

NATIONAL MARINE FISHERIES SERVICE'S NATIONAL SEAFOOD STRATEGY AND ALIGNMENT WITH THE DRAFT HMS ROADMAP

Background and Overview

The [National Seafood Strategy](#) by the National Marine Fisheries Service (NMFS) outlines direction for enhancing the resilience of coastal fishing communities to environmental stressors and market disruptions and to address important national issues, such as the financial viability of the seafood industry, effects of international trade, and the importance of seafood to nutrition. The strategy was released in 2023, and the [Implementation Plan](#) was released in 2024, with additional updates made to both documents in February of this year.

At the regional level, the Pacific Fishery Management Council (Council) has been working to create the Highly Migratory Species (HMS) Roadmap to assist in accomplishing the goals of expanding HMS opportunities, minimizing bycatch, promoting fisheries resilience, and creating and refining gear types through the use of exempted fishing permits (EFPs). In November, the Highly Migratory Species Advisory Subpanel recommended that the Council prioritize strategies that support the vision outlined in the National Seafood Strategy, particularly in maintaining or increasing sustainable U.S. wild capture production (see [Supplemental HMSAS Report 1 from Nov 2024](#)). The Council incorporated consideration of the National Seafood Strategy in the charge of the new HMS Fisheries Innovation Workgroup. This document provides an overview of the key areas of alignment between the draft HMS Roadmap and the National Seafood Strategy (including the Implementation Plan), as well as a goal by goal summary of important intersections (see Appendix A for a detailed cross walk).

Key Areas of Alignment

The main goals of the draft HMS Roadmap (see Agenda Item F.4.a, FIW Report 1, Appendix A) align with the National Seafood Strategy and the related Implementation Plan in many ways. The three documents focus on increasing the supply of domestic seafood and supporting economic viability, while ensuring sustainable fisheries management. The three documents also emphasize the importance of promoting community resilience in the face of changing ocean conditions and new ocean uses. Key shared priorities between the draft HMS Roadmap and the National Seafood Strategy Implementation Plan include:

- The use of exempted fishing permits (EFPs) to expand domestic supply of HMS;
- The use of socio-economic data/information and analyses to support U.S. capture, processing, and consumption of HMS; and
- An emphasis on identifying ways to promote resilience for seafood businesses and fishing communities.

National Seafood Strategy goal 1: Maintain or increase sustainable U.S. wild capture production

Goal 1 focuses on U.S. wild capture fisheries. Under this goal, the first objective relates to science necessary for fisheries management to adapt under changing ecosystem dynamics. The second objective for this goal relates to fisheries management in order to optimize and diversify sustainable seafood production and fishing opportunities. These objectives relate broadly to almost all of the draft HMS Roadmap goals and action items (see Appendix A).

National Seafood Strategy goal 2: Increase sustainable U.S. aquaculture production

Goal 2 focuses on U.S. aquaculture. The potential tie-in with the draft HMS Roadmap is Action Item 3e, which calls for considering impacts of potential competing current and future marine uses (i.e., offshore wind, aquaculture, etc.) in HMS fisheries management.

National Seafood Strategy goal 3: Foster access to domestic and global markets for the U.S. seafood industry

Goal 3 focuses on seafood markets. One objective calls for identifying and developing U.S. seafood markets. Another objective focuses on promoting fair seafood trade by combating IUU fishing and by expanding access to foreign markets for U.S. seafood. Specifically, the Implementation Plan calls for conducting socio-economic and market analyses, reporting U.S. seafood production and price data, expanding socio-economic dashboards, conducting seafood trade analyses, etc. The synergies of these objectives and actions with the draft HMS Roadmap could be strong (see the HMS Pilot section below and Appendix A for more details).

National Seafood Strategy goal 4: Strengthen the entire U.S. seafood sector

Goal 4 focuses on strengthening the U.S. seafood sector. Several objectives relate to supporting and modernizing U.S. commercial fishing, the supply chain, and communities to adapt and thrive in a changing ocean economy, including action items in the Implementation Plan related to finance opportunities. This goal also includes a workforce development objective. These aspects potentially tie in with draft HMS Roadmap elements focused on promoting fisheries resilience and flexibility if these are the types of actions identified for supporting and bolstering resilience for HMS fishing communities.

Pacific and Atlantic HMS Pilot Initiative

The Implementation Plan for the National Seafood Strategy includes an initial list of funded and aspirational pilot projects. While relatively broad, the section for Pacific and Atlantic HMS includes four items, all of which could be directly relevant to the draft HMS Roadmap goals and action items (depending on how they are designed and implemented).

- *Exempted fishing permits* - This action aligns with the draft HMS Roadmap Goals A and particularly B about supporting and testing fishing practices and Action Items 1 and 2 which both have EFP-related items.
- *Coordination with councils and industry partners* - This action could apply to potentially all goals/actions of the draft HMS Roadmap depending on the focus of this item.
- *Industry validation of dynamic ocean predictions* - While this action relates to several goals, it most closely aligns with the draft HMS Roadmap goal about promoting fisheries resilience by

developing flexibility in management and other tools and specifically aligns with the sub-action item related to exploring the use of dynamic ocean modeling tools.

- *Socio-economic analysis* - While broadly written, this action most closely aligns with the draft HMS Roadmap goals to support the economic viability of West Coast commercial fisheries and to promote fisheries resilience. The draft HMS Roadmap also includes several sub-action items related to socio-economic analyses such as: 1) evaluating the harvest levels and market demand of HMS; 2) identifying fleets, fishing practices, or gears that are more flexible and/or adaptable; 3) documenting sources of U.S. swordfish supply and the potential to mitigate the conservation impacts and reduce the seafood trade deficit; and 4) evaluating net economic benefits of HMS fisheries operations.

Summary: NMFS's National Seafood Strategy and Implementation Plan share many common priorities with the draft HMS Roadmap. As the Council works with NMFS to advance the HMS Roadmap, it could help leverage resources towards achieving the overarching visions and goals outlined in both plans through continued collaboration on scope, focus, content, timing, etc.

Appendix A: Detailed crosswalk of potential alignment between the National Seafood Strategy (and Implementation Plan) and the draft HMS Roadmap¹

National Seafood Strategy (and Implementation Plan): Goals/Objectives/Actions	Draft HMS Roadmap: Goals and Actions
Goal 1: Maintain or Increase Sustainable Wild-Capture Production	
<p><u>Objective 1.A.</u> Fisheries Science: Provide the natural and social science necessary for fisheries management to adapt under changing ecosystem dynamics.</p>	<p><u>Goal D.</u> Promote 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.</p> <p><u>Goal E.</u> Engage fishery participants to preserve knowledge and help bolster resilience in future fisheries.</p> <p><u>Action Item 3:</u> Develop Fishery Management Decision-support Tools and Analyses</p>
<p><u>Objective 1.B.</u> Fisheries Management: Optimize and diversify sustainable seafood production and fishing opportunities while ensuring the long-term sustainability of fisheries through effective and efficient management. Identify and analyze ways to support the commercial fishing industry and fishing communities in their efforts to adapt to climate change and thrive in a changing ocean economy.</p>	<p><u>Goal A.</u> 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.</p> <p><u>Goal B.</u> Support and test fishing practices that have the potential to be economically viable and consistent with National Standard 9 guidelines.</p> <p><u>Goal C.</u> Support the economic viability of West Coast commercial fisheries for swordfish and associated marketable species through a diverse range of HMS fishing methods.</p> <p><u>Goal D.</u> Promote 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.</p> <p><u>Goal E.</u> Engage fishery participants to preserve knowledge and help bolster resilience in future fisheries.</p> <p><u>Goal F.</u> Support recreational HMS fishing opportunities.</p> <p><u>Action Item 1.</u> Explore and Establish Management Strategies and Objectives</p> <p><u>Action Item 2.</u> Develop EFP Framework</p> <p><u>Action Item 3.</u> Develop Fishery Management Decision-support Tools and Analyses</p>
Goal 2: Increase Sustainable U.S. Aquaculture Production	
<p><u>Objective 2.B.</u> Aquaculture Science: Provide science-based advice and tools to minimize potential negative effects of marine aquaculture operations on the</p>	<p><u>Action Item 3.</u> Develop Fishery Management Decision-support Tools and Analyses</p> <p>e. Consider impacts of potential competing current and future marine uses (i.e. offshore wind, aquaculture, etc.) in HMS fisheries management.</p>

¹ Action items in the draft HMS Roadmap are not nested directly under specific goals.

National Seafood Strategy (and Implementation Plan): Goals/Objectives/Actions	Draft HMS Roadmap: Goals and Actions
environment and to support sustainable industry development.	
Goal 3: Foster Access to Domestic and Global Markets for the U.S. Seafood Industry	
<p><u>Objective 3.B.</u> U.S. Market Development: Work with federal partners and others to identify and develop U.S. seafood markets and put more U.S. seafood on U.S. plates, particularly for underserved communities.</p> <ul style="list-style-type: none"> ○ <u>Action 3.B.4.</u> Conduct socio-economic and market analyses, including in collaboration with universities and other federal agencies. ○ <u>Action 3.B.5.</u> Report U.S. seafood production and price data. ○ <u>Action 3.B.6.</u> Expand regional socio-economic dashboards. 	<p><u>Goal C.</u> Support the economic viability of West Coast commercial fisheries for swordfish and associated marketable species through a diverse range of HMS fishing methods.</p> <p><u>Goal D.</u> Promote 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.</p> <p><u>Action Item 1.</u> Explore and Establish Management Strategies and Objectives</p> <ul style="list-style-type: none"> d. Evaluate the harvest levels and market demand of HMS to develop a list of priority species for development of alternative fishing practices. f. Promote resilience in community-level benefits from HMS fisheries. <ul style="list-style-type: none"> i. Identify fleets, fishing practices or gears that may be more flexible and/or adaptable given current and anticipated environmental conditions including climate change. ii. Identify characteristics or resources that would position communities to support HMS fisheries given current and anticipated environmental conditions including climate change. <p><u>Action Item 3.</u> Develop Fishery Management Decision-support Tools and Analyses</p> <ul style="list-style-type: none"> a. Document sources of U.S. swordfish supply, considering all domestic and foreign caught HMS and the potential to mitigate conservation impacts and reduce the seafood trade deficit. d. Evaluate overall net economic benefits of HMS fisheries operations.
<p><u>Objective 3.C.</u> Fair Trade: Promote fair seafood trade by combating illegal, unreported, and unregulated (IUU) fishing and related harmful fishing practices around the world and by expanding access to foreign markets for U.S. seafood.</p> <ul style="list-style-type: none"> ○ <u>Action 3.C.5.</u> Conduct economic analyses of seafood trade and serve as a repository for publicly available seafood trade data. 	<p><u>Action Item 3.</u> Develop Fishery Management Decision-support Tools and Analyses</p> <ul style="list-style-type: none"> a. Document sources of U.S. swordfish supply, considering all domestic and foreign caught HMS and the potential to mitigate conservation impacts and reduce the seafood trade deficit.

National Seafood Strategy (and Implementation Plan): Goals/Objectives/Actions	Draft HMS Roadmap: Goals and Actions
Goal 4: Strengthen the Entire U.S. Seafood Sector	
<p><u>Objective 4.A.</u> Seafood as a Vital Part of the Blue Economy: Support U.S. commercial fishing, marine aquaculture, and the rest of the associated seafood sector and communities to adapt and thrive in a changing ocean economy.</p> <p>○<u>Actions 4.A.1:</u> Fishery Finance Program: Provide long-term financing and explore alternative finance methods for seafood infrastructure modernization, vessels and production facilities, and for new entrants into wild-capture fisheries and aquaculture industries.</p>	<p><u>Goal D.</u> Promote 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.</p> <p><u>Action Item 1.</u> Explore and Establish Management Strategies and Objectives</p> <p>f. Promote resilience in community-level benefits from HMS fisheries.</p> <ol style="list-style-type: none"> i. Identify fleets, fishing practices or gears that may be more flexible and/or adaptable given current and anticipated environmental conditions including climate change. ii. Identify characteristics or resources that would position communities to support HMS fisheries given current and anticipated environmental conditions including climate change.
<p><u>Objective 4.B.</u> Seafood Infrastructure: Work across federal agencies to modernize and maintain U.S. seafood infrastructure (e.g., vessels, hatcheries, port and dock facilities, processing, storage, and working waterfronts) in order to strengthen and enhance opportunities for coastal seafood communities and regional food networks.</p> <p>○<u>Actions 4.B.1.</u> Coordinate with and leverage partnerships with other federal agencies (e.g., Economic Development Administration, USDA, and the Department of Transportation) to finance (loans, bonds, grants) seafood infrastructure, vessel, and processing modernization.</p>	<p><u>Goal D.</u> Promote 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.</p> <p><u>Action Item 1.</u> Explore and Establish Management Strategies and Objectives</p> <p>f. Promote resilience in community-level benefits from HMS fisheries.</p> <ol style="list-style-type: none"> i. Identify fleets, fishing practices or gears that may be more flexible and/or adaptable given current and anticipated environmental conditions including climate change. ii. Identify characteristics or resources that would position communities to support HMS fisheries given current and anticipated environmental conditions including climate change.
<p><u>Objective 4.C.</u> Workforce Development: Foster a growing and diverse seafood workforce, especially young harvesters and seafood farmers.</p> <p>○<u>Action 4.C.1.</u> Coordinate with other agencies such as the National Sea Grant College Program, which administers the Young Fisherman’s Development Program and similar grants for aquaculture workforce development.</p>	<p><u>Goal D.</u> Promote 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.</p> <p><u>Action Item 1.</u> Explore and Establish Management Strategies and Objectives</p> <p>f. Promote resilience in community-level benefits from HMS fisheries.</p>

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	<ul style="list-style-type: none"> i. Identify fleets, fishing practices or gears that may be more flexible and/or adaptable given current and anticipated environmental conditions including climate change. ii. Identify characteristics or resources that would position communities to support HMS fisheries given current and anticipated environmental conditions including climate change.
Implementation Plan Pilot Initiative - Pacific and Atlantic HMS Fisheries Resilience . Support for expansion of capture, processing, and consumption of HMS in the face of industry contraction and potential movement in species availability due to climate change.	
●Exempted fishing permits.	<p><u>Goal A.</u> 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.</p> <p><u>Goal B.</u> Support and test fishing practices that have the potential to be economically viable and consistent with National Standard 9 guidelines.</p> <p><u>Action Item 1.</u> Explore and Establish Management Strategies and Objectives</p> <p><u>Action Item 2.</u> Develop EFP Framework</p>
●Coordination with councils and industry partners.	Potentially relevant to all goals and actions.
●Industry validation of dynamic ocean predictions.	<p><u>Goal D.</u> Promote 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.</p> <p><u>Action Item 3.</u> Develop Fishery Management Decision-support Tools and Analyses</p> <ul style="list-style-type: none"> c. Explore the use of dynamic ocean modeling tools, such as EcoCast, as part of an individual accountability-based management strategy.
●Socio-economic analyses.	<p><u>Goal C.</u> Support the economic viability of West Coast commercial fisheries for swordfish and associated marketable species through a diverse range of HMS fishing methods.</p> <p><u>Goal D.</u> Promote 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.</p>

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	<p><u>Action Item 1.</u> Explore and Establish Management Strategies and Objectives</p> <ul style="list-style-type: none"> d. Evaluate the harvest levels and market demand of HMS to develop a list of priority species for development of alternative fishing practices. f. Promote resilience in community-level benefits from HMS fisheries. <ul style="list-style-type: none"> i. Identify fleets, fishing practices or gears that may be more flexible and/or adaptable given current and anticipated environmental conditions including climate change. ii. Identify characteristics or resources that would position communities to support HMS fisheries given current and anticipated environmental conditions including climate change. <p><u>Action Item 3.</u> Develop Fishery Management Decision-support Tools and Analyses</p> <ul style="list-style-type: none"> a. Document sources of U.S. swordfish supply, considering all domestic and foreign caught HMS and the potential to mitigate conservation impacts and reduce the seafood trade deficit. d. Evaluate overall net economic benefits of HMS fisheries operations.