New England Fishery Management Council
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FINAL MEETING SUMMARY

Risk Policy Working Group

Hampton Inn, Warwick RI

July 29, 2014

The Risk Policy Working Group (RPWG) met on July 29, 2014 in Warwick, RI to: continue the development of a risk policy to serve as guidance for ABC (acceptable biological catch) control rules for New England Fishery Management Council-managed species; discuss issues related to the development of the New England Council's risk policy; and discuss the timeline for developing and applying a risk policy.

MEETING ATTENDANCE: Mary Beth Tooley (Chairman), Lori Steele, Demet Haksever (NEFMC staff); Sarah Heil (NMFS GARFO staff); Jon Deroba (NEFSC); Mike Sissenwine, Matt McKenzie (NEFMC); Steve Cadrin, Jason McNamee, Dan Georgianna, Patricia Pinto da Silva (SSC) (Pierce, Kelly absent)

AUDIENCE: Erika Fuller (EarthJustice)

KEY OUTCOMES:

- The RPWG reached consensus regarding the ***Draft Risk Policy Statement*** that it will forward to the Council's Scientific and Statistical Committee (SSC) for comment in August and to the Council for review/approval at its September 30-October 2, 2014 meeting.

A more detailed summary of the April 21, 2014 RWPG meeting is provided below.

DRAFT RISK POLICY STATEMENT

The Risk Policy Working Group spent much of the meeting discussing, developing, and editing the ***Draft Risk Policy Statement***, which was generated from a strawman provided by Dr. Sissenwine after the April 21, 2014 meeting, and edited by various working group members through email prior to this meeting (see Attachment). The working group discussed each sentence/point in detail to ensure that consensus regarding the specific language was reached. The group also discussed several issues/concerns raised by Dr. Pierce in an email prior to the meeting and agreed to address these concerns to the extent possible during the discussion (Dr. Pierce was unable to attend this meeting). Through this process, the RPWG did reach consensus regarding the language in the Draft Risk Policy Statement (revised language provided at the end of this summary). This language will be reflected in the RPWG Report to the SSC in August 2014 and to the New England Council in September 2014.

The RPWG also discussed the strategy for presenting the ***Draft Risk Policy Statement*** to the SSC and identified the kind of feedback it desires from the SSC at this time. Several important points were raised and discussed during the working group meeting:

- The RPWG agreed that the term ***net benefits to the Nation*** is interpreted broadly and inclusive of benefits not only to the target species/fishery in question, but also to bycatch species, habitat, and other benefits that may accrue from preventing overfishing. This interpretation is consistent with the Magnuson-Stevens Act (MSA) application of the term ***net benefits***:

  Optimum yield is defined in the MSA as *the amount of fish which will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems.* This implies that there is value associated not only with how much fish may be caught, but also what happens to the fish and how the fish are utilized. Therefore, if outcomes are evaluated by yield only, then the risks associated with the greatest overall benefits to the Nation may not have been fully considered.

  During the meeting, Ms. Fuller provided the RPWG with language from the National Standard 9 (bycatch) Guidelines that describes net benefits to the Nation: *include, but are not limited to: Negative impacts on affected stocks; incomes accruing to participants in directed fisheries in both the short and long term; incomes accruing to participants in fisheries that target the bycatch species; environmental consequences; non-market values of bycatch species, which include non-consumptive uses of bycatch species and existence values, as well as recreational values; and impacts on other marine organisms* (50 CFR Section 600.350(d)).

  Follow-up: Text from National Standard 1 Guidelines (prevent overfishing, achieve OY) provided below

  Determining the greatest benefit to the Nation. In determining the greatest benefit to the Nation, the values that should be weighed and receive serious attention when considering the economic, social, or ecological factors used in reducing MSY to obtain OY are:

  (A) The benefits of food production are derived from providing seafood to consumers; maintaining an economically viable fishery together with its attendant contributions to the national, regional, and local economies; and utilizing the capacity of the Nation's fishery resources to meet nutritional needs.

  (B) The benefits of recreational opportunities reflect the quality of both the recreational fishing experience and non-consumptive fishery uses such as ecotourism, fish watching, and recreational diving. Benefits also include the contribution of recreational fishing to the national, regional, and local economies and food supplies.

  (C) The benefits of protection afforded to marine ecosystems are those resulting from maintaining viable populations (including those of unexploited species), maintaining adequate forage for all components of the ecosystem, maintaining evolutionary and ecological processes (e.g., disturbance regimes, hydrological processes, nutrient cycles), maintaining the evolutionary potential of species and ecosystems, and accommodating human use.

- The RPWG discussed the concept of ***stability*** as it relates to developing a risk policy and addressing uncertainty/variability. Without explicitly identifying stability as an FMP objective in the Risk Policy Statement, the working group recognized that the issue of stability cannot be decoupled from considerations of risk and uncertainty. The strategic approach proposed in the ***Draft Risk Policy Statement*** requires that harvest control rules (HCRs) and management procedures consider stability in the face of uncertain information and variability within fisheries systems. The working group agreed that stability should be addressed as part of the strategic objectives of the risk policy, i.e., when developing rules to address risk and uncertainty, build on real signals and do not exacerbate noise. The management system should be structured to become more robust to uncertainty. Stability should be considered in terms of both the human aspects and the marine resources/ecosystem.
- ***Management strategy evaluation*** (MSE) was discussed by the RPWG as a desirable method to formally evaluate HCRs and management procedures, if/when resources may allow. Generally, MSE is a formally-accepted procedure to provide management advice (ex., ABC) where the inputs and methods are pre-specified. All of the baseline work for MSE is done through collaboration with stakeholders, thereby increasing the potential for buy-in at the outcome. While the initial development may be lengthy, once constructed, MSE can essentially run on "autopilot," and flexibility can be incorporated into the process for future review/adjustments. The RPWG again recognized the importance of MSE and noted that MSE can be an important factor for evaluating the performance of a risk policy.

The RPWG agreed that feedback should be solicited from the SSC regarding the broad policy objectives included in the ***Draft Risk Policy Statement***. Recognizing that the Risk Policy Statement is not intended to be highly technical at this time, the RPWG is interested in feedback and clarification from the SSC regarding any concerns, missing elements, and/or inconsistencies in the Draft Risk Policy Statement. The working group is also interested in some preliminary feedback from the SSC regarding the application of the Risk Policy Statement across the Council-managed FMPs, i.e., what the technical requirements may be to ensure that FMPs are consistent with the policy. The strategy for applying the risk policy will be developed next and will be more technical and specific.

Towards this next step, the RPWG briefly discussed the elements of a matrix/outline that will summarize baseline conditions associated with ABC CRs, HCRs, and risk tolerance for each FMP stock managed by the New England Council. The matrix (work in progress) will provide information to help the working group determine if/how the FMP is consistent with the risk policy and whether modifications to HCRs or ABC control rules should be considered. This will form the basis of the strategy developed to address risk under each FMP. The RPWG agreed that providing information related to the following fields may also be helpful:

- Recent performance of the HCR (against overfishing/overfished)
- Is the stock in a rebuilding plan?
- Data re. revenues, jobs, employment
- % food, % recreational opportunities
- Major sources of uncertainty

- Interactions/linkages with other fisheries/stocks
- Available metrics for evaluating risk

The matrix of baseline conditions will be further developed by Council staff and GARFO staff for a future RPWG meeting.

The RPWG will follow-up from the August 2014 SSC meeting with a conference call prior to the September 2014 Council meeting. Once the Draft Risk Policy Statement is reviewed/approved by the Council at the September meeting, the RPWG will schedule another meeting prior to the November 2014 Council meeting to continue its work towards the next steps, i.e., applying the Risk Policy Statement across the NE Council-managed FMPs.

RPWG CONSENSUS
REVISED RISK POLICY STATEMENT (DRAFT)

Recognizing that all fishery management is based on uncertain information and that all implementation is imperfect, it is the policy of the New England Fishery Management Council (Council) to weigh the risk of overfishing relative to the greatest expected overall net benefits to the Nation.

The purpose of the risk policy is to:

1. Provide guidance to the Council and its subordinate bodies on taking account of risk and uncertainty in Fishery Management Plans and specification-setting

2. Communicate the priorities and preferences of the Council regarding risk and uncertainty to NOAA Fisheries

3. Make fishery management more transparent, understandable, and predictable while better achieving FMP objectives in the face of uncertain information and imperfect implementation.

This risk policy will be supported by the following strategic approaches:

1. The Council's risk policy will take account of both the probability of an undesirable outcome and the negative impact of the outcome. The probability of outcomes that have a long-term negative impact on ecosystem function should be low.

2. The cumulative effects of addressing risk at all levels of the fishery management process (i.e., estimation of OFL, ABC, ACL, ACT, and setting accountability measures) will be taken into account.

3. Harvest control rules and management procedures will consider stability in the face of uncertain information and inherent variability in ecosystems.

4. Implementation of the policy will be analysis-based, using methods commensurate with the importance of tradeoffs between conservation, ecosystem roles, and fishery benefits, as well as the tradeoffs between short-term and long-term benefits. The goal, recognizing that resources are limited, should be harvest control rules and management procedures that are formally evaluated in the context of uncertainty and designed to extract signal from noise. This goal should allow for a dynamic process of implementation and review, and modification when warranted.

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Draft Risk Policy

Recognizing that all fishery management is based on uncertain information and that all implementation is imperfect, it is the policy of the New England Fishery Management Council (NEFMC) to balance the expected conservation benefits of being precautious in all aspects of fishery management with potential forgone fishery benefits.

The purpose of the risk policy is to:

1. Maximize (*Or Optimize*?) the ***expected value of*** overall net benefits to the Nation of the fisheries under the jurisdiction of the NEFMC.

2. Make fishery management more transparent, understandable and predictable while better achieving FMP objectives (e.g., improved stability) in the face of uncertain information and imperfect implementation.

3. Provide guidance on specification-setting with regards to incorporating risk tolerance and uncertainty to subordinate bodies of the NEFMC (e.g., the Scientific and Statistical Committee, Fishery Management Plan (FMP) Committees, Plan Development Teams, Advisory Panels).

4. Indicate and clarify the intentions of the NEFMC with respect to the National Marine Fisheries Service's implementation of each FMP.

Comment [LLS1]: Two options suggested by Mike S and Jon D:

…to balance the expected conservation benefits of being precautious in all aspects of fishery management with potential forgone fishery benefits.

Or…

… to weigh the expected conservation benefits of being precautious (e.g., reducing catch levels) against potential forgone fishery benefits.

Comment [LLS2]: See Jason M's comments. RPWG should discuss and reach agreement on using Maximize vs. Optimize

Jason M - Maximize gives the connotation that we might be looking to always extract as much as possible to achieve the highest monetary benefit, while optimize feeds back better to the idea of weighing multiple needs as noted in the intro paragraph

Comment [LLS3]: Language "expected value of" suggested by Demet-

Although this introduces more technicality, including the term 'expected value" would be one way to incorporate the consideration of risk/uncertainty. If the word 'optimize' is used, perhaps sentence should be clarified as ; optimize…benefits …while taking into account the trade-offs between the competing fishery goals.

Comment [LLS4]: Edited in response to Jon Deroba's comments/edits re. identifying stability as an objective for all fisheries
-See Mike S. original language and email comments re. stability

RPWG should discuss and reach agreement.

Comment [LLS5]: This purpose may need further discussion/clarification by RPWG

This risk policy will be supported by the following strategic approaches:

1. The NEFMC's tolerance for risk will take account of both the probability of an undesirable outcome and the negative impact of the outcome. The probability of outcomes that have a long term negative impact on the production potential of a fishery resource or the potential productivity of an ecosystem should be low for each management action.

2. The cumulative implications of uncertainty and associated precaution at all levels of the fishery management process (i.e., estimation of OFL, ABC, ACL, ACT, and setting accountability measures) will be taken into account using the best available information.

3. Harvest control rules and management procedures will be designed with a view toward better achieving fishery objectives in the face of uncertain information, uncertain management outcomes, and inherent variability in ecosystems.

4. Implementation of the policy will be analysis-based, using methods commensurate with the importance of tradeoffs between conservation, ecosystem roles, and fishery benefits, as well as the tradeoffs between short-term and long-term benefits.

   The goal, recognizing that its attainment will be resource limited, should be harvest control rules and management procedures that are based on management strategy evaluation, thereby allowing for a dynamic process of implementation, review, and modification when warranted.

~~Discussion~~

~~This section should describe the strategic approach, particularly number 3 and 4.~~

Comment [LLS6]: Maintained Mike S's original intent with some minor edits, as suggested. RPWG should discuss and reach agreement

Comment [LLS7]: Edited based on Moira's comments.

Comment [LLS8]: Edited – language should be consistent with #2 above re. fishery objectives and stability. Added "uncertain management outcomes" from Jason M's suggestions

Comment [LLS9]: Language suggested by Demet as a way to explicitly characterize the long-term costs of short-term policies.

Comment [LLS10]: Language at the end of this sentence added based on Jason M's suggestions.

Lori S – concerned about stating that management procedures should be based on MSE as a goal of the risk policy, even though it states that the attainment will be resource limited.

Demet - Although MSE is a very useful tool, there are other methods that could be considered in the future, such as optimal control techniques (another resource limited approach). Perhaps the statement should be modified as ' that may be based on MSE or other techniques' in order not to limit the choice of method as a goal of the risk policy.

Comment [LLS11]: The policy statement should stand-alone. The strategy and next steps will be discussed and addressed in the RPWG Report to the Council (September/November 2014).

Risk Policy

Recognizing that all fishery management is based on uncertain information and that all implementation is imperfect, it is the policy of the New England Fishery Management Council (NEFSC) to balance the expected conservation benefits of being precautious in all aspects of fishery management with potential forgone fishery benefits.

The purpose of the policy is to:

1. Maximize the overall benefits to the Nation of the fisheries under the jurisdiction of the NEFMC.

2. Make fishery management more transparent, understandable and predictable and make fisheries more stable in the face of uncertain information and imperfect implementation.

3. Provide guidance to subordinate bodies of the NEFMC (e.g., the Scientific and Statistical Committee, Fishery Management Plan (FMP) Committees, Plan Development Teams, Advisory Panels).

4. Indicate the intentions of the NEFMC with respect to the National Marine Fisheries Service's implementation of FMP.

This policy will be supported by the following strategic approaches:

1. The NEFMC's tolerance for risk will take account of both the probability of an undesirable outcome and the negative impact of the outcome. The probability should be low for outcomes that have a long term negative impact on the production potential of a fishery resource or functionality of an ecosystem.

2. The cumulative implications of uncertainty and associated precaution at all levels of the fishery management process (e.g., estimation of OFL, ABC, ACL, ACT, accountability measures, implementation imperfections) will be taken into account.

3. Harvest control rules and management procedures will be designed with a view toward stabilizing fisheries in the face of uncertain information and inherent variability in ecosystems.

4. Implementation of the policy will be analysis based using methods commensurate with the importance of tradeoffs between conservation and fishery benefits. The goal, recognizing that its attainment will be resource limited, should be harvest control rules and management procedures that are based on management strategy evaluation.

Discussion

This section should describe the strategic approach, particularly number 3 and 4.