

They are “Exempted” Fishing Permits.
They are NOT “Experimental” Fishing Permits.

NMFS has the authority to issue EFPs for...

- limited testing,
- data collection,
- exploratory fishing,
- compensation fishing,
- conservation engineering, or
- the target or incidental harvest of species managed under an FMP or fishery regulations that would otherwise be prohibited.



3

The Nature of EFPs

- Must specify the regulatory exemptions
- Includes terms and conditions

A. SCOPE

1. These terms and conditions apply to all fishing activities under the NSBG EFPs for the years 2024 - 2025, which authorize the use of standard and linked night-set buoy gear (NSBG). In addition to all of the terms and conditions in this document, the EFP Holder is responsible for instructing all fishing permit holders, vessel owners, vessel operators, crew members and processors concerning the terms and conditions of the EFP permits.
2. The EFPs exempt the permitted vessels, for limited purposes described in these terms and conditions, from the prohibition on deploying deep-set buoy gear (DSBG) until local sunrise and retrieving the gear no later than 3 hours after local sunset, which would otherwise be prohibited by 50 CFR 660.715(c)(3),¹ provided the vessels use NSBG as specified in these terms and conditions.
3. All other provisions of 50 CFR 660.715 pertaining to deep-set buoy gear fishery gear configurations, operational requirements, and geographic restrictions apply to fishing activities conducted under this EFP.
4. Jointly and Severally Liable. The EFP Holder will be jointly and severally liable for compliance with the terms and conditions of this EFP by each vessel and for all persons aboard the vessel while participating in the EFP project. A representative who has signed the EFP assumes responsibility on matters related to issuance and management of the EFP, including serving as the EFP Holder.
5. All other relevant provisions of 50 CFR Part 660, Subpart K, and other laws of the states of California, Oregon, and Washington that relate to fishing for, landing, and processing of Pacific swordfish and other marketable HMS apply to fishing activities conducted under this EFP.
6. Failure to comply with these terms and conditions will be grounds for revocation, suspension, invalidation, or modification of the EFP with respect to all parties, persons, vessels, and processors conducting activities under the EFPs referenced above.

¹ Regulations at 50 CFR 660 can be found online: <https://www.ecfr.gov/current/title-50/chapter-VI/part-660/subpart-K/700c=1>



4

Nearly Ten Years of Experience

- 2015 Swordfish Management and Monitoring Plan
 - “Holistic Planning” approach
 - Puts EFPs in context of outlook for regulatory/FMP amendments
- Streamlined EFP application process for a “deep-set buoy gear configuration”
 - EFPs issued to 5 vessels in 2015, and to 29 vessels by 2019
 - Unexpected outcomes → Revise Terms and Conditions

Page 5

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5

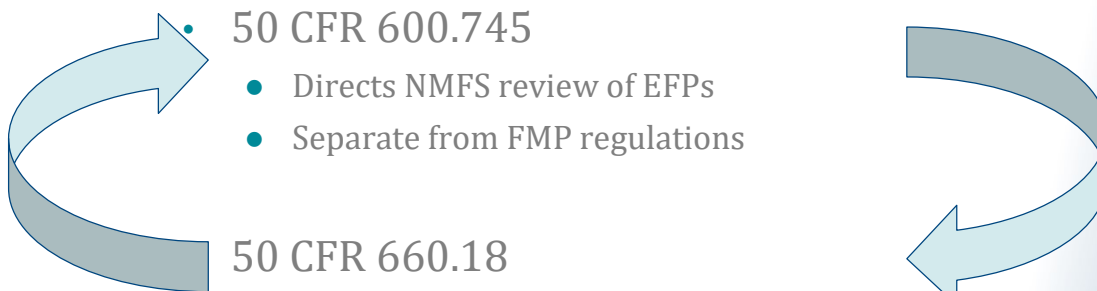
Federal Review Requirements

MSA Regulations and Other Applicable Laws (OALs) *also known as consulting with other federal entities and paper-pushing*



6

Regulations for EFP Review

- 
- 50 CFR 600.745
 - Directs NMFS review of EFPs
 - Separate from FMP regulations
 - 50 CFR 660.18
 - Regulations associated with the HMS FMP
 - Council could recommend an amendment to these regulations



Council Nexus with EFP Regulations

- 50 CFR 600.745(3)(ii)
 - Regional Administrator... may consult with the appropriate Council(s)...
 - Council/RA shall offer the applicant the opportunity to appear in support of the application
- EFP Process as described in the HMS FMP
 - Applicants submit to Council prior to formal submission to NMFS
 - Final EFP application and Council recommendations is provided to NMFS
 - NMFS review consistent with regulations at 50 CFR 600.745.



Federal Review and Coordination

- Describe the Proposed Action
- National Environmental Policy Act documentation
 - Specify purpose and need
 - Assess impacts to the human environment (i.e., a biological, physical, social, and economic environment)
 - Can not finalize until complete consultations under other applicable laws
- Endangered Species Act Section 7 Consultations
 - Determine whether Proposed Action may affect ESA-listed species
 - NMFS Protected Resources for marine species in offshore waters
 - USFWS for seabirds



Federal Review and Coordination

- FWS on potential impacts to migratory birds
- NOAA Sanctuaries Office on activities within Sanctuary waters
- NOAA's Office of Coastal Management, if requests for federal consistency reviews under the Coastal Zone Management Act
- NOAA Office of Law Enforcement
- Skipper Workshops
- Then, issue EFPs
- Reaffirm any changes to EFP terms and conditions are consistent and within scope of Proposed Action, NEPA analysis, and consultations



Federal Review and Coordination; Lessons Learned

- Unexpected loggerhead take in DSBG EFP operations
 - Debrief observer
 - Review circumstances of take
 - Adjusted terms and conditions for all EFPs
- Hard to sustain workload
 - Need flexibility to “expand options for HMS fisheries”
 - Emphasis on data to support active learning



Page 11 U.S. Department of Commerce | National Oceanic and Atmospheric Administration | National Marine Fisheries Service

11

Monitoring and Data Collection

Essential to scaling-up, and supporting decisions to amend fishing regulations:

How to make the most of the data collected?

What are the variables that matter?



12

Monitoring is part of Federal Review; Lessons Learned

- Must specify as a part of Proposed Action
 - Easier said than done!
 - Issues of Scale
 - Data Integration -making the most of a limited data set
 - Data Extraction - quality assurance and range of uses
- Building on Lessons Learned
 - Planning data collection and management
 - Identifying variables likely to matter
 - Training observers or monitoring systems
 - Developing queries to extract the data



13

Reporting

How are we doing... in the context of an HMS Roadmap?



14

Reporting; Lessons Learned

- Requirement for any EFP
- Part of Council's EFP Process
- Building on Lessons Learned
 - Aggregate the data: in support future management decisions
 - Splice the data: key variables for configurations
 - Explore data sharing: transparency

Reporting; Roadmap Opportunities

- Roadmap goals address complex set of issues
- Advance learning and reporting on:
 - Dynamic ocean modeling tools,
 - Electronic monitoring designs,
 - Species life histories or post-release survivability, etc
 - Expand value of EFP reports
 - Assist in data interpretation
 - Support human dimensions



17

Attachment 4: Workshop Breakout Session Questions

HMS Roadmap Workshop Pacific Fishery Management Council June 6-7, 2024

A. PFMC-NMFS actions for EFPs

What actions can the Council take to streamline the National Marine Fisheries Services's review and issuance of exempted fishing permits?

1. Session 1
 - a. For applicants, what aspects of the Council and NMFS' EFP application and review process constrain participation?
 - b. How could the Council encourage participation of both traditional and new participants?
 - c. How should the Council streamline the application review procedures and improve the overall schedule and timing for issuing EFP?
 - d. How should the Council prioritize review and support for applications?
2. Session 2
 - a. How could collaboration between NMFS and the Council be improved in the EFP review process?
 - b. How could the Council more clearly communicate what information is required in an application?

B. Bycatch minimization strategies and metrics considering our definition of bycatch

What metrics or indicators and management strategies are available to support bycatch minimization?

1. Session 1
 - a. Is bycatch minimization more important for some species compared to others? For which species is bycatch minimization most important?
 - b. Should the Council prioritize designing bycatch minimization strategies and if so, how?
2. Session 2
 - a. What metrics or indicators are available and could be used to evaluate progress toward bycatch minimization?
 - b. What policies could support bycatch minimization?
 - c. Is electronic monitoring an accurate and reasonable alternative to human observers for bycatch monitoring under EFPs? If yes, in what circumstances? If not, why not?

C. Configurations and Fishing Methods

What types of gear configurations and fishing practices are consistent with Roadmap goals?

1. Session 1
 - a. What types of fishing configurations and practices should be tested with EFPs?
 - b. How does vessel size figure into the viability of different gear types?
 - c. Are there geographic areas where such fishing configurations should be tested or where testing should not occur?
2. Session 2
 - a. What characteristics of fishing configurations and fishing methods provide for economic viability?
 - b. What elements contribute to make an HMS fishery “climate ready”. How do we define “climate ready” in this context? What metrics or indicators characterize a climate ready fishery?

D. Economic considerations

What economic factors need to be considered in assessing EFP concepts?

1. Session 1
 - a. What is economic viability and how does it apply to a fishery or related fishing communities?
 - b. What is constraining the economic viability of HMS fisheries?
 - c. What are the main market based challenges when competing with non-US caught HMS fish? How can US caught swordfish and other HMS species replace non-US-caught fish in the marketplace?
2. Session 2
 - a. What economic components should be considered in assessing the economic viability of fishing configurations and/or practices?
 - b. What economic factors should be considered in fostering climate-ready HMS fisheries?

E. Funding Options

What funding opportunities exist to support testing under EFPs and how can those opportunities be leveraged?

1. Session 1
 - a. What barriers are there to obtain and use funding to test gear and fishing methods with EFPs?
 - b. Are there any other funding or cost issues that need to be taken into account when reviewing HMS EFPs?
 - c. How can the Council leverage existing funding sources and facilitate applications for funding?
 - d. What new funding sources are available for gear testing?

Attachment 5: DRAFT HMS Roadmap Terms and Goals

(From March 2024 Agenda Item I.3 Supplemental HMSMT Report 2 and Supplemental HMSAS Report 1)

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14. Trade Leakage/Transfer Effect: The set of aggregate shifts induced by natural resource decision- making – in activity footprints, and consequences for stakeholders and communities, target and non- target species, ecological integrity and overall performance, at whatever scale, from local to global. In the context of west coast HMS fisheries, the reduction of domestically supplied swordfish is causing an increase in imports from nations with far less stringent management regimes on protected species and other species of concern.

¹ MSA National Standard 9 requires Councils to consider the bycatch effects of existing and planned conservation and management measures (50 CFR 600.350(b)) and the definition of “fish” in MSA covers “... all ... forms of marine animal and plant life other than marine mammals and birds” (§3(12)). However, guidelines state “Other applicable laws, such as the MMPA, the ESA, and the Migratory Bird Treaty Act, require that Councils consider the impact of conservation and management measures on living marine resources other than fish; i.e., marine mammals and birds” (50 CFR 600.350(e)).

² Discard means to release or return fish to the sea, whether or not such fish are brought fully on board a fishing vessel (50 CFR 600.10). The definitions for economic and regulatory discards are consistent with the definitions provided in statute ([MSA](#)) and the [National Bycatch Reduction Strategy](#).

Council Adopted HMS Roadmap Goals (March 2024):

- A. Support innovation and development of multi-species HMS fishing methods to increase the domestic supply of and meet the demand for swordfish and other marketable species.
- B. Support and test fishing practices that have the potential to be economically viable while minimizing unmarketable, prohibited, and protected species bycatch.
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- F. Support recreational HMS fishing opportunities.