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

MEETING SUMMARY

Risk Policy Working Group

November 14, 2025

9:30 a.m. Webinar

The New England Fishery Management Council's (NEFMC) Risk Policy Working Group (RPWG) met by webinar on November 14, 2025 to: 1) discuss the development and use of Risk Policy Matrix in Council actions; 2) continue to refine elements of the Risk Policy Concept for future use; 3) Review feedback from simulation testing and consider recommending adjustments to the Risk Policy factors, data sources, and scoring rubric 4) discuss other business.

MEETING ATTENDANCE

Megan Ware (Chair), Dan Salerno (Vice-Chair), Jonathon Peros (Council Staff), Dr. Jason McNamee, Dr. Naresh Pradhan, Melanie Griffin, Moira Kelly, Geoff Smith, Bill Lucey, Dr. Kevin St. Martin, 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 developed recommendations for possible modifications to the Risk Policy Concept. These included:
    - Shape of the curve. The working group agreed to explore shifting the full logistic curve above the 50% probability level to provide more stability at high and low levels of risk tolerance, while maintaining the ability to respond quickly to changes in the middle range.
    - Z-Score Scaling. Z-scores should be able to access the full range of the logistic curve, rather than being limited to the more linear portion. Additional work to determine the scaling is needed.
    - Score Ranges. Consider revising the possible score ranges, in concert with revisions to Z-score scaling.
- The working group will continue to utilize sub-groups to explore revisions to the following factors:

- Stock Assessment Type
- Recruitment
- Fish Condition (and Ecosystem Productivity)
- Commercial and Recreational Fishery Characterization

The meeting began at 9:31 a.m.

WELCOME AND INTRODUCTIONS

Ms. Ware opened the meeting with a roll call and logistics updates. She acknowledged the new working group members Geoff Smith and Bill Lucey. Ms. Ware reviewed the agenda for the working group, and acknowledged the recent interest in the Risk Policy by the Council and SSC as a tool for navigating current challenges, particularly in groundfish specifications.

RISK POLICY AND THE STATUS OF REGIONAL SCIENCE AND MANAGEMENT

Dr. Cate O'Keefe presented an overview of the current status of regional science and management, highlighting impacts of federal budget cuts and the Council's efforts to develop new tools for addressing challenges. Dr. O'Keefe noted that the Council is navigating changes to data collection programs, stock assessment products, and management actions. She emphasized that the Council is exploring was to increased flexibility in management through the Council's approval of a recent omnibus amendment. She concluded by emphasizing the importance of integrating risk policy into harvest control rules and increasing consistency in how the Council considers risk in management.

Mr. Jonathon Peros presented an updated Risk Policy work plan, and outlined the two phase approach that was used in 2025 (Alpha and Beta). The presentation focused on the Beta phase, which is aims to update and refine the Risk Policy Concept by June of 2026. Mr. Peros explained that an update to the Concept would occur concurrently with the Council completing a weightings exercise in June. Completion of updates and weightings by June 2026 should allow time for staff, the SSC, and the Council to understand and apply it for specifications in 2027. The work plan includes revising some of the factors, data sources, and mechanics of the Risk Policy in preparation for a quantitative application of the risk policy with harvest control rules.

Ms. Ware emphasized the need for a group commitment to meet the June deadline. A working group member raised questions about the weighting process and the integration of the risk policy into harvest control rules, which Jonathon addressed by confirming that a single weighting would be applied "globally" for all stocks.

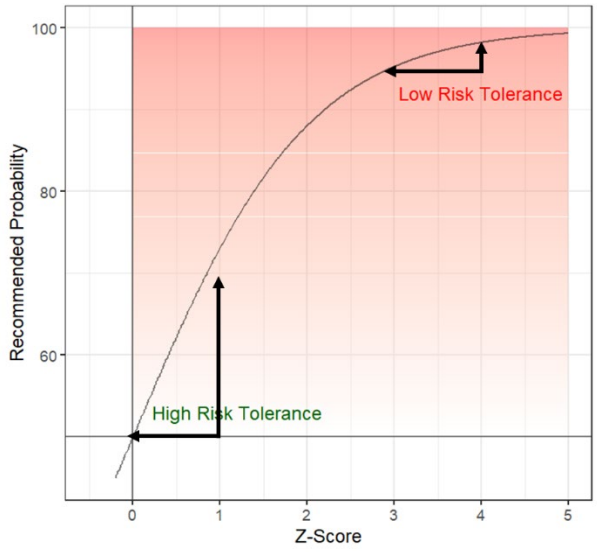
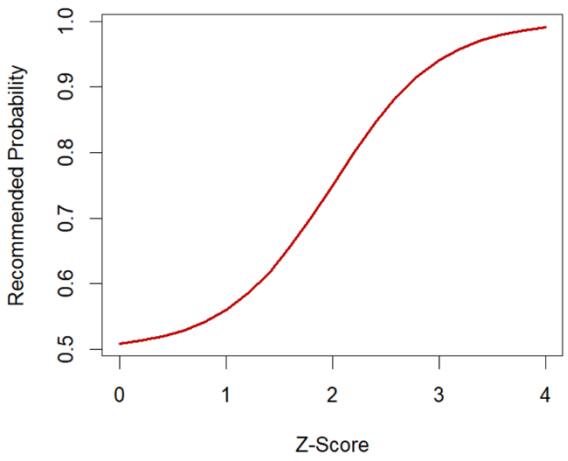
RISK POLICY CONCEPT, MECHANISTIC TOPICS (INPUT FROM UMAINE DEMONSTRATION, DR. ROGER BROTHERS)

Dr. Roger Brother presented on an ongoing project focusing on evaluating the Council's Risk Policy in the context of ABC Control Rules, focusing on Risk Policy Mechanics and Implications. Dr. Brothers discussed the shape of the logistic curve, z-score scaling, and factor score ranges, highlighting how these elements interact to determine risk tolerance.

SHAPE OF THE CURVE

Following a presentation by Dr. Brothers, the group discussed the shape of risk assessment curves, with Dr. McNamee explaining the rationale for the initial choice of a logistic curve, which allows for flexibility and is responsive near the 50% mark. The Working Group agreed to explore shifting the full logistic curve above the 50% probability level to provide more stability at high and low levels of risk tolerance, while maintaining the ability to respond quickly to changes in the middle range. Mr. Smith suggested clarifying the terminology around "probability of management success," which Ms. Ware acknowledged as a future task, while the group also discussed the importance of curve steepness to avoid excessive volatility in harvest control rules.

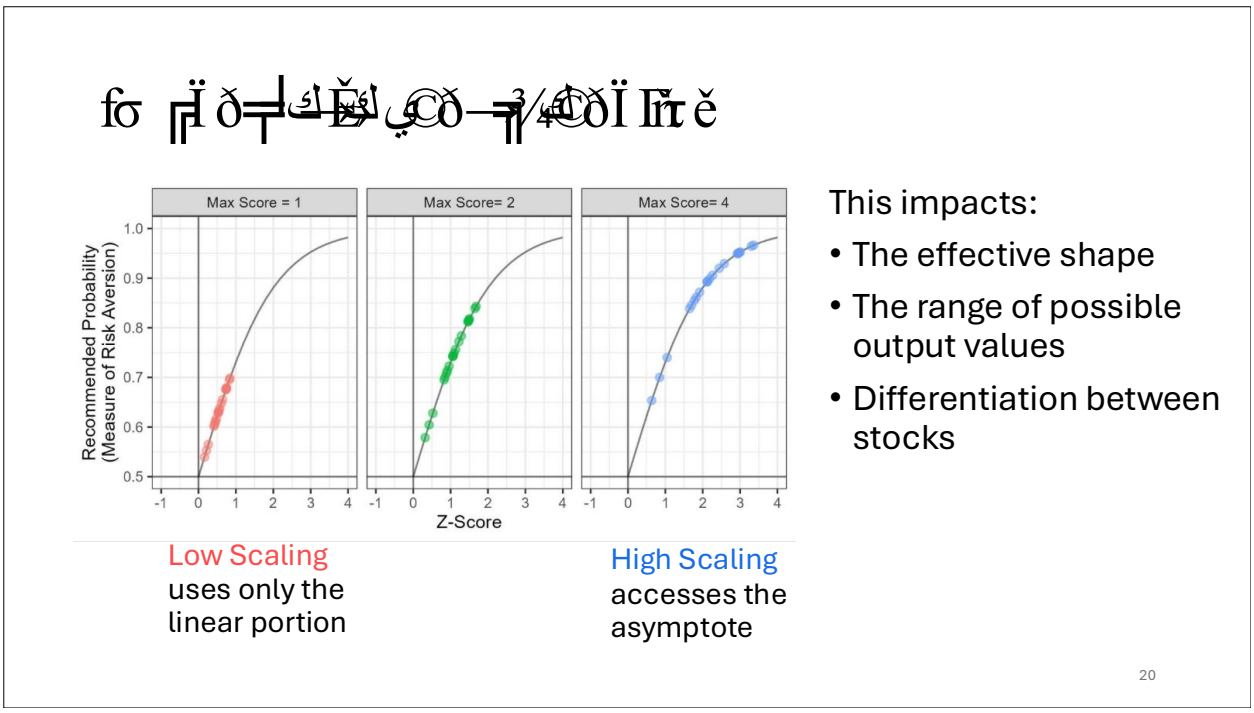
Table 1 - Comparison of current and proposed shape of Risk Policy curves, with notes from R. Brothers presentation (11/14/25).

Current Shape of Curve	Working Group's Recommended Shape of Curve
	
Curve is steeper at low Z-Scores, which means that it is more responsive at high risk tolerance. Curve is at asymptote at high Z-scores, which means it is less responsive at low risk tolerance.	With this curve, risk tolerance moves quickly at intermediate Z-scores and moves slowly at high and low Z-Scores.

Z-SCALE SCORING

Ms. Ware and Dr. Brothers presented on the scaling calculations for risk assessment. Ms. Ware explained how scores are transformed from a -4 to 4 range to a -1 to 1 range (Z-score) for analysis. Dr. Brothers presented visualizations showing how different scaling factors affect movement along the logistic curve, noting that the full range of curve cannot be realized under the current approach. Working group members agreed that the Risk Policy and Z-scores should be able to access the full range of the logistic curve, rather than being limited to the more linear portion.

Figure 1 - Relative impacts of varying Z-Score Scaling (1 , 2, 4). From R. Brothers presentation, 11/14/25.



SCORE RANGES

Dr. Brothers explained how the distribution of Z-scores (between -4 and 4) also influences movement along the curve. He noted that negative scores combined with a truncated logistic curve result in a loss of information and reduced differentiation between stocks. Unequal score ranges introduce implicit weighting, skewing factor influence. Additionally, the assumption that a neutral score equals zero can misalign the intent of scoring rubrics with the outcomes of the logistic function. Since a Z-score of zero corresponds to a recommended probability of 0.5, this often provides little or no buffer between ABC and OFL, meaning that neutral conditions could lead to the most risk-tolerant value allowed.

RISK POLICY CONCEPT REVIEW AND DISCUSSION

The working group focused on reviewing and discussing the goals, data, and scoring rubrics of the Risk Policy factors. Dr. Brothers presented interpretations of the current risk policy's goals for seven factors, including stock status, recruitment, assessment type, climate vulnerability, fish condition, commercial fishery, and recreational fishery. The group discussed the relationship between factors and its potential impact on determining risk tolerance, as well as the neutral positions and directionality for each factor. Ms. Ware encouraged the workgroup to consider whether all factors are necessary in the first iteration of Risk Policy implementation with ABC control rules, and to consolidate if possible (i.e. use fewer than 7).

The working group discussed each of the factors, and had a preliminary discussion about whether or not to include them in the initial quantitative implementation. Regarding recruitment, the working group noted that Dr. Kerr and Dr. McNamee were working to revise the scoring method using quantiles to better characterize recruitment trends. This work is expected to

continue. The group debated whether or not do drop the stock assessment type factor (for now), noting the potential implementation challenges. Members of the working group expressed concern how data updates will be scored, and agreed to continue the discussion about including the factor after a sub-group has time to make a recommendation. Another sub-group will form to examine the fish condition factor, and ecosystem productivity more broadly. The working group noted that some concern has been expressed around using fish condition alone as a proxy for environmental productivity, and recommended that a sub-group report back on the continued use of fish condition, and other options for characterizing ecosystem productivity. The working group also expressed strong support for continuing to refine and develop factors related to economic and community importance. Ms. Ware explained that the commercial and recreational fishery characterization sub-groups had looked at score ranges for these factors that would contribute to neutral or more risk tolerant Z-score outcomes.

PROGRESS AND NEXT STEPS

The working group agreed to assemble sub-groups for several factors: commercial and recreational fishery characterization, recruitment, stock assessment, and ecosystem productivity. The subgroups will likely meet in December, ahead of a full workgroup meeting in January 2026.

Sub-Group	**Working Group Members**
Recruitment	Lisa, Jason
Assessment Type	Dan, Moira
Fish Condition / Ecosystem Productivity	Joe, Jonathon, Geoff
Commercial and Recreational Fishery Characterization	Megan, Dan, Kevin, Bill, Jonathon

OTHER BUSINESS

No other business was discussed.

The meeting ended at 1:07pm.