New England Fishery Management Council
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Daniel Salerno, *Chair* | Cate O'Keefe, PhD, *Executive Director*

MEETING SUMMARY

Risk Policy Working Group

March 9, 2026

11:00 a.m. Webinar

The New England Fishery Management Council's (NEFMC) Risk Policy Working Group (RPWG) met by webinar on March 9, 2026 to: 1) review input and recommendations from technical sub-group on mechanics of the Risk Policy; 2) review input on and guidance documents for Risk Policy factors and data scoring; 3) recommend further refinements to Risk Policy Concept, including the mechanics of the Risk Policy and application of the Risk Policy by Plan Development Teams (PDT) and the Scientific and Statistical Committee (SSC); and 4) discuss other business.

MEETING ATTENDANCE

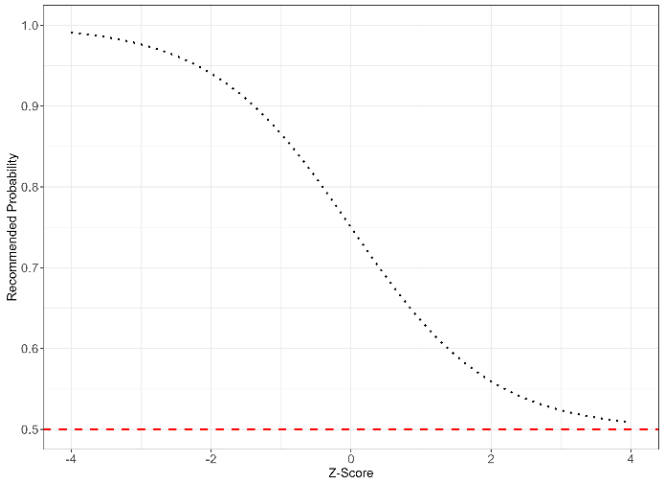
Megan Ware (Chair), Dan Salerno (Vice-Chair), Jonathon Peros (Council Staff), Dr. Jason McNamee, Dr. Jonaton Deroba, Dr. Naresh Pradhan (Council Staff), Mitch McDonald (NOAA General Counsel), Dr. Lisa Kerr, Melanie Griffin, Moira Kelly, Geoff Smith, Bill Lucey, Dr. Kevin St. Martin, Dr. Gareth Lawson, Dr. Joe Caracappa. Dr. Cate O'Keefe (Executive Director), Dr. Roger Brothers from the University of Maine, along with several Council members and Council staff joined the webinar.

Materials for the meeting can be found at this link.

KEY OUTCOMES

- The working group recommended:
    - Mechanics (Figure 1):
        - Adopting an inverted S-shaped curve constrained between 0.5 and 1
        - Inverting rubric scores for each factor to better align with intuitive communication
    - SSC Use:
        - Proposing straw person approaches #3 through #5 at the upcoming SSC meeting to seek input from SSC members on how they would like to interact with the Risk Policy
        - Seeking feedback from the SSC regarding the incorporation of data updates into Risk Policy versus harvest control rules

    - Factor Scoring and Data:
        - Scoring the Climate Vulnerability factor at a species level baseline but allow for stock-level scoring with strong supporting literature and justification
        - Developing questions around quota utilization and keeping the PSE and uncertainty attribute at a higher level to support characterizing the Recreational Fishery Characterization factor
- The working group will draft a Risk Policy Catalog that includes:
    - Decisions and rationale for the recommended factors and the factors that will need additional development beyond the June target date
    - Data needs for future iterations and evolutions of the risk policy
    - Identification of additional attributes such as participation, engagement, and choke stocks dynamics for further development of the Recreational Fishery Characterization factor
- A meeting with working group members will be held prior to the April Council meeting to finalize questions for the Commercial Fishery Characterization factor.



	Lower Risk Tolerance						Higher Risk Tolerance		
FACTOR	-4	-3	-2	-1	0	1	2	3	4
SSB / Stock Status	Below threshold		<75% but above Threshold		Neutral		Rebuilt		Well Above Target
Recruitment	Persistent Low Recruitment		Recent Low Recruitment		Average, No Trend		Recent Large Year Classes		Multiple Large Year Classes
Climate Vulnerability	High Negative Direction	High	Moderate, Negative Direction	Moderate	Low				
Commercial Fishery Characterization					Minimal stress	Low stress	Moderate stress	Elevated stress	High stress
Recreational Fishery Characterization					Minimal stress	Low stress	Moderate stress	Elevated stress	High stress

Figure 1. Recommended inverted S-shape logistic curve and scoring rubric

The meeting began at 11:00 a.m.

WELCOME AND INTRODUCTIONS

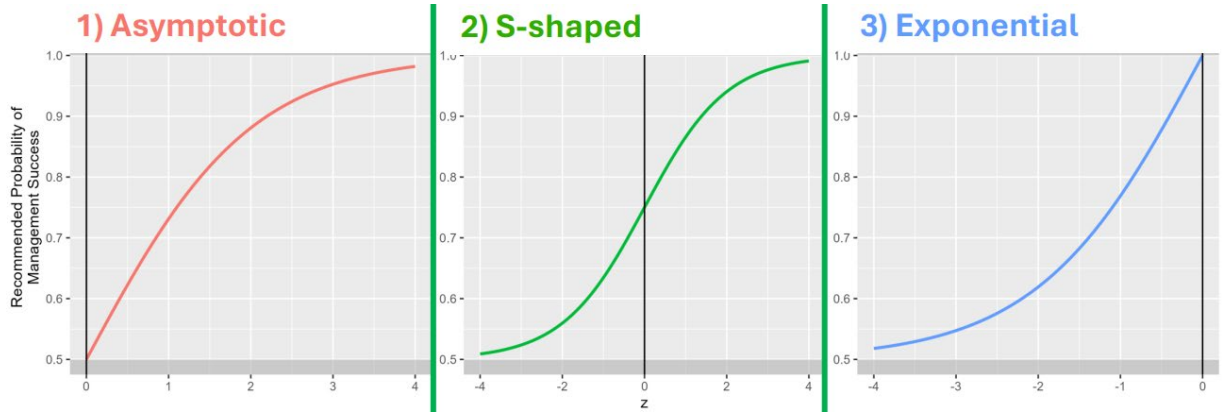
Mr. Peros opened the meeting with a roll call and Ms. Ware provided an overview of the agenda and logistics for the meeting.

RISK POLICY MECHANICS, R. BROTHERS

Dr. Brothers presented the subgroup's recommendations to change the risk policy curve shape to an S-shaped logistic curve and invert the scoring rubric directionality to better align management dynamics and intuitive communication of the Risk Policy.

The technical implementation subgroup discussed three types of curves: the current asymptotic curve, an S-shape curve constrained to probabilities between 0.5 and 1 (hereafter "S-shape curve), and an exponential segment. The current curve uses the asymptotic segment of the logistic curve which translates to slower movement at low levels of risk tolerance and quick movement at high levels of risk tolerance. In other words, if stock status is high, changes in scores would lead to larger changes in the risk tolerance level whereas if stock status is low, changes in scores lead to a small change in the risk tolerance level. The S-shaped curve allows risk tolerance to move slowly at the ends of the Z-score scale (high and low risk tolerance), and quicker in between those risk zones. The exponential segment inverts the dynamics of the asymptotic curve which allows slow movement at higher levels of stock status and risk tolerance requiring larger inputs to get to or leave from those areas, and quicker movement at low stock status and low risk tolerance. Dr. Brothers noted that the sub-group's recommendation for the S-shaped curve allows flexibility for management and clarity with the rubric by positioning the factors around zero.

Figure 2 - Potential Risk Policy Curves.



The sub-group also discussed the directionality of the scoring rubric. The current rubric is designed such that high stock status leads to low factor scores and then high risk tolerance, which can lead to communication barriers. The group felt that inverting the rubric (flipping scores around the zero point) may improve clarity and communication so that high stock status or recruitment would lead to high factor scores and high risk tolerance. Dr. Brothers explained that this inversion could be applied to the three curves previously presented, but that it is easier for the S-shape curve due to its symmetry and demonstrated that the inversion would not change the quantitative performance of the values that would come out of the Risk Policy.

Dr. Brothers also provided an example of how the revisions to Risk Policy could be integrated into a control rule using a dynamic buffer approach. There could be a linear relationship such that the recommended probability from the risk policy would translate to a proportion of FMSY. For example, high levels of risk tolerance could equate to an ABC at FMSY versus low levels of risk tolerance would specify an ABC at 50%FMSY. Exploring this translation and integration into control rules is the next step in the process.

The working group generally supported the sub-group's recommendations for the S-shaped curve with some expressing that it addresses stability goals for the risk policy and the inverted scoring rubric. There was a suggestion to adjust the color coding of the rubric to better reflect risk tolerance levels and align with improved communication goals. Dr. Lawson was interested in the potential to compare the different curve options for a worked example, particularly regarding how stocks would move along the curve, but the group agreed to move forward with a single curve option while keeping the possibility of exploring alternative curves open for future consideration. The group agreed to move forward with the technical committee's recommendations, with plans to present to the SSC on March 30th and the full Council in April, aiming for final approval by June.

RISK POLICY CONCEPT – UPDATES AND RECOMMENDED CHANGES, J. PEROS

Mr. Peros provided an overview of tasks and timelines based on the approved recommendations from the previous discussion. The group is anticipating an approval of the revised risk policy concept at the June Council meeting, along with a global weightings exercise. Ms. Griffin recommended including the catalog of decisions and potential future maturations of the risk policy as a key deliverable in the work plan. She also suggested providing an opportunity for outreach and communication about the overall risk policy process for stakeholders and other Council groups following the June Council meeting.

Mr. Peros then reviewed scoring guidance for the five factors that would be provided to PDTs.

SSB/Stock Status Factor

Scoring for this factor focuses on analytical and empirical assessments. However, Mr. Peros highlighted the changes occurring in the types of assessments that the Council receives and the delivery of data updates as a new product in lieu of assessments, which was one of the driving reasons to pause development on the Assessment and Uncertainty factor[1]. There is a potential to include data updates in the factor scoring or in the application of a harvest control rule.

Mr. Peros shared a schematic for an option to incorporate data updates within the risk policy scoring by using the direction of a 5-year linear regressions trend to supplement and ultimately shift an assessment-based score for this factor. Dr. O'Keefe provided clarification that data updates include survey trends and fishery catch trends with some information on survey catch-at-size, and that the Northeast Regional Coordination Committee (NRCC) is discussing requesting additional information across stocks[2].

[1] January RPWG Meeting Summary link

[2] NEFMC | Current Stock Assessment Schedules

There were some concerns expressed that using data updates in the scoring process imposes empirical management decisions and potentially complicates the factor scoring by trying to incorporate information that would have been captured by the Assessment and Uncertainty factor. Ms. Griffin supported considering how to include data updates into the overall Risk Policy concept but suggested that this could be a place where the SSC is allowed to fine tune the factor score coming from the PDT. Mr. Lucey emphasized the importance of using the information in the data updates to build trust with the fishing fleet. Ms. Ware clarified that data updates could be incorporated in at least two ways: allowing SSC discretion to be flexible with their interpretation of the Risk Policy if there has been a data update or building it into the rubric for how the SSB factor is scored. Mr. Salerno suggested that both survey and catch trends should be incorporated and considered if this approach is advanced. The group supported maintaining the original factor scoring and bringing the discussion regarding use of data updates to the SSC (alongside SSC use of Risk Policy).

Recruitment

Mr. Peros affirmed that the scoring for this factor will transition to the quantile-based approach that was proposed and supported at the January Risk Policy meeting[3]. He also shared that Council staff are considering ways of scoring this factor when data are not readily available from data updates or an assessment such as leveraging existing age-length keys from the survey to evaluate age-1 indices. Ms. Griffin suggested communicating to the NRCC about the data that will be used and is available, but also the data that the Council would want for implementation and future iterations, which could be included in another catalog as data wants within the Risk Policy Concept document.

Climate Vulnerability

Mr. Peros stated that there were no changes to the scoring for this factor at the species level. A sub-group completed the scoring for all species that are in the Hare et al. (2016) resource due to its static nature and to streamline scoring for PDTs. However, there is a desire from PDTs to have discretion to adjust scores to characterize stock level considerations. This could allow for the use of expert opinion at the PDT level for fine tuning.

Dr. Caracappa noted that adjustments could be applied inconsistently across stocks if they are not using the same framework that the original Climate Vulnerability Assessment (CVA) used in 2016 and recommended postponing that approach until the updated CVA is available which would allow assessing the habitat suitability for each stock due to its spatial analytical approach. Mr. Salerno shared that if the PDT did deviate from the score that it would be beneficial to see clear documentation regarding those decisions including the data that was used to justify the change in score. Ms. Griffin proposed an interim scoring approach that uses a table output from the Northeast Fishery Science Center (NEFSC) of the specific environmental factors that are relevant for each species and crosswalks that with the regional information in the State of the Ecosystem to shift a score from the species-level score coming from the CVA resource. Dr. Kerr supported maintaining the CVA as the baseline and allowing some flexibility to be dynamic and recommended including some terminology about expert opinion and how to use emerging

[3] January RPWG Meeting Summary link

research to document deviations. Mr. Peros shared that Council staff have requested the updated CVA analysis to evaluate NEFMC species at the stock level.

The group supported scoring the factor at the species level and using literature to adjust the score at the stock level if there is strong justification.

Recreational Fishery Characterization

Mr. Peros shared a summary of feedback received from Council members that represent recreational fishery interests such as harmonizing questions between the two fishery factors regarding utilization and quota usage, and incorporating questions around community participation, in-season information, and the availability and precision of the Marine Recreational Information Program (MRIP) data.

Ms. Griffin proposed including any aspects for this characterization that are undefined or in need further development as part of the catalog for follow up beyond the June target date. She also proposed that if uncertainty and PSEs are considered under this factor, then they should be consistent with the level that is utilized in management decisions. Mr. Salerno supported maintaining the PSE characteristic as a part of the factor since its associated uncertainty is around the reliability of the catch accounting and the catch records. Mr. Smith suggested reserving the development of choke stock dynamics as a point for characterization for a future iteration to allow for more time and consideration around how the commercial and recreational fisheries differ in their fishing activity when there are or are not choke stocks. Mr. Salerno transforming the question about consistency of recreational measures to focus more on catch accounting and trends in sub-annual catch limit (ACL) utilization or non-allocated recreational catch. Conversely, Ms. Griffin and Ms. Kelly supported maintaining the question pertaining to consistency in recreational measures to measure stability of the recreational fleet and to improve model outputs that are used to recommend recreational measures.

The group decided to include development of questions around quota utilization and keep the PSE and uncertainty question. Developing questions around participation, engagement, and choke stocks dynamics could be addressed in future iterations.

Commercial Fishery Characterization

Ms. Ware briefly summarized changes to the commercial fishery characterization factor which included the ability to move left or right along the rubric. Mr. Peros also stated that Council staff recommend changing the information used to answer this question to ensure consistency across PDTs and FMPs. For example, one idea is to consider community impacts at the regional level. Dr. Kevin St. Martin expressed his desire to help address this attribute and shared that their Rutgers team also provided some ideas for the State of the Ecosystem which could help provide ways to answer these questions if the data and metrics are standardized.

RISK POLICY GUIDANCE DOCUMENTS AND SSC USE, J. PEROS

Mr. Peros presented five potential approaches the SSC could interact with the Risk Policy ranging from strict application to advisory roles: 1) “Strict Application” is the most limited role for the SSC where they would only confirm if the Risk Policy process was followed or not; 2) “Adjustment of Scores” would adjust scores of individual factors impacting the x-axis value and

thereby the position on the curve; 3) "Adjustments of 'Probability of Success', unconstrained" would allow movement along the curve in terms of the y-axis and probability of success; 4) "Adjustments of 'Probability of Success' within Risk Zones" would allow for movement along the curve but constrained to the implicit risk zones or areas of inflection of the S-shaped curve; and 5) "Advisory ABC" where the z-score from Risk Policy is a discussion starter that could be layered with additional information for decision making.

The group generally supported approaches #3 through #5 and to carry them forward to the SSC at the March 30th meeting for additional feedback. Council staff emphasized that SSC "adjustments to scores" (#2) represented a way capture the SSC input directly into a Z-score, which is important because that output includes the Council's policy decisions from weightings. Dr. Kerr felt that approach #2 would require either more preparation or additional meetings for the SSC to justify individual score adjustments and that the potential risk zones demonstrated in approach #4 could interact with harvest control rules depending on how they are defined. Dr. Lawson felt that approach #5 was the most interesting because the risk policy affords the SSC a signal from the Council on their overall risk, but in applying a control rule, the SSC would want discretion to consider other forms of scientific uncertainty such as what projections or the associated quota change model show under different control rule outputs. Dr. St. Martin expressed his interest in recognizing and formally bringing socio-economic concerns prior to or in tandem with setting acceptable biological catch (ABCs) and an interest in an approach that would provide flexibility to the SSC but also stability to the industry.

RISK POLICY TOOLKIT, A. MILLER

Ms. Miller presented a new risk policy toolkit that includes three forms for council staff to input data, which is then displayed in a central risk policy application that automatically generates and streamlines the calculation of the z-score and recommended probabilities for each FMP and stock. Working group members noted the need to refine some of the applications in response to the recommendations from the meeting and supported the ability to use the application to engage with risk factors ahead of SSC meetings.

OTHER BUSINESS

No other business was discussed.

The meeting ended at 3:00PM.