

2022 SSC Planning Meeting

April 1, 2022



Part I:

SSC Roles and Responsibilities

Tom Nies (NEFMC Executive Director)

Overview

- Magnuson Stevens Act (MSA) (Doc. #2a)
- NOAA Guidance
 - National Standard 1 – Optimum yield
 - National Standard 2 – Scientific Information
 - Stock Status Determination and Catch based on Best Scientific Information Available (BSIA)
 - Stock Status changes from Known to Unknown
- NEFMC process, guidelines, and policies
- NRCC Stock Assessment Process

Magnuson-Stevens Act (MSA)

- National Standards for fishery management program
- Establishes Regional Fishery Management Council system
- Mandatory and discretionary provisions for FMPs
- Requirements for ending overfishing and rebuilding stocks
- Scientific and Statistical Committee to provide scientific advice, including: **ABC**, preventing overfishing, MSY, achieving rebuilding targets, stock status and health, bycatch, habitat status, social and economic impacts of management measures, sustainability of fishing practices

National Standard 1 (Overfishing) (Doc. #2b)

- Measures shall prevent overfishing while achieving OY on a continuing basis
- *Optimum yield – the amount of fish that 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, as reduced by any relevant economic, social, or ecological factor, and, in the case of an overfished fishery, that provides for rebuilding to a level consistent with producing the MSY in such fishery.*
- Incorporate scientific and management uncertainty in control rules and adaptive management using annual catch limits (ACLs) and accountability measures (AMs).
- ACLs are approved by the Council and may not exceed the fishing level recommendations of the SSC (ABC). (statutory limitation)

National Standard 1 (Overfishing) (cont.)

- *(f) Acceptable biological catch (ABC) and annual catch limits (ACLs)*
 - (1) Definitions – ABC – level of annual catch based on an ABC control rule that accounts for scientific uncertainty in the estimate of OFL, any other scientific uncertainty, and the Council’s risk policy.
 - (2) ABC control rule - what it must and should do. “Phase-in” and “carry-over” ABC control rules are permitted but must be articulated in the FMP and cannot lead to overfishing.
- SSC may recommend an ABC that differs from the ABC control rule calculation based on factors such as data uncertainty, recruitment variability, declining trends, and other factors, but must provide an explanation for the deviation.
- For overfished stocks, ABC must be set to reflect the annual catch that is consistent with the schedule of fishing mortality rates (Frebuild) in the plan.
- *(j) Council actions to address overfishing and rebuilding* – additional requirements specified

National Standard 2 - Scientific Information (Doc. #2c)

- Relevance, Inclusiveness, Objectivity, Transparency, Timeliness, Verification and Validation, and Peer Review, as appropriate.
- Assessment peer review process established by the Secretary and each Council. Not a substitute for an SSC, should work in conjunction.
- *(c) SSC scientific evaluation and advice to the Council* – based on scientific info the SSC determines to meet the guidelines described here, should attempt to resolve conflicting scientific info – debate and evaluation of scientific info is the role of the SSC, not the Council.
- SSC members may participate in a peer review, and that should not impair the ability of that member to fulfill SSC responsibilities.
- SAFE Reports – Stock Assessment and Fishery Evaluation – summarizes the best scientific info available concerning past, present and possible future conditions of the stock, ecosystem, and fishery.

NOAA Procedural Directive on BSIA (2019)(Doc. #2d)

- Stock status determinations and catch limits must be consistent with BSIA.
- It is the Agency's responsibility to certify BSIA is used, but it relies on input from SSC and peer review process.
- Regional BSIA Framework – required 3 years after directive published.
- Directive describes stock assessment and peer review standards, how the SSC uses that information, and how NOAA makes final stock status determinations.
- SSCs “should not repeat the previously conducted and detailed technical peer review;” rather it should sufficiently understand the assessment and its uncertainties before making recommendations.
- If the SSC disagrees with the findings of a peer review, the SSC must prepare a report outlining the areas of disagreement and rationale.

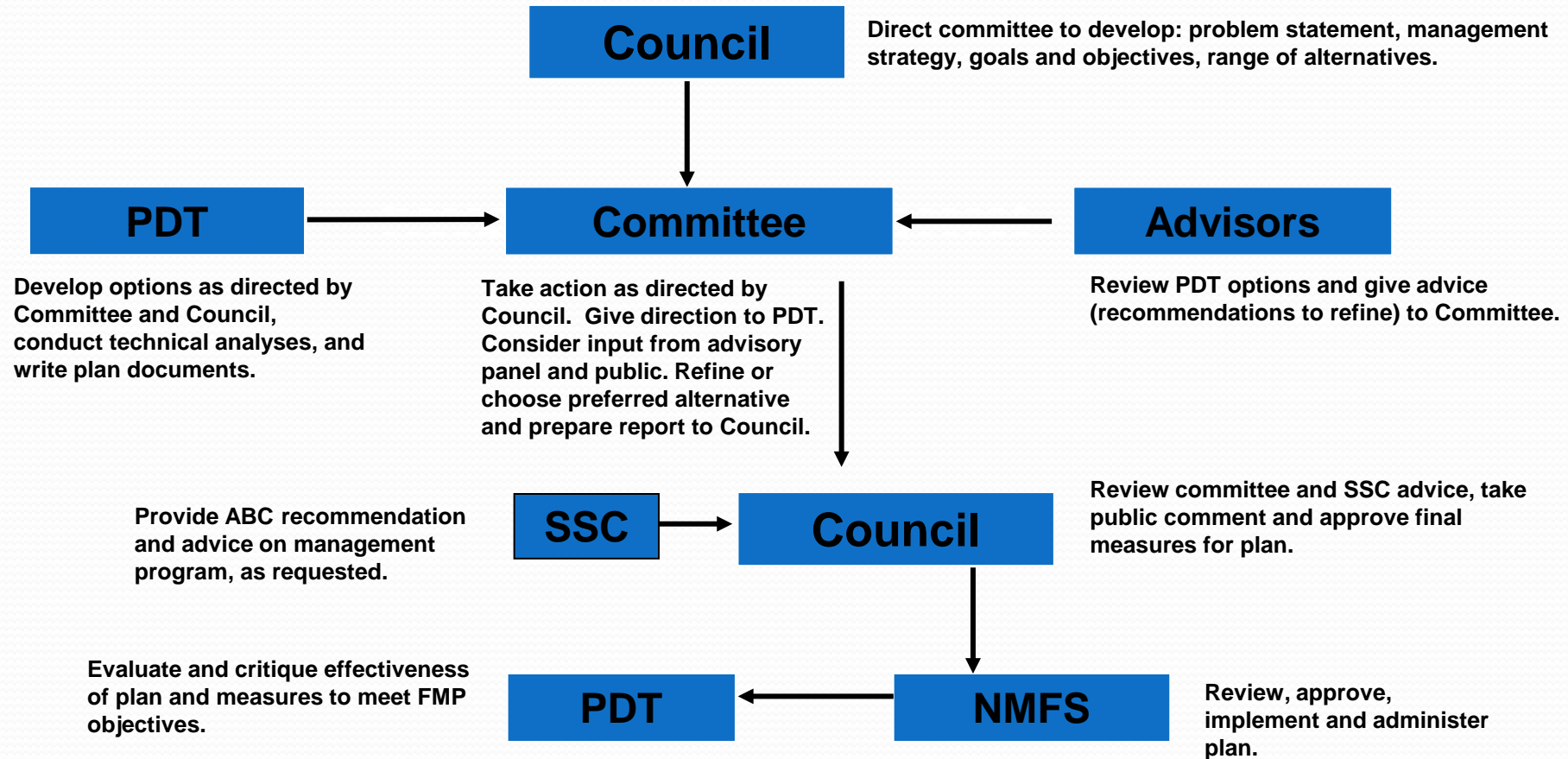
NOAA Procedural Guidance on Known to Unknown Stock Status (2020) (Doc. #2e)

- Includes scenarios of stock status changes and recommended approaches for addressing new status
 1. Change in management units
 2. Aging stock assessment
 3. Stock assessment not sufficient
 4. Stock assessment deviates from status determination criteria specified in FMP
- Does not address some situations we encounter

NEFMC Council Process

- Nine NEFMC Fishery Management Plans (FMPs) (several joint with MAFMC)
- Products: Amendments, Framework Actions, Specifications
- NEPA: EIS, EA, Supplementary Information Report (SIR)
- Roles: Council – 18 voting members, policy direction, final approval
 - Committee – subset of Council members, develop measures, oversee PDT and AP
 - Advisory Panel (AP) – up to 15 members, 3-year term, provide input to Cmte
 - Plan Development Team (PDT) – prepare technical support, analyze measures, prepare Council documents. About a dozen federal, state, academia.
 - Scientific and Statistical Committee (SSC) – external technical/scientific advice, recommend ABC to Council

FMP Development Process



NEFMC Operations Handbook – SSC (pages 16-20) (Doc. #2f.)

- SSC Role: assist the Council in development of FMPs, recommendations for ABCs, review stock assessments, input on Terms of Reference (TORs), etc.
- Membership and Term Limits – no less than 17 members (9 should have fisheries stock assessment expertise, 4 fisheries ecology, 4 social science). No more than three consecutive 3-year terms, membership can be extended annually after that.
- Administrative details
- SSC Recommendations – A quorum is necessary for ABC recommendations; should be consensus statements. Majority and minority reports could be included. Only matters of process shall be voted on (Chair, agenda, etc.).

NEFMC Operations Handbook – SSC (cont.)

- **Remand** – Council may remand an ABC recommendation based on specific criteria:
 - (a) failure to follow TORs;
 - (b) an error in the materials provided;
 - (c) an error in the calculations;
 - (d) failure of the committee to follow standard operating procedures

NEFMC Operations Handbook – SSC (cont.)

- **Conflict of Interest** – SSC decisions are expected to be objective and avoid COIs.
 - Must complete financial interest disclosure form on annual basis and a relevant change
 - Guidance on peer reviews in NS2 guidelines
 - Recusal if SSC members is author or coauthor of report being considered. SSC member can participate (but not lead) the review of work by an individual under the line of supervision of an SSC member.
 - SSC members can compete for Council contracts.

NEFMC Operations Handbook – PDTs (pages 22-25) (Doc. #2f.)

- Develop management options, analyses and relevant data for use by relevant Committee/Council
- Do not conduct stock assessments
- Can incorporate SSC recommendations accepted by the Council, but PDTs do not replace work of stock assessment process
- Guidelines for membership, process, and meetings

NEFMC Risk Policy

- In November 2014, the Council approved a policy with respect to risk and uncertainty for setting ABCs, ACLs, and other measures. It articulates the bounds of how risk tolerant or risk averse a management approach should be, given certain criteria.
- Risk Policy Statement:

NEFMC 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 (Council) to weigh the risk of overfishing relative to the greatest expected overall net benefits to the Nation.

The purpose of the New England Fishery Management Council's 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; and
3. Make fishery management more transparent, understandable, and predictable while better achieving FMP objectives in the face of uncertain information and imperfect implementation.

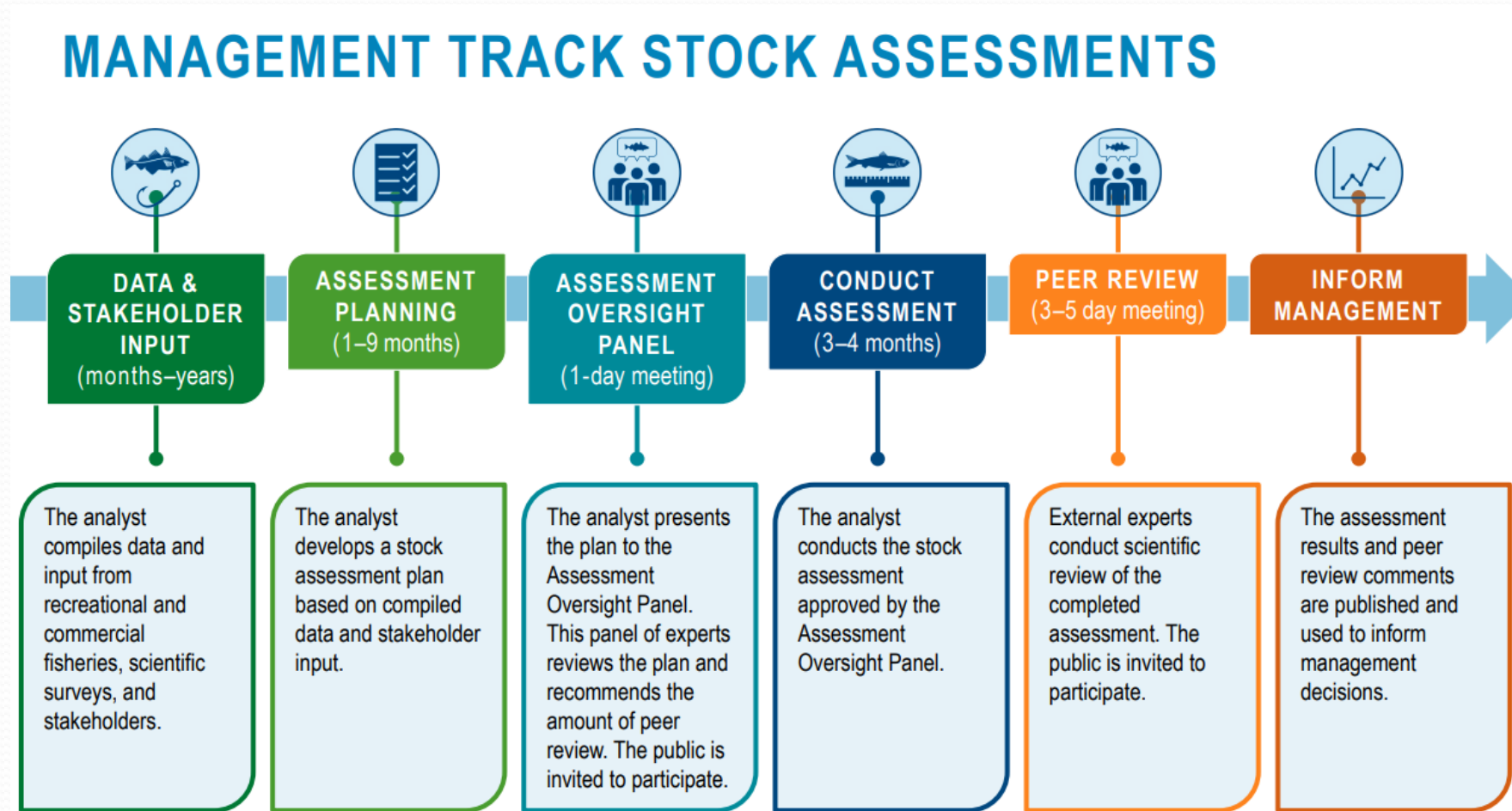
This risk policy will be supported by the following strategic approaches:

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 (e.g., 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 short and long-term tradeoffs between conservation, ecosystem roles, and social and economic benefits. The analysis should evaluate harvest control rules and management procedures with a view towards extracting signal from noise so that management and fisheries are less sensitive to uncertainty. This should allow for a dynamic process of implementation and review, and modification when warranted.

Risk Policy Road Map (2016) (Doc. #3)

- Outlines approach to incorporate risk policy statement into Council management decisions
- Does not provide specific guidance on levels of acceptable risk
- Roadmap Track 1:
 - Document current system through Risk Policy Matrix
 - Emphasizes risk of overfishing
- Roadmap Track 2:
 - ABC control rules and application as starting point for implementation
- Roadmap Track 3: Conduct MSE for a candidate fishery
- Roadmap Track 4: Revisit in 2-5 years (from 2016)

NRCC stock assessment process (Doc. 2g)





MANAGEMENT TRACK ASSESSMENT

Levels of Peer Review

1



Direct Delivery

- Minor changes to the previously approved assessment are permitted
- Does not require external peer review
- Science Center delivers assessment directly to fishery management body

2



Expedited Review

- Moderate changes to the previously approved assessment are permitted
- Expedited formal peer review by external experts
- Following peer review, Science Center delivers assessment to fishery management body

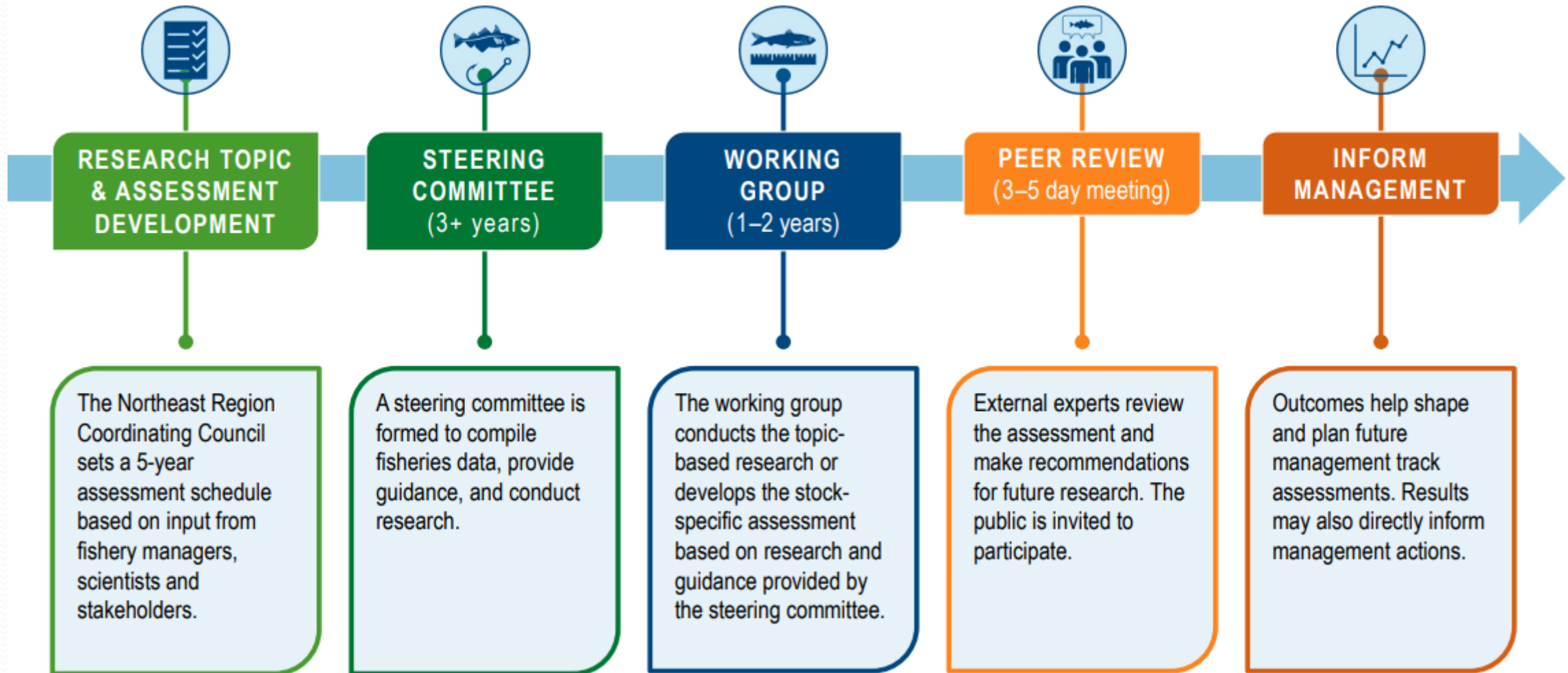
3



Enhanced Review

- Extensive changes to the previously approved assessment are permitted
- Comprehensive formal peer review by external experts
- Following peer review, Science Center delivers assessment to fishery management body

RESEARCH TRACK STOCK ASSESSMENTS



Part II:

SSC Planning

Deirdre Boelke (NEFMC SSC Staff Support)

2022 SSC Membership

- The Executive Committee approved all SSC applications up for renewal (8 members). Five members for 3-year terms (2022-2024) and three for 1-year extensions (2022 only).
- The Executive Committee also approved the addition of one new member – Dr. Samuel Truesdell, MA DMF.
- 19 current members
 - 13 - assessment/biology/ecology background
 - 5 - economic or social science background
 - 1 - fishery management
- 2022 Quorum – 10/19 members
- Please review 2022 SSC membership list – draft research interests and expertise included from application and/or web (Doc. #1a).

2022 Priorities and Meetings (Doc. #1b)

1. ABC Recommendations (19 stocks)
2. Input on rebuilding plans (GOM cod and SNE/MA winter flounder)
3. Consult with Council on development of ABC control rules for Northeast Multispecies stocks (subpanel of 3 SSC members to support Groundfish PDT)

ANNUAL

- Review State of Ecosystem (SOE) Report (*Today*)
- Provide input on Council research priorities
- SSC participation in regional stock assessments and other peer reviews

NEW

- Review of SSC roles and responsibilities (*Today*)
- Provide input on draft 2023 Council work priorities
- Review Monkfish PDT analysis of discard estimation methods and fishery performance report

TENTATIVE

- Northeast Regional Habitat Assessment (NRHA) (subpanel of SSC with subpanel of MAFMC SSC)
- Review prototype EBFM MSE (details TBD)

Tentative SSC dates: 4/1, 6/7, 7/27, 8/4, 8/25, 10/12, 10/26-10/27

	2022 SSC Priorities	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1a	Atlantic herring ABC								4				
1b	GB yellowtail flounder ABC									5			
1c	GB cod ABC								4				
1d	SNE/MA winter flounder ABC									5			
1e	Input on rebuilding plan for GOM cod									5			
1f	Input on rebuilding plan for SNE/MA winter flounder										6		
1g	Atlantic sea scallop ABC										6		
1h	Monkfish ABC										6		
1i	ABCs for most stocks in the Multispecies FMP										7		
2	Consult with Council on development of ABC control rules for Northeast Multispecies stocks (sub-panel only)												
3	<u>New</u> : General review of SSC roles and responsibilities				1								
4	Review State of Ecosystem Report by NEFSC.				1								
5	Provide annual input on Council research priorities						2						
7	Review Monkfish PDT analysis of discard estimation methods (Framework 13)							3					
8	NEW: Provide input on draft 2023 Council work priorities								4				
?	<i>Tentative: Feedback on Northeast Regional Habitat Assessment (NRHA)</i>						2						
?	<i>Tentative: Review monkfish fishery performance report</i>							3					
?	<i>Tentative: Review prototype EBFM MSE</i>												

2022 SSC Reviewer Responsibilities (Doc. #1c)

- 5 Assessment Meetings plus AOP meetings (1-2 SSC members per meeting)
- 2 subpanels (ABC CR for Multispecies FMP and Habitat Assessment work)
- Scientific Coordination Subcommittee (SCS) Workshop – Sitka, AK (August 2022)

Routine Assessment participation (NE stocks only)	Meeting Dates	SSC Rec for Chair	SSC Rec for Reviewer
<i>January Research Track (Part 1) (Jan – GOM Haddock)</i>	Jan 25-27	Merrick	
<i>January Research Track (Part 2) (March – EGB/GB Haddock)</i>	March 28-31	Merrick	
<i>June Management Track (herring, winter fl)</i>	June 27-30	N/A (MAFMC)	Chen (CONFIRMED)
<i>US – Canada Joint TRAC (GB YTF, EGB cod, and EGB haddock)</i>	July 12-14	Serchuk (External reviewer) (CONFIRMED)	
<i>July Research Track (American plaice, dogfish)</i>	July 18-22	Chen (Chair) (CONFIRMED)	
<i>September Management Track (monkfish and gf stocks)</i>	Sept 19-23	Maguire (Chair) (CONFIRMED)	O’Keefe (CONFIRMED)
<i>AOP Meetings</i>	2/24, 4/11, 5/24, 8/3	Kerr (CONFIRMED) (Backup: O’Keefe)	

2022 Ad-hoc SSC review participation	Meeting Dates	SSC Participation
<i>Development of ABC Control Rules for Multispecies FMP</i>	Feb-June (with GF PDT)	Wiedenmann, Uchida, Merrick (ALL CONFIRMED)
<i>Provide input on Northeast Regional Habitat Assessment</i>	Spring-Summer	TBD (Sub-group of NEFMC and MAFMC SSC members being discussed)
<i>Provide input on prototype EBFM MSE</i>	Late fall or early 2023	TBD More discussion after April Council Meeting
<i>Scientific Coordination Subcommittee (SCS) Workshop Sitka, AK</i>	August 15-17	TBD (3-4 SSC Members)

Need volunteers

General Logistics

- SSC Reimbursement – Questions? – Margaret Bernier (mbernier@nefmc.org)
- Daily stipend vs. contracts
 - Stipends : routine SSC meetings, SSC Chair (or designee) attendance at Council or AOP meetings, participation in conferences at the request or appointment of the Council Chair or ED, attendance at specific Cmte or PDT meetings, with the authorization of the Council Chair or ED.
 - Contracts : stock assessment peer reviews, SSC subpanel peer reviews, ad-hoc reviews.
- Annual Statement of Financial Interest (SOFI)
 - SSC members not employed by a State or Federal agency are required to complete a SOFI. SSC members must return a completed SOFI before January 31st of each year. SSC members without a current SOFI will not be permitted to participate in SSC meetings or receive compensation. **If any changes – notify the Council.**
- Travel Reimbursement (TA) – A TA# will be sent to you from Woneta Cloutier (wcloutier@nefmc.org)
 - Must be submitted within 6 weeks; summary of reimbursement policies included; TAs submitted after the 6-week due date will only be paid at the discretion of the ED.
 - Stipends are taxable income to the SSC member, but expense reimbursements are not.
- SSC Travel – Questions? - Joan O’Leary (joleary@nefmc.org)

Potential Tools to support SSC work

1. “ABC Tracker” DRAFT (Doc. #5)
Stock status, ABC timing, ABC control rule and rationale
2. ABC method timeline DRAFT (Doc.#5)
Summary of ABC control rule type over time
3. More standardized SSC Memos – Template DRAFT (Doc. #6)
Basic format – key elements of SSC discussion on page 3
4. Other ideas?

ABC tracker and timeline (Doc. #5)

FMP	Stock	Stock Status	ABC Timing	ABC policy used in 2015	SSC Comments
Atlantic herring	Atlantic herring	Declared overfished in 2020; overfishing not occurring (2020 management track). Rebuilding plan implemented in 2022 (Framework 9)	ABC initially set for 3 years at a time. Assessment schedule changed in 2018; now assessed every two years with specifications set for following 2 years.	Constant Catch Approach: ABC set such that the probability of overfishing does not exceed 50% in any year. In this case the third year used to set ABC equal to catch with 50% probability of overfishing. (2015 SSC meeting)	SSC notes that the current high biomass of herring, bolstered by two very large year classes, is likely meeting ecosystem goals; however, meeting this goal is by default and not by design, as ecosystem goals are not identified or captured in the current control rule.
Atlantic sea scallop	Georges Bank and Mid-Atlantic stocks combined	Not overfished, overfishing not occurring	ABC set annually. ABC set for 2 years, but second year default only.	Probability of Overfishing Approach: ABC= Catch associated with fishing rate that has 25% chance of exceeding OFL (2015 SSC meeting)	SSC agreed with the PDT to keep year 2 OFL and ABC at year 1 levels. ABC should not increase because the model underestimates mortality of juvenile scallops at high <u>densities</u> , which results in overestimation of biomass.

ABC Control Rule Policies used in the NEFMC

	2016	2017	2018	2019	2021	2022	2023
Atlantic herring	CC	CC	CC	BB	BB	BB	BB

KEY	
CC	constant catch
BB	biomass based

Part III: SSC Procedures

(Consider new approaches for how we work)

Dr. Lisa Kerr (NEFMC SSC Chair)

SSC Stock Leads

- We propose to continue and expand on the approach we adopted for groundfish and appoint stock leads across the stocks we provide advice on.
- Proposal 1: Appoint one stock lead
- Proposal 2: Appoint two persons per stock
 - Biological/Assessment lead
 - Socioeconomic lead

Proposed Stocks Leads Responsibilities

- **Stock Lead Responsibilities:**
 - Initiating the SSC discussion on their focal stock.
 - Introduce a proposal(s) to start ABC deliberations for their stock during SSC discussion.
 - Provide a written summary of the SSC recommendations for inclusion in the SSC report using the reporting template.
- **Biological/Assessment Species Lead Suggested Roles:**
 - Provide comments on assessment/peer review that help with the discussion and decision making for ABC setting.
 - Track outcomes of stock assessment meetings on their respective stock.
 - Track outcomes of the stock assessment peer review (potential to participate as reviewer).
- **Economics/Social science Species Lead Suggested Roles:**
 - Provide comments on fishery performance and socioeconomic factors influencing catch that may support the discussion and decision making for ABC setting.
 - Track outcomes of Advisory Panel and PDT meetings.
 - Keep up on the social science research for the species.

General SSC Process for Addressing ABC ToRs

Before SSC Meeting

- SSC reviews ToRs and background materials.

At SSC Meeting

- Presentation by lead assessment scientist.
- NEFMC staff presentation/recommendation (including review of PDT report).
- SSC Chair leads discussion focused on decision making for ABC ToR.
 - Comments and proposals from stock lead(s).
 - Group discussion and deliberation.
 - Consensus on recommendations.

After SSC Meeting

- SSC Chair drafts report based on meeting notes and written summary from stock lead(s).
- SSC provides feedback on report.
- SSC Chair finalizes and submits report to NEFMC Executive Director.
- SSC Chair reports out on SSC recommendations to the NEFMC in a presentation.

Elements of SSC Reporting

- **Basis for Advice:** SSC statement regarding the acceptance of the assessment and PDT work as the basis for the SSC deliberations, or an explanation if it was not used. SSC's opinion on whether the assessment represents the “best scientific information available”
- **Recommendations:** A clear recommendation on OFL and ABC.
- **Preventing Overfishing?** A statement on whether the ABC will prevent overfishing.
- **Rational:** Explanation of how the ABC control rule was applied. If the SSC deviates from the ABC control rule, it needs to explain why.
- **Sources of Uncertainty:** Identification of uncertainties that influenced the SSC decision.
- **Research recommendations:** SSC recommendations on future research that would reduce the scientific uncertainty in the ABC recommendation and/or improve the assessment.

Elements of SSC Reporting

- The committee's recommendations should be consensus statements. Consensus statements shall identify the greatest common perception with caveats.
- A summary of any significant differences of opinion expressed by SSC members during the meeting and how they were resolved.
- If necessary, majority and minority reports will be drafted to represent divergent views of the Committee.
- The Chair will present both majority and minority in reporting out to the Council.

Discussion

Feedback on proposed stock leads approaches?

Feedback/areas for improvement in how we work ?