



**Western
Pacific
Regional
Fishery
Management
Council**

WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

INFLATION REDUCTION ACT PROGRAM ADDRESSING CLIMATE CHALLENGES FOR FISHERIES MANAGEMENT 2024-2026

SUMMARY

The Council's program overarching goal is to implement fishery management measures that enhance climate resilience and readiness to address climate-related challenges. This includes creating plans and actions for fishery management that can support underserved Pacific Island communities, and creating products such as ecosystem status reports and assessments that are currently lacking to inform future climate-informed management decisions by the Western Pacific Regional Fishery Management Council. Program activities will be developed and implemented in close coordination with the NOAA Pacific Islands Regional Office, Pacific Islands Fisheries Science Center and local fishery management agencies in the U.S. Pacific Islands region. Priority project areas will aim to develop ecosystem status reports and integrated ecosystem assessments through the preparation of fishery ecosystem plan reviews and archipelagic fishery-driven scenario planning efforts. Priorities will also assess fishery management processes to ensure flexibility and adaptability to climate impacts and ecosystem drivers as it relates to protected species interactions and ways to further community consultation and capacity-building of underserved communities, while addressing equity and environmental justice in U.S. Pacific Island fisheries.

BACKGROUND OVERVIEW

The waters surrounding the U.S. Pacific Islands represent more than half of the nation's exclusive economic zone. Fisheries in this area are managed through four archipelagic-based fishery ecosystem plans (FEPs) and one region-wide pelagic FEP. The geography of this region is unique in that it consists of a network of islands spread across half of the Pacific ocean, extending both north and south of the equator and across the international date line. The region is culturally and politically diverse presenting unique challenges to fishery management through the Magnuson-Stevens Fishery Conservation and Management Act (MSA) in the context of addressing changing climates and impacts to underserved communities.

In reviewing its programs against ongoing drivers and evolving priorities, the Council identified five interrelated themes for the future that will be integrated across all program areas. These include: a) Climate change resiliency, b) Strengthening U.S. Pacific Island fishery competitiveness domestically and internationally, c) Integrating emerging technologies in U.S. Pacific Island fisheries, d) Equity and environmental justice (EEJ), and e) Capacity-building and fishery development in U.S. Pacific Island fisheries. The priority project areas included in this proposal address all of the priorities the Council has identified going into its next multi-year funding cycle. The priority project areas also address IRA funding priorities identified by the National Marine Fisheries Service (NMFS), specifically:

- *Developing and implementing management changes or processes that address climate vulnerability or improve climate resiliency of fisheries (e.g., potential revisions to harvest control rules to account for changes in ecosystems related to climate change), including those that are important to underserved communities;*
- *Developing and implementing measures or processes that increase responsiveness of allocations or other management measures to climate impacts (e.g., “frameworking” or establishing predetermined thresholds when management changes occur);*
- *Developing and advancing climate-related fisheries management planning (e.g., conducting climate scenario planning) and implementation efforts, including those in support of underserved communities.*

Fisheries in the Pacific are the leading common denominator between the U.S. Pacific Islands and Pacific Island countries in terms of economic development, food security, culture and commerce. The U.S. Indo-Pacific Strategy and Indo-Pacific Economic Framework prioritize strengthening domestic economic presence in the region in order to maintain U.S. competitiveness and influence. Drivers that could serve as impediments to this include climate change and the growing influence of geopolitical competitors. Pacific Island states, through the Pacific Islands Forum and Western and Central Pacific Fisheries Commission, have identified climate change as an existential threat to their economies and their fisheries. The Council developed its Pacific Strategy document to assess the geopolitical landscape and the need for the

United States to address climate change and global competitors through strengthening U.S. presence in the Pacific fisheries.

The United States has dedicated \$60 million annually for 10 years as part of an Economic Assistance Agreement with the Pacific Islands Forum, a group of Pacific Island states. One of the objectives of this Agreement is to strengthen resiliency of these Pacific Island nations in the face of climate change, including their fisheries. The United States also pledges \$7.1 billion over a 20-year horizon to members of the Compact of Free Association, including the Federated States of Micronesia, Republic of the Marshall Islands, and Palau. Much of this funding is to prepare the three former U.S. territories for climate change, including their fishery infrastructure. The Council manages federal fisheries in the U.S. Pacific Territories and Hawaii, which share resources and values with Pacific Island members. What is needed is a similar commitment to preparing these U.S. Pacific fisheries and their communities for climate change and addressing barriers that these underserved communities face.

EEJ is another priority for the U.S. Pacific Islands and is mandated under numerous Presidential Executive Orders. The U.S. Pacific Territories of Guam and American Samoa and the Commonwealth of the Northern Mariana Islands have some of the highest poverty rates in the nation and rely on seafood more than other citizens associated with the continental United States. Furthermore, these communities are most vulnerable to climate change. Therefore, the proposal plans in this document intends to better prepare the U.S. Pacific Islands to address existential threats and improve the influence of the United States in the Pacific region.

More than 50% of U.S. waters in the Western Pacific Region are established as Marine National Monuments which prohibit fishing. National Marine Sanctuaries are proposed to overlay the Northwestern Hawaiian Islands and the entirety of the U.S. Pacific Remote Island Areas. These proposed areas overlap the Papahānaumokuākea and Pacific Remote Islands Marine National Monuments. Not only do these areas seemingly provide duplicative restrictions to fishing, they are superseding existing conservation and management frameworks like the MSA. These large static closed areas may impede the ability of iterative, adaptive and scientifically driven management under the MSA to address climate change. In addition to domestic closures limiting fishery access, the recently ratified United Nations Convention on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction may provide a mechanism to close areas of the high seas to fishing. As fisheries and their resources are expected to shift due to climate change, existing domestic restrictions and the possibility of high seas closures may jeopardize the capacity for U.S. Pacific Island communities and fisheries for being climate-ready and resilient.

Potential Future Expectations

To date, the archipelagic-based Western Pacific Region has experienced climate effects differently than coastal states in the continental U.S., and the Council is starting its planning efforts to develop climate-ready fisheries. In contrast to other MSA regions that have contiguous geographic regions within the continental U.S. and have multiple councils and NMFS regional offices overseeing a single coastal area, the Western Pacific Region comprises at least four major archipelagic regions, dispersed over 50 degrees latitude and 65 degrees longitude. The unique geographic and oceanographic setting, combined with limited data and resources in the U.S. Pacific Islands, makes it challenging to forecast future conditions, creating significant uncertainty about the future impacts of climate change. The region's fisheries are characterized by the larger Hawaii and American Samoa pelagic longline fisheries, and the diverse, small-scale small-boat fisheries that are at the core of the underserved communities throughout the region in Hawaii, American Samoa, Guam and the CNMI. Additionally, management and governance of fisheries in the Western Pacific Region are linked to international organizations.

In light of this regional context, it is imperative that the Western Pacific Council engage in planning at all levels to prepare the region's fisheries for climate-related challenges. Scenario planning is needed to facilitate forward-thinking strategic considerations within the broader domestic and international policy context. A comprehensive review of the Council's existing FEPs is also needed to ensure alignment with state and territorial fishery coordinated management processes. We must also build upon our ongoing commitments to support underserved communities through enhanced engagement and capacity-building initiatives. The Council's IRA funding for FY2024-FY2026 will focus on these various levels of planning and coordination. Specifically, the funding will support the following four equally important priorities:

1. Scenario planning for U.S. Pacific Island fisheries to ensure resiliency and responsiveness to changing climate and related impacts.
2. Regulatory review of WPRFMC FEPs in coordination with local jurisdictions to develop fishery management plans to improve alignment and increase management responsiveness to changing climates and to improve services to underserved communities.
3. Protected species review and update of fishery management processes to ensure flexibility and adaptability to climate impacts and ecosystem drivers.
4. Community engagement and capacity-building to support underserved communities and address EEJ issues in U.S. Pacific Island fisheries.

Together, these four priorities address the ***IRA climate-ready fishery goals***, starting with the ***development and advancement of climate-related fisheries management planning and implementation efforts***, and ***implementation of fishery management measures and processes necessary to improve fishery and community resiliency and responsiveness to changing climates***.

To support the proposed work in these four priority areas, steering committees will be created to

assist with planning, coordination and implementation of each of the projects. Membership will include Council and NMFS PIRO/PIFSC staff and Council family, local fishery agencies, fishing sector representatives and others as appropriate to support the scope of work being proposed.

Priority 1. Scenario planning for U.S. Pacific Island fisheries to ensure resiliency and responsiveness to changing climate and related impacts

Overview: Scenario planning is used to plan for adaptation to climate change, and also used to address uncertainties in regulations, markets and the environment. Scenario planning brings together information from multiple forms of knowledge (biological, environmental, political) to create multidimensional futures (scenarios) to which management can be envisioned to meet a set of goals or objectives. The participatory process is collaborative and iterative, requiring a broad range of stakeholders to produce tangible outcomes that can be used in fishery management and development.

The Council will conduct two scenario planning efforts for Western Pacific fisheries to explore, assess and describe potential scenarios given the changing environment and climate. These efforts will determine how fishery management and governance will be affected and allow the Council to develop tools and strategies to best adapt and address future conditions in order to continue promoting fisheries in the Western Pacific. Two scenario planning activities will focus on 1) the large vessel longline fisheries operating in American Samoa and Hawaii and 2) the small-boat fisheries operating in American Samoa, Mariana Islands and Hawaii.

The outcomes from these planning efforts will be utilized to initiate amendments to the Council's fishery ecosystem plans to ensure current (and future) management measures are responsive to climate change for the underserved communities of the Western Pacific.

Priority 2. Regulatory review of WPRFMC FEPs in coordination with local jurisdictions to develop fishery management plan to improve alignment and increase management responsiveness to changing climates and to improve services to underserved communities

Overview: Fisheries are important to the economy and cultures of each of the jurisdictions in the Western Pacific region. The Regulatory Review priority aims to conduct a comprehensive analysis of existing regulations and associated management systems (including reporting and monitoring) within the state/territories and the federal fishery regulations to determine how responsive the regulatory framework is towards climate change. This priority area is essential to ensure that the Council continues to move towards ecosystem-based fishery management as climate change effects create greater uncertainty, by being flexible enough to anticipate potential changes to the fishery and potential changes needed for management. By systematically evaluating and enhancing our regulatory framework, this priority area aims to streamline regulations, improve efficiency, and develop a coordinated approach to the Council's federal regulatory regime. Over the course of FY 24-26, the Council will carry out regulatory review activities in the following focus areas:

- A) Hawaii Archipelago FEP, Pacific Pelagics FEP, and Pacific Remote Island Areas FEP-State of Hawaii and Pacific Remote Island Areas

- B) American Samoa Archipelago FEP-Territory of American Samoa
- C) Marianas Archipelago FEP-Territory of Guam and Commonwealth of the Northern Mariana Islands (CNMI)

Priority 3. Protected species review and update of fishery management processes to ensure flexibility and adaptability to climate impacts and ecosystem drivers

Overview: A significant component of managing the Hawaii and American Samoa longline fisheries under the Council's Pelagic FEP is reducing impacts to protected species. Management measures implemented under the Pelagic FEP to address protected species interactions include gear restrictions, handling and release requirements, interaction limits, and observer coverage. In the face of shifting productivity and distribution as a result of climate change, it is necessary to better understand how the changing environmental conditions may affect the rate of protected species interactions in the region's fisheries, and to develop and implement management strategies that can respond to those changes. Through a series of workshops, this priority will improve the understanding of climate effects on future protected species interactions in the region's largest commercial fishery, and update the management approach to be more flexible and adaptable to climate and ecosystem drivers. Projects under this priority may include the following:

- A) Incorporate climate effects and population trends in predicting and managing protected species interactions in US Pacific pelagic fisheries - Hawaii longline fishery case study
- B) Developing adaptive strategies and framework for managing climate change effects on protected species interactions in US Pacific pelagic fisheries

Priority 4. Engaging Pacific Island Communities to Identify Emerging Impacts of Climate Change on Fishing and Underserved Communities and support capacity-building in the Western Pacific Region

Project A) Use the Council's public consultation processes to listen, learn and understand the impacts and issues U.S. Pacific Island communities face as they are impacted by changing climates and how they are adapting to evolving ecosystems.

Project B) Work with impacted Pacific Island underserved fishing community members to participate in new fishery training and/or vocational programs to provide for new opportunities and build capacity in U.S. Pacific Island fisheries.

Overview: Community-based management of marine resources is an essential component of ecosystem-based fisheries management under the FEPs. The Council facilitated an effort to identify and work with indigenous practitioners and communities to establish a consultation process to understand, recognize and incorporate traditional ecological knowledge and practices into its management regime. Working relationships were established with Hawai'i's Aha Moku, American Samoa's Office of Samoan Affairs, the Mayor's Council of Guam, and CNMI's Village Mayor's Offices. Through these relationships, fishery monitoring and management can be enhanced through the development of finer, local scale management measures that considers climate change adaptation and mitigation strategies. Such processes serve to empower those

people to become involved in local marine resource stewardship and management activities.

Statutory provisions in the MSA provide this Council the ability to recognize and support indigenous fishing practices through Section 305(i) the Community Develop Program and Community Demonstration Project Program. The Act further supports Pacific Island marine education and training (Section 305(j)) and fisheries development through Pacific Insular Area Fishing Agreements and the Sustainable Fisheries Fund (Section 204(e)(7)(A)). As climate change brings new unique challenges to Pacific Island ecosystems and communities, so will evolving social, economic and political landscapes. Many people in the Western Pacific lack resources (technology, transportation, language, etc.) to actively participate in the federally managed fisheries and the management process. Underserved communities in the region are further disadvantaged and especially vulnerable to the impacts of evolving ecosystems and diversification of marine uses, such as shifting fish stocks, sea level changes, extreme weather events, offshore energy and open ocean aquaculture, that further exacerbate social economic struggles. Understanding Pacific Island community adaptations and priorities in response to changing climate, natural resources and marine uses will help the Council, NMFS and Territories to more effectively mitigate impacts and user conflicts through the regulatory processes.

The goal of this project is to leverage the Council's consultation processes to listen, learn and understand the impacts and issues communities face as they adapt to evolving ecosystems and changing climate. Whereas proposed scenario planning, regulatory review and protected species projects intend to engage specific sectors of the Pacific Island fishing community, such as longline and small-boat fishermen or those involved in fishing regulations, this project focuses on indigenous, disadvantaged and underserved community members. The purpose of this project is to build on the Council's consultation efforts to empower these communities and provide them the knowledge, tools and resources to participate in their fisheries and engage in the federal management process.