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RESPONSIVENESS IN THE FEDERAL FISHERIES MANAGEMENT PROCESS:

Use Of The Continuing And Contingency Fishery Management Mechanisms Across The Regional Fishery Management Councils

Fisheries Leadership & Sustainability Forum

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Executive Summary

Federal fishery management in the United States aims to manage dynamic biological, ecological and socioeconomic systems for a variety of objectives. Given the non-static nature of fishery resources and their related human systems, management measures must respond to changing conditions, new information and shifting priorities. This report describes some of the planning and regulatory mechanisms currently utilized by eight U.S. regional fishery management councils ("councils") to more rapidly refine and adapt management in response to these dynamic systems. Specifically, the report focuses on the Continuing and Contingency Fishery Management Mechanisms ("mechanisms") outlined in the 1997 National Marine Fisheries Service Operational Guidelines for the Fishery Management Plan Process ("Operational Guidelines.")[1]. These mechanisms were designed to facilitate responsive management of the nation's fisheries.

The 1997 Operational Guidelines provide guidance to the councils on administration and management procedures for fisheries under their jurisdiction. The Operational Guidelines also outline potential pathways for adjusting and changing management measures after the implementation of a fishery management plan (FMP) or FMP amendment. The mechanisms outlined include four different types of actions: closed framework adjustments, open framework adjustments, regulatory amendments, and abbreviated rulemaking.

- Open and closed framework adjustments are designed to allow for modification of certain measures without a full FMP amendment.
    - Closed framework adjustments prescribe specific actions for which the impacts are analyzed when the framework measure was adopted in the FMP.
    - Open framework adjustments require additional analysis prior to implementation given the policy discretion in deciding a course of action.
- Regulatory amendments can amend a variety of management measures established in regulation as authorized in the respective FMP.
- Abbreviated rules can be used to make minor adjustments or when an action needs to be taken quickly.

To support discussions at the 2013 West Coast Forum on Responsive and Adaptive Management Strategies, this report examines the use of these mechanisms as pathways for responding to new information and changing conditions, and adapting management measures over time. The exploration of how these mechanisms have been utilized across council regions highlights two main findings. First, interpretation and application of these

[1] Operational Guidelines Fishery Management Plan Process. National Marine Fisheries Service, Silver Spring, Maryland 20910. Revised May 1, 1997. http://www.nmfs.noaa.gov/sfa/domes_fish/GUIDELINES.PDF

mechanisms varies significantly across council regions. Second, the practical implementation of these mechanisms demonstrate both benefits and limitations in how these mechanisms are employed to improve the responsiveness of councils to new information and changing conditions within a fishery.

Regional Interpretation of the 1997 Operational Guidelines

Each region has interpreted the Continuing and Contingency Fishery Management Mechanisms differently, and has adapted these actions to reflect the circumstances under which each council operates and the fisheries it manages. There are significant differences in how terminology is used and defined (e.g. what is considered a framework adjustment vs. a regulatory amendment), and the discrete or joined nature of the outlined mechanisms. For example, many councils do not differentiate between the four actions and have developed a hybrid approach incorporating aspects of multiple mechanisms. Furthermore, following reauthorization of the MSA in 2007, councils are now required to establish annual catch limits (ACLs) for all managed fisheries. The processes established to specify ACLs are different across council regions, which adds an additional dimension to the regional application of these mechanisms.

Terminology

The interpretation and use of terminology respective to these mechanisms varies significantly across council regions. While the Operational Guidelines distinguish between framework adjustments and regulatory amendments as two different types of actions, some councils use one or both of these terms interchangeably.

- The Gulf of Mexico Fishery Management Council (GMFMC) previously implemented only regulatory amendments, however, it has transitioned to calling them framework actions despite no substantive change regarding the action itself.

Although the Operational Guidelines describe discrete differences between open and closed frameworks, many councils do not explicitly differentiate between the two, or use other terms to describe them.

- The Mid Atlantic Fishery Management Council (MAFMC) frequently uses framework adjustments for inseason modifications, but has never used the language “open” or “closed” to differentiate between types of framework actions.
- The Caribbean Fishery Management (CFMC) uses what it calls “established measures” and “new measures” which are akin to the open and closed frameworks in the Operational Guidelines.

Differences also exist regarding the interpretation and implementation of regulatory amendments across councils.

- The South Atlantic Fishery Management Council (SAFMC) uses regulatory amendments as its primary mechanism to make management changes to measures within the scope of the FMP.
- Regulatory amendments are rarely used by the MAFMC, and if so, are typically implemented to clarify language or take minor actions.

- The New England Fishery Management Council (NEFMC) classifies regulatory amendments as actions implemented by the National Marine Fisheries Service (NMFS) that are taken outside the council process.

Establishing and revising catch limits
Councils utilize different processes for specifying ACLs, and these processes influence each council's application of the four mechanisms. Use of the mechanisms is closely related to the specification of ACLs, including where ACL specification resides in the management process, the timing and availability of new information, and interactions between the ACL process and other timing and workload demands of the councils.

- Some councils, including the SAFMC and CFMC, specify ACLs in the FMPs of each respective fishery; thus, specifications are only adjusted when new information is available by implementing regulatory amendments (SAFMC) and framework adjustments (CFMC).
- Others such as the MAFMC use an entirely separate "specifications process" to determine catch limits and reference points; ACLs may be changed through framework measures between specification cycles.
- For some NEFMC managed fisheries a separate "specifications process" is used to establish ACLs while other NEFMC fisheries are authorized to set ACLs through a framework adjustment at determined intervals.

While some framework adjustment and regulatory amendment procedures were adopted early in the life of FMPs and amended to incorporate the ACL process, other procedures were integrated and adopted concurrently with ACL amendments. As councils continue to refine their approach for setting catch limits, their use of these mechanisms continue to evolve in step.

Benefits and Limitations of Continuing and Contingency Fishery Management Mechanisms
While each of the councils interprets the language of the Operational Guidelines differently and has created unique systems and pathways depending on its circumstances, the overall goal of the Continuing and Contingency Fishery Management Mechanisms is to allow the councils to plan ahead and design their underlying documents (FMPs and regulations) in a way that allows for timely management responses. Despite the different interpretations, a common set of themes emerges regarding the benefits, challenges and limitations of these mechanisms in allowing councils to manage more responsively.

Benefits
The suite of mechanisms provide the councils increased flexibility and allows them to respond to management issues more quickly than going through the full plan amendment process. Generally, both regulatory amendments and open framework actions help councils implement management changes between specification cycles and also constrain the scope of management actions allowing the councils to focus on aspects of fisheries critical for successful management. Additionally, inseason actions that are akin to the

closed frameworks described in the 1997 Operating Guidelines allow for particularly timely management responses. The Pacific Fishery Management Council (PFMC) and the North Pacific Fishery Management Council (NPFMC) have developed close to real-time inseason management systems for their salmon and groundfish stocks, respectively. Other councils such as the GMFMC have used these closed actions to increase ACLs multiple times inseason in response to new data. While some councils may possess the data to execute these narrow non-discretionary actions, to implement framework actions that enable councils to consider a range of policy options requires the ability to preemptively analyze the management alternatives.

Challenges and Limitations
The primary challenge to the success of the Continuing and Contingency Fishery Management Mechanisms is the ability for councils to plan ahead and conduct the analysis beforehand so that these mechanisms provide significant time savings. Many councils have implemented actions in which the timeframe to completion was similar to a plan amendment because no previous analysis was conducted. The major constraints to advance planning stem from data limitations and the NEPA and Administrative Procedure Act (APA) requirements.

Some councils have limited scientific data to support prior analysis of management alternatives. In particular, councils that manage data poor stocks are rarely able to forecast management issues before they arise, thus preventing prior analysis and the option to implement framework actions in a timely manner. By contrast, councils that manage fisheries with consistent data streams are able to delegate authority to the NMFS in order to make narrow nondiscretionary management decisions on a real-time basis. The ability for councils to plan ahead is key to implementing quick framework actions, which is largely contingent on their access to new scientific information.

Additionally, although the NEPA and APA requirements play a critical role in ensuring public involvement and consideration of management alternatives, the level of analysis required can hinder the timely implementation of framework actions. Many councils explained how framework actions can take up to a year to complete between the council recognizing the management issue, developing and recommending management alternatives, carrying out public notice and comment and NMFS implementation of the final rule. While data limitations are the underlying challenge to the development of framework actions, once the data is obtained, the process of implementing these actions can still be lengthy.

Additional Approaches to Responsive Management
In addition to implementing the mechanisms outlined in the Operational Guidelines, councils are taking a variety of approaches to manage more proactively, specifically working to improve their forecasting abilities of upcoming management issues and operating within the NEPA and APA requirements to implement actions in a shorter timeframe.

Rather than responding to management issues as they arise, councils are developing mechanisms to identify them before they become critical. For example, the PFMC has established framework procedures in its FMPs that require specific aspects of the fishery such as resource conservation or socioeconomic factors be continually monitored throughout the year. The MAFMC also convenes fishermen, industry representatives, and other interested parties prior to the start of a fishing season to obtain their perspective on upcoming management issues and to assess management success from the previous season.

To expedite the rulemaking process councils are developing techniques that ultimately shorten the time to complete NEPA and APA requirements. For example, the NPFMC has been working closely with NMFS on a multi-step plan that includes strategic planning, action planning, document review process, and development of a standardized analytical template. The PFMC is also developing an Environmental Impact Statement (EIS) for the groundfish fishery that would evaluate environmental impacts over a long-term period in conjunction with an amendment which would framework the harvest control rules and establish default harvest specifications.

Conclusion

The Continuing and Contingency Fishery Management Mechanisms are interpreted differently by each council, and while they do provide for increased flexibility, the challenges inherent with planning ahead including data limitations and NEPA and APA requirements still present challenges to managing fisheries more responsively and on a real-time basis difficult. The regional profiles contained in this report are crafted to showcase the different interpretations and approaches employed across regional councils as well as highlight the common benefits and limitations in their practical application.

Acronyms

AM	Accountability measure
ABC	Acceptable biological catch
ACL	Annual catch limit
ACT	Annual catch target
APA	Administrative Procedure Act
BSAI	Bering Sea/Aleutian Islands
CFMC	Caribbean Fishery Management Council
CMP	Coastal Migratory Pelagic
EA	Environmental Assessment
EEZ	Exclusive economic zone
ENGO	Environmental non-governmental organization
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FEP	Fishery Ecosystem Plan
FMP	Fishery Management Plan
GOA	Gulf of Alaska
GMFMC	Gulf of Mexico Fishery Management Council
HAPC	Habitat Area of Particular Concern
HG	Harvest Guidelines
IFQ	Individual Fishing Quota
IPT	Interdisciplinary Plan Team
MAFMC	Mid-Atlantic Fishery Management Council
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum sustainable yield
NEPA	National Environmental Policy Act
NEFMC	New England Fishery Management Council
NMFS	National Marine Fisheries Service
NOAA GC	National Oceanic and Atmospheric Administration General Counsel
NPFMC	North Pacific Fishery Management Council
OFL	Overfishing limit
OY	Optimum yield
PDT	Plan Development Team
PFMC	Pacific Fishery Management Council
PMUS	Pacific pelagic management unit species
PSC	Prohibited Species Catch
QS	Quota Share
RA	Regional Administrator
RFA	Regulatory Flexibility Act
SAFE	Stock Assessment and Fishery Evaluation

SAFMC	South Atlantic Fishery Management Council
SEDAR	Southeast Data, Assessment, and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SSC	Scientific and Statistical Committee
STT	Salmon Technical Team
TAC	Total allowable catch
TAL	Total allowable landings
USVI	United States Virgin Islands
VMS	Vessel monitoring system
WPFMC	Western Pacific Fishery Management Council

Introduction

The dynamic nature of fishery resources and their associated human systems necessitate management that responds to changing conditions, new information and shifting priorities. U.S. regional fishery management councils ("councils") and the National Marine Fisheries Service (NMFS) manage fisheries through the administration of fishery management plans (FMPs) and regulations that implement the measures outlined in the FMPs. While FMPs and their associated regulations can be changed and updated over time, the administrative process is often lengthy and can hinder timely responses to changing management needs. This report describes some of the planning and regulatory mechanisms currently utilized by regional fishery management councils to more rapidly refine and adapt management in response to these dynamic systems. Specifically, the report focuses on the Continuing and Contingency Fishery Management Mechanisms ("mechanisms") outlined in the 1997 Operational Guidelines. These mechanisms were designed to facilitate responsive management of the nation's fisheries.

Management context
The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires that councils submit an FMP and necessary plan amendments to the Secretary of Commerce for each fishery under the council's authority that requires conservation and management. In cooperation with the councils, regulations are promulgated by the NMFS Regional Administrator (RA) by way of Secretarial delegation to implement the FMP or FMP amendments. Statutory procedures and timing requirements pertain to development and implementation of FMPs, amendments, and regulations.

The cumulative impact of these procedures and timing requirements translates into a long development timeline for implementing management measures through FMPs. For example, the MSA requires a 60-day public comment period on FMPs and FMP amendments. For regulations deemed necessary by councils to implement an FMP or amendment, or to modify regulations implementing an FMP or amendment, the MSA requires a public comment period of 15 – 60 days. The Administrative Procedure Act (APA) requires advance notice and public comment on all regulations, unless there is good cause to waive it. Public comment is typically integrated throughout the council process rather than later during agency review because the MSA limits NMFS's discretion to change council recommendations. In addition, all management measures must comply with the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Regulatory Flexibility Act (RFA), and other applicable laws, which can mean the need for additional analysis.

The logistical and practical aspects of developing council recommendations can also affect speed of response as the Council process is public and iterative. Meetings are scheduled far in advance, and availability of council and agency staff for developing analyses must be prioritized. Thus, it is advantageous when structuring an FMP or

amendment, to plan ahead as much as possible and design the management regime in a way that allows for future change without the need for re-opening the FMP.

Continuing and contingency fishery management mechanisms
The 1997 Operational Guidelines for the MSA provide guidance for the development, review, and implementation of FMPs. Specifically, the section in the guidelines on Continuing and Contingency Fishery Management Mechanisms describes four different actions that should be considered for responding to changing management needs after implementation of the FMP: **open framework adjustments, closed framework adjustments, regulatory amendments, and abbreviated rulemaking**. These mechanisms are most effective if the underlying FMP is designed with them in mind.

Open and closed framework actions are implemented through the "framework process". Under this process, an FMP is designed to allow for future modifications to management measures that are within the scope of the FMP. The framework process can be used to change management measures and reference points more quickly than through FMP amendments. Taking the time to structure a well-developed framework on the front end can lead to time savings in subsequent management responses. The time saved is derived from the fact that management alternatives have been previously analyzed to a certain extent, the public has already been engaged, fewer council meetings are needed to develop a response, and shorter review periods are required after the council has acted. The framework process is not designed to circumvent the NEPA or APA requirements, as councils and NMFS are required to provide advance notice, public comment, and supporting documentation for all framework actions prior to their implementation. The framework process allows councils to be more flexible while still adhering to the NEPA and APA requirements.

Frameworks that prescribe a specific management action in the FMP, and for which the impacts were analyzed when the framework measure was adopted, are characterized as **"closed" frameworks**. An example of a "closed" framework is prescribing for the closure of a fishery once the quota has been attained. For management actions where more policy discretion exists, councils attempt to pre-analyze a range of options, but must conduct additional analysis and public comment to decide on the preferred action. Some councils have used these more **"open" frameworks** to specify annual catch limits (ACLs). The advance notice and opportunity for public comment can occur at the time the framework is added to the FMP or when the framework action is actually taken. The extent of notification, public comment, and analysis depends on type of action, the specificity of the action prescribed, and the amount of analysis performed at the time the framework was established.

Councils are also able to recommend **regulatory amendments**, which amend the regulations, not the FMP. Regulatory amendments have been used to adjust a variety of management measures and reference points including, but not limited to Maximum Sustainable Yield (MSY), Optimum Yield (OY), ACLs, Annual Catch Targets (ACTs),

Acceptable Biological Catch (ABC) control rules, Accountability Measures (AMs), trip/bag limits, size limits, and gear restrictions. Regulatory amendments can be used as long as authority is provided for in the FMP. The time saved is the result of anticipating the necessary change in the FMP, and thus reducing the required public comment period to 15-30 days rather than the full 60-day period.

Finally, councils can recommend, and NMFS can utilize, **abbreviated rulemaking** for particular actions that need to be taken quickly. For example, abbreviated rules can be used to assign new funding sources to programs or make minor adjustments to the permitting process. Abbreviated rulemaking allows the RA of the NMFS region to waive the notice and public comment requirement and implement the measure as a final rule.

Regional variations
It is important to acknowledge that the mechanisms outlined in the Operational Guidelines serves as guidance for NMFS and the councils and are not required or strictly defined. Each council is able to apply the mechanisms in this section of the Operational Guidelines in a manner that allows for the most effective management of the fisheries within its jurisdiction. For example, some councils may only implement regulatory amendments, others may implement both regulatory amendments and framework adjustments, and still others may not differentiate between the two or use a hybrid approach. Due to the highly individualized nature of the councils, and each FMP, specific application of continuing management concepts are widely variable and thus different regions and councils may associate different meanings with some of the continuing management terminology. However, for all of them, the overarching goal of the mechanisms is to facilitate responsive, and in some cases near real-time fisheries management.

The following regional profiles describe how each of the eight regional councils has utilized the Continuing and Contingency Fishery Management Mechanisms. The profiles are not intended to be comprehensive, rather to provide an overview of how each council interprets the mechanisms and examples of how they have been applied. The profiles also discuss perspectives on where these processes have helped the council, and where limitations exist in their practical implementation. Each of the regional profiles is informed by a review of council documents and regulations as well as personal communication with council and NMFS staff, whose insights were instrumental in the development of this report.

North Pacific Fishery Management Council

Given the advice from NOAA General Counsel (NOAA GC) regarding previous litigation, the North Pacific Fishery Management Council (NPFMC) does not currently implement closed or open framework adjustments in the same manner as those used in other regions. Regulatory changes to management are made through specific amendments. The NPFMC does delegate specific regulatory measures for crab, salmon, and scallop fisheries to the State of Alaska. The National Marine Fisheries Service (NMFS) and the State of Alaska (State) coordinate to ensure that any regulations adopted by the State are consistent with the MSA. NMFS uses inseason adjustments to respond to management issues for the Bering Sea/Aleutian Islands (BSAI) Groundfish fishery and the Gulf of Alaska (GOA) Groundfish fishery as authorized through their respective FMPs. While inseason adjustments allow NMFS, and by extension, the NPFMC, to respond quickly with a limited suite of actions, the NPFMC's main challenge to responsive and adaptive management is the lengthy process to implement regulatory amendments.

Application
For these inseason adjustments, NMFS staff at the Alaska Regional Office continually monitor the groundfish fisheries throughout the season, and based on their expertise, advise the Regional Administrator (RA), by way of Secretary delegation, to implement a prescribed range of actions. Examples of inseason actions include extending, opening, or closing fisheries in all or part of a regulatory area, restricting the use of any type of fishing gear, and adjusting previously specified total allowable catch levels (TACs) or prohibited species catch limits (PSCs). Inseason adjustments can be made on nearly a daily basis and are implemented to prevent overfishing of any species or stock of fish, exceeding TAC or PSC limits, and closing a fishery based on a TAC or PSC limit that is found to be incorrectly specified. To implement an inseason adjustment, NMFS must publish a notice of proposed adjustments in the Federal Register before they are made final. NMFS coordinates with the affected industry to provide notification shortly before any adjustments are announced. The Secretary can waive the public comment period, but is required to accept comments for 15 days after the notice is made effective. While delegating authority to the RA to make inseason adjustments provides some flexibility for the NPFMC, the actions that can be taken through inseason adjustments are limited in scope.

Examples
The NPFMC can implement most actions that would be considered framework adjustments through regulatory amendments and have recently done so to make quota adjustments to the halibut and sablefish fisheries and modifications to the BSAI groundfish retention standard program.

- In 2012 a regulatory amendment was implemented to modify the Individual Fishing Quota (IFQ) Program for the commercial fixed-gear sector of the Pacific halibut and sablefish fishery off Alaska by revoking quota shares (QS) that had

been inactive since they were initially issued. The action provided fishermen holding active QS in this fishery an opportunity to fishery for previously unavailable QS and more fully harvest the TAC for halibut and sablefish.

- In 2013 a regulatory amendment removed the requirement mandating minimum levels of groundfish be retained by Amendment 80 vessels and cooperatives participating in the BSAI groundfish fisheries. NMFS did not anticipate the compliance costs and difficulties with enforcing the retention rates and passed the regulatory amendment to relieve those vessels and cooperatives involved of unnecessary costs.

Discussion

Inseason adjustments allow the NPFMC to respond quickly to management issues. However, because they can only implement a limited suite of actions, they do not assist the NPFMC in forecasting future management issues. While regulatory amendments allow the NPFMC to change what could be done through a framework adjustment, the lengthy one to two year implementation process hinders timely management responses. In addition to analysis for regulatory amendments, the process of review and rulemaking can significantly extend the timeline for implementation.

To help expedite this process, NPFMC staff has been working closely with the NMFS regional Sustainable Fisheries office to identify ways to speed the review and rulemaking process. There are several components to this including 1) strategic planning to identify priorities and appropriate tasking, 2) action planning early in the process to coordinate development of analyses and avoid regulatory process snags, 3) an agreed upon document review process and target timelines, and 4) development of a standardized analytical template to streamline their analyses and provide information to the regional office (and NOAA GC) in a consistent fashion to facilitate review. This template could include preamble language for a proposed rule in the development of a regulatory amendment analysis to assist NMFS staff in drafting the implementing regulations in order to expedite the regulatory amendment process.

Pacific Fishery Management Council

The Pacific Fishery Management Council (PFMC) has devised unique framework processes that provide for continual review of the fishery and flexible inseason management actions. The PFMC framework processes are outlined in each of the respective fishery FMPs – salmon, groundfish, highly migratory species, and coastal pelagic species. PFMC employs three types of framework processes: points of concern framework, socioeconomic framework and habitat and conservation framework; some or all of which are employed in the highly migratory species, coastal pelagic species and groundfish fisheries. The process for salmon is significantly different, with management adjustments occurring through an established annual process described below.

Application

Inseason salmon management

Given the unique characteristics of salmon and the flexibility needed to accommodate variability, PFMC engages in an annual management process. Ongoing salmon management by the PFMC consists of conducting an annual review, establishing annual management measures in a preseason process, and implementing inseason management actions as necessary. The Salmon Technical Team (STT) reviews the previous season's fishery with respect to achievement of the framework management objectives including, but not limited to, allowable harvests, allocation goals, escapement goals, mixed-stock management, annual catch limits, and effort management systems. This annual review then informs the setting of management measures for the next season.

In March, the PFMC begins the two-month preseason process involving two council meetings and formal public hearings to decide on salmon management alternatives for the upcoming fishing year. Because this preseason process establishes the range of management measures that can be changed inseason, a variety of inseason management actions can then be implemented quickly when an issue arises. Inseason actions include fixed and flexible actions. An example of a fixed action would be closing a fishery on the date the STT projects the quota will be reached. Flexible actions include the modification of quotas or fishing seasons, changes in recreational bag limits, and establishment of gear restrictions, among others. To implement inseason actions the Regional Administrator (RA) consults with the Chairman and the appropriate State Directors, and makes the relevant information regarding the action available to the public upon request. The inseason decision and implementation process is facilitated in real time through conference calls that include relevant state, federal, and tribal fishery managers, STT members, and the affected public as represented by members of the PFMC Salmon Advisory Subpanel.

Framework processes

The PFMC has developed three different types of framework processes through which it can adjust specific management measures. These frameworks include the points of concern framework, socioeconomic framework, and the habitat conservation framework.

While the groundfish FMP utilizes all three framework processes, the coastal pelagic species FMP uses the points of concern framework and socioeconomic framework, and the highly migratory species FMP only employs the points of concern framework. Generally, the respective fishery's management team monitors the fishery throughout the year and alerts the PFMC of management issues as they arise.

Once a problem is identified under the above framework processes, the PFMC can implement automatic actions, routine actions, or regulatory amendments. Automatic actions are those that have been previously analyzed and are nondiscretionary. These actions can be implemented without prior public notice, opportunity to comment, or a council meeting. The PFMC also classifies certain management measures as "routine" through either the specifications process or full rulemaking process. Examples of routine measures include changes in area closures and trip, bag, and size limits. Once a management measure is classified as routine it can be adjusted inseason through a single meeting notice procedure requiring one council meeting and notice of final rule. Regulatory amendments are implemented for adjusting management measures that have not been previously analyzed, but are within the scope of the FMP. Regulatory amendments require at minimum two council meetings, supporting documentation, advance notice, and opportunity for public comment.

The biennial harvest specifications process for the groundfish fishery is considered separately from other framework adjustments and requires full notice and comment rulemaking. However, for the coastal pelagic species fishery harvest specifications (Overfishing Limit (OFL)), ABCs, Harvest Guidelines (HGs), ACLs, ACTs) and quotas are set annually and are classified as routine measures and thus are incorporated into the framework adjustment process.

Examples

Examples of how the PFMC has used framework adjustments include adjusting ACLs and trip limits, as well as closing certain fishery sectors.

- During the 2009 stock assessment cycle, the PFMC determined petrale sole was in an overfished state. Through the groundfish points of concern framework the PFMC modified management measures to reduce catch (e.g., lower trip limits and area closures) as well as reduced the ACL for 2010 to promote a faster rebuilding rather than waiting for the next specifications cycle in 2011. At the same time, the PFMC evaluated a similar change for canary rockfish, however, none of the catch reductions made an appreciable difference in rebuilding.
- The Pacific whiting regulations specify the season will remain open for each sector until the sector allocation of whiting or non-whiting groundfish is reached or projected to be reached. The authority to close the fishery via automatic action once quota has been reached is delegated to National Marine Fisheries Service (NMFS).
- In 2011 a regulatory amendment was implemented to modify trip limits for incidentally caught swordfish in longline deep-set tuna fishery managed under the

highly migratory species management plan. The amendment maintained a 10 swordfish limit for vessels without onboard observers using J hooks, increased the limit to 25 swordfish for vessels without onboard observers using circle hooks, and removed any retention limit for vessels carrying NMFS approved observers.

Discussion

Although framework processes within the PFMC differ between fisheries, the general understanding is these processes provide flexibility and allow for more responsive management. In the case of salmon, the setting of annual management measures facilitates the extremely quick inseason management changes, which are further informed by the annual review, which also allows for the forecasting of upcoming management issues. For groundfish, the PFMC has used routine actions many times to attain but not exceed the ACLs (e.g., sablefish).

One of the challenges to utilizing framework adjustments is updating the frameworks to maintain effectiveness as fisheries change over time. In the future, the PFMC will work to analyze how the framework applies within new fishery dynamics and as new management systems are developed. While the framework processes have allowed for adjustment of inseason actions, the NEPA requirements for the biennial specifications process for groundfish requires an extensive amount of work for measures only set for two years. The workload to complete Environmental Impact Statements' (EIS) on a biennial cycle limits staff's availability to address other management priorities.

Looking forward, the PFMC is currently developing an initiative intended to decrease the workload associated with setting biennial groundfish harvest specifications every two years. One element is an EIS evaluating environmental impacts over a long-term period, allowing shorter, more focused environmental impact analyses in future years. Second, Amendment 24 to the Groundfish FMP would establish a mechanism to automate the determination of harvest specifications for an upcoming biennial period. While the PFMC could choose to depart from these default harvest specifications, this is likely to occur for a few stocks in each cycle, so the analysis required would be limited. By frameworking the harvest control rules in this way the PFMC can focus its decision-making on the limited proportion of the stocks requiring a unique approach and additional analysis. The PFMC may also limit the range of management measures considered in the biennial process to only those already classified as routine or necessary to address immediate conservation concerns. The long-term EIS is currently being prepared, covering the period from 2015 onward. Along with the FMP amendment (to be completed in 2014) these efforts are expected to streamline administrative processes beginning with the 2017-2018 management cycle.

Western Pacific Fishery Management Council

The Western Pacific Fishery Management Council (WPFMC) uses both framework adjustments and regulatory amendments to change management measures and reference points (e.g., annual catch limit specifications) throughout the fishing season. Although these procedural tools should allow the WPFMC to be more adaptive, the difficulty with possessing data to preemptively analyze management actions hinders the process. In 2010 the WPFMC transitioned from five fishery management plans to five fishery ecosystems plans (FEPs) – Hawaii Archipelago, American Samoa Archipelago, Mariana Archipelago, Pacific Pelagic, and Pacific Remote Islands Area. This transition did not result in substantive changes to regulations, rather reorganized them from being species-based to place-based. The framework adjustment and regulatory amendment processes generally remain species based, with different procedures for different fisheries within the same FEP; however, a draft amendment currently under consideration aims to establish a consistent framework process for all species within a FEP.

Application

The two types of framework adjustments the WPFMC has used are "established measures" and "new measures" which are akin to the closed and open framework adjustments (respectively) outlined in the 1997 Operational Guidelines. Established measures are management actions for which the impacts have been evaluated in WPFMC or National Marine Fisheries Service (NMFS) documents in the context of current conditions, whereas new measures are management actions for which the impacts have not been evaluated in WPFMC or NMFS documents. Both types of framework adjustments require supporting documentation, advance public notice, and opportunity for public comment. Established measures can be implemented more quickly given their prior evaluation while new measures may require multiple council meetings to adequately evaluate potential social and environmental effects. The WPFMC also implements regulatory amendments which are interpreted differently from framework adjustments in that framework adjustments change measures within the FMPs while regulatory amendments alter the Code of Federal Regulations.

The categories from which framework adjustments are made are the same across all fisheries and generally include changes to catch limits, size limits, closures, effort limitation, access limitations, and reporting and recordkeeping requirements. Council members, staff, or third-party stakeholders may bring forward an issue to be addressed by framework adjustment at any point in the fishing season. Additionally, each fishery's monitoring team prepares an annual report that can provide recommendations to the WPFMC to undertake a framework adjustment. To implement framework adjustments the WPFMC follows the procedures outlined in the 1997 Operational Guidelines. Given actions considered "new measures" have not been previously analyzed, the WPFMC may hold multiple meetings to solicit public comments and analyze any other information received to make their final recommendation.

Examples

The WPFMC has used framework adjustments and regulatory amendments to minimize interactions with protected species and also implement and adjust spatial area closures.

- In response to entanglements of black-footed albatrosses and Laysan albatrosses in Hawaii-based pelagic longline fishing gear, the WPFMC implemented Regulatory Amendment 5. The amendment mandated longline vessels to either side-set (deploy longline gear from the side of the vessel rather than the stern) or use a NMFS approved deterrent device (tori line or a buoy) in addition to the other previously established measures (blue-dyed thawed bait, strategic offal discards, and line shooter with weighted branch lines).
- In American Samoa concern over gear conflicts between small and large longline vessels targeting Pacific pelagic management unit species (PMUS) prompted the implementation of Framework Action 1. This amendment prohibited U.S. vessels of more than 50 feet in length from fishing for PMUS between 3 nautical miles (nm) from shore to 50 nm around the islands of American Samoa. Subsequently, once the Rose Atoll monument in American Samoa was established in 2009, the WPFMC only had to implement a regulatory amendment to adjust the boundaries of the large vessel prohibited area to align with the boundaries of the new monument.

Discussion

Although the intent of framework adjustments and regulatory amendments is to allow for timely modifications to management measures, the WPFMC has not experienced significant time savings implementing these actions. While the time required for public notice and comment is reduced with regulatory amendments, the time saved via framework actions is only significant when management options have been pre-analyzed. The challenge with completing this analysis, however, is possessing the data, resources, and foresight to analyze the options ahead of time. For example, in the pelagic fishery, a plan amendment was passed in 1992 that created a longline vessel exclusion zone around the Main Hawaiian Islands. The process to implement Framework Action 1, discussed above, to establish similar closures in American Samoa took just as long as a full plan amendment because no alternatives had been previously analyzed. The WPFMC concluded the only way to save time with framework adjustments is if the scope of the changes are pre-analyzed and narrow enough to avoid the lengthy analysis process. The WPFMC has identified ACL specifications as one area where pre-analysis of a wide-range of potential ACLs could result in significant time saving, especially if the WPFMC needs to decrease an ACL as a result of an overage in a previous year. If the pre-analysis evaluates those lower ACL values and the WPFMC recommends an ACL that falls within the range analyzed, additional analysis would not be necessary, saving several months of work.

In addition to the challenge of possessing data to analyze management options, the WPFMC is challenged by the increasing volume of work to meet NEPA requirements. Due to litigation, the time spent on analysis and review is longer for all council actions

including framework adjustments and regulatory amendments. In light of these challenges, the WPFMC is working on a draft amendment to change its frameworking procedures to be more timely and effective at addressing management issues. Specifically, the draft amendment would establish a consistent framework adjustment process for all fisheries under an FEP, rather than fishery specific procedures as are currently applied. However, because any analysis must be completed using the best available scientific information and in consideration of the current context of the fishery, time savings may not be realized even if management options are pre-analyzed if social, economic or environmental conditions in a fishery changes, which they frequently do, particularly in litigated fisheries.

Caribbean Fishery Management Council

The Caribbean Fishery Management Council (CFMC) has thus far implemented actions described as framework measures via regulatory amendments. While the CFMC believes it possesses the policy tools to manage responsively and adaptively, the major constraint is obtaining timely, adequate data. Framework processes for all the Caribbean fisheries (queen conch, spiny lobster, reef fish, and coral) were recently established in the 2010 and 2011 Comprehensive Annual Catch Limit Amendments. The CFMC completed an Environmental Impact Statement (EIS) when it established the management measures included in the framework process and now conduct Environmental Assessments (EAs) when necessary to implement a regulatory amendment. CFMC's efforts to adopt a place-based management approach by establishing Fishery Ecosystem Plans (FEPs) for each island region will allow for a more targeted framework process in the future.

Application
The time saved implementing regulatory amendments is derived from the procedural requirements being less extensive than for a plan amendment. While the regulatory amendments are not specified as being either "open" or "closed", the majority of the regulatory amendments to date have been akin to the closed version of framework adjustments outlined in the 1997 Operational Guidelines.

The categories of reference points and management measures that can be adjusted by regulatory amendments are the same across each fishery and generally include reference points such as MSY, OY, and catch specifications such as ACLs, ACTs, AMs, ABC control rules, quota requirements, seasonal and area closures, fishing year, trip/bag limit, size limits and gear restrictions. The ability for the CFMC to adjust ACLs and other management measures typically set in the specifications process through regulatory amendments is particularly important because the CFMC established its catch specifications in the FMPs rather than on an annual or biennial basis. These regulatory amendments allow the CFMC flexibility to change management measures and reference points without having to do a FMP amendment or establish a separate specifications process.

Regulatory amendments can be implemented at any time throughout the season. Management measures requiring modification can be identified by CFMC members, CFMC staff, or a third-party stakeholder. In response, the CFMC appoints an assessment group to analyze the condition of the fishery and provide guidance to the CFMC. After the Regional Administrator (RA) reviews the CFMC's recommendations, supporting rationale, and public comment he/she will recommend the Secretary take appropriate regulatory action.

Examples
The CFMC has used regulatory amendments in the past to revise trip limits for queen conch and establish minimum size limits for parrotfish.

- Prior to the implementation of Regulatory Amendment 2 in 2013, the trip limit for queen conch in United States Virgin Island (USVI) territorial waters was 200 queen conch per vessel per day and in federal waters was 150 per vessel per day. In order to facilitate enforcement efforts the amendment revised the commercial trip limit in federal waters to 200 queen conch per vessel per day so that it was compatible with the limit in USVI territorial waters.
- In order to provide protection to maturing parrotfish Regulatory Amendment 4 established minimum size limits for parrotfish for both the commercial and recreational sector in the Exclusive Economic Zone (EEZ) off St. Croix in the U.S. Virgin Islands.

Discussion

The CFMC believes identifying the list of management measures to be adjusted by framework processes has allowed it to be much more responsive. When the CFMC developed the list of management measures to include in the framework provision it strived to identify those that would be most necessary to respond and adapt to in the future. Thus, this list of management measures has helped the CFMC focus on the aspects of the fisheries that are critical for successful management.

The CFMC's main challenge to implementing framework adjustments is obtaining current and sound data to inform the development of these framework actions. The amount of time saved in implementing framework actions is directly linked to the extent the management action has been pre-analyzed. However, when the data is not available to pre-analyze these issues, the time saving function of framework adjustments is lost. While framework actions are important policy tools that allow the CFMC to be adaptive, data limitations in the region significantly constrain the speed of these responses.

Looking into the future, the CFMC's move to establish separate FEPs for each island region is expected to increase its ability to be responsive. By switching to a place-based management system, framework adjustments will no longer have to be applied to the fishery as a whole, but can be individually implemented by area. Fisheries can possess different characteristics between the island regions, which can warrant differing management strategies. With the implementation of the FEPs, the CFMC can create framework adjustments that specifically address the unique characteristics of the fisheries and targeted species in the discrete island regions.

Gulf of Mexico Fishery Management Council

The Gulf of Mexico Fishery Management Council (GMFMC) implements framework actions to adjust management measures not requiring a plan amendment through a generic framework process. Despite the challenge of preparing analysis for framework actions on a shortened time frame and the constraints resulting from data limitations, the GMFMC believes the policy tools are in place to allow it to respond more quickly to the desired management issues. The framework process for the red drum, reef fish, shrimp, and coral FMPs were established to help facilitate the ACL and AM requirements among other management goals, and allow for the modification of ACLs and ACTs, control rules, and additional management measures. The reef fish framework process also allows for modification of AMs. Because the GMFMC and the South Atlantic Fishery Management Council (SAFMC) jointly manage the Spiny Lobster and Coastal Migratory Pelagic (CMP) fisheries, their framework processes were modified through respective FMP amendments to include modification of ACLs and ACTs. Additionally, as explained in the SAFMC profile, further modifications could be made to the CMP framework process pending approval of Amendment 20B.

Application
The GMFMC has transitioned to using the term "framework action" instead of "regulatory amendment" for all of its actions conducted under the framework process. The GMFMC has designed three framework processes which apply to all managed fisheries: closed, open abbreviated, and open standard.

The ***closed framework*** process authorizes the Regional Administrator (RA) to conduct the following actions through notification in the Federal Register: closing or adjusting harvest for any sector of the fishery to prevent exceeding its quota, reopening a fishery that was prematurely closed, and implementing accountability measures, either in-season or post-season.

Actions implemented through the ***open abbreviated*** framework process are those considered routine or having minimal impact, including, but not limited to: reporting and monitoring requirements, permitting requirements, gear marking requirements, vessel marking requirements, and regulation changes that do not exceed certain limits, e.g., size limit changes of not more than 10%. Abbreviated rules are proposed in the form of a letter or memo from the GMFMC to the RA containing the proposed action and appropriate analysis.

Finally, actions implemented through the ***open standard*** framework process are used for any action not considered routine and generally include setting or adjusting of ACLs, ACTs, MSY, OY, and rebuilding plans, and adjustments to previously specified ACLs. The process to implement an open abbreviated or standard action includes two or more GMFMC meetings depending on the issue, opportunity for public comment, and development of supporting documentation. The framework actions usually require an

Environmental Assessment (EA) rather than an Environmental Impact Statement (EIS), and depending on the nature of the issue National Marine Fisheries Service (NMFS) will decide if there is good cause to waive the comment and cooling off period requirements.

The GMFMC sets its initial ACL specifications through a FMP amendment. Subsequent adjustments to the ACLs can be implemented as framework actions. The GMFMC does not have distinct annual or biennial specifications processes, but instead adjusts reference points and catch limits as new information is made available. There is wide variation on how long specifications are set for each fishery. For example, the red snapper quotas have been adjusted twice in 2013, first as a planned increase under the rebuilding plan, and then a second time in response to a new stock assessment that indicated the stock was in better shape than originally projected. Other fisheries' specifications can be set for three to four year periods through a single amendment to coincide with the expected scheduling of the next stock assessment. For rebuilding stocks, this can be as a stream of annual increases, often with a provision that any increase is conditional on the previous year's ACL not being exceeded. For other stocks, the ACL may be a constant yield. Typically, no expiration dates are set for the specifications, and the ACLs for the final year of the yield stream remain in place until new information dictates they should be changed.

Examples

The GMFMC has used the framework process in the past to adjust quotas for red snapper and modify the for-hire vessel permitting process.

- Based on the red snapper update assessment in 2009 and projection updates in 2011 and 2012, the GMFMC determined the red snapper stock was not experiencing overfishing and thus increasing yield projections allowed the ACL quotas to be increased through a framework action in March of 2013. In August, the GMFMC submitted another framework action to increase the quotas again in response to a new stock assessment. As a result of this increase, commercial fishermen will be issued additional Individual Fishing Quota (IFQ) allocation, and the recreational season will reopen for two weeks in October.
- The GMFMC passed an abbreviated framework action which altered how the certificate of inspection is used by for-hire vessels when they apply to transfer or renew a permit. This rule simplified the permitting process while still maintaining for-hire effort control in the reef fish and CMP fisheries.

Discussion

The framework process has provided the GMFMC with increased flexibility and also allowed it to be more responsive to stakeholder concerns and the availability of new information. In the case of red snapper, because the GMFMC can respond to information quickly through framework actions, increases in ACLs are enabling the fishery to be fully utilized. Although the abbreviated rule regarding for-hire permits resulted in a minor adjustment, if the framework action processes were not established, the GMFMC would have had to wait to make the adjustment through a plan amendment.

The GMFMC is also able to rely on the RA and the Interdisciplinary Plan Teams (IPTs) to expedite the framework action process. While not unique to GMFMC, the IPTs are convened for each individual framework action in order to prepare the analysis and necessary documentation. The cooperation and coordination provided by the IPTs also helps to facilitate the framework process. Generally speaking, if the framework processes were not established and the GMFMC was only able to implement plan amendments, not only would the GMFMC's workload increase, but all other actions would slow down as well.

Like all of the southeast region councils, GMFMC has a large number of stocks competing for limited data collection and stock assessment resources. Additionally, while the aim of framework actions is to implement actions quickly, supporting documentation, public comment, and proper notification are still required. With framework actions, the staff still must prepare substantial analysis, but on a shorter time frame. One way managers in the Gulf of Mexico have tried to maximize the effectiveness of the shortened public comment period is by posting notice of actions through popular media sources such as YouTube videos and summary guides to reach interested stakeholders on the GMFMC websites.

South Atlantic Fishery Management Council

The South Atlantic Fishery Management Council (SAFMC) primarily implements regulatory amendments and closed framework actions through the framework processes for its managed fisheries. Currently, the SAFMC's largest challenge to utilizing these mechanisms to the fullest extent is access to timely scientific data provided on a regular schedule as well as NEPA requirements. The framework processes for stocks managed by the SAFMC are established within each FMP, many of which have been updated over time in response to the new ACL requirement. Jointly managed with the Gulf of Mexico Fishery Management Council (GMFMC), the framework process for the coastal migratory pelagic (CMP) fishery is being modified through Amendment 20B to include changes to ABCs, ABC/ACL control rules, and AMs under the standard documentation process for open framework actions.

Application
For the majority of their managed fisheries, the SAFMC utilizes regulatory amendments and closed framework actions to make changes that do not need a full plan amendment. Because the SAFMC sets ACLs in the respective fisheries' FMPs, rather than through an annual or biennial specifications process, regulatory amendments are used to modify catch limits when necessary. ACLs are only modified as new information is made available, thus ACLs remain at their current specified level until changed by a regulatory amendment. Also, for each fishery, authority is granted to the Regional Administrator (RA) to a) adjust quotas once a certain percentage is reached, b) close the fishery once the quota has been reached or is projected to be reached, and c) reopen a fishery once the new fishing year begins. These actions are akin to the closed framework actions described in the 1997 Operational Guidelines. The framework procedures for CMP are reflective of GMFMC's approach, in which regulatory amendments are called "framework actions" but are akin to open framework procedures.

While the actions authorized for regulatory amendments (and open framework actions under CMP) are unique to each fishery, they generally include adjusting biomass levels, age-structured analyses, MSY, ABC, Total Allowable Catch (TAC), ACLs, ACTs, AMs, quotas, trip limits, minimum sizes, gear regulations, permit requirements, and seasonal or area closures, among others. Additional measures authorized for adjustment via regulatory amendments can be outlined within each respective FMP; for example, in the shrimp fishery the SAFMC can adjust a variety of aspects concerning bycatch reduction devices.

The process for implementing regulatory amendments varies slightly depending on the measure being adjusted. For adjustments to ACLs and associated management reference points, the adjustment occurs in response to a new stock assessment moving through the Southeast Data, Assessment, and Review (SEDAR) process. After the Scientific and Statistical Committee (SSC) reviews the SEDAR report, the SAFMC will subsequently develop recommendations for necessary adjustments. Adjustments to other management

measures, such as size limits and trip limits, do not require a SEDAR assessment. Actions taken via regulatory amendments are required to fulfill public comment and notice requirements, though the extent of required comment periods depend on the extent of the action taken.

Examples
Most recently the SAFMC used regulatory amendments to adjust the ACLs for yellowtail snapper and for black sea bass.

- In response to the completion of the yellowtail snapper stock assessment in May 2012, the SAFMC requested that the National Marine Fisheries Service (NMFS) issue a temporary rule to increase the commercial ACL to avoid an in-season closure. Regulatory Amendment 15 made the temporary increase in the ACL permanent until new information indicates it should be changed.
- Regulatory Amendment 19, still under review, is attempting to increase the ACL for black sea bass in response to the SEDAR stock assessment that was completed in 2013.

For the coastal migratory pelagic fishery the SAFMC and GMFMC have devised unique management measures that are administered by the RA through closed framework actions. The Councils have created what they call "step-up" and "step-down" measures which create a system of adjusted quotas. For example, when the fishery reaches a certain percentage of the adjusted quota the RA will implement a "step-down" and the ACL will be decreased, but the fishery will not be shut down. Or alternatively, specifically for the king mackerel fishery on the Florida east coast, if 75% of the quota is not reached by a certain time the regional administrator will "step-up" the trip limit to allow participants to harvest their full quota.

Discussion
Regulatory amendments have allowed the SAFMC to adjust management measures such as bag limits and size limits in a timely manner. However, the SAFMC has found that regulatory amendments to adjust ACLs can take equally as long as a plan amendment given the significant time needed for NEPA analysis and regulatory review. The availability and timeliness of scientific data are limiting factors in SAFMC's ability to evaluate the status of a fishery, anticipate challenges, and forecast appropriate management responses.

While the SAFMC can help prioritize stocks on the schedule to receive SEDAR assessments once they recognize a management issue, limited resources and changing priorities can add additional delays. The SAFMC also lacks access to timely catch data and is unable to monitor all 100 plus managed species in a manner that supports inseason management. When information is available to support adjusting management measures inseason, and the changes are critical to health of the stock or could result in broad social and economic impacts, the SAFMC sometimes requests that NMFS take emergency actions to administer those changes.

To overcome the limitations with implementing regulatory amendments described above, in the snapper/grouper fishery the SAFMC is waiting for approval of an amendment that would expedite the framework process and enable the SAFMC to implement critical changes to management more quickly.

Mid-Atlantic Fishery Management Council

The Mid-Atlantic Fishery Management Council (MAFMC) can use both framework adjustments and regulatory amendments to change management measures within a fishing season. These procedural tools have allowed the MAFMC to be more responsive, though data availability and timing can limit the extent to which these tools can be used to manage on a real-time basis. Each fishery management plan outlines a set of measures that can be modified via framework adjustments; amendments to the FMPs have modified these lists over time.

Application
The MAFMC's framework adjustment process and the specifications process are discrete. Framework adjustments are designed to complement both the amendment and specifications processes. If necessary, specifications that are set for one to three years can be modified in-season with a framework adjustment. However, the timeline for implementing framework adjustments may make it more appropriate to wait for the next round of annual specifications to make any changes.

Alternatively, framework adjustments can also adjust management measures that the specifications process is unable to alter. The MAFMC has primarily implemented framework adjustments that are akin to the closed version of adjustments outlined in the 1997 Operational Guidelines given the frameworks are typically non-discretionary and prescribe a direct course of action. Regulatory amendments are rarely used by the MAFMC and, if so, are usually used to clarify language or adjust minor management measures.

As outlined in current regulations (see references), the actions authorized for frameworking are unique to each fishery. Generally speaking they include measures such as adjustments to ABC control rules and risk policies, overfishing definitions and related thresholds and targets, minimum and maximum size limits, gear restrictions, permitting restrictions, commercial and recreational seasons, commercial trip limits and quota system, description and identification of Essential Fish Habitat (EFH) and Habitat Areas of Particular Concern (HAPCs), and introduction of new AMs.

The process to implement framework adjustments is the same for all fisheries. A management issue requiring a framework adjustment is either recognized by the MAFMC or brought to the MAFMC's attention by staff or stakeholders. The MAFMC develops and analyzes appropriate management actions over the course of at least two council meetings. The MAFMC must provide the public with the opportunity to comment on the proposed framework actions and must provide the public with access to supporting documentation. The length of time the MAFMC needs for analysis and review of framework adjustments depends on the nature of the issue. The MAFMC will then make recommendations to the Regional Administrator (RA) and the National Marine Fisheries Service (NMFS) will determine whether to issue the recommended management

measures as a final rule, a proposed rule, or to notify the MAFMC in writing of non-concurrence.

Examples

Examples of how the MAFMC has used framework adjustments in response to management issues include establishing a discard cap for butterfish, adjusting the ABC risk policy for the Atlantic mackerel, squid, and butterfish fisheries, incorporating flexibility into the flounder, scup and black sea bass fisheries, and extending the moratorium on entry to the *Illex* fishery for an additional five years.

- Framework Adjustment 7 in the Atlantic Mackerel, Squid, and Butterfish FMP approved a measure that gives NMFS the flexibility to shift quota between butterfish landings and the butterfish discard cap on the longfin squid fishery without additional MAFMC action. NMFS will essentially be able to shift quota that was expected to remain unused near the end of each fishing year.
- The risk policy for ABCs originally stated that if no OFL is available or if a proxy is not provided, ABC levels may not be increased above recent catch. In order to allow the Council increased flexibility, Mackerel-Squid-Butterfish Framework Adjustment 6 permitted the Council to adopt an ABC recommended by the SSC that did involve an increase (under accepted protocols) even when no OFL or OFL proxy was available.
- In the summer flounder, scup, and black sea bass fishery the MAFMC originally had to implement a framework adjustment or plan amendment to incorporate new stock status determination criteria, delaying the best available science entering the management process. Framework Adjustment 7 allowed for new stock status determination criteria to be incorporated through the specifications process rather than a framework adjustment or amendment, allowing for a more timely incorporation of scientific information.
- To prevent overcapitalization of the *Illex* squid fishery, the MAFMC issued several framework adjustments (Framework Adjustments 2, 3, and 4) to extend the limited entry (moratorium) program while the MAFMC considered long-term management options. An Amendment made the moratorium permanent.

Discussion

Framework adjustments and regulatory amendments have helped the MAFMC be more responsive, but not necessarily more adaptive. By using the "closed" type framework adjustments the MAFMC can respond to management issues in a more timely fashion because once an issue has been identified, prescribed actions to be taken are outlined and executed relatively quickly (6-12 months). Despite the timelier manner in which framework adjustments can be implemented, the MAFMC is limited to taking actions that are within the existing provisions of the FMP. In addition, the availability of data to dictate management actions challenges the MAFMC's ability to forecast and plan for upcoming management issues. While the procedural tools may be in place to manage more adaptively, the science is often not available quickly enough for real-time adaptive management decisions to be made.

One tool the MAFMC is using to manage more adaptively is the use of Fishery Performance Reports. Before the annual specifications process, the advisory panel convenes groups of fishermen, industry representatives, environmental non-governmental organizations (ENGOs), and other interested parties to discuss issues that have arisen over the last fishing season. The MAFMC staff conducts both qualitative and quantitative assessments of management successes and challenges, which feed into the Fishery Performance Report. This report allows the Advisory Panel, prior to the start of the specifications process, to identify issues that may arise during the fishing season. Informed of emerging issues in the fishery, the MAFMC then has the opportunity to be more proactive rather than reactive.

Looking ahead, there is acknowledgment that climate change will bring additional challenges and require more flexible and responsive management. Specifically, species shifts will cause councils to rethink allocations and councils will have to work to determine whether there has been a change in the abundance and productivity of species. These and other emerging challenges may prompt the council to reconsider their use of these mechanisms and whether they provide sufficient tools for responding to these challenges.

New England Fishery Management Council

The New England Fishery Management Council (NEFMC) uses framework adjustments to set and change management measures and reference points throughout the fishing season. The framework process is quicker than the normal full FMP amendment process; however, the time required still constrains the responsiveness of these actions. The framework processes for stocks managed by the NEFMC are established in the original FMPs for the Atlantic herring, red crab, skate, and northeast multispecies fisheries, but have been modified in the scallop fishery by Amendment 7 and in the monkfish fishery by Amendment 2.

Application
The NEFMC has used framework adjustments extensively to change management measures and reference points, and to set and adjust specifications in each of its respective fisheries. The process to implement a framework adjustment is the same for all fisheries. A management issue requiring a framework adjustment is either recognized by the NEFMC or brought to the NEFMC's attention by staff or stakeholder. The NEFMC develops and analyzes appropriate management actions over the course of two to three council meetings and must provide the public with the opportunity to comment on the proposed framework actions and access to supporting documentation. The NEFMC will then make recommendations to the Regional Administrator (RA) and the National Marine Fisheries Service (NMFS) to implement the appropriate actions. Previously, the NEFMC was able to meet the Administrative Procedure Act (APA) requirements for public notice and comment over the span of two to three council meetings and request that NMFS waive the proposed rule and publish the action only as a final rule. The Council may still request that NMFS move directly to final rulemaking; however, due to a recent Court ruling, the standard for waiving notice and comment rulemaking (i.e., a proposed rule) has been tightened such that NMFS is required to prepare and publish a proposed rule for most NEFMC framework actions.

In New England, regulatory amendments are actions implemented by NMFS outside the NEFMC process. Regulatory amendments are used to adjust regulations and do not change the underlying FMP. To implement a regulatory amendment NFMS prepares the analytical documents and completes the full rulemaking process. .

Finally, the RA is authorized in the respective fishery's regulations to take specific inseason actions, which are akin to the closed frameworks outlined in the 1997 Operational Guidelines. These inseason actions are an important element of NEFMC's management approach, allowing for swift management response to issues that have been pre-analyzed. Inseason actions generally include reducing possession limits, implementing area closures, and closing or reopening a fishery, in response to established management thresholds. For example, in the small-mesh multispecies fishery if the RA projects that 90 percent of a stock area's total allowable landings (TAL) have been landed, he/she can reduce the possession limit of that stock to incidental levels.

As outlined in the FMPs and regulations the actions authorized for frameworking are unique to each fishery, but generally include setting or adjusting specifications including ACLs, ACTs, ABCs, and AMs, and adjusting possession limits, gear requirements, minimum and maximum size limits, description and identification of Essential Fish Habitat (EFH), closed areas, and permitting and reporting requirements.

There is no uniform specifications process for establishing catch limits for NEFMC fisheries. Generally, each fishery sets reference points and catch limits every one to three years. In the interim years the plan development teams (PDTs) conduct an annual review to determine whether the specifications should be modified through a framework adjustment. Specifications are set either through a discrete specifications process outlined in the respective FMP or through a framework adjustment; the content of the documents used to support these two approaches are consistent. For fisheries with a discrete specifications process, the NEFMC may choose to implement a framework action to allow for incorporation of additional management measures while specifying catch limits.

Examples
In addition to setting specifications through framework adjustments, the NEFMC has used framework adjustments to modify the possession limits for the skate fishery and establish a multi-year review and specifications process for the red crab fishery.

- Regulations implementing Amendment 3 to the skate fishery established a possession limit of 5,000 lb of skate wings per trip and an AM that would reduce the possession limit to 500 lb if 80 percent of the TAL is reached. In 2010 the TAL limit was reached in September and thus the 500 lb possession limit remained in place until the end of the fishing season on April 30, 2011. Framework adjustment 1 decreased the possession limit in order to slow the landings of skate and ensure a more steady market supply throughout the fishing season.
- The original red crab FMP established in 2002 required the NEFMC to conduct an annual review of the fishery and also prepare a biennial Stock Assessment and Fishery Evaluation (SAFE) report. In order to lessen the administrative burden and more effectively manage the fishery, the NEFMC implemented Framework Action 1 which required specifications be set for up to a 3-year time frame.

Discussion
Given that framework actions amend measures already established within the FMP, the scope of these actions are narrower and more focused than FMP amendments. This narrow focus results in a similarly narrow range of alternatives, thus lessening the time for analysis and resulting in faster implementation of the action. Additionally, the public comment requirements under the MSA are reduced for framework actions, which presents additional time savings. Despite the potential for moving framework actions through the process quickly, it is challenging to design these narrowly focused actions

without pulling in additional issues and in reality framework actions typically take up to one year to implement.

To date the NEFMC has requested emergency actions as a way to implement critical actions much more quickly than would otherwise be possible through the amendment or framework processes. The emergency action process typically takes about two to three months and can be implemented as long as the information that prompted the action is unanticipated and all the other requirements for an emergency action by the Secretary are satisfied. Although emergency rules are not designed to be used as standard operating procedures the NEFMC has used them to increase quotas or possession limits for skates, and groundfish in order to manage these fisheries based on the most recent data.

Looking forward the NEFMC is working to plan ahead and develop management alternatives in anticipation of future changes. For example, the small mesh multispecies fishery currently utilizes an annual quota system, but there is concern the quota will be reached early in the season should effort increase substantially in the fishery. In anticipation of this occurrence, the NEFMC developed a quarterly quota system as one of the alternatives in the FMP that can be triggered if landings exceed a certain percentage during a fishing year. The season would be divided into quarters and once the quota had been reached for that specific quarter it would be decreased to incidental levels thus ensuring there was quota available for the directed fishery for at least part of each quarter for the year. The NEFMC sees planning these alternative management strategies as a key mechanism for managing its fisheries more responsively.

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Personal Communications

The Fisheries Leadership & Sustainability Forum acknowledges and appreciates the time and contributions provided by council and NMFS staff in all eight regional fishery management council regions.

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3. PFMC. 2011. Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species as Amended through Amendment 2. Portland, OR: Pacific Fishery Management Council. July 2011

4. PFMC. 2011. Coastal Pelagic Species Fishery Management Plan as Amended through Amendment 13. Portland, OR: Pacific Fishery Management Council. September 2011.
5. PFMC. 2012. Regulatory Amendment for Highly Migratory Species Fisheries: Swordfish Retention Limits. Portland, OR: Pacific Fishery Management Council. March 2012.

Western Pacific Fishery Management Council

1. WPFMC. 2010. Final Rule; Regulatory Restructuring. Honolulu, HI: Western Pacific Fisheries Management Council. February 2010.
2. WPFMC. 2006. Regulatory Amendment 5 to the Pelagics Fishery Management Plan. Honolulu, HI: Western Pacific Fishery Management Council. January 2006.
3. WPFMC. 2002. Framework Action 1 for the Pelagics Fishery Management Plan. Honolulu, HI: Western Pacific Fishery Management Council. March 2002.
4. WPFMC. 2012. Regulatory Amendment to the Pelagics Fishery Management Plan. Honolulu, HI: Western Pacific Fishery Management Council. June 2012.
5. WPFMC. 1992. Amendment 5 to the Pelagics Fishery Management Plan. Honolulu, HI: Western Pacific Fishery management Council. March 1992.

Gulf of Mexico Fishery Management Council

1. GMFMC. 2011. Final Generic Annual Catch Limits/Accountability Measures Amendment for the Gulf of Mexico Fishery Management Council's Red Drum, Reef Fish, Shrimp, Coral and Coral Reefs, Fishery Management Plans. Includes Environmental Impact Statement, Regulatory Impact Review, Regulatory Flexibility Analysis and Fishery Management Plans. Tampa, FL: Gulf of Mexico Fishery Management Council. September 2011.
2. GMFMC in cooperation with SAFMC. 2011. Final Amendment 10 to the Fishery Management Plan for Spiny Lobster in the Gulf of Mexico and South Atlantic. Includes Final Environmental Impact Statement, Regulatory Impact review and Regulatory Flexibility Act Analysis. Tampa, FL: Gulf of Mexico Fishery Management Council. August 2011.
3. GMFMC in cooperation with SAFMC and MAFMC. 2011. Final Amendment 18 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region. Includes Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis. Tampa, FL: Gulf of Mexico Fishery Management Council. September 2011.
4. GMFMC. 2012. Final Amendment 38 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico. Includes Environmental Assessment, Fishery Impact Statement, Regulatory Impact Review, and Regulatory Flexibility Act Analysis. Tampa, FL: Gulf of Mexico Fishery Management Council. September 2012.

5. GMFMC. 2012. Framework Action to set the 2013 Gag and Recreational Fishing Season & Bag Limit & Modify the February-March Shallow-Water Grouper Closed Season. Includes Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis. Tampa, FL: Gulf of Mexico Fishery Management Council. December 2012.
6. GMFMC. 2013. Abbreviated Rule to the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico. Tampa, FL: Gulf of Mexico Fishery Management Council. August 2013.

Caribbean Fishery Management Council

1. CFMC. 2011. 2010 Caribbean Annual Catch Limit (ACL) Amendment. San Juan, PR: Caribbean Fishery Management Council. December 2011.
2. CFMC. 2011. Comprehensive Annual Catch Limit (ACL) Amendment for the U.S. Caribbean. Includes Final Environmental Impact Statement, Biological Assessment, Regulatory Impact Review, Initial Regulatory Flexibility Analysis and Social Impact Assessment. San Juan, PR: Caribbean Fishery Management Council. October 2011.
3. CFMC. 2011. Amendment 2 to the Fishery Management Plan for the Queen Conch Fishery of Puerto Rico and the U.S. Virgin Islands. Includes Final Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis. San Juan, PR: Caribbean Fishery Management Council. September 2011.
4. CFMC. 2013. Regulatory Amendment 4 to the Fishery Management Plan for the Reef Fish Fishery or Puerto Rico and the U.S. Virgin Islands, Parrotfish Minimum Size Limits. Includes Environmental Assessment, Fishery Impact Statement, Regulatory Impact Review, and Regulatory Flexibility Act Analysis. San Juan, PR: Caribbean Fishery Management Council. February 2013.

Mid-Atlantic Fishery Management Council

1. MAFMC. Framework Adjustment 2 to the Atlantic Herring Fishery Management Plan. Dover, DE: Mid-Atlantic Fishery Management Council. October 2013.
2. MAFMC. 2002. Framework Adjustment 2 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Dover, DE: Mid-Atlantic Fishery Management Council. July 2002.
3. MAFMC. 2003. Framework Adjustment 3 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Dover, DE: Mid-Atlantic Fishery Management Council. May 2003.
4. MAFMC. 2004. Framework Adjustment 4 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Dover, DE: Mid-Atlantic Fishery Management Council. June 2004.
5. MAFMC. 2012. Framework Adjustment 6 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Supplemental Environmental Assessment,

Regulatory Impact Review, and Initial Regulatory Flexibility Analysis. Dover, DE: Mid-Atlantic Fishery Management Council. May 2012.
6. MAFMC. 2013. Framework Adjustment 7 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Dover, DE: Mid-Atlantic Fishery Management Council. March 2013.
7. MAFMC. 2007. Framework Adjustment 7 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan. Includes Regulatory Impact Review and Initial Regulatory Flexibility Analysis. Dover, DE: Mid-Atlantic Fishery Management Council. June 2007.

South Atlantic Fishery Management Council

1. SAFMC in cooperation with NEFMC and MAFMC. 2003. Fishery Management Plan for the Dolphin and Wahoo Fishery of the Atlantic Including a Final Environmental Impact Statement, Regulatory Impact Review, Initial Regulatory Flexibility Analysis, and Social Impact Assessment/Fishery Impact Statement. Charleston, SC: South Atlantic Fishery Management Council. January 2003.
2. SAFMC. Final Fishery Management Plan, Including Regulatory Impact Review, Environmental Assessment, and Social Impact Assessment for the Golden Crab Fishery of the South Atlantic Region. Charleston, SC: South Atlantic Fishery Management Council. December 1995.
3. SAFMC in cooperation with GMFMC and MAFMC. Final Amendment 18 to the Fishery Management plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region, Including Environmental Assessment, Regulatory Impact review, and Regulatory Flexibility Act Analysis. North Charleston, SC: South Atlantic Fishery Management Council. September 2011.
4. SAFMC. 2010. Amendment 17B to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. North Charleston, SC: South Atlantic Fishery Management Council. January 2011.
5. SAFMC. 1996. Final Amendment 2 (Bycatch Reduction) to the Fishery Management Plan for the Shrimp Fishery of the South Atlantic Region. Includes a Final Supplemental Environmental Impact Statement, Regulatory Impact Review, and Social Impact Assessment. Charleston, SC: South Atlantic Fishery Management Council. April 1996.
6. SAFMC. 2013. Regulatory Amendment 15 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region – Yellowtail Snapper and Shallow Water Groupers. Includes Environmental Assessment, Regulatory Impact Review and Regulatory Flexibility Act Analysis. North Charleston, SC: South Atlantic Fishery Management Council. March 2013.
7. SAFMC. Regulatory Amendment 19 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. Increases to Black Sea Bass Annual Catch Limits and a Seasonal Closure of the Pot Sector. Includes an Environmental Assessment. North Charleston, SC: South Atlantic Fishery Management Council. May 22, 2013.

New England Fishery Management Council

1. NEFMC. 1999. Final Atlantic Herring Fishery Management Plan incorporating the Environmental Impact Statement and Regulatory Impact Review Including the Regulatory Flexibility Analysis. Saugus, MA: New England Fishery Management Council. March 8, 1999.
2. NEFMC. 2002. Fishery Management Plan for Deep-Sea Red Crab. Includes an Environmental Impact Statement, an Initial Regulatory Flexibility Act Analysis, and a Regulatory Impact Review. Saugus, MA: New England Fishery Management Council. March 2002.
3. NEFMC. 2003. Northeast Skate Complex Fishery Management Plan. Saugus, MA: New England Fishery Management Council. September 2003.
4. NEFMC in cooperation with MAFMC. 1985. Fishery Management Plan, Environmental Impact Statement, Regulatory Impact Review and Initial Regulatory Flexibility Analysis for the Northeast Multi-species Fishery. Saugus, MA: New England Fishery Management Council. August 1985.
5. NEFMC. 1998. Amendment 7. Atlantic Sea Scallop Fishery Management Plan, including a final Supplemental Environmental Impact Statement and a Regulatory Impact Review and Regulatory Flexibility Analysis. Saugus, MA: New England Fishery Management Council. October 1998.
6. NEFMC. 2005. Amendment 2 to the Monkfish Fishery Management Plan. Saugus, MA: New England Fishery Management Council. April 2005.
7. NEFMC. 2013. NE Multispecies assessment, framework procedures and specifications, and flexible area action system. 78 FR 53368 in §648.90. Saugus, MA: New England Fishery Management Council. August 2013.
8. NEFMC. 2011. Framework Adjustment 1 to the Fishery Management Plan for the Northeast Skate Complex. Includes an Environmental Assessment and an Initial Regulatory Flexibility Analysis. Saugus, MA: New England Fishery Management council. March 23, 2011.
9. NEFMC. 2005. Framework Adjustment 1 to the Atlantic Deep-Sea Red Crab Fishery Management Plan. Including the Environmental Assessment, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis. Saugus, MA: New England Fishery Management Council. February 18, 2005.