



## Mid-Atlantic Fishery Management Council

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# MEMORANDUM

**Date:** August 1, 2016

**To:** Council

**From:** Rich Seagraves

**Subject:** EOP Committee and AP Consideration of EAFM Guidance Document

Enclosed is the meeting summary for the EOP Committee Meeting held on July 21- 22, 2016. The purpose of that meeting was to review, discuss, and make recommendations for approval of the EAFM Guidance Document by the Council in August. The document provided to the EOP Committee for its review was unchanged from the first draft presented to the Council at its June 2016 meeting, with the exception that Figures 9-11 were added (created by Dr. Gaichas for the Frontiers in Marine Science manuscript: *Gaichas SK, Seagraves RJ, Coakley JM, DePiper GS, Guida VG, Hare JA, Rago PJ and Wilberg MJ (2016) A Framework for Incorporating Species, Fleet, Habitat, and Climate Interactions into Fishery Management. Front. Mar. Sci. 3:105. doi: 10.3389/fmars.2016.00105*).

Of particular importance are the specific recommendations and draft policy statements included in each section of the document (forage species, habitat, climate, interactions). Also included is a summary/distillation of the major suggested edits/changes to the document by the EOP Committee for Council consideration. In addition, included is a summary of discussion and comments received from the EOP Advisory Panel based on a meeting held via webinar July 29, 2016.

The revised draft of the EAFM Document which incorporates the suggested changes by the EOP Committee will be sent to you under separate cover prior to the upcoming Council meeting. Thanks and I look forward to our meeting in Virginia.

Mid-Atlantic Fishery Management Council  
Ecosystems and Ocean Planning Committee Meeting  
July 21-22, 2016  
Meeting Summary

(Day 1) July 21, 2016

The meeting was called to order at 1:30 by Committee Chair Warren Elliott. EOP Committee members in attendance included Rob O'Reilly, Sarah Winslow, Dr. Peter DeFur, Adam Nowalsky. Laurie Nolan participated by phone connection. Also in attendance were Rick Robins (Council Chair), Sarah Gaichas (NEFSC), Rich Seagraves, Kiley Dancy. Members of the public in attendance included Purcie Bennett-Nickerson, Joseph Gordon, and Annie Hawkins.

Rich Seagraves presented an overview of the draft EAFM guidance document for Committee review. The goal of the meeting is to reach consensus on a recommendation to adopt the second draft of the guidance document by the Council at its upcoming August meeting. The major components of the document address numerous concerns voiced by stakeholders during the visioning and strategic planning process done in 2011-2012. The purpose of the EAFM guidance document is to provide practical advice for the Council to transition from its traditional single species approach to ecosystem level fishery management.

The Committee reviewed the EAFM definition and accepted by consensus. The Committee next discussed the EAFM Goal which is based on the concept of sustainable utilization but from an ecosystem perspective. There was discussion about the need to revise the Bruntland Commission definition of sustainable utilization – the criticism was that the definition is totally needs based. The advantage of the definition is that it sets timescale for what you are planning for (i.e., future generations equates to a 10 to 20- year planning horizon). Meeting needs and achieving optimum yields may be two different things - all constituents have different definitions of what the needs are (optimum yield goes beyond meeting needs).

**The Committee agreed by consensus on the following goal statement and revised definition of sustainable utilization.**

#### **4. EAFM Goal**

*To manage for ecologically sustainable<sup>1</sup> utilization of living marine resources while maintaining ecosystem productivity, structure, and function.*

<sup>1</sup>Ecologically sustainable utilization is defined as utilization that accommodates the needs of present and future generations, while maintaining the integrity, health, and diversity of the marine ecosystem.

Next the Committee discussed the Description of the Ecosystem that was provided in Appendix 1 by the NEFSC. The description provides too narrow of a view of the ecosystems within which MAFMC managed species exist. However, a more complete treatment was provided in the Climate White Paper. **The Committee agreed by consensus that the EAFM Guidance Document shall apply throughout geographic range of FMP management units** (e.g., bluefish extend Key West to Canada). There was considerable discussion about the need more coordination with the SEFSC to describe the full ecosystem unit occupied by MAFMC resources. Here was a question about the source for Figure 1. **(Note: staff will provide time period, data/image source for all figures during final copy edit.)** The question was asked - does water residence time apply to Georges Bank, the full shelf, other regions of the ocean? It was noted that specific to our FMPs, opportunities for coordination can come out of this process. The distributional shifts are real, the Council's EAFM effort provides an opportunity to extend the scope of management to the full coast for managed species where appropriate.

The Committee then discussed the guidelines for management of forage fish. The primary focus of the discussion was the need to maintain an adequate forage base in the Mid Atlantic to ensure ecosystem productivity, structure, and function. Addressing ecosystem level goals for forage stocks can be implemented in control rules or OFLs for managed forage species. The trade-off analyses relative to forage needs to continue. There also is a need to conduct an MSE to develop a forage guild control rule (which would identify an overall target catch for the guild). There was considerable discussion about the need for coordination with HMS (for example, it would be important to consider condition factor for those predators). There is a need to coordinate with SEFSC on HMS in particular as HMS actions can also affect us. The Council may also want to consider assessing the forage base beyond indicators – including diversity, abundance, and population dynamics necessary at the lowest end. The committee agreed by consensus on the following policy statement:

**It shall be the policy of the Council to maintain an adequate forage base in the Mid-Atlantic to ensure ecosystem productivity, structure and function.**

The Committee discussed the potential biological reference points (BRPs) for forage species provided in Table 1. The idea is to exploit at lower levels than  $F_{msy}$  to maintain biomass at higher levels than required by MSFCMA. But the unanswered question is what should be the form and shape of the control rule? The answer to this question requires economic analyses we don't currently have (each fishery is different). An **MSE type analysis would be most useful here**. We can learn a lot from the herring MSE being conducted by the NEFMC/NEFSC. **The potential forage control role provided in the document is provided as an example only – this needs to be re-emphasized in the document.** We can also think of control rules/targets at an aggregate guild level. Whatever form the control rule takes, we need data to weigh the tradeoffs, but we need "timely" collection of the requisite data to inform the forage control rule tradeoff-analysis.

Anne Hawkins commented that she was concerned about text accompanying the policy which the SSC hasn't reviewed - it needs thorough review. The document differs from what happened at the SSC workshop and is not based on a comprehensive literature review.

To address the economic data and analytical gaps the Committee agreed by consensus to the following:

**The Council, in conjunction with its' SSC and the NEFSC, shall promote the **timely collection of data and development of analyses to support the biological, economic and social evaluation of ecosystem level tradeoffs including those required to establish an optimal forage fish harvest policy. A Management Strategy Evaluation (MSE; see below) type of analysis may be most useful here.****

It was noted that there are more recreational anglers in the ocean offshore now than ever, so to assess the health of HMS and others, we only need to look at numbers of boats on the ocean. We could use the number of boats fishing as a measure of health of HMS. Offshore anglers wouldn't go out if they weren't catching fish – perhaps the stocks are in better shape than we are giving the ocean credit for.

Staff to add a description of the social and economic information that are needed which was addressed in the white paper. In addition, the document would be improved if there was a better demarcation between the managed/unmanaged forage fish sections.

The current EFH designations for MAFMC managed species need to be updated and the problem with the existing definitions is the level of data – which is mainly presence absence so they are not effective in identifying discrete habitats.

**There is no discussion of the Regional Ocean Plan**, (important to include). There is a need to define EFH at finer scales than has been historical practice, especially in non-trawlable habitats. An example is Waldo Wakefield's work – potential sampling tools include hab-cam and other advanced technologies to evaluate habitat. It should also be noted that sampling is currently limited temporally (due to NEFSC trawl survey periodicity) and sampling at finer temporal scales is also needed.

**The Committee agreed by consensus to:**

**In addition to the habitat objectives, Committee agreed by consensus to the proposed policy statements:**

**1. Strengthen EFH designations and consider essential from a multispecies/ecosystem perspective emphasizing the connectivity between species, life history stages, etc. and inshore and offshore habitats.**

**2. Demonstrate and communicate the value of habitat to managed fisheries and quantitatively link habitat science and conservation to fishery outcomes.**

**3. Encourage NMFS to conduct additional focused sampling in habitats at finer scales than has been historical practice (especially in non-trawl-able habitats). Also, habitat sampling should be expanded temporally and other sampling methods should be examined.**

#### **4. Examine ecological, economic, and social impacts of the deep-water coral closed areas [moved from climate section]**

The Committee next discussed the climate change and variability section which is the most well developed part of the document. The potential impacts of climate change were discussed in detail in the Climate white paper. There is major potential for changes in species distribution, which has already occurred for some species. However, some species in the Mid may have increased productivity under climate change. The distributional and productivity changes are expected to occur simultaneously. Current management may be inducing unaccounted mortality/regulatory discards for species out of range. Governance issues due to jurisdictional boundaries are major problems in this area.

The Committee adopted the following by consensus (with **revisions indicated in red**):

#### **Recommendations for incorporation of climate change and variability into the current fishery assessment and management process (a *climate-ready check list*)**

- 1. Continue to work with NOAA on the implementation of the NMFS Climate Science Strategy in the Northeast region (<https://www.st.nmfs.noaa.gov/ecosystems/climate/national-climate-strategy>).**
- 2 Re-evaluate stock identification of Council managed species - a WG could be established modeled after the ICES Stock ID WG.**
- 3. Identify species likely to become established in the Mid-Atlantic or likely to expand or shift distribution into New England waters; evaluate current monitoring program relative to these species and consider potential management responses in coordination with SAFMC, NEFMC and Canada.**
- 4. Develop and evaluate approaches for MAFMC fisheries and their management to become more adaptive to change.**
- 5. Incorporate temperature into all MAFMC species stock assessment models; consider incorporation of other environmental factors where appropriate; use models to develop short-term forecasts (ACL) and medium-term projections**
- 6. Evaluate changing interactions of MAFMC managed fisheries with protected species including marine mammals, sea turtles, and fish species.**
- 7. Conduct industry, management, and scientist workshops before benchmark assessments; in anticipation of the assessment being schedule. The workshop should build off the butterflyfish and Atlantic mackerel workshops.**

**8. Continue efforts to engage industry in the oceanographic and fisheries monitoring and research in the Mid-Atlantic region. [add other additional sources of data, university research partners, etc]**

**9. Continue to advocate for, collaborate on, and support ~~retrospective~~, **historical** field, and laboratory research to understand the effects of climate change on species managed by MAFMC**

**10. Repeat the Northeast Fisheries Climate Vulnerability Assessment in conjunction with the most recently updated CO<sub>2</sub> emission and climate change scenarios (as described in the International Panel on Climate Change version 6).**

**11. Provide input to the NEFSC on elements of the Annual State of the Ecosystem report to meet MAFMC needs.**

~~**12. Examine ecological, economic, and social impacts of the deep-water coral closed areas [moved to habitat section]**~~

**13. Develop MSE capacity to support EAFM and ultimately EBFM and EBM activities of the MAFMC. The MSE framework should explicitly evaluate management strategies to meet MAFMC goals in response to climate change (as well as habitat, species, social, and economic interactions). [add language describing how this would be accomplished; discussion highlighted lack of coordination with HMS]**

**\*add shad and river herring to NEVA plots**

### **Proposed Climate-related Policy Statements**

**1. Continue to work with NOAA on the implementation of the NMFS Climate Science Strategy in the Northeast region.**

**2. Develop and evaluate approaches for MAFMC fisheries and their management to become more adaptive to change.**

**3. Continue to advocate for, collaborate on, and support retrospective, field, and laboratory research to understand the effects of climate change on species managed by MAFMC and incorporate those results into assessment and management.**

Day 2 (July 22, 2016)

The meeting was called to order by Chairman Elliott at 0830. The same individuals attended day 2 of the meeting with the addition of EOP Committee member Mike Luisi. The Committee recapped its discussion on day 1. It was noted that the goal is broader than the definition of EAFM - the focus on yield to some degree overlooks other objectives. For example, the yield for krill might be zero. The process needs to optimize management of marine fisheries across the entire portfolio the Council manages (rather than just yield). The Committee decided by consensus to keep the yield reference since it provides a connection the Magnuson Act. **Add "optimize management" and define OY as in MSA.**

It was noted that species will be moving in and out of region, not just north and south.

Next the Committee discussed the Interactions section of the document. The initial draft of the risk matrix in the document primarily addresses the health of the resource as a major concern and is focused on conservation only. Since our goal in this process is to optimize the fisheries as a whole, we need to add the human dimensions and get human interactions into the equation (staff to work with the economists on this).

The matrix is a useful tool for thinking strategically. Economic vulnerability may not be sufficiently described by port vulnerability. The document needs to describe the list of species that we think have the highest degree of economic vulnerability. The risk to our fisheries hinges on open questions about monitoring and our ability to measure the mortality by fishery. In addition, post release survival is also important, which may contribute to underperformance. Staff will add a column describing how well the monitoring system performs in terms of measuring both landings and discards (separated by recreational and commercial).

Economic vulnerability could be described as fleet specific or port specific. We will learn more through this process and help to improve our management flexibility, but we are still bound by not overfished and overfishing. However, this approach allows you to look at factors besides overfishing which might allow you to design a rebuilding plan that lessens social and economic impacts. We should probably think differently about recreational and commercial fleet economics and vulnerability.

There are numerous components to social diversity for recreational fisheries: shore mode vs boats, for hire head boats vs charter boats, etc. (need a column for this too). The purpose of this exercise is to define highest risks. Allocation can be divided between states and between recreational and commercial sectors.

What do we anticipate happening between now and August Council meeting? Purpose is predictive, dependent on quantitative or qualitative probability, council input up front to ensure management perspective. For this iteration looking for an endorsement of the process, refinement—adding columns. There will be a second iteration of this matrix filled out as best we can for the August meeting. This is an iterative process.

It was suggested that we add columns for other activities—dredging, windfarms, etc. (with separate columns for each) including estuarine water quality, offshore energy development vulnerability, etc. The analysis should split recreational and commercial components for impacts.

It was suggested that butterfish be given a lower risk rating for discard since they are being actively managed. The matrix should be changed to specify whether discard is a concern for recreational and commercial. Also add a column for catch accounting (i.e., the degree of catch uncertainty). It was noted that combining ecological, human and social risk assessment is cutting edge. The Committee will continue to refine the risk matrix – it should be emphasized that this is a living document subject to change as we move forward.

The Committee then reviewed the example questions. Staff see climate risks as the highest priority to address for impacts to current management system. We need to develop a management framework process that allows the Council to adapt more quickly (timing is really important).

The Committee felt the document is helpful as it provides examples to generate conversation for today, but the Committee was not prepared to develop these specific questions today. Future questions to address can build on the above. We need to identify which species that are under fishery management plans are at high risk of collapse or have serious problems, generally or specifically. Ocean quahog was identified as high risk from climate—what is the risk of a serious problem with the stock? Similarly, for the squid species - what is risk of serious stock problem with these due to habitat, climate, changes in interactions.

**Motion: by consensus the Committee agreed to recommend adoption of the EAFM Guidance Document (as amended) by the Council for adoption in August.**

**Suggested new paragraph to go with risk-matrix-in-progress:**

**The risk assessment is being updated based on initial review by the Council staff and the EOP Committee. Two risk ratings have been changed (scup allocation changed to moderate, butterfish discards changed to moderate). Additional risk categories will be added to address human dimensions, including economic value, economic vulnerability, fleet diversity, social diversity, and others. Catch measurement and monitoring, and other human activities such as offshore energy development will also be addressed. In addition, risks specific to recreational and commercial fishing will be separated as much as possible.**

**Meeting adjourned at 12:15 p.m.**

## Summary of EAFM Recommendations

### General

#### 3. EAFM Definition

*An ecosystem approach to fishery management recognizes the biological, economic, social, and physical interactions among the components of ecosystems and attempts to manage fisheries to achieve optimum yield taking those interactions into account.*

Alternative definition **or** add additional language describing what OY means in this context.

~~*An ecosystem approach to fishery management recognizes the biological, economic, social, and physical interactions among the components of ecosystems and attempts to optimize the management of marine fisheries to achieve optimum yield taking those interactions into account.*~~

#### 4. EAFM Goal

*To manage for ecologically sustainable<sup>1</sup> utilization of living marine resources while maintaining ecosystem productivity, structure, and function.*

<sup>1</sup>Ecologically sustainable utilization is defined as utilization that accommodates the needs of present and future generations, while maintaining the integrity, health, and diversity of the marine ecosystem.

### Forage

1. It shall be the policy of the Council to maintain an adequate forage base in the Mid-Atlantic to ensure ecosystem productivity, structure and function.
2. The Council, in conjunction with its' SSC and the NEFSC, shall promote the **timely** collection of data and development of analyses to support the biological, economic and social evaluation of ecosystem level tradeoffs including those required to establish an optimal forage fish harvest policy. A Management Strategy Evaluation (MSE; see below) type of analysis may be most useful here.

### Habitat

**In addition to the habitat objectives**, proposed policy statements:

1. Strengthen EFH designations and consider essential from a multispecies/ecosystem perspective emphasizing the connectivity between species, life history stages, etc. and inshore and offshore habitats.

2. Demonstrate and communicate the value of habitat to managed fisheries and quantitatively link habitat science and conservation to fishery outcomes.
3. Encourage NMFS to conduct additional focused sampling in habitats at finer scales than has been historical practice (especially in non-trawl-able habitats). Also, habitat sampling should be expanded temporally and other sampling methods should be examined.
4. Examine ecological, economic, and social impacts of the deep-water coral closed areas [moved from climate section]

## Climate

Recommendations for incorporation of climate change and variability into the current fishery assessment and management process (a *climate-ready check list*)

1. Continue to work with NOAA on the implementation of the NMFS Climate Science Strategy in the Northeast region (<https://www.st.nmfs.noaa.gov/ecosystems/climate/national-climate-strategy>).
- 2 Re-evaluate stock identification of Council managed species - a WG could be established modeled after the ICES Stock ID WG.
3. Identify species likely to become established in the Mid-Atlantic or likely to expand or shift distribution into New England waters; evaluate current monitoring program relative to these species and consider potential management responses in coordination with SAFMC, NEFMC and Canada.
4. Develop and evaluate approaches for MAFMC fisheries and their management to become more adaptive to change.
5. Incorporate temperature into all MAFMC species stock assessment models; consider incorporation of other environmental factors where appropriate; use models to develop short-term forecasts (ACL) and medium-term projections
6. Evaluate changing interactions of MAFMC managed fisheries with protected species including marine mammals, sea turtles, and fish species.
7. Conduct industry, management, and scientist workshops before benchmark assessments; in anticipation of the assessment being schedule. The workshop should build off the butterflyfish and Atlantic mackerel workshops.

8. Continue efforts to engage industry in the oceanographic and fisheries monitoring and research in the Mid-Atlantic region. [add other additional sources of data, university research partners, etc]

9. Continue to advocate for, collaborate on, and support retrospective, historical field, and laboratory research to understand the effects of climate change on species managed by MAFMC

10. Repeat the Northeast Fisheries Climate Vulnerability Assessment in conjunction with the most recently updated CO<sub>2</sub> emission and climate change scenarios (as described in the International Panel on Climate Change version 6).

11. Provide input to the NEFSC on elements of the Annual State of the Ecosystem report to meet MAFMC needs.

~~12. Examine ecological, economic, and social impacts of the deep-water coral closed areas [moved to habitat section]~~

13. Develop MSE capacity to support EAFM and ultimately EBFM and EBM activities of the MAFMC. The MSE framework should explicitly evaluate management strategies to meet MAFMC goals in response to climate change (as well as habitat, species, social, and economic interactions). [add language describing how this would be accomplished; discussion highlighted lack of coordination with HMS]

\*add shad and river herring to NEVA plots

### Proposed Climate-related Policy Statements

1. Continue to work with NOAA on the implementation of the NMFS Climate Science Strategy in the Northeast region.

2. Develop and evaluate approaches for MAFMC fisheries and their management to become more adaptive to change.

3. Continue to advocate for, collaborate on, and support retrospective, field, and laboratory research to understand the effects of climate change on species managed by MAFMC and incorporate those results into assessment and management.

### Interactions Synthesis

1. To incorporate species, fleet, habitat, and climate interactions into EAFM, the Council should adopt a structured framework to first prioritize interactions, second specify key questions regarding high priority interactions, and third tailor appropriate analyses to address them. The primary tools for the framework include an initial risk assessment and, for high priority complex issues, full MSE. Finally, implemented management would be evaluated to ensure that objectives are being met, or to adjust measures as conditions change (Fig. 8).



Ecosystem and Ocean Planning Committee Advisory Panel Meeting via Webinar  
July 29, 2016  
Summary Notes

Ecosystem and Ocean Planning (EOP) Committee Chairman Warren Elliot opened the meeting at 9:02 a.m. The purpose of the meeting was to review, discuss and comment on the EAFM guidance document as revised based on EOP Committee discussion at its July 21-22, 2016 meeting. EOP AP participants on the call included Frederick Akers, Gregory DiDomenico, Joseph Gordon, Megan Lapp, Carl Lobue, Pan Lyons Gromen, Davis Wallace, and Judith Weis. Also on the call were Jeff Kaelin (Council member), Rich Seagraves (MAFMC staff), and Sarah Gaichas (NEFSC).

Seagraves gave an overview of goals, definitions, etc. and EOP Committee suggested revisions. Greg DiDomenico asked four questions – first, in the EAFM strategy slide bullet 2, the OY definition takes into account multiple dimensions of the ecosystem: are we officially trying to change the definition of OY as we know it? Staff response was no, OY is defined in the Act. EAFM could come into play in development of yield calculations. Second question - the EAFM guidance document is described as a Non-regulatory document. Power of language, just want to make sure, document is non-regulatory, but to adhere to this we will take regulatory actions through existing FMP structures. How is it a non-regulatory then? Staff responded that the difference is similar to binding nature of the Magnuson Act versus the guidance provided by NMFS for the national standards - the latter is non-binding. The Council can use the EAFM policy guidance provided for a particular problem but would not be bound by it. Third, will the Council be using the normal SSC process on actions? Staff responded yes. Fourth - relative to committee changes from last week - did the EOP recommend removing OY from EAFM definition? No. It was left in because it ties the definition back to Magnuson – we are still trying to achieve OY.

Meghan Lapp asked if it is possible at this stage to recommend that the document be considered a living document? There is a lot of science being done right now. Hilborn, Essington, Punt and others have formed a working group to look at some of these forage issues - a lot of research on this topic is currently underway. She expressed the desire to include language that this is a living document that will incorporate new science as it becomes available. The current document is so cutting edge that the conclusions could change in 6 months. Staff responded that yes, this is a living document and this will be strongly emphasized. OY already accounts for a lot of factors. Climate and other ecosystem factors including predator/prey interactions are to a great extent already addressed in stock assessments or in stock assessments combined with management. She was concerned that predator prey interactions could be double counted in assessment and in management - should be either or. Staff agreed – the intention is, to extent possible, to consider these factors in stock assessments – there needs to be a clear demarcation and the Council needs to insure that there is no double counting in management. It depends on the on the assessment quality, but the intention is to keep accounting separate.

Pam Lyons-Gromen asked how is this a living document in the Council process? On what time frame will the EOP and Council set priorities and revisit the EAFM document? Staff

response was that the Council hasn't fully worked out the procedure for review and will need to discuss this. Warren Elliot responded that the strategic plan is a good guidance document and we can identify needs or problems and adjust as necessary as that document is reconsidered periodically – could be on the same time frame.

The AP members were mixed in their acceptance of EAFM goal, sustainability definition, etc. Greg DiDomenico had overarching concerns that they are esoteric and not measurable and will only lead to reductions in overall quotas and more economic burden on the fishing industry. Meghan Lapp agreed with Greg and is worried that this will be used to hurt the industry. Joseph Gordon supported the definition and felt it was clear that the goal is not to shut down fishing but to ensure sustainability now and for future generations. Carl Lobue and Fred Akers were supportive of the goals and definition while Dave Wallace was not.

The background description of the ecosystem provided by NEFSC was discussed and staff felt the description provided in the Climate White Paper was a more comprehensive treatment of the major Atlantic Coast ecosystems. The issue is that MAFMC managed species cover a wider range than the Mid Atlantic EPU (or all of the NELME for that matter). We need an adequate description of southeastern US and how the Atlantic Coastal units inter-relate. MAFMC managed species extend well north and south of the NELME -so the guidance document uses geographic range of units defined in FMPs (e.g., bluefish span the full coast and MAFMC interact with some protected resources that range even more widely).

Next staff discussed the forage section and the recommended policy statement that the Council aims to maintain an adequate forage base. The preferred buffer for forage species is not a one size fits all answer – there are significant economic tradeoff analyses that are needed to evaluate this question. The Council needs to enlist the expertise of Geret DePiper at NEFSC (Economist) and the EOP needs to get specific with what they need for these analyses and loop Geret in more formally. The EOP adopted the two policy statements, with the addition of “timely” to the second.

Pam Lyons Gromen asked a question and had a comment. First she asked if, relative to the data collection recommendation, have we done a gap analysis to describe what is needed to move forward with an MSE? The answer is in interactions white paper which describes what is required but it is not a formal gap analysis. Her comment/recommendation was that the strategic plan strategy 8.4 states that we should fully consider species interactions in the determination of catch limits. The document should include a statement on progress we are making in assessments for forage species, e.g. butterfish. The recognition of this important work gets lost and we need a statement that supports improvement of assessments for forage species.

Meghan Lapp noted that the managed forage species include mackerel, butterfish, squids plus herring which are the only species that SeaFreeze fishes for. My business takes a hit when this gets “more conservative”. She suggested that we should substitute the term “tradeoffs” for “reallocation” – because that is what you are doing (i.e., tradeoffs between fisheries should be termed a reallocation). P 8 of guidance document requires knowledge of

uses of and substitutions in the economy. In some cases, substitutes could be regulated to non-harvest by the unmanaged forage amendment. Fishermen can't substitute species they don't have a permit for. The document suggests more conservative management for forage species but squid and butterfish are described as "winners" in climate change -so why is it a foregone conclusion that we need to be more conservative for those species? Could they not be exploited at a higher level then? Staff responded that the forage policy contemplates more conservative exploitation rates but catch quotas could increase if more conservative reference points are applied to a more productive stock.

Greg DiDomenico noted that the discussion in the document ignores the reality that current annual fishing mortality is so small that we don't even catch the quota. These are extremely important fish but they are also very resilient and productive. This is their role in the ecosystem over time. We are already achieving these goals de facto by not being able to access the fish due to many things other than population productivity (markets, fleet health, availability). The fishing fleet is not in real competition with predators – the Council is already limiting the fisheries in our region through current quota levels. The document needs a graph showing here is where ABC and quotas are and here is the actual fishing mortality rate – which is a very small fraction of total mortality. The document needs to define "social evaluation" – he would like to see real teeth in the social evaluation. The document should recognize that the US fishing industry is feeding people (seafood production) beyond the US. We are part of major global issues and food security. The US industry is feeding other nations based on sustainable fishing policies and we are doing it better than every other nation – this needs to be clearly articulated. If the Council further restricts the industry, another nation could fill the void with fish caught in an unsustainable manner. He also noted the importance of fish we catch to other fisheries (e.g., bait for the US lobster fishery) and they supply zoos and aquariums throughout the world that depend on sustainably caught bait/food to operate.

The EOP Committee approved the habitat section, but also wanted to move deep sea coral recommendation from Climate section to this section.

Judith Weiss asked what was meant by landscape level definition of EFH. Staff responded that a potential example might be an area like Hudson Canyon which is important across many species. From a multispecies standpoint this is a significant area important to many fisheries and this ecosystem may require additional protection primarily from outside interests (energy development, etc.).

Pam Lyons Gromen referenced 7.2.6 "determine if existing habitat authorities are adequate and was left out of presentation. We need to update this section to reflect that the AP, Committee, Council have completed the Habitat Policy documents regarding nonfishing human uses of the ocean which needs to be tied into this. There is an ongoing Ocean Action Plan out for public comment which should be recognized. Improving collaboration for conservation of EFH should result in more precise definitions of EFH. Staff recommended inclusion of a special section that ties into marine spatial planning and addresses competing uses of the ocean.

The Climate section is the most well developed part of the document and includes a long list of recommendations. The EOP recommended combining some while others were moved to other parts of the document. They also requested that Jon Hare add shad and river herring to NEVA plots.

Pam Lyons Gromen felt the Climate section was nicely developed and some recommendation could apply to the whole paper. The Ecosystem Status Report is an important report and Council and public input to the NEFSC is necessary to insure that the Center produces a product that is useful to the Councils.

Meghan Lapp referred to the large trawler trips slide - what is the definition of a large trawler? The figure was borrowed from Malin Pinsky and staff was not sure of the precise definition. She suggested that the trend in the graph doesn't fit with her experience. Are they the same vessels for the entire area or are we substituting businesses north to south?

Sarah Gaichas presented a summary of the Interactions section (same presentation as was given to the EOP).

Pam Lyons Gromen asked if shad and river herring be added to the risk assessment here too as recommended for Climate section? We don't directly manage them so may not need to be in this part. Do we need a column for incidental catch? Covered under discard, but could be clarified what each column means. There were no further AP comments on this section.

Jeff Kaelin provided an overall comment on coordination, especially with regards to climate and forage sections. The document is silent on coordination with ASMFC and this is important. He is concerned that ASMFC is developing a different approach to forage fish management than the Science Center and the Councils. There is a serious lack of coordination. Will make sure to put language regarding coordination with ASFMC into document.

Warren Elliot noted that we need comments ASAP to make the Council mailing. The EOP Committee recommended that the Council approve the revised draft at the August Council meeting - emphasizing that this is a LIVING DOCUMENT.

July 29, 2016

**Joint Industry Comments Re EAFM Guidance Document**

We wish to express to the Council our concern with adopting the EAFM Guidance document as it now stands. As this document has the potential to guide regulations in the future and significantly impact the fisheries we represent, we believe it would benefit from further deliberation, stakeholder input, and SSC review prior to formal adoption. However, if the Council wishes to take action in August, we request that these issues be addressed.

1. The recommended language on page 5 with regards to forage fails to reference fisheries. The Mid Atlantic Council oversees several very valuable forage fisheries, which it should not fail to acknowledge in a policy statement. The statement should be revised to read: **“It shall be the policy of the Council to maintain an adequate forage base in the Mid Atlantic to ensure healthy forage fisheries, ecosystem productivity, structure and function.”**
2. The term “tradeoff” is an esoteric term that should be replaced with the term “reallocation”, in particular when evaluating reallocations, or “tradeoffs”, between fisheries or FMPs. This is particularly important when discussing management of forage fisheries. If harvest of a forage species is restricted for the presumed benefit of another species or fishery, that is officially a reallocation of the resource, not a mere “tradeoff”. Further, the idea on page 7 that managing a reallocation, or “tradeoff between their indirect *in situ* value versus their direct market value” for forage species requires knowledge of “uses of and substitutions for these species within the economy” does not 1) acknowledge that it takes years to develop a market for a particular species, as well as modifications to entire business plans, 2) consider the fact that similar species will now be regulated to essentially non harvest by the Unmanaged Forage Fish Amendment, and 3) consider that individual fishermen and vessels are limited by the permits they possess, prohibiting “substitution” of income from a species for which they do not possess a permit.

3. We strongly oppose the guidance document's reference to the modification of biological reference points and existing Council risk policy with regards to forage species. We believe these are overly prescriptive management tools to suggest in this document, particularly without formal SSC discussion and review as it pertains to individual managed Mid Atlantic species.
4. We do not support a singular forage fish harvest policy, as recommended in the policy statement on page 7, which reads: "The Council in conjunction with the SSC and the NEFSC, shall promote the collection of data and development of analysis to support the biological, economic and social evaluation of ecosystem level tradeoffs including those required to establish an optimal forage fish harvest policy. A Management Strategy Evaluation (MSE; see below) type of analysis may be most useful here". Not all forage fish have similar life cycles, and a singular policy is inappropriate.
5. The "sensitivity index" of the guidance document concludes that butterfish, illex and loligo are not vulnerable to climate change and would thrive under changing conditions. Furthermore, these species have short life cycles and are known therefore to be resilient to fishing mortality with yearly (or year round) recruitment unrelated to M. Therefore, the assumption that these specific fisheries should be managed more conservatively is unfounded.
6. Given the importance of this document, we would like the document to clearly articulate that it is intended to represent only the first iteration of an evolving process. The scientific record underpinning approaches to managing forage fish is rapidly growing. While the document includes an early summary of a few relevant studies, it is by no means conclusive and any management action taken by the Council at a future date must be based on the best scientific information available at the time.

Sincerely,



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**Long Island Commercial Fishing Association**