1.0 IMPLEMENTING THE COUNCIL'S RISK POLICY – NEXT STEPS

As part of the 2015 management priorities, the Council identified the RPWG's work to review FMP risk policies for consistency with overall policy. In response to the direction from the Council, the RPWG considered various approaches to providing guidance to the Council regarding the risk policy. During RPWG discussions it became clear that most FMPs did not contain risk policies and rather than approaching this on an FMP by FMP basis a more appropriate approach was to prepare a guidance document that lays out the process for the technical work to be done in each FMP in compliance with the policy. The composition of the RPWG does not support FMP specific recommendations. The RPWG acknowledges that these are recommendations for a longer term approach and there is not an expectation that the Council will universally adopt these guidelines within a certain timeframe.

Many steps to operationalize the Council's Risk Policy over the long-term should be taken at the technical/analytical level. Ultimately, implementing analytical approaches like management strategy evaluation (MSE) must begin at the data collection/stock assessment level. In New England, this task largely falls on the NEFSC; their involvement in this process is essential for success.

As efforts by NMFS and the NEFSC continue to build the foundation to support *risk management* across all fisheries, additional steps can be taken in the short-term to operationalize the Risk Policy through the technical groups responsible for developing analysis to support the Council's decision-making (Plan Development Teams, PDTs). The RPWG recommendations for operationalizing the Risk Policy are focused on *process engineering*, i.e., how to design a process within the current system to generate the data and analyses needed to support risk-based decision-making. The RPWG recommends the following steps be taken over the next several years.

STEP 1. Document the Current Management Procedures.

(PDTs, with Committee and AP Input)

The first step that the technical teams should take is to document the current management procedures in order to clearly understand baseline conditions with respect to risks, uncertainty, and net benefits to the Nation for the stock/fishery in question. To support this need, the RPWG has developed a ***Risk Policy Matrix*** (Appendix I).

The ***Risk Policy Matrix*** was developed to provide a summary of the conditions of each stock/fishery and identify major uncertainties, ecosystem considerations, and interactions with other fisheries to support the risk management process. This document, along with the fishery performance reports, can serve as a tool to help the PDTs identify risks and help the Council weigh them to communicate preferences to the SSC. Over time, providing information about risks, uncertainty, consequences, and net benefits to the Nation to the SSC in a standardized format for all stocks/fisheries will improve consistency and clarity in the ABC-setting process.

The Matrix should be a living document, maintained by Council staff and updated when a stock assessment is conducted, and/or when new specifications for a fishery are considered by the Council. The focus of the matrix is identifying baseline conditions for a stock/fishery; the matrix should not represent a "wish list" of the information or conditions that are desired if more/better information could be available.

When filling out the Risk Policy Matrix, specific consideration should be given to the risks associated with overfishing the stock in question. This is consistent with the first sentence of the Risk Policy – to weigh the risks of overfishing the resource relative to the greatest expected overall net benefits to the Nation. The impacts on the fishery, the ecosystem, and other impacts that can be measured with available data should be identified in the Risk Policy Matrix as the consequences of managing the risks of overfishing the resource. The consequences are important to identify in the matrix because they provide the Council a basis for evaluating net benefits to the Nation and comparing alternative management approaches based on the severity of consequences.

While there may continue to be refinements to the Risk Policy Matrix, the intent is to provide a relatively standardized format for communicating baseline conditions with respect to risk, uncertainty, and the management procedure to the SSC for ABC-setting and to the Council for risk-based decision-making. The Matrix will help the PDTs provide a standardized format to communicate risk and uncertainty. Depending on the relevant timeline for a PDT, this could be addressed over the next 1-3 years, and then the process could be revisited.

The RPWG expects that significant progress towards this step could be achieved across all Council-managed FMPs within 1-3 years.

STEP 2. Evaluate How the Current Management Procedures ***Analyze and Manage Risk*.**

(PDTs, with Input from Committee)

Once the Risk Policy Matrix has been completed, the PDTs (with input from the Committee, as necessary) should consider the information in the Matrix to identify the elements of the management procedure that have the most significant implications on net benefits to the Nation. Once these factors are identified, the PDTs should assess the impacts of those factors on fishery performance and the probability of the undesirable outcomes. The Council should identify tradeoffs to consider with respect to net benefits to the Nation. This should be initiated as part of the specifications process and should be considered by the Council for application to future management actions. The RPWG expects that significant progress towards this step could be achieved across all Council-managed FMPs within 1-3 years.

When developing specifications, a fishery performance report should be developed by the PDT in conjunction with the AP and provided to the SSC for discussion. The report would include catch and landings statistics, performance of accountability measures, market and fishery information (with input from the AP), and status of the resource, and other metrics, as applicable.

STEP 3. Conduct a MSE for a *Candidate* Fishery.

(NMFS/NEFSC, or other scientific person/entity, with Council and PDT)

Moving to MSE will require transition time because of the significant time and resources needed during its initial development. It is not expected that the management system can immediately support MSE across all fisheries. The RPWG considered what stocks currently managed by the Council may serve as a good candidate species to conduct a MSE as soon as possible, assuming that resources are available to do so. The RPWG recommended that the Council identify an appropriate fishery for an MSE, and with assistance from NEFSC, provide guidance on how this could be completed, i.e. under the annual priorities discussion, the Council could include a MSE task on either the Atlantic herring or Sea scallop FMPs as outlined below. This would be aided by funding, where possible, for contract work, which would augment the expertise available to complete the MSE. The species' Committee, PDT, and AP should be involved in design of MSE with respect to the performance measures to be modeled and sources of uncertainty.

A current possibility for MSE analysis within New England fisheries involves the impact of windowpane flounder ACLs, and associated AMs, on the scallop fishery. The windowpane flounder AM was recently triggered and is limiting effort by the scallop fishery. The scallop PDT could simulate the impacts on the fishery of the various alternatives for AMs for windowpane flounder in terms of the overall benefits to the scallop fishery, e.g. what is the most prudent form of AM given the uncertainty about fishing mortality on windowpane flounder. The PDT could examine how to design AMs that perform better in the face of uncertainty about stock status by evaluating foregone yield, etc.

Atlantic Herring	**Sea Scallops**
MSE – ABC Control Rule/Harvest Control Rule	MSE – Harvest Strategy (Area Rotation vs. Others)
Amendment 8 to the Atlantic Herring FMP recently initiated to develop ABC control rule, address herring's role in ecosystem, and address localized depletion	Scallop MSE could be explored independently of a management action
Low/medium value, relatively data rich but significant assessment uncertainty	High value, data rich – spend the limited resources on a high value fishery
Forage/ecosystem aspects of Atlantic herring management would be interesting to explore in MSE	Spatial aspects of scallop fishery management would be interesting to explore in MSE
Goals/objectives not clearly identified	Elements of operating model more clearly defined than herring
Foundation exists and groundwork has been laid – SSC recommended further development of Jon's preliminary MSE work on Am 8	
	Uncertainties are mostly with management (versus science)

Given the scale of the task, this would likely be a long-term priority. If resources are available to support this step, the RPWG expects that the NEFSC, with input and support from the Council, could move forward with conducting a priority MSE for this species within the next few years.

STEP 4. Revisit/Re-evaluate the Risk Policy in 3-5 Years.

(Council, PDTs, Risk Policy Working Group)

Operationalizing the Risk Policy will take the support of the Council, Council staff, NMFS, and the Science Centers.

Once the Council reviews the Risk Policy Roadmap, the PDTs and technical groups can begin taking the first steps to operationalize the Risk Policy and better ensuring that all Council-managed FMPs are consistent with the Risk Policy. The RPWG understands that this transition will take time and does not expect that any steps outlined in this Roadmap would become strict Council policies or rules by which the PDTs and other technical groups must adhere. Rather, the RPWG recommends annual check-in with the working group to see how things are going. Updates about developments at the Science Center and challenges that the PDTs are facing.

- There should be some oversight of the roadmap over time. (Exec. Committee/Working Group once/year? Council staff support for Risk Policy Matrix – touch base with PDT chairs as they work through it)
- Council Staff - Managing PDT work and challenges that the PDT faces as they work through Steps 1 and 2.
- Discuss how to get Council buy in – education and communication about risk-based decision making and MSE. Recommendation for a regional workshop (RPWG – to be discussed by the RPWG)
- Council and NMFS should consider funding (where possible) for contract work to support MSE
- The RPWG recommends a re-evaluation of the risk policy after 3-5 years.