MEMORANDUM

To: Risk Policy Working Group

From: Risk Policy Technical Sub-Group

Date: March 5, 2026

Subject: Discussion and Recommendations on Risk Policy Mechanics

Purpose

The Risk Policy Technical Sub-Group was formed following the January 23, 2026, Risk Policy Working Group meeting to directly address questions and make recommendations about the mechanics of the Risk Policy. The group includes members of the Council's ABC Control Rule Project Oversight Team (IRA #1) and the Risk Policy Working Group.

The Technical Sub-Group met via webinar on March 4, 2026, to discuss Risk Policy mechanics including: 1) shape of the curve; 2) scaling; and 3) directionality and score ranges. The group reviewed logistic curve shapes, alignment between the current scoring rubrics and Z-scores, score ranges, and the directionality of scores. The sub-group was asked to develop recommendations for the full working group to consider. Dr. Roger Brothers from the University of Maine will present key discussion points and recommendations from the March 4th meeting to the full working group on March 9, 2026.

Technical Sub-group membership:

Risk Policy Technical Sub-Group	
Megan Ware, ME, *RPWG Chair*	Dr. Lisa Kerr (SSC)
Dr. Roger Brothers (University of Maine, contractor)	Jonathon Peros (Council Staff)
Dr. Jason McNamee (SSC)	Dr. Gareth Lawson (SSC)
Dr. Cate O'Keefe (NEFMC ED)	Angelia Miller (Maris Collaborative)

Anticipated Outcomes from March 9, 2026 Risk Policy Working Group Meeting

- **Recommendations:** The full working group should review the following discussion, recommendations, and figures, and be ready to make recommendations on the shape of the curve, and the directionality of the scoring rubric. These recommendations will be incorporated into the updated Risk Policy Concept and appendices and shared with Council and SSC.

Discussion & Key Recommendations

- **Shape of the Curve:** The sub-group considered three different curve shapes at the meeting (Figure 1), shown with descriptions below**.** These alternatives are mathematically based on a full logistic curve (s-shaped curve) or portions of this curve (i.e. asymptotic or exponential segments of the curve). The majority of the group recommended utilizing the full logistic curve, constrained so that the resulting probability of management success stays between 0.5 and 1. The group viewed the use of the exponential segment of the curve (Figure 1 (3)) as a potentially viable option that would require additional development. The group did not support further consideration of the "current" approach (i.e., asymptotic portion of curve**)** The two remaining curves that were considered differ in how quickly the resulting probability of management success changes in areas of high/neutral/low risk tolerance (see descriptions in Figure 1).
- **Directionality of Scoring Rubric:** The majority of the sub-group recommended inverting the scoring rubrics so that positive values represent increased risk tolerance (Figure 2). Members for the group felt that this change would be more intuitive and would ultimately help with communication of the Risk Policy. For most factors, scores would increase as conditions improve (e.g., increased biomass), and decrease as conditions degrade (e.g., becoming overfished). For the two fishery factors, scores would increase with socioeconomic stress, or under conditions that otherwise support increased risk tolerance. The group noted that when using the full logistic curve option described above, this decision on the directionality of scoring would also invert the direction of the curve (Figure 3) but does not change the quantitative performance of the risk policy.
- **Other Recommendations:** The sub-group recommended maintaining the current score ranges (-4 to 4 for SSB and Recruitment, -4 to 0 for Climate Vulnerability, 0 to 4 for Commercial and Recreational factors). The group also recommended keeping the same score increments for each factor (+/-1 for Climate Vulnerability, Commercial, and Recreational, and +/-2 for SSB and Recruitment). The group recommended periodic check-ins on Risk Policy mechanics to confirm that shape and other elements are working as desired.

Figure 1 - Shapes (Curves) Considered by Technical sub-group.

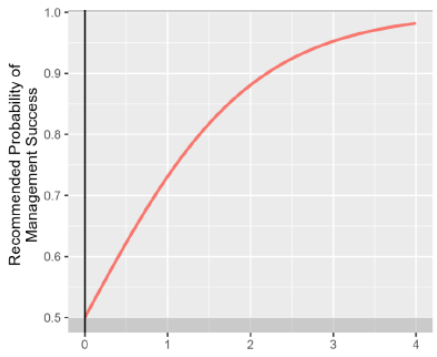
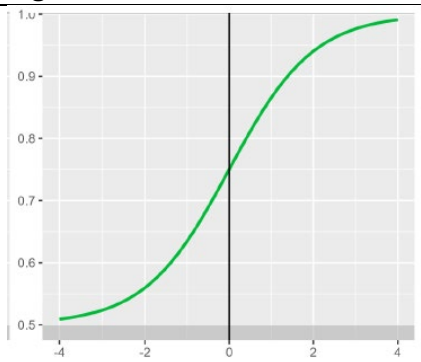
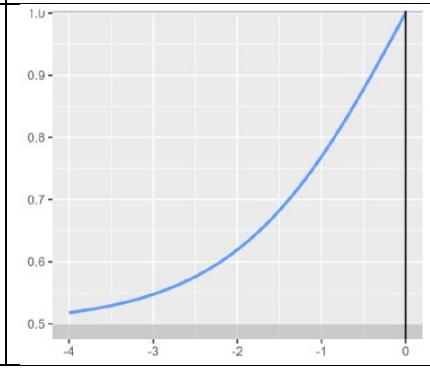
Shapes (curves) considered by Technical sub-group.		
1) Asymptotic (current) Approach	2) "Full logistic" Approach	3) Exponential Approach
Slow movement at low risk tolerance, fast movement at high risk tolerance. Uses asymptotic portion of logistic curve.	Slow movement at both high and low risk tolerance, fast movement at intermediate ranges. Uses full s-shape of logistic curve.	Slow movement at high risk tolerance, fast movement at low risk tolerance. Uses exponential portion of logistic curve.
		

Figure 2 – Risk Policy scoring matrices, with the current approach, and the recommended inverted approach.

Scoring Matrix for Risk Policy Factors (5)

Current

High Risk Tolerance — Low Risk Tolerance

Factor	-4	-3	-2	-1	0	1	2	3	4
SSB	More than 150% of target		Rebuilt: 100-150% of target		75 to 100% of target		75 to 50% of target		Overfished: Below 50% of target
Recruitment	Multiple large YCs		Recent large YCs		Average		Recent low		Persistent low
Climate Vulnerability					Low	Moderate	Moderate, Negative	High	High, Negative
Commercial	High stress	Moderate stress	Some stress	Minimal stress	No stress				
Recreational	High stress	Moderate stress	Some stress	Minimal stress	No stress				

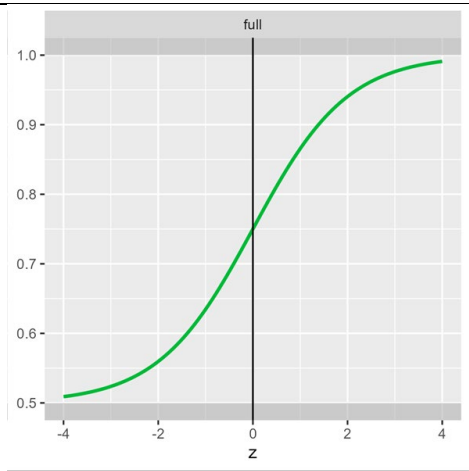
Recommended – Inverted

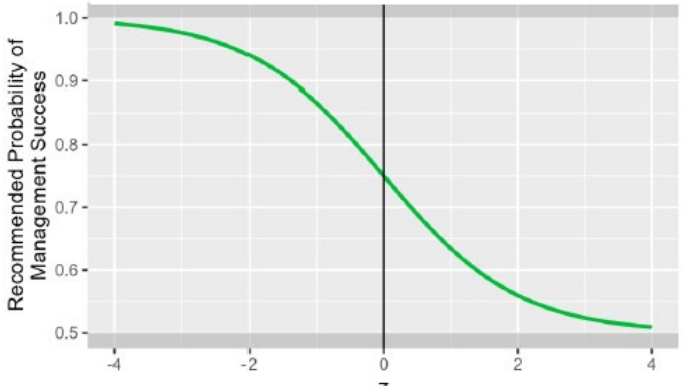
Low Risk Tolerance — High Risk Tolerance

Factor	-4	-3	-2	-1	0	1	2	3	4
SSB	Overfished: Below 50% of target		75 to 50% of target		75 to 100% of target		Rebuilt: 100-150% of target		More than 150% of target
Recruitment	Persistent low		Recent low		Average		Recent large YCs		Multiple large YCs
Climate Vulnerability	High, Negative	High	Moderate, Negative	Moderate	Low				
Commercial					No stress	Minimal stress	Some stress	Moderate stress	High stress
Recreational					No stress	Minimal stress	Some stress	Moderate stress	High stress

Figure 3 – A comparison between A) the full logistic curve with current scoring rubric and B) the inverted logistic curve with corresponding inverted scoring rubric.

A) Full logistic curve and current scoring rubric.	B) Inverted logistic curve and with corresponding inverted scoring rubric (majority recommended).





High Risk Tolerance — Low Risk Tolerance

Factor	-4	-3	-2	-1	0	1	2	3	4
SSB	More than 150% of target		Rebuilt: 100-150% of target		75 to 100% of target		75 to 50% of target		Overfished: Below 50% of target
Recruitment	Multiple large YCs		Recent large YCs		Average		Recent low		Persistent low
Climate Vulnerability					Low	Moderate	Moderate, Negative	High	High, Negative
Commercial	High stress	Moderate stress	Some stress	Minimal stress	No stress				
Recreational	High stress	Moderate stress	Some stress	Minimal stress	No stress				

Low Risk Tolerance — High Risk Tolerance

Factor	-4	-3	-2	-1	0	1	2	3	4
SSB	Overfished: Below 50% of target		75 to 50% of target		75 to 100% of target		Rebuilt: 100-150% of target		More than 150% of target
Recruitment	Persistent low		Recent low		Average		Recent large YCs		Multiple large YCs
Climate Vulnerability	High, Negative	High	Moderate, Negative	Moderate	Low				
Commercial					No stress	Minimal stress	Some stress	Moderate stress	High stress
Recreational					No stress	Minimal stress	Some stress	Moderate stress	High stress