Atlantic States Marine Fisheries Commission

ISFMP Policy Board

May 5, 2022 8:30 – 11:00 a.m. and 11:30 a.m.-12:00 p.m. Hybrid Meeting

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary. Part of this meeting will be conducted with the Mid-Atlantic Fishery Management Council (MAFMC).

1.	Welcome/Call to Order (S. Woodward)	8:30 a.m.
2.	 Board Consent (S. Woodward) Approval of Agenda Approval of Proceedings from January 2022 	8:30 a.m.
3.	Public Comment	8:35 a.m.
4.	Executive Committee Report (S. Woodward)	8:45 a.m.
5.	Consider Changes to the Appeals Policy (R. Beal) Final Action	9:00 a.m.
6.	Update on Mode Split Work Group (R. Beal)	9:15 a.m.
7.	Report from De Minimis Work Group (T. Kerns) Possible Action	9:25 a.m.
8.	Update on East Coast Climate Change Scenario Planning (T. Kerns)	9:45 a.m.
9.	Committee Reports • Law Enforcement Committee (<i>T. Kerns</i>)	9:55 a.m.
10.	 NOAA Report on Sea Turtle Bycatch in Trawl Fisheries (<i>C. Upite</i>) Review Stakeholder Outreach on Action to Develop Bycatch Reduction Measure to Reduce Sea Turtle Takes 	10:05 a.m.
11.	Update on MAFMC's Consideration of Re-initiating the Research Set Aside Program (<i>R. Beal</i>)	10:35 a.m.
12.	Review Information Related to Tautog Commercial Tagging Program (<i>J. Boyle</i>)	10:45 a.m.
13.	Review Noncompliance Findings (If Necessary) Action	10:50 a.m.
	Other Business/Recess	10:55 a.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

This part of the meeting will be conducted with the MAFMC

15. Reconvene with the MAFMC	11:30 a.m.
16. Initial Discussion on Commission Harvest Control Rule Draft Addenda and MAFMC Framework (<i>D. Colson Leaning, J. Beatty</i>)	11:30 a.m.
17. Adjourn	12:30 p.m.

MEETING OVERVIEW

ISFMP Policy Board May 5, 2022 8:30 – 11:00 a.m. and 11:30 a.m. -12:30 p.m. Hybrid Meeting

Chair: Spud Woodward (GA) Assumed Chairmanship: 10/21

Vice Chair: Joe Cimino (NJ)

Previous Board Meeting: January 27, 2022

Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, SC, GA, FL, NMFS, USFWS (19 votes)

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from January 27, 2022
- **3. Public Comment** At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Executive Committee Report (8:45-9:00 a.m.)

Background

• The Executive Committee will meet on May 4, 2022

Presentations

• S. Woodward will provide an update of the Executive Committee's work

Board action for consideration at this meeting

none

5. Consider Changes to the Appeal Process Final Action (9:00-9:15 a.m.)

Background

- The ISFMP Charter includes an opportunity for a state to appeal species management board decisions. A process was implemented in 2003 and revised to clarify appeal criteria.
- After the 2021 appeal decision regarding black sea bass commercial allocation, it was suggested additional improvements to the process may be appropriate.
- The Executive Committee has discussed and drafted a revised Appeals Process (see Executive Committee Briefing Materials).

• R. Beal will present the revised Appeals Process

Board action for consideration at this meeting

• Approve the revised Appeals Process

6. Update on Mode Split Work Group (9:15-9:25 a.m.)

Background

- Recreational fisheries are generally divided into three modes: shore, private anglers and for-hire fisheries. At times, these three modes have different preferred management programs and these differences are highlighted when management reductions are necessary.
- The Commission does not have a policy on recreational mode splits. The Policy Board
 established the Mode Split Work Group, which is considering if a policy should be
 established that would to guide consideration of future mode splits rather than
 having the species management boards deciding independently.

Presentations

• R. Beal will present the Mode Split Work Group progress

Board action for consideration at this meeting

none

7. Report from De Minimus Work Group Possible Action (9:25-9:45 a.m.)

Background

- The Commission includes de minimis provisions in interstate FMPs to reduce the
 management burden for states that have a negligible effect on the conservation of a
 species. The de minimis provisions in FMPs vary by species and include a range of
 requirements for management measures, reporting requirements, and de minimis
 qualification periods.
- Past Policy Board de minimis discussions focused on the balance between standardization across FMPs and the flexibility for the species management boards in developing de minimis provisions.
- The Policy Board tasked a Work Group to provide a recommendation for addressing de minimis that addresses the concerns raised by the Board.

Presentations

• T. Kerns will present the Work Group Report (Supplemental Materials)

Board action for consideration at this meeting

• Consider Work Group Recommendations

8. Update on East Coast Climate Change Scenario Planning Initiative (9:45-9:55 a.m.)

Background

 In November 2020, the Northeast Region Coordinating Council (NRCC) initiated a region-wide scenario planning initiative. Through this East Coast Climate Change Scenario Planning Initiative, fishery managers and scientists are working collaboratively to explore jurisdictional and governance issues related to climate change and shifting fishery stocks.

- The specific focus of this scenario project is (i) to assess how climate change might affect stock distribution, availability and other aspects of east coast marine fisheries over the next 20 years, and (ii) to identify what this means for effective future governance and fisheries management.
- A scoping process was conducted in August-September 2021 to introduce the
 initiative to stakeholders, to seek input on the draft project objectives, and to solicit
 input from stakeholders on factors and issues that might shape the future of East
 Coast fisheries. Scoping consisted of a series of three kick-off webinars and an online
 questionnaire. A summary of the scoping process and input received can be found
 here.
- The Exploration Phase was conducted this spring, where three webinars were held that focused on identifying and analyzing the major drivers of change in depth. The outcomes of these webinars will form the "building blocks" for the June scenario creation workshop.

T. Kerns will provide an update of the initiative

Board action for consideration at this meeting

None

9. Committee Reports (9:55-10:05 a.m.)

Background

• The Law Enforcement Committee (LEC) will be meeting on May 4th

Presentations

• T. Kerns will provide an update of the LEC's work

Board action for consideration at this meeting

None

10. NOAA Report on Sea Turtle Bycatch in Trawl Fisheries (10:05-10:35 a.m.)

Background

- NOAA Fisheries has been considering ways to reduce sea turtle bycatch in several trawl fisheries in the Greater Atlantic Region, including summer flounder, longfin squid, and Atlantic croaker. Research with the industry on various gear modifications that could reduce turtle mortality has been ongoing for several years.
- Over the last several months, NOAA has conducted a series of outreach efforts to obtain public input on sea turtle bycatch in trawl fisheries and measures under consideration.
- NOAA will be sharing the public input received and next steps, and request additional Commission feedback (**Briefing Materials**)

Presentations

• C. Upite will present the report

Board action for consideration at this meeting

• Determine if the Commission will provide public comment on the report

11. Update on the MAFMC's Consideration of Re-initiating the Research Set Aside (RSA) Program (10:35-10:45 a.m.)

- In 2021 and 2022 the MAFMC hosted four workshops that explored the possible redevelopment of the RSA program. The goal was to develop recommendations regarding whether and how the RSA program should be redeveloped. (See <u>this page</u> for background on the history and current status of the RSA program.)
- Each of the first <u>three workshops</u> targeted a separate topic related to RSA: Research,
 Funding, and Enforcement. The Scientific and Statistical Committee (SSC) Economic
 Working Group worked collaboratively with the Council's Research Steering Committee
 (RSC) to provide economic input specific to each topic. During the fourth workshop,
 participants reviewed the outcomes from the first three webinars and <u>developed final</u>
 recommendations for RSA program redevelopment (Briefing Materials).

• R. Beal will present a summary of the recommendations for RSA redevelopment

Board action for consideration at this meeting

none

12. Review Information Related to Tautog Commercial Tagging Program (10:45-10:50 a.m.)

Background

- The commercial harvest tagging program was fully implemented by all states in 2021. At the January meeting, the Tautog Board received public comments from the commercial Industry relating to issues with the commercial tagging program and fish health.
- The Tautog Board requested staff to conduct a survey of tautog dealers to evaluate potential effects on the tautog market price. Staff has only received feedback from 3 dealers in two states (RI and MA) that sell live tautog.
- New York State also conducted a survey of tautog dealers and harvesters to evaluate the response to the commercial tagging program within their jurisdiction (Supplemental Materials).

Presentations

• Findings of tautog dealers and harvesters survey by J. Boyle

Board Guidance at this meeting

 Seek feedback from states to gather input from dealers in other states that sell live tautog

13. Review Non-Compliance Findings, if Necessary Action

14. Other Business/Recess

15. Reconvene with the MAFMC

16. Initial Discussion on Commission Harvest Control Rule Draft Addenda and MAFMC Framework (11:30 a.m.-12:30 p.m.)

Background

 After reviewing nine topics that were either recommended by the Recreational Management Reform Initiative Steering Committee or by stakeholders through scoping for two separate ongoing amendments, the Council and Board agreed to initiate a framework/addendum and an amendment to address several recreational issues. During the February 2021 meeting, the Council and Policy Board prioritized

- development of the harvest control Rule as the first step in addressing recreational reform.
- A joint Plan Development Team (PDT) and Fishery Management Action Team (FMAT) developed the Recreational Harvest Control Rule Framework/Addendum as part of the Recreational Reform Initiative. The Board and Council approved their respective documents for public comment in February. The Commission conducted public hearings in March and April and public comment closed on April 22, 2022 on its Addendum.
- Staff is summarizing the public comment and will provide a full summary at the June meeting of the Council and Board.

• Staff will present a high level overview of comments from the public hearings

Board action for consideration at this meeting

None

16. Adjourn

DRAFT PROCEEDINGS OF THE ATLANTIC STATES MARINE FISHERIES COMMISSION ISFMP POLICY BOARD

Webinar January 27, 2022

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INDEX OF MOTIONS

- 1. Approval of agenda by Consent (Page 1).
- 2. Approval of Proceedings of October 21, 2021 Webinar by Consent (Page 1).
- 3. Move the ISFMP Policy Board delay further action on Draft Addendum XXVII to Amendment 3 to the American Lobster Fishery Management Plan, to move back the public hearings to June 2022.

The delay of final action on this FMP is to ensure that the public hearings can include a presentation on the 2021 stock status, ensure the Lobster Board has a better understanding of current or new right whales rules that could benefit the resiliency of the lobster stock, and to allow for possible changes in the current COVID situation to allow states that will need to hold in-person scoping meetings ahead of any commission public hearings (Page 4). Motion by Pat Keliher; second by Dan McKiernan. Motion carried (Page 5).

- 4. **Move to approve the Policy on Information Requests as presented today** (Page 12). Motion by Pat Keliher; second by Mel Bell. Motion carried (Page 12).
- 5. **Move to approve the updates to the 20128 ASMFC SAV Policy** (Page 17). Motion by Pat Keliher; second by Joe Cimino; Motion carried (Page 18).
- 6. Move to adjourn by Consent (Page 18).

ATTENDANCE

Board Members

Pat Keliher, ME (AA)

Cheri Patterson, NH (AA)

John Clark, DE (AA)

Roy Miller, DE (GA)

Ritchie White, NH (GA)

Craig Pugh, DE, proxy for Rep. Carson (LA)

Dennis Abbott, NH, proxy for Sen. Watters (LA) Russell Dize, MD (GA)

Dan McKiernan, MA (AA)

Pat Geer, VA, Administrative proxy

Raymond Kane, MA (GA)

Bryan Plumlee, VA (GA)

Jason McNamee, RI (AA) Shanna Madsen, VA, proxy for Sen. Mason (LA)

David Borden, RI (GA)

Eric Reid, RI, proxy for Sen. Sosnowski (LA)

Kathy Rawls, NC (AA)

Jerry Mannen, NC (GA)

Justin Davis, CT (AA)

Bill Gorham, NC, proxy for Rep. Steinberg (LA)

Bill Hyatt, CT (GA)

Jim Gilmore, NY (AA)

Emerson Hasbrouck, NY (GA)

Doug Haymans, GA (AA)

Spud Woodward, GA (GA)

Joe Cimino, NJ (AA) Erika Burgess, FL, proxy for J. McCawley (AA)

Tom Fote, NJ (GA)

Kris Kuhn, PA, proxy for T. Schaeffer (AA)

Loren Lustig, PA (GA)

Marty Gary, PRFC

Karen Abrams, NMFS

Lowell Whitney, US FWS

Loren Lustig, PA (GA) Warren Elliott, PA (LA)

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Staff

Robert Beal James Boyle Adam Lee
Toni Kerns Pat Campfield Kirby Rootes-Murdy
Tina Berger Emilie Franke Sarah Murray
Laura Leach Lisa Havel Caitlin Starks
Lisa Carty Chris Jacobs Anna-Mai Svajdlenka

Lisa Carty Chris Jacobs Anna-Mai Svajdlenka Maya Drzewicki Jeff Kipp Deke Tompkins

Kristen Anstead Dustin Colson Leaning

Guests

Mike Armstrong, MA DMF Anthony Friedrich, SGA Nils Larson Pat Augustine, Coram, NY Alexa Galvan, VMRC **Kyle Lewis** Jason Avila, Avila Global Lewis Gillingham, VMRC Tom Lilly Alan Bianchi, NC DENR Saverio Governale, NYS DEC Brooke Lowman, VMRC Mike Celestino, NJ DEP Hannah Hart, FL FWC Mike Luisi, MD DNR Heather Corbett, NJ DEP Jay Hermsen, NOAA Chip Lynch, NOAA **Steve Meyers** Jessica Daher, NJ DEP Emily Keiley, NOAA Peter Fallon, Maine Stripers Kathy Knowlton, GA DNR Chris Moore, MAFMC Lynn Fegley, MD DNR Aaron Kornbluth, PEW Trusts Allison Murphy, NOAA Cynthia Ferrio, NOAA Wilson Laney Brian Neilan, NJ DEP

Guests (continued)

Adam Nowalsky, Port Republic, NJ Derek Orner, NOAA Willow Patten, NC DENR Nicholas Popoff, FL FWS Will Poston, SGA Lenny Rudow Tara Scott, NOAA
Melissa Smith, ME DMR
David Stormer, DE DFW
Mike Waine, ASA
Kelly Whitmore, MA DMF
Angel Willey, MD DNR

Chris Wright, NOAA Erik Zlokovitz, MD DNR Renee Zobel, NH FGD

The ISFMP Policy Board of the Atlantic States Marine Fisheries Commission convened via webinar; Thursday, January 27, 2022, and was called to order at 1:00 p.m. by Chair A.G. "Spud" Woodward.

CALL TO ORDER

CHAIR A.G. "SPUD" WOODWARD: Good afternoon, everyone. I'll call today's meeting of the ISFMP Policy Board to order. Before I get into the formalities, I want to take a few moments to thank some folks. First, he's not here, but we want to thank Steve Bowman for his long service to the Commission. We're sure he really missed today's meeting on menhaden. I'm surprised he wasn't there in the audience. Steve has done a great job, and we'll certainly miss him.

We also have another longstanding stalwart of the Commission who is going to be leaving us, and that's Mike Millard, who will be retiring. Mike has been with us at least a couple of decades, and has done a real good job representing the Service, and has always been a good, rational calm voice in the middle of some of our contentious deliberations. We certainly want to wish Mike the best. Mike, I'll certainly allow you to make some comments if you would like to, raise your hand.

MR. MIKE MILLARD: Thank you, Spud. Real brief, Kirby had a lot of nice things to say about everyone, and I certainly echo his comments, it's as fine a bunch of professionals as I've ever worked with. Thanks for the kind words, and you may see me in the back of the room sometime.

CHAIR WOODWARD: Thanks, Mike, we certainly wish you the best. Speaking of Kirby, I certainly want to take the opportunity to personally thank him for all the support he's given me in my many years with the Commission. He'll be missed, a lot of folks have commented about him, but he's gone, but I have a feeling we'll be seeing him again.

Also, Savannah Lewis, for some strange reason decided to follow her husband and go to balmy Hawaii, instead of staying in metro D.C. I can't imagine why. Who would want to do something like that? I want to thank her for her service. At this point, I want to give Toni an opportunity to introduce some of our newest staffers who are going to be taking over duties of the Commission.

MS. TONI KERNS: Thanks, Mr. Chairman, and you'll receive an e-mail from me about all of this. But just to quickly point out a couple of things. We have hired two new staff members. The first one is James Boyle, he is actually on the webinar right now, and if we haven't scared him away, he will be taking over menhaden. James has hailed to us from his recent graduation out of the University of Miami. From graduate school he did his undergrad at University of Emery, and has a background in coral restoration and advocacy through different diving programs. Then in February, Tracy Bauer will be joining the Commission's ISFMP team.

We will be stealing her from North Carolina DMF. She did her undergraduate degree at UNC Wilmington, and her graduate program at the University of New England, and she's been with the state of North Carolina for the past six years. We're excited to have both of them join the team and get to know everybody. Then I also just wanted to make the announcement that Caitlin Starks is our new Senior FMP Coordinator at the Commission, and I am looking forward to working with Caitlin in this new role of hers.

CHAIR WOODWARD: Thanks, Toni, we certainly look forward to working with our new folks and congratulations, Caitlin. We look forward to working with you in your new role.

APPROVAL OF AGENDA

CHAIR WOODWARD: At this point we've got an agenda for this afternoon's meeting. Are there any requested additions to the agenda? If so, raise your hand. Any hands, Toni?

MS. KERNS: No hands.

CHAIR WOODWARD: Is there any opposition to accepting the agenda as presented?

MS. KERNS: No hands in opposition.

CHAIR WOODWARD: Then we'll consider it adopted by unanimous consent.

APPROVAL OF PROCEEDINGS

CHAIR WOODWARD: We also have in the briefing materials proceedings from the October 2021 meeting of the Policy Board. Are there any necessary edits, modifications, changes to that?

MS. KERNS: I have no hands raised.

CHAIR WOODWARD: Is there any opposition to

accepting it as presented?

MS. KERNS: No opposition.

CHAIR WOODWARD: All right, then we'll consider the Proceedings adopted by unanimous consent.

EXECUTIVE COMMITTEE REPORT

CHAIR WOODWARD: The Executive Committee met on the morning of January 26, after approval of a modified agenda, and the summary from the October 2021 meeting. We had a lengthy discussion about the role of the Commission in offshore wind energy along the Atlantic Coast.

Several members endorsed the concept of Commission involvement for the following purposes, and this is certainly not a fully exhaustive list, but this was just some of the themes that came out during the discussion. Improved and timely sharing of information about processes and procedures related to siting, leasing, construction and operation.

Providing subject matter expertise regarding its conservation data and information used to evaluate environmental, social, and economic

Evaluation of how siting event and impacts. structure might adversely affect fisheries independent surveys. Development of consistent approaches for mitigation and compensation. Advocacy for federal policy development and/or modification thereof that protects states interest. Evaluation of offshore wind energy in the larger context of marine spatial planning. The leadership and staff are going to develop a draft scope of work with an associated analysis of the capacity of the Commission to complete a scope of work, and we'll bring that back to the Ex-Com for further consideration in the future. Any questions about that segment of our meeting before I move on?

MS. KERNS: No hands.

CHAIR WOODWARD: Then Executive Director Beal presented information on member state responses to the need for unused CARES 1 funds. A unanimous decision was made to make available unspent funds to states that have further needs, with the goal of zeroing out the remaining CARES 1 balance for the deadline of June 30, 2022.

The details of the Ex-Com's decision will be forwarded to NOAA Fisheries for approval prior to implementation. But this decision does not set a precedent for how any unused funds for Tier 2 will be allocated or spent. Executive Director Beal presented the draft provisions to the Appeals Process Policy.

The ensuing discussion identified the need for further modification to policy to reflect concerns of some members. The draft revised policy will be discussed at a future Ex-Com meeting. The use of alternates for Advisory Panel members was briefly discussed. Commission rules and regulations do allow for the appointment of alternates.

Therefore, member delegations are encouraged to appoint alternates to serve when a primary AP member is unavailable. Our last issue was a discussion of the near-term workload of the Commission. It's possible that we may need to have as many as four public meetings. Obviously, that

has changed as a result of this morning's meeting of the Menhaden Board.

But we're still looking at the possibility of three documents that have to be brought out to the public for comment, and given the fact we've got a couple of new staff members and other factors, that is creating a bit of a strain on the workload. We talked about some possible mitigative measures at the Ex-Com, which included changing the timeline for some of these FMP actions.

We're possibly having some board actions originally scheduled for the May meeting to occur at a meeting held in June. We've still got three that we're going to have to deal with, so we've got a little bit of a strain. I certainly want to open it up to the Policy Board, for any suggestions on how we might alleviate some of that.

MS. KERNS: We have Roy Miller and Pat Keliher.

CHAIR WOODWARD: All right, go ahead, Roy.

MR. ROY W. MILLER: I was wondering if I could ask a question regarding the first item you brought up, well the second item, the unused CARES funding.

CHAIR WOODWARD: Sure, go ahead.

MR. MILLER: At a previous Executive Committee meeting, there was a suggestion offered, I think it was from Pat Geer, that the Commission look into using leftover funds to reimburse the Commission for losses incurred as a result of canceling meeting arrangements. I'm just curious as to whether anyone on the Commission pursued that, and if so, have we gotten an answer back?

CHAIR WOODWARD: We didn't specifically address that. I know we did discuss how to possibly increase reimbursements back to the Full Commission for administration in CARES 1,

and the general discussion focused around the need to really try to get as much of that money out to the members states or the eligible party as possible. I'll bounce that back to you, Bob, and Laura if she's on, to address Roy's question.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Thank you, Mr. Chair, I'll take a shot at it first, then Laura can fill in details if I miss any. Yes, Roy, you know we had talked about that at the staff level, Laura and I in particular. We're in a financial spot where we could pay the meeting penalties for not meeting.

We felt it was equally as important if not more important to get the CARES Act money out to individuals that still needed assistance. A number of states identified that they couldn't fully reimburse people or make people fully whole, you know based on the funding that was available under CARES 1. In this iteration we decided not to pursue meeting reimbursement.

However, there likely will be this similar discussion at the end of CARES 2, once the states have allocated everything they can allocate, and we'll be able to pursue potentially more overhead at ASMFC, if that's appropriate, and/or reimbursement for loss meeting expenses because of COVID. We didn't do it this round, just so that we could make sure as much money as possible was going out to stakeholders that needed it, and we still have a placeholder for CARES 2, where we can look into it if we need to.

MR. MILLER: Thank you.

CHAIR WOODWARD: Yes, thanks, Bob, any follow up on that, Roy? Are you good? All right, go ahead, Pat.

MR. PATRICK C. KELIHER: I got distracted there for a second. Either yesterday we did have a quick conversation on workload concerns. I'm not sure those are necessarily fully alleviated by the conversations at Menhaden today, but with Menhaden, Striped Bass and Lobster, I think we've got a situation still, where workload is a problem.

Beyond that, from the Lobster perspective, now that we've had time to go back and think about the existing motions that were passed regarding approval of a public hearing document for lobster.

We've got a time constraint issue here in Maine, so I do have a motion prepared if staff wanted to put it up, and read it into the record. If I get a second, I could give further rationale, because I think it would certainly help the state of Maine, but I think it may help with workload as well.

CHAIR WOODWARD: Go ahead, read that into the record, Pat.

MR. KELIHER: I move that the ISFMP Policy Board delay further action on Draft Addendum XXVII to Amendment 3 to the American Lobster Fishery Management Plan, to move back the public hearings to June 2022. The delay of final action on this FMP is to ensure that the public hearings can include a presentation on the 2021 stock status.

Ensure that the Lobster Board has a better understanding of current or new right whale rules that could benefit the resiliency of the lobster stock, and to allow for possible changes in the current COVID situation to allow states that will need to hold in-person scoping meetings ahead of any commission public hearings. If I get a second, I can give some further rationale.

CHAIR WOODWARD: Do we have a second? If so, please raise your hand.

MS. KERNS: We have a couple, and I'll start with Dan McKiernan, Ritchie White, Cheri Patterson and Dennis Abbot.

CHAIR WOODWARD: All right, it sounds like you've got your seconds covered there, Pat, so if you want to go ahead and elaborate a little more on the motion, proceed.

MR. KELIHER: Yes, I'll try to be brief here, Mr. Chairman, because I think a lot of the rationale is in the body of the motion. I don't have to tell anybody the importance of the lobster fishery to the state of Maine. It's a billion-dollar fishery, one of the biggest in the country. We're in a period right now of very high COVID infection rates, just like the rest of the country.

It's really impacting the way we're doing business, and for the issues such as this, it has such an importance to this industry. I think it behooves both the state of Maine and the Commission to give us some time to have face-to-face meetings with the industry, so they are well aware of the situations that face them.

Again, I think it will also give time for the TC to compile all the 2021 stock information, which will be critical in presenting at the public hearings. You know we have the right whale issue. We've got new right whale rules in place. We've got further conversations at the TRT happening that could bring additional risk reductions sooner than what is laid out within the Biological Opinion.

Then we have a wildcard of what's going on in the courts down in the D.C. circuit, with two different lawsuits in play, and potentially a third now with Max Strahan. We don't know how those will impact the industry, but it's a wildcard, and by having some delays until later in the year for any final action. It would certainly give us some additional information that may actually show some benefit to the stock resiliency that we're looking for. I'll end it with that, Mr. Chairman.

CHAIR WOODWARD: Any of the individuals that raised their hand for a second like to make a comment about this motion?

MS. KERNS: I have no hands. Sorry, Spud, David Borden.

CHAIR WOODWARD: Go ahead, David.

MR. DAVID V. BORDEN: I guess my question is to Pat. Is it your intent that we will proceed with

public hearings at that stage, or will we have to know the results of all of these different issues you've identified? I just state before you answer, that if it's the latter, we're probably going to have to delay this whole issue beyond that date, because it's highly unlikely that all of these issues will be clarified by the groups that are involved in them.

MR. KELIHER: Yes, thanks for that question, Dave. I agree, it wouldn't be the latter. I think what I'm looking for really predominantly is breathing room to hold some hearings, or scoping meetings if you will, ahead of public hearings. I would think though, I think we will have not all, but potentially some of the information by an August meeting.

Based on some of the timelines, both in court, and we know we've got in 2025, an additional 60 percent reduction coming in 2025 that will certainly change the nature of the lobster fishery beyond what we know it now. But that's down the road. It would certainly give an opportunity for us to understand what's happening in the courts.

MR. BORDEN: Mr. Chairman, can I follow up?

CHAIR WOODWARD: Go right ahead, Dave.

MR. BORDEN: I'm supportive of this concept, but I have to confess that I'm wary about a delay in this, and I think Pat probably shares this concern. The whole intent of this Addendum was to put in place a mechanism that would give us a detailed footprint for the industry before the industry gets confronted with a lot of these development projects for federal waters.

It's a precautionary action. If it gets delayed, and we don't implement the trackers in 2023, as we proposed, we're going to end up losing a whole year of data, and those development projects are going to go forward, and we don't want that to happen. I don't think anybody wants that to happen. I would just urge

everybody to keep that in mind, when we reflect on the timelines.

MR. KELIHER: David, I do share that concern, and Mr. Chairman, if I may.

CHAIR WOODWARD: Go ahead.

MR. KELIHER: I do share those concerns, David. None of this is related to the tracker addendum. I think we'll have, hopefully the states will be able to compile those questions and get them to Caitlin, ahead of the special board meeting that is being scheduled, and hopefully we could potentially be on track for that timing. I don't want the Policy Board to confuse this with the Tracker Addendum.

MR. BORDEN: Okay, thank you. They do get conflated, let's put it that way.

MR. KELIHER: I agree they do, thank you. I think it's good that you brought it up for clarity.

CHAIR WOODWARD: I think the second to this motion was Dan McKiernan. I think that was the first name that was read off by Toni.

MS. KERNS: That is correct.

CHAIR WOODWARD: Any further discussion?

MS. KERNS: Dan actually has his hand up.

CHAIR WOODWARD: All right, go ahead, Dan.

MR. DANIEL McKIERNAN: I agree with Pat and with David, especially Pat's desire to have some inperson meetings with some of the industry part of the public hearings. I support that. Many of the items that Pat mentioned, we don't have control over. But one that we might have control over would be the calculation of the new Index that is part of this proposed Addendum, which are the survey-specific values that the Board will be approving, as to one or the other, depending on the decline in that Index.

I'm wondering if we do go with a slight delay, if through the Plan Coordinator, if we could get the TC to reveal some of those values, so that when we do go to public hearing, we'll be able to have a fresh value for the stock index, and that index is a combination of ventless trap surveys and the other trawl surveys. I guess that's a question for maybe Toni and Caitlin at this time.

CHAIR WOODWARD: Yes, Toni, Caitlin, do you all want to respond to that?

MS. KERNS: I'm going to have Caitlin respond. Go ahead, Caitlin.

MS. CAITLIN STARKS: Yes, I'm here. I think it's completely reasonable to ask the TC to start working on calculating the Index with the newest data, as we discussed during the Lobster Board meeting. I think there is a good chance that the data will be available before May, so I think we can definitely work towards that.

CHAIR WOODWARD: Any further discussion on the motion?

MS. KERNS: Mr. Chairman, just to be clear then, just for process wise. We would hold the hearings in June, maybe a little of July, and then we would bring that public comment back to the Board for their consideration in August. Just so everyone is on the same page.

CHAIR WOODWARD: I believe that is the intent of the motion, but I'll defer to the maker and seconder to confirm that.

CHAIR KELIHER: I agree, that is the intent.

MR. McKIERNAN: I agree as well.

CHAIR WOODWARD: Very good. No further discussion, is there any opposition to the motion?

MS. KERNS: I have no hands raised.

CHAIR WOODWARD: I guess any abstentions or nulls or anything like that?

MS. KERNS: I have no hands raised.

CHAIR WOODWARD: Very good, all right, motion carries unanimously. Thanks very much. Any additional questions about my Executive Committee Report?

MS. KERNS: I have no hands raised.

REPORT ON THE 2021 COMMISSIONER SURVEY

CHAIR WOODWARD: All right, with that we'll move on to our next agenda item, and I'm going to turn it over to Deke for a report on the 2021 Commissioner Survey.

MR. DEKE TOMPKINS: Thanks, Spud. Thank you to the gentleman from the great state of Georgia. I am now going to summarize the result of the survey of 2021 ASMFC Progress. The Survey of Commission Progress was initiated in 2009, to evaluate commission progress. It examines a broad range of issues related to the 2019 through 2023 Strategic Plan and Annual Action Plan, and it's comprised of 16 rating questions and 5 comment questions.

The 2021 data was collected from December 6, 2021 to January 6, 2022, and as you can see here, 28 Commissioners or proxies responded this year. Here we can see the average across all scores throughout the time series. Overall, there is not a lot of variation from year to year, with scores ranging only about 1 point through the time series.

The average score across all years is 7.73, and this year's score was slightly above that at 7.79. For this year's presentation, I'll attempt to frame the results, not as a single data point for 2021, but to also add some context using the past three years, so we can kind of get a picture of where things are going.

The 15 rating questions comprised 5 categories. The scores for all 5 categories were relatively stable

this year, with an evident increase in the progress category. Next, I'll run through the results for each category. Questions 1 and 2 evaluate progress to the Commission's vision, Sustainably Managing Atlantic Coastal Fisheries.

The values in parentheses represent the 1- and 3-year score changes. Scores from Questions 1 or 2 have been closely related throughout the time series with a correlation coefficient of 0.89. The second category is execution and results, and these questions focus on cooperation within and without the Commission, and securing resources.

There has been a negative trend for cooperating internally and with federal and constituent partners over the past three years. Scores for securing resources have been rising since 2016. The third category focuses on overfishing and managing rebuilt stocks, as well as engaging lawmakers. There is a positive three-year trend in responses to overfishing as a metric of Commission progress and managing rebuilt stocks. Conversely, managing rebuilt stocks and legislative engagement have shown a negative trend since 2019. The fourth category considers human and fiscal resources, as well as reacting to new information.

Question 11, Resource Utilization, had the highest average score throughout the time series. Great job, Laura, with an all-time high in 2020. Question 12, Reacting to New Information, saw the greatest increase among all questions in the past three years. Scores for Resource Allocation on issues that can be influenced by the Commission, has been essentially flat since 2019.

The fifth and last category rates the Commission products, ISFMP, Science and ACCSP. These questions rank in the top four highest scores throughout the time series. Now I'll move on to the five open-ended questions, and I would note that there is a lot of consistencies in these responses from year to year.

First up is Obstacles to Rebuilding Managed Stocks, and one of the major themes from this question surrounded cooperation between states among Commissioners, NOAA Fisheries and the Councils. There were also multiple comments on social economic implications of management decisions, and challenges related to climate change.

All of those concepts have been mentioned frequently in past iterations of this survey. Question 18 asked respondents which commission products were most useful. There were a lot of positive responses here, and I'll mention specifically meeting week materials, ISFMP and science outputs, the website, Annual Report, and Public Comment summary.

Question 19 responses were similar to past years, but I would note there was interest in getting back to in-person meetings, increased engagement with ACCSP, more information from the Law Enforcement Committee, and one Commissioner commented about access to software and licenses. Question 20, as usual there was a wide array of issues flagged as needing increased focus.

I think I got almost all of them here in some shape or form. Some of the themes include allocation, reallocation, recreational management, climate change, internal and external cooperation, securing resources, social impacts of management decisions, and improving fisheries independent and dependent data collection.

Menhaden, right whales and meeting rules were also mentioned. Under additional comments we heard again about allocation, climate change, working with the Councils and in-person meetings. One respondent also mentioned concerns about the appeals process. Thanks, Mr. Chairman, and I yield back the balance of my time.

CHAIR WOODWARD: Thank you, Deke, that was a great presentation. The survey is something that, I mean obviously he would love to see 100 percent participation. Hopefully we'll continue to strive towards that in the future. It is an opportunity to help give leadership and staff the input they need,

to make sure that the machine that is the Commission is moving n the right direction, and firing on all cylinders. Any questions for Deke on his presentation?

MS. KERNS: We have John Clark.

CHAIR WOODWARD: Go ahead, John.

MR. JOHN CLARK: Thank you for the presentation, Deke. I was just curious seeing the numbers never seem to exceed the high 30s, and we're down in the 20s of respondents this year. Are you getting a response, at least one response from every state, or is this concentrated in one region or the other?

MR. TOMPKINS: Thanks for the response, John. It's a little hard to tell, because the survey is anonymous, so short answer is no. I don't have a really geographical breakdown of who responded.

MR. CLARK: Right, I just thought, aren't we supposed to shoot you an e-mail to let you know we've done the survey? I didn't know whether you tracked those or not. Thanks.

MR. TOMPKINS: Yes, I do keep track of that. I would say about a third of the people who fill out the survey e-mail me though, so it's still pretty hard to know who filled out the survey. Like, I got about 12 or 15 e-mails that the survey was completed, but 28 responses.

MR. CLARK: That explains it, thanks.

CHAIR WOODWARD: Yes, once again it's uncertainty in the data. Seems like that's our perpetual nightmare, isn't it? Certainly, those of you who are responding, we appreciate it. Please, ask others to do likewise. They may seem just some other boring numbers, but it is good feedback for leadership and for staff. It's certainly worth the few minutes of time it takes to do it. Anyone else, question or comment about the survey?

MS. KERNS: I have Loren Lustig.

CHAIR WOODWARD: Go ahead, Loren.

MR. LOREN W. LUSTIG: I appreciate the data that was presented here. Could you please advise, or perhaps Deke could advise? What would be the number of responses if it was 100 percent of people responded? What is that number?

CHAIR WOODWARD: I believe it would be 45. We have 45 Commissioners. Does it go out to proxies as well, Deke? I guess if that's the case, it could exceed 45, if it goes out to permanent and temporary proxies. I'll let you respond to that, Deke.

MR. TOMPKINS: Thanks, Loren, and thanks, Mr. Chair. Yes, it's supposed to be one response per Commissioner or proxy, so 100 percent response rate would be 45 responses.

CHAIR WOODWARD: All right, any other questions, comments?

MS. KERNS: I see no additional hands.

CHAIR WOODWARD: Thanks again, Deke, we appreciate it.

CONSIDER POLICY ON INFORMATION REQUESTS

CHAIR WOODWARD: At this point I'm going to turn it over to Bob. He's going to talk about the East Coast.

EXECUTIVE DIRECTOR BEAL: I just have a couple of slides on this doc. The document was included in the briefing materials. The bottom line here is, at the end of this the Executive Committee has recommended that this document be approved by the Policy Board as the policy that is going to guide future information requests.

Just as a quick overview, and a little bit of background here. The Commission currently doesn't have a policy on how we handle information requests. People call them FOIA

requests, but I'm avoiding that term, and I'll explain that in a second. The Commission obviously is committed to an open and transparent process.

We've got a lot of detail in our guiding documents on public hearings and public process, and you know we're committed obviously to maintaining and sharing our meeting minutes, and all the other things that we do. However, the Commission is not subject to state and federal FOIA laws, so that's why I don't want to use that term. This is not a FOIA policy at the Commission. Those laws don't apply to us.

We're in a sort of no man's land in the middle of state and federal government, and the laws don't directly apply to us, so how do we handle information requests that we get? We do get them on a somewhat regular basis, and we've been sort of doing it ad hoc over time. We figured, you know it would probably make some sense to really formalize a policy, so that everyone knows what to expect if they make a request at the Commission.

As I said, the majority of the information that people ask for is actually already on our website. Tina, for a lot of them just sends them a link, and says look, here is what you're looking for, you're all set. If you want anything else let us know. You know most of the information requests that we get, we can easily dispense of just by sending them to places on the website, and letting them know what's available if they are unable to find certain things on a website.

The way this policy presents information requests, and the way they'll be handled in the future is that any individual that wanted to get some information that they can't find at a website or just from the Commission. They would send an e-mail to info@asmfc.org and within five days of getting that e-mail, we would acknowledge receipt of the e-mail, and let them know of a reasonable timeline of how we would respond, and what we would respond with.

One of the pieces of that response will likely be that if the request can take more than two hours of staff time, we will charge for staff time, copying, mailing, whatever it may be. You know hopefully we're beyond a time of actually copying hard documents and mailing and that sort of thing. But if people want old documents, there may be some scanning time or something like that.

But the notion of charging for information requests is standard in a lot of FOIA requests, because depending on how they are worded, they can really eat up a lot of time. In that acknowledgement of the request, we would provide an estimate of cost. Based on that estimate of cost, the requester could say, yes go ahead with that information request, I'm comfortable with the cost. They could scale back their request, and we could reissue another estimate, or they could say look, you know what. Actually, based on those costs I'm not that interested, and I don't want that information any more. That will be at the discretion of the requesters, if they pay it or don't pay it.

Then one common theme again in a lot of other policies, is that we will not create new records. What that means is, if a certain way of looking at information at the Commission doesn't exist, we're not going to go and do new analysis, necessarily, for somebody that requests it. If someone chimed in and said Hey, can you go back through the 80,000 comments you got on menhaden, and tell me a state-by-state breakdown of where they all came from, or all the ones that whatever.

You know something whacky like, which ones came from the mountain time zone, or whatever it might be. You know we're not going to necessarily go back and look through each of the records and do a new report, or do analysis for individuals that request it. We would share all the menhaden comments, if anybody wanted them, and they can do their own work on it.

But we wouldn't create a new record or a new report for somebody that requested it. Data limitations, obviously part of this information request is what, you know we try to share as much

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as we can. However, there is always limitations on what can be shared and what can't be shared. One of the things that we all deal with all the time is confidential data.

State and federal laws define what is confidential data, and we've been wrestling with this and ACCSP has a policy on this. This is a common theme among requests that you all get at the state and federal level all the time. What our practice has been, and what this policy proposes to formalize, is that anytime we get a data request, we are going to forward that request to the original data collector.

If somebody is interested in whatever, horseshoe crab landings in Georgia, and that data is confidential. We forward that question to Doug Haymans and say, you know we got this request, and this is data that was originally collected by your state, and let the state decide what is available and what is not available.

That is the one way we can assure that we don't violate any of the state or federal data confidentiality rules. Document Limitations, again not all documents can be shared, and not all information can be shared. This Policy spells out that we may restrict access to other information, and certain things like predecisional, technical or policy documents will not be shared. That's a practice that we've always employed. It is in our Technical Guidance Document.

If Technical Committees or Stock Assessment Committee, for example, is developing a new stock assessment, and they've got working drafts kind of bouncing between members of that committee, we don't share those, because there have been a number of instances where those sort of interim drafts, non-completed drafts, people have run with them, and the interim information and non-final information shows up in news articles and other things, and it's not the final answer. It is not peer reviewed science. That's how we've handled it in the past, and we'll do that again. Also, documents

that won't be shared or attorney-client privileged documents obviously in personal and personnel information. If someone say hey, I would like to have all the home addresses and cell phone numbers of Commission staff. We're not going to provide that to somebody making a request like that. That's all private and personal information.

The document spells out that any questions about what documents can and can't be shared, will be resolved by me, the Executive Director, and consulting with the Commission Attorney. This document strives to be as fair and open as we can be, but there are some things that we're unable to share.

Where we go from here is, you know hopefully as I mentioned, the Executive Committee has reviewed this a few times and updated it, and they're recommending that it be approved by the Policy Board. One of the caveats in the last paragraph in the document is that, you know kind of being open with the public and letting anyone know what to expect, and that if you send a letter or a public comment, or something to ASMFC, it may be subject to this new policy, and maybe share it with people if somebody asks for it.

We have had people in the past that say, "hey can I see any e-mail that went from this industry representative to a staff person, or whatever it is?". You know those documents in the past, if there is nothing confidential in there, we will generally share those letters that bounce back and forth between staff and industry, or NGOs, or whoever it might be.

If this document is approved, what we do is add it to our website so the public knows our policy, and it would be the document that does guide how future information requests are handled. That's a little bit of a lengthy presentation, Spud, but I know the Executive Committee had talked about it quite a bit, but the many members of the full Policy Board hadn't seen it before, so I thought it was worthwhile to go through a little bit of detail on this document, and happy to answer any questions if there are any. Thank you.

CHAIR WOODWARD: Yes, thanks, Bob, and I would agree, I'm glad you took the time to go into the details, because it is important, and it reflects greatly on the Commission's integrity and principals of operation on how we interact with information requests. At this point does anybody have any questions for Bob or comments?

MS. KERNS: I have David Borden followed by Lynn Fegley.

CHAIR WOODWARD: Go ahead, David.

MR. BORDEN: Bob, will the policy stop individuals from accessing their own data, confidential data?

EXECUTIVE DIRECTOR BEAL: No, David. If a state has a policy or the federal government has a policy where individuals can access their own data, you know we would honor that. But we would most likely bounce that request back to the state or the federal agency that originally collected that data. Most likely we would not share that data directly. If somebody from Rhode Island, an individual wanted landings data, or whatever it might be, we would forward them to Rhode Island, and ask Rhode Island to be the gatekeeper on that data.

MR. BORDEN: All right, I would just note, just for your information. I've already been asked that about tracker information by the industry, whether or not they are going to be able to access their own data. The states might want to think about that, because industry, at least some of the members of the industry that I've talked to, would think that would be an advantage to be able to get that type of information on their own boats.

CHAIR WOODWARD: Go ahead, Lynn.

MS. LYNN FEGLEY: I actually had a comment, and I did have two questions, if I may. The first comment was, I am so glad for the element that you're not producing new records or analyses. I

think that's super, super important. That's good. My first question is, when you forward a data request to the original collector, so in your example about Georgia. You send the requesters request to Georgia. Who is the state responding to? Are they responding to the Commission, or are they responding to the requester directly?

EXECUTIVE DIRECTOR BEAL: I think it would be good to take the Commission out as sort of the middle person here, and have the state directly responding to the individual, in case there are any questions and back and forth. I can rephrase it and say, we're happy to be in the middle of that discussion and that transaction, but it may be more efficient if the state just goes directly to the individual making the request.

MS. FEGLEY: Yes, that's fine. I was just curious what your thoughts were there. I have no issues with that. Then my second question, if I may, was just a quick curiosity question. How many of these requests are you getting, you know per month or per year? What is the volume like for you guys?

EXECUTIVE DIRECTOR BEAL: It's a good question, and like probably all of you it kind of comes in peaks and valleys, and there are different times where we get some. You know we don't deal with a lot. I don't know, a half a dozen a year maybe, or something like that. We do get a lot of requests just for, as I mentioned, kind of simple things, meeting minutes or audio, you know the recordings of meetings and that sort of thing, and Tina handles those really quickly, because they're all available on the website.

You know there are very few, a half a dozen a year would be a lot of information requests that would bubble up to where we would have to apply this policy, and actually refuse to or filter what we're able to share with the public. Most things we can quickly respond to them and give them what they need, and we could move on pretty quickly. But there are a few every year that we would have to apply this policy and filter out what we can and cannot provide.

CHAIR WOODWARD: Any further questions, comments for Bob?

MS. KERNS: No additional hands.

CHAIR WOODWARD: At this point is there any further interest in querying? If not, I would entertain a motion from the Policy Board to approve the Request for Public Information Policy as has been presented and discussed. Would someone like to make that motion and second it?

MS. KERNS: I have Pat Keliher.

MR. KELIHER: So, moved, Mr. Chairman.

CHAIR WOODWARD: We have a motion by Pat Keliher and second by who? I missed that.

MS. KERNS: Mel Bell.

CHAIR WOODWARD: By Mel Bell, all right. Any discussion on the motion?

MS. KERNS: Mr. Chair, I think you said as presented today, so if we could add that to the end.

CHAIR WOODWARD: Yes.

MS. KERNS: I have no hands raised.

CHAIR WOODWARD: Any opposition to the motion?

MS. KERNS: I have no hands raised.

CHAIR WOODWARD: All right, we'll consider the motion approved by unanimous consent. Thanks everyone, and thanks Bob, and everyone for the work on this. Again, it's one of those things we probably won't have to use it a lot, but it's nice to have it when you do need it. Kind of like that fire extinguisher in your kitchen cabinet.

UPDATE ON EAST COAST CLIMATE CHANGE SCENARIO PLANNING

CHAIR WOODWARD: All right, with that we'll move along. Our next agenda item is Update on East Coast Climate Change Scenario Planning, and I'll turn that one over to you, Toni.

MS. KERNS: Thank you, Mr. Chairman. I'm going to try to go through some of this faster than I initially planned, given the timing of the day, but some parts I'm going to stay a little detailed. As you all are aware, the three Councils, the Commission and NOAA Fisheries are jointly working on the East Coast Climate Change Scenario Planning.

As a reminder, scenario planning is a structured process to explore and describe possible futures in a context of uncontrollable and uncertain conditions, where the overall goal is to identify the best ways to adapt and respond to be better prepared for a range of possible future conditions. Today in my presentation I'm going to describe the work undertaken in the scoping phase of the document, as well as provide some information on our next steps in our exploration phase.

This is just a quick reminder of the different phases that we are moving through, and the scoping phase was conducted last summer and the fall. The purpose of this scoping was to introduce and explain the initiative. We received input about the draft project objectives, the focus and expected outcomes of our project, and we also invited ideas from a broad range of stakeholders about the factors and issues. As part of the scoping phase, we did a series of webinars, to introduce the topic, and then we did a follow up online questionnaire. In the online questionnaire we asked participants about the project objectives and outcomes, factors that shaped change, and suggested actions and other advice for conducting the process.

A lot of the questions that we asked were open ended. We received 383 responses from all the different regions and a wide range of stakeholders. We did a coding analysis of the questionnaire responses, to see whether participants thought

adjustments were needed to the project objective, and what factors it would be most important to include in the scenario analysis.

From the scoping process the core team identified five key insights that are further described in the scoping summary report, and that scoping summary report can be found on the scenario planning webpage, which is hosted by the Mid-Atlantic Council. There is a link to that in the meeting overview in your meeting materials.

First, we found that there is a lot of interest in this subject. We had a lot of participants in the webinars and the online questionnaires. The majority of the participants recognized that climate change would affect fisheries in the coming years, and were supportive of efforts to help stakeholders prepare for change.

Second, we heard that stakeholders, particularly on the webinars about how they are already seeing the effects of climate change in many aspects of fisheries and coastal life. There are a lot of interesting examples that will be included in the report, but many of them centered around the observations of changes in species distribution, availability, and productivity.

Third, there was general support for the project objectives, some with comments and suggestions for change. Some minor adjustments to the project objectives were made, based on the feedback, and I'll show those in a couple slides. Fourth, the stakeholders identified a broad range of factors that might shape east coast fisheries over the next 20 years.

We found it interesting that each region and stakeholder group, while certainly having some unique experiences, had very similar overall perspectives about climate change, and how it might shape the future of fisheries. We're going to use this input in our next stage of the initiative. Then finally, in the next stage of the

initiative we're going to try to strike a balance between focus and scope, meaning that there is recognition of a wide range of scope of this exercise, and the importance of gathering and engaging wide-ranging input in the process.

However, there is also the recognition that in order to address the central questions of management and governance, it's going to at some point require more focused discussions. This is just to note that that comprehensive scoping document is on the Mid-Atlantic Council's web page. We received a number of comments from the questionnaire regarding the objectives.

In our analysis we coded the responses into the following categories, and there are six categories of comments. About 100 comments suggested changes to the objectives. Some of the examples of changes to the objectives can be seen in Box Number 1. Many commentors supported the existing objectives, with no suggested changes. Box 3, there are examples of commentors who suggested adding additional objectives, and some of those additional objectives are shown in Box 3. Then in Box 4 there are comments related to general considerations for the existing objectives. Then finally, for Categories 5 and 6, there were other comments, and some comments that were disapproving of the objective all together, and there will be more details in that full report, as I said.

This slide just shows how the project objectives were changed, and then we made these suggestions, and then the Northeast Regional Coordinating Council, which is the overarching body of this initiative, approved the changes to the objectives. The first objective added East Cost, and modified the word shifting to changing before stock availability and distribution.

This acknowledges the possibility that stocks might not only shift in location, but also change in terms of availability and distribution. Many felt this was a broader term that would better apply here. For second objective, there were three slight changes. First, the term developed was changed to advanced, to reflect the fact that there are already many tools

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and processes in existence, that management and other stakeholders could use in the governance and management of fisheries in the future.

Second, that the requirement that fishery management strategies be robust was added, in addition to flexible. Third, some comments were received about the need to include language regarding conservation and the support of fishing communities. As a result, the objectives were revised to say that fishery management strategies should have the goals of promoting both fishery conservation and resilient communities.

Also from the questionnaire responses, we were able to pull together some categories of responses to the key questions that we asked about, and there are some examples here, not comprehensive, but give you an idea of the type of insight we received. We asked about certainties, what important factors do we know will shape the next 20 years.

Things like ocean temperature, ocean acidification and sea level rise were raised. We also asked about uncertainties, what are the most important but unpredictable factors for the future. Responses included things like stock health and distribution, degree of habitat loss, rate of sea level rise, and impact from fishing communities.

We asked about wildcards, what developments could surprise us and radically reshape fisheries in the next 20 years. Responses included categories like impacts of storms, severe weather, changes in the ocean currents and fishery loss. Finally, we asked about the social, technological, economic, or political factors. Responses here included other ocean uses, loss of working waterfronts, changes in consumer demand, and a degree of stakeholder cooperation.

I noted before, there was not significant regional or stakeholder differences in the

responses. The feedback from these questions will feed directly into the next step of the initiative, where we're going to undertake further research on the most frequently mentioned factors. exploration is our next step, and we are hoping to host, or we will be hosting Driving Forces webinars this coming month, and then right into the beginning of March. The purpose of these drivers of change webinars are threefold, first is to educate. We want to share information about, and discuss the key drivers of change that could shape east coast fisheries over the next 20 years. We want to engage with the stakeholders, and provide an update and opportunity for participants to reengage with the material, and then we want to focus. We want to set the scene for the next phases to ensure participants know the focus is on changing stock availability and distribution, and know that the overall goal is to identify implications for fisheries, governance and management.

This is just a list of the upcoming drivers of change webinars. There are three webinars coming up. The three topics are oceanographic, biological and social and economic. We will have a keynote speaker for each of the topics, and then a panel that will engage with the speaker and ask questions, and then we'll have a short period of time for discussion and engagement with the panel and the keynote speaker.

We're asking participants to familiarize themselves with background materials that we're going to create for each of the topics. Those will be posted to the web page that the Mid-Atlantic Council is hosting. They are two-to-three-page information sheets on each of the three topics. Then we're asking those participants in the webinars, you know what drivers are most important, which drivers are certain, and what driver is uncertain, in order to best engage in the discussion.

These webinars are open to the public. We're sending out invitations to those people that ask to be continued to be kept in the loop that filled out the questionnaire, as well as sending out press releases to all of the different Commission and Council and NOAA lists that we keep on hand for e-

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mail. Then just to remind folks, then coming up after explanation we'll still have the creation of the in-person workshops, where we are going to construct and discuss the scenarios.

After that workshop we'll have the application phase. We haven't developed a specific plan for this, but we intend for this to start occurring next summer into the end of the year, and this is where we're going to figure out how to use the scenarios to identify actions and recommendations for the process.

This is where discussions will happen regarding what all of this means, and where we'll produce some of the more concrete outcomes, in addition to the creation of the scenarios themselves. We expect that this phase will likely involve much more participation from the management bodies, as well as some of the expertise about management and government systems, and how they can be improved or modified, in light of the insights gained from this scenario development process. Then lastly, we have the monitoring phase. We planned this for early 2023.

We don't have a lot of details about this yet, but we believe this phase would involve identifying key indicators of change that can be monitored into the future, to help us adapt and respond to future changes. Just as a reminder, this is the web page that the Mid-Atlantic Council hosts for us on this initiative, where all of the information can be found on the work that has been done. It includes the previously recorded scoping webinars, the summary document, the links to the upcoming webinars and additional background information. That is all I have, Mr. Chair.

CHAIR WOODWARD: Thanks, Toni, quite an ambitious undertaking, and I'm sure it consumes a fair amount of your time and that of others, so we certainly appreciate you representing the Commission in this. Are there any questions for Toni on her presentation?

MS. KERNS: I see no hands raised.

CHAIR WOODWARD: All right, I think we must have covered it in the level of detail folks needed. Well, good.

MS. KERNS: Actually, Mr. Chair, Eric Reid has his hand up.

CHAIR WOODWARD: Okay, go ahead, Eric.

MR. ERIC REID: I don't have a question. If people haven't had a chance to look at the presentation Toni just gave, there is going to be a discussion at the New England Council meeting next Wednesday in the afternoon. That's another opportunity to perhaps ask a few questions, so just so you know. Thank you.

MS. KERNS: Thanks, Eric, and I think that Deidre has more time allotted on the agenda, so her presentation might include a little more detail, more specifics on scoping.

COMMITTEE REPORTS

CHAIR WOODWARD: All right, well we'll move on. Our next agenda item is some Committee reports from Dr. Havel, so I'll turn it over to you, Lisa.

ATLANTIC COASTAL FISH HABITAT PARTNERSHIP

DR. LISA HAVEL: I'll start with the Atlantic Coastal Fish Habitat Partnership Update, since this will be very brief. The Steering Committee met virtually December 7-8 of last year, and we worked to revise the current National Fish Habitat Partnership RFP, and also discuss the possible creation of a general ACFHP RFP. This is in response to the infrastructure bill funding that is becoming available.

We wanted to be prepared in case opportunities presented themselves, where we needed to recommend projects with a quick turnaround time. We also started discussing the next conservation strategic plan, and how to handle fund raising into the future. We had a diversity, equity, inclusion and justice discussion, and started working on the diversity statement, as well as came up with

actionable items that ACFHP can take, in order to promote the EIJ.

We voted in again our current Chair and Vice-Chair. Kent Smith is continuing to serve as Chair, from Florida Fish and Wildlife Conservation Commission, and Jessica Coakley from the Mid-Atlantic Fishery Management Council will continue to serve as Vice-Chair. The Steering Committee also reviewed our endorsement project success.

For our endorsed projects we endorsed one since our last update, and it was an on-theground living shoreline project in North Carolina. I reviewed the projects that ACFHP endorsed over the past eight years, and for those that were endorsed over one year ago, all but one has been funded. This is a well over 90 percent success rate. I just wanted to remind all the Commissioners that ACFHP is able to endorse projects at any stage, including completed projects, and if you're interested in getting an ACFHP endorsement, I encourage you to visit our website to see the easy application process. Our FY 2023 National Fish Habitat Partnership Project Application were received. The announcement went out on November 16, via multiple communications outlets, and the deadline was last Wednesday, January 19, to submit applications.

We only received three proposals this year, and they were all for the Mid-Atlantic, and the feedback from past applicants that we spoke with so far seems to be the timing. There are a lot of RFPs out right now for on the ground restoration. This one just wasn't as high up on the list as some of the other opportunities right now.

We're hoping that we can fine tune this maybe for the next year, but it seems to be a timing issue so far. As usual, ACFHP would like to thank the Commission for your continued operational support. I'll pause here, in case anyone has any questions, before I move on to the Habitat Committee update, if that's okay.

CHAIR WOODWARD: Any questions for Lisa on ACFHP?

MS. KERNS: No hands.

DR. HAVEL: Excellent.

CHAIR WOODWARD: Very good, all right, go ahead,

Lisa.

HABITAT COMMITTEE

DR. HAVEL: Now for the Habitat Committee Report. We have one new member, Mrs. Rachael Peabody from VMRC. The Habitat Committee met virtually on December 2nd of last year. We continue to work on the update to the Acoustic Impacts Habitat Management Series document. We will have this published by the end of this year. We also began working on our state climate change initiative update.

We first released a report in 2016, and then a follow up report in 2018, and a lot has taken place since that 2018 report, so we're working on an update to that. We continue working on a Fish Habitats of Concern. We had a discussion on harbor deepening and offshore wind, and we worked on editing the SAV Policy.

For this SAV Policy update, the Policy Board gave the Habitat Committee approval to develop a living shorelines policy that would be protective of submerged aquatic vegetation or SAV, at the August, 2020 Policy Board meeting. Living shorelines as a reminder, when properly sited are a great alternative to hardened shoreline. They incorporate vegetation or other natural soft elements, they promote shoreline stabilization, wave attenuation, erosion control, and improved fish habitat.

The Habitat Committee supports the use of these softer, more ecologically beneficial means of protecting and stabilizing shorelines. However, some states are placing living shorelines in close proximity to SAV beds, which are directly or indirectly impacting this important habitat for many

Commission-managed species. SAV is essential fish habitat in a HAPC, and the ASMFC updated our SAV policy in 2018, emphasizing its importance. There was discussion at the August 2020 Board Policy meeting among Commissioners, to update the SAV policy that we already have, instead of developing a new policy on living shorelines, and the Habitat Committee decided to take this route when addressing living shoreline impacts to SAV. We sent a draft of this updated policy to state directors on December 13, and then we incorporated those edits and suggestions into a new version, which was included in the briefing materials for this meeting.

The major edits to that 2018 SAV policy, we updated the language in Policy 2, which is protection of existing SAV and associated habitat, to clarify the Commission's position on the installation of living shorelines and nature-based features over hardened shoreline, when possible, but stated that SAV habitat and buffers should be a critical constraint that influences living shoreline or nature-based future selection and design. That was the major edit to this SAV Policy update.

We also made a couple of other more minor edits. We refined the definition of SAV and SAV Habitat. The final language here clarifies the past definition, and includes current or historic presence of SAV. Under Policy 3, restoration of SAV, the Policy was expanded to include confirmation that existing conditions can support restoration, in addition to reestablishing degraded conditions necessary to support SAV.

That was a minor adjustment, but I wanted to highlight it here. We also had some changes in the introduction and throughout including with the new Chesapeake Bay SAV restoration goal, so that has since been updated since 2018. The status of Johnson seagrass in Florida and coastal construction and algal blooms as major threats.

Then there were just minor changes throughout the clarification and readability that did not change the content or the intent of the policy. With these updates we're hoping to have the edits approved today. With that I am happy to take any questions or would welcome a motion to approve it. Thank you.

CHAIR WOODWARD: Thanks, Lisa, I appreciate you guiding the Committee on this. It's important to keep these partnerships alive and relevant, and I think these modifications have certainly done so. At this point any questions for Lisa or comments?

MS. KERNS: Pat Keliher.

CHAIR WOODWARD: Go ahead.

MR. KELIHER: This is a little bit nitpicky, because I realize this document has been called the SAV Policy for a long, long time. I support all of the edits. I think the Habitat Committee has done a great job recognizing the importance of this particular type of work. But since the Commission doesn't really have any authority here.

The authority lies in different areas within the states. To me this is more of a best management practices document than a policy. I'm not suggesting we change the name now, just reflecting the fact that policy really doesn't seem to fit in this particular case. But with those statements in mind, I would make a motion to approve the updated SAV Policy.

CHAIR WOODWARD: All right, thank you, Pat, do I have a second to the motion?

MS. KERNS: Joe Cimino.

CHAIR WOODWARD: Second by Joe Cimino. I hear what you're saying, Pat. If you look up the definition of policy in the various dictionaries, it's kind of all over the place too, it sort of depends on the context for how you use it. I think everybody understands what you mean by that. There is policy and then there are guidelines, and a variety of other descriptors for things that we use to help plot our

course along a pathway. Any discussion on the motion?

MS. KERNS: I see no hands.

CHAIR WOODWARD: Any opposition to the motion?

MS. KERNS: No hands in opposition.

CHAIR WOODWARD: All right, we'll consider the motion approved unanimously. Thank you, Lisa, very much and thank the Habitat Committee for their work on our behalf. We appreciate it.

PUBLIC COMMENT

CHAIR WOODWARD: In my zeal to move into the agenda, I overlooked the public comment part of our agenda, so at this point I would like to open up. Is there anyone from the public who would like to make a comment?

MS. KERNS: I see no hands, and I'm just going to remind folks that red is raised, so when the arrow is red that means your hand is up, just in case people are unfamiliar. I still have no hands.

CHAIR WOODWARD: All right, so no public comment. We have no noncompliance findings to deliberate over.

OTHER BUSINESS

CHAIR WOODWARD: Is there any other business to come before the Policy Board?

MS. KERNS: I have Joe Cimino.

CHAIR WOODWARD: Go ahead, Joe.

MR. JOE CIMINO: Thanks, Mr. Chair, and I'll be brief, because I've already heaped my praises on Kirby and Savannah, even in her very brief time. But I couldn't let it pass without giving a big shout out to Mike Millard. I met him at the turn of the century, I won't say which one. I

met him as a young grad out of college, had a chance to work on the Hudson River with him doing catch and release mortality for striped bass and shad, and it was just about the best introduction a college grad could get to fisheries. I just want to say thanks and best wishes to him.

ADJOURNMENT

CHAIR WOODWARD: Thank you, Joe. I appreciate that. All right, if there is no other business to come before the Policy Board, we will stand adjourned.

(Whereupon the meeting adjourned at 2:16 p.m. on January 27, 2022.)



SEA TURTLE BYCATCH IN TRAWL FISHERIES

SUMMARY OF ISSUES MAY 2022

BACKGROUND: As we <u>presented</u> at the January Commission meeting, fisheries bycatch is a primary threat to sea turtles in our region, and the highest trawl bycatch occurs in the Atlantic croaker, longfin squid, and summer flounder fisheries. We have tested gear (e.g., Turtle Excluder Devices (TEDs)) and operational (e.g., data loggers to monitor tow durations) modifications in these three fisheries. While there is still research to be completed, the results indicate that these modifications can be effective at reducing the severity of interactions with sea turtles and are operationally feasible.

UPDATES SINCE JANUARY PRESENTATION: Decomposed sea turtles were removed from the numbers presented at the January Commission meeting. As a result, the total number of observed sea turtle interactions in trawl gear from 2000 to 2019 was 264, with 95 occurring on croaker trips (identified by the top landed species by hail weight), 50 on longfin squid trips and 45 on summer flounder trips.

POTENTIAL MITIGATION: While final operational feasibility research is completed, NMFS is gathering early input and information from the public, fishing industry, and other stakeholder groups to inform any future measures. Given the results of previous research, we are considering:

- 1) Requiring TEDs with a large escape opening in trawls that target Atlantic croaker, weakfish, and longfin squid to reduce injury and mortality resulting from accidental capture in these fisheries;
- 2) Moving the current northern boundary of the TED requirements in the summer flounder fishery (i.e., the Summer Flounder Fishery-Sea Turtle Protection Area) to a point farther north to more comprehensively address capture in this fishery;
- 3) Amending the TED requirements for the summer flounder fishery to require a larger escape opening to allow the release of larger hard-shelled and leatherback sea turtles; and
- 4) Adding an option requiring limited tow durations, if feasible and enforceable, in lieu of TEDs in these fisheries to provide flexibility to the fisheries.

SUMMARY OF INFORMATION RECEIVED: Council/Commission meetings, public webinars, call in days, and additional public responses resulted in approximately 30 questions and 30 comments. Feedback consisted of questions on the sea turtle bycatch estimates, observer data, and research. Comments were received on the geographical range of the measures, tow duration issues, fishery definitions, and economic impacts. Several information needs were also identified related to additional data and research.

ADDITIONAL INFORMATION: Background information (including the latest trawl bycatch estimate), descriptions of TED designs, research results, type of information needed, recordings of the public webinars, and how to comment can be found at our <u>website</u>.



Summer Flounder, Scup, and Black Sea Bass & Mackerel, Squid, and Butterfish Advisory Panel Meeting Summary

Tuesday, February 15, 2022, 2:30 pm - 4:00 pm

Advisory Panel Members in Attendance: George Topping, Bonnie Brady, Eleanor Bochenek, Harvey Yenkinson, Kenny Hejducek, Greg DiDomenico, Katie Almeida, Meghan Lapp, Pam Lyons Gromen, Mike Waine, Gerry O'Neill, Jeff Kaelin, Bob Pride, Joseph DeVito, Mike Plaia, Daniel Farnham, Jr., Emerson Hasbrouck, Jeff Deem.

Other Attendees: Carrie Upite (NMFS Staff), Jeff Gearhart (NMFS Staff), Karson Coutre (Council Staff), Kiley Dancy (Council Staff), Peter Hughes (Council), Adam Nowalsky (Council), Sonny Gwin (Council), Chris Batsavage (Council), Carly Bari (NMFS Staff), Colleen Coogan (NMFS Staff), Henry Milliken (NMFS Staff), Emily Keiley (NMFS Staff), Jason Didden (Council Staff), Wes Townsend (Council), Dan Farnham (Council), Alissa Wilson, Nick, JB, JN.

Summary:

The Advisory Panels met via webinar and reviewed a presentation from Carrie Upite (NMFS Protected Resources Division) on sea turtle trawl bycatch issues and the ongoing research on mitigation measures in the Greater Atlantic Region. Advisors provided the following questions and comments; however, these do not represent consensus statements.

Several advisors asked clarifying questions regarding the sea turtle bycatch estimate including how the estimate was derived and how the estimate compares to the observed sea turtle interactions. NMFS staff described the estimation process and responded that they would share the bycatch estimate paper which describes the methodology and data in more detail.

Multiple advisors were interested in more information about how many turtles were released alive versus dead and details of the calculated mortality rate estimate. Advisors felt this information is important when determining the scale of the issue. An advisor added that the bycatch estimate of 571 interactions across all trawl fisheries is lower than the number of turtles that are found cold stunned each year and felt it was misleading to say that trawl fisheries are the largest threat to sea turtles. Because of this, they added that it is unfair to impose draconian measures on the trawl fleet.

Advisors also asked how fisheries were defined and commented that hail weight by species was not always the best way to define a fishery. One advisor asked whether different trawl net types were analyzed and if there were different turtle bycatch estimates depending on the net. NMFS

staff responded that different net types within the bottom otter trawl category were not analyzed separately but this was something that could be explored further. Another advisor requested more specific regional information and the percent of trips where sea turtle takes have been observed, noting that in the past there had been an estimate of 5 takes for an area with no observed takes. NMFS staff noted that they would send this advisor the paper that provides regional information.

An advisor asked whether interactions with sea turtles were different during the day versus at night. This advisor also asked about sea turtle behavior when in front of the trawl net and whether sea turtles get herded in or try to escape. NMFS staff indicated day versus night interactions had not been looked at yet. Staff also noted that sea turtle behavior can differ based on the size of the net, for example with larger nets turtles are already in the back of the net when they realize it and therefore cannot escape. Furthermore, in lower visibility turtles will not react as quickly.

One advisor requested that more information be provided to the public about the health and regional status of the different sea turtle populations and how the TEDs have worked in fisheries where they have been required. They asked if there are success stories that can inform current decision making. This advisor also suggested that flexible TEDs may be the preferred modification out of the different TED options. They noted that they were not aware that there was a current croaker fishery, however linking summer flounder and squid for this analysis would make sense because often the same boats fish for both species. They added that getting the word out to commercial fishermen needed to be prioritized and felt that this issue was coming as a surprise after not being discussed for several years. Another advisor noted that comments to NMFS regarding sea turtle bycatch issues were sent in 2009 on behalf of the Garden State Seafood Association and they never received a response. While rulemaking never occurred at that time for a variety of reasons, it was discussed that this letter was sent to Council staff recently and would be sent to NMFS staff for their review since many of the comments are still relevant.

One advisor voiced concern over interactions with sea turtles in recreational fisheries due to vessel strikes or fishing hook and line injuries and asked whether these were monitored and mitigated. They noted that the large number of sport boats moving at high speeds in the summer may be a source of sea turtle interactions that needs to be documented. NMFS Staff responded that there are different reporting mechanisms for when these interactions occur; for example, stranding networks record information about the condition of turtles when they wash up on beaches. Watercraft injuries are a major concern and there are efforts underway to minimize those injuries and interactions.

An advisor asked whether cameras could be used on the gear so that if an operator sees a turtle go in the net they can tow for a shorter amount of time. NMFS staff responded that this had been looked at in the past. There were some water clarity issues and it is a high-cost monitoring system to obtain a live feed of the net camera. Another advisor commented that in the squid fishery there is no option to compensate for reductions in catch by targeting another species on the same trip using squid mesh, therefore reductions would be a direct economic loss.

Overall, several advisors agreed that in order to have meaningful solutions, more information needs to be provided to the public such as the number of strandings, other sources of mortality such as vessel strikes, observed takes by region, and population assessments for the sea turtle species of concern. Another advisor reiterated that the trawl data needs to be analyzed at a finer scale to determine if there are gear configurations or net types where turtle interactions are not occurring.



Research Set-Aside (RSA) Workshop Meeting 4 – Summary Recommendations

Wednesday, February 16, 2022

Compiled by

Brandon Muffley and Andrew Loftus

SUMMARY OUTCOMES

Research Set-Aside Workshop Workshop 4 (Summary Recommendations) Wednesday, February 16, 2022

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Appendix VIII. Presentation: Topic #3 - What does an RSA trip look like?

Appendix IX. Workshop 4 Registrants

SUMMARY OUTCOMES

Research Set-Aside Workshop Workshop Meeting 4 (Summary Recommendations)

Workshop Goal: The goal of Workshop Meeting 4 is to review the recommendations from the first three workshops and provide input for consideration by the Council's Research Steering Committee (RSC) regarding recommendations for RSA program redevelopment.

Next steps after this workshop

Dr. Michelle Duval (RSC Chair)

(Full presentation is included in Appendix II)

- April 27th RSC meeting to review all input and develop guidance and final recommendations for Council consideration.
- June 7–9 Council meeting to review RSC recommendations and make a decision on whether to redevelop the RSA program.
- Depending on decision from Council:
 - o If the decision is "no," there will be no further (immediate) work on redevelopment.
 - o If the decision is "yes," begin to develop appropriate management action document (i.e., framework or amendment).
 - Depending upon action and included components, it would likely be 1+ years to complete.
 - Will need to coordinate/work with the Atlantic States Marine Fisheries
 Commission and state agency staff/enforcement on program details and specifics.

Role of the Scientific and Statistical Committee (SSC) Economic Work Group

Dr. Geret DePiper (Chair, SSC Economic Work Group)

(NOTE: Full presentation is included in Appendix III and key points of the question & answer dialogue are captured in the appropriate summary section of the discussions below.

Key Points

- Economic Work Group was established by the Council specifically to provide input into the economic impact of issues before the Council.
- Collaborative and iterative process with the Council structure.
- RSA program inherently has a number of economic implications.
- A series of white papers has been developed for each of the previous RSA Workshops (Workshops 1-3).
- Supporting material for today's workshop focus on how the program design impacts the ability to achieve RSA goals:
 - o Who participates.
 - o How quota is allocated.
 - What RSA trips look like.

Workshop 1-3 Recap/brief overview of issues from the previous program

Presentation by Andrew Loftus (workshop facilitator) (NOTE: Full presentation is included in Appendix IV)

Key Points

• Workshop 1 (Research)

 Identify how research goals will be prioritized, projects will be screened, and results will inform management/be communicated to the Council and stakeholders.

• Workshop 2 (Funding)

 Discuss how the program will be administered (federal grant program), discuss funding mechanism, and indicate that projects should be tied to management/assessment needs.

• Workshop 3 (Enforcement)

 Identify potential program modifications that could prevent reoccurrence of previous enforcement issues.

• Workshop 4 (Recommendations)

 Review the recommendations from the first three meetings (synthesized by the RSC) and provide input for RSC consideration regarding recommendations for RSA program redevelopment.

Workshop Goal Discussions

Draft Goals of RSA Program

Brandon Muffley (MAFMC staff)

(NOTE: Full presentation is included in Appendix V).

Summary

- Based on feedback and input from workshop #1 #3, identified a list of nearly 20 different potential objectives.
 - o RSC took that list and created four draft goals and associated objectives.
- Developed a decision tree to identify different RSA program components and consider how they may support the goals and objectives identified.
- Prioritized and refined the draft Goals and Objectives
 - Identified linkages across goals and implications for working through decision tree.
 - Consider trade-offs associated with different decision tree options in achieving specified goals.
- Goals and Objectives provide the overall framework for a possibly revised program; while alternatives/questions in the decision tree specify the structure and details of program in support of goals.

Listed in Priority Order. Blue capitalized lettering indicates language added during the discussion

<u>Goal 1.</u> Produce quality, <u>APPROPRIATELY</u> peer-reviewed research that maximizes benefits to the Council, <u>MANAGEMENT PARTNERS</u>, <u>AND THE</u> public and enhances the Council's understanding of its managed resources (Research)

- 1. Support more applied management-focused research activities.
- 2. Higher priority on proposed RSA projects whose results would likely have immediate application to species management.
- 3. Discourage commitments to longer-term monitoring projects.
- 4. Ensure all data collected (funding and research) through the RSA program is open access.

Goal 1 Discussion

- It is implied that states are included in the RSA program. For jointly managed species, should add language "management partners."
- Does all research need to be peer reviewed?
 - Should be scientifically valid but not necessarily a full independent peer review process.
 - The intent of "peer review" is to set a high bar, not necessarily an outside peer review such as for publication.
 - o There is a peer review by NOAA as part of the RSA process.
 - o Conclusion: Peer reviewed does not mean published.
- "Open access" for data is a lofty goal but may be difficult to implement.
 - o "Confidential data" may not be able to be open access.
 - All objectives are subject to laws etc. so this would apply to open access and confidential data.
- For objective #2, suggestion to replace the word "immediate" with "timely" noting that research does take time and as does the QA/QC and peer review and key is having the information available when its needed.

<u>Goal 2</u>: Ensure effective monitoring, accountability, and enforcement of RSA quota (Enforcement and Administration)

Original	Revised	Goal #2 Objective
<u>Order</u>	<u>Order</u>	
1	4	Minimize law and admin (agency and researcher) burdens.
2	6	Improve STATES' ability to revoke RSA fishing privileges.
3	5	Provide support for admin and law activities.
4	1	Apply enhanced, adaptive, and consistent enforcement standards and controls.
5	3	Increase state-federal science, enforcement, and administration collaboration and cooperation.
6	2	Ensure compliance with the reporting and use of the RSA quota.

Goal 2 Discussion

- Move #4 ("Apply...) and #5 "Ensure...." Should be moved up if this is prioritized.
- "Improve ability to revoke RSA fishing privileges" is not needed for the Federal level but is really applicable to the state level enforcement (perhaps add "state" into bullet 2).
- Suggested order for prioritization is 4, 6, 5, 1, 3, 2, agreed upon with no objection.

<u>Goal 3</u>: Generate resources to fund research projects that align with the priorities of the Council (Funding)

- 1. Maximize revenues from RSA quota.
- 2. Provide equitable opportunity to fund research across all Council-managed species.
- 3. Increase scientific and industry partnerships.
- 4. Evaluate fairness in fishing community access to RSA quota.

Goal 3 Discussion

- Does #2 mean using money from a species of value to support research on other species? Response: Yes, including this objective would indicate a willingness to use funds generated from one species to support research for another species. By including this objective, this would also answer, by default, questions raised in the decision tree document (see Topic 2, Questions 2A and 2B)
- "Maximizing revenues" depends on how it is defined. "Maximize" doesn't necessarily mean getting the highest gross return, but a high net return; minimizing administrative and law enforcement costs might maximize the net revenue of a program.

<u>Goal 4</u>: Foster collaboration and trust between scientific and fishing communities and the general public

- 1. Ensure all data collected (funding and research) through the RSA program is open access.[Move to #2]
- 2. Ensure an open, accountable, and transparent process through all steps (funding and research) of the RSA program. [Move to #1]
- 3. Increase scientific and industry partnerships.
- 4. Evaluate fairness in fishing community access to RSA quota.

Goal 4 Discussion

- A suggestion was made to combine Goal 1 and 4. However, others thought that they should remain separate, particularly to keep an emphasis on fostering fair collaboration with the fishing community. The point was made that quota taken away from fishermen for RSA should be used to provide science that benefits everyone, not just improve relationships with those participating in the RSA program.
- Objective #2 should be moved to the top.
- Need to be cautious about the expectations set by some of these objectives; certain aspects are confidential by law and cannot be "open."

Public questions/comments on Goals

• Input was offered that Goal 4 should be prioritized as the first one; trust should be the foundation, and participation of the fishing community is necessary for the RSA program. Following discussion, the Panel consensus was to leave the Goals prioritized as is.

Specific Topic Discussions

- Red/Orange text indicates the options recommended by the RSC.
- Green lettering is text added following the January RSC meeting.
- Blue lettering indicates language added during the discussion during this meeting.

Topic #1 - Who is involved in the RSA program?

Dr. Mark Holliday (SSC Economic Work Group)

(NOTE: Full presentation is included in Appendix VI)

Topic 1Summary

- Accept that trade-offs are a natural consequence of decision making.
- Clearly document rationale for decisions.

Topic #1 - Who is involved in the RSA program Top Tier/Highest Priority Questions 1A. Allow commercial sector participation only 1B. Allow commercial and for-hire sector participation (no private recreational fishermen) 1Bi. Phase-in participation by one sector 1C. Allocation of quota across sectors or keep separate 2A. Fixed percentage of ABC for each fishery (i.e., different percentages for each fishery) 2B. Fixed percentage of ABC across all fisheries 2C. Fixed number of pounds for each fishery 3A. Allow participation only by federally-permitted vessels 3B. Allow participation by federally-permitted and state-permitted vessels 3Bi. Phase-in participation by permitted (state) vessels 3Bii. Appropriate/standardized reporting for all vessels 3C. Do not allow participation by vessel owners that are also dealers unless dealer has a physical address for place of business 4. Allow states to opt out of shoreside participation in an RSA program (e.g., providing required state exemption permits, etc.) 5A. Cap the number of vessels that can participate within each state 5Ai. Cap by sector (depending on alternatives 1A-1C) 6A. Require Allow observers/state staff onboard all RSA compensation fishing trips

Topic 1Discussion Summary

Option Set 1 (1A-1C)

- General support for keeping the RSA program open to both Commercial and For-Hire fishermen. Both sectors are important for generating specific science and if there is discontent from sectors that are excluded it is likely to erode long-term support for the program.
- Some comments that allocation of the RSA quota should be determined by the Council and that setting a standard for separate allocations as part of the RSA plan would complicate implementation and monitoring.
- Details will need to be fleshed out further by the RSC.

6B. Require Allow all vessels to be equipped with VMS or AIS

Option Set 2 (2A-2C)

- From an implementation standpoint, dealing with "fixed poundage" rather than a percentage is much easier.
- Requiring a percentage of ABC from each fishery may be problematic in the long-term. The value of a specific fish changes over time and species that don't generate sufficient revenue would not result in bids for harvest.
- The Council would have the option to not allocate RSA quota for species with little value.

Option Set 3 (3A-3C)

- Both federal and state-permitted vessels should be subject to the same reporting requirements.
- Support for sub-options associated with 3B (those in green).

Option Set 4

- There is a legal gray area for a state to opt out of allowing federally-permitted vessels to participate in federally-approved activities.
- "Opt in" might be a better option than opt out. Providing states flexibility to limit the sectors that can participate may help alleviate administrative burden and encourage states to opt in.
- Federal regulations and permits are helpful for enforcement; some states do not have the capability to enforce some issues with the existing state-issued permit infrastructure.

Option Set 5 (5A-5Ai)

- No recommendation; this should be a state decision.
- Current limitation of 50 federally-permitted vessels per RSA supported project.

Option Set 6 (6A-6B)

- Changing "require" to "allow" would make these requirements a moot point.
- Law enforcement needs to weigh in on this.
- Some discussion that "allow" applied to observers but that "require" pertained to VMS or AIS. These are two very different electronic systems and further discussion needs to occur.
- Overall support for some type of electronic monitoring and the RSC needs to consider/discuss this further.

Topic #2: How would you allocate/divide the RSA quota?

Dr. Geret DePiper (SSC Economic Work Group)

(NOTE: Full presentation is included in Appendix VII)

Topic 2 Summary

Topic #2 - How would you allocate/divide RSA quota

Top Tier/Highest Priority Questions

- 1A. RSA applies to all fisheries/species
- 1B. RSA only for select fisheries/species
- 2A. Allow specific percentage of projected revenue from species quota sale to be used for research on other species
- 2B. All revenue from species quota sale can only be used for research related to that species
- 3A. Funding mechanism should include ability to use both bilateral agreements and third party auctions
- 3B. Funding mechanism should include the use of only bilateral agreements or third party auctions (only one)
- 3A-Bi. Conduct periodic review of funding mechanism(s) to determine approach supports or undermines project or program objectives

Secondary Tier Priority Questions

- 4A. Single species quota lots only
- 4Ai. Allow specific percentage of revenue from species quota sale to be used for other species research
 - 4Aii. All revenue from species quota sale can only be used for that species
- 4B. Bundled and single species quota lots
- 5A. Support short-term projects only (2-3 years max)
- 5B. Support short- and long-term projects (i.e., monitoring)
- 6A. Proposals need to identify scientific need and how results will reduce uncertainty
- 6B. Proposals need to identify how results will address a timely/relevant management issue
- 6C. Proposals need to include a detailed data sharing/management plan

Topic 2 Discussion Summary

Option Set 1 (1A-1B)

- Agreed that the language for these options should be revised to clarify that it refers to FMPs and species and not fishing sectors (e.g., private recreational fisherman are not a component of the RSA program).
- The Council would have the option to allocate or not any specific species.

Option Set 2 (2A-2B)

• Consensus that funds generated by RSA could be used to support research for any managed species (MAFMC and any other management entity, e.g., ASMFC or NEFMC). This requires additional discussion by the RSC.

Option Set 3

- The Council doesn't have the ability to tell a PI how to monetize a quota but Council could offer guidance or recommendations. This option allows for both bilateral and third party (i.e., auction) agreements.
- 3A and 3Ai —if/when conducting future reviews of the RSA funding mechanism(s), need to include mortality as part of this review to ensure we are minimizing/not

increasing mortality associated with harvest of RSA quota and mortality associated with RSA related research.

Topic #3 - What does an RSA trip look like?

Dr. Lee Anderson (SSC Economic Work Group)

(NOTE: Full presentation is included in Appendix VIII)

Topic 3 Summary

Topic #3 - What does an RSA trip look like

Top Tier/Highest Priority Questions

- 1A. Compensation harvest completely decoupled from funded research (i.e. vessels harvesting RSA quota are not vessels conducting research)
- 1B. Compensation harvest decoupled from research activity, but vessels harvesting RSA quota also participate in research trips
- 1C. Where feasible, compensation harvest is coupled with research activity
- 2A. Require RSA harvest OF A SPECIFIC SPECIES to occur on separate trips from non-RSA harvest OF THAT SAME SPECIES
- 2B. Allow both RSA and non-RSA harvest on the same trip
- 3A. Limit RSA offloads to specific ports in each state
 - 3Ai. Limit RSA sales to specific dealers in each state
 - 3Ai(1). Limit RSA sales to only federally permitted dealers
- 3B. Require all RSA quota to be offloaded at the same port from pre-trip notification
- 4. Limit RSA offloads to specific hours (e.g., 6am-8pm)
- 5A. Require all participating vessels to submit a pre-trip notification 24hrs in advance to declare intent to harvest RSA quota that includes port and anticipated day/time of landing.
- 5B. Require all vessels to report port of landing, amount of RSA quota onboard, and complete an electronic trip report at least six hours prior to landing
- 6A. Allow RSA trips to land quota after the regular season closes
- 6B. Allow RSA trips to increase trip limits during the regular season
- 6C. Allow RSA trips flexibility in both the timing and landings throughout the year

Secondary Tier of Priority Questions

- 7A. Unlimited transfer/leasing of RSA quota between vessels
- 7B. Do not allow transfer/leasing of RSA quota except under catastrophic circumstances.
- 7C. Allow for one or limited number of transfers/leases of RSA quota between vessels

Topic 3 Discussion Summary

Option Set 1 (1A-1C)

• It is very rare where harvesting activities are integrated into the research activities (option 1C) but the group supports for keeping this option since there is concern for increasing mortality by allowing harvest under the RSA program and the mortality associated with the research.

Option Set 2 (2A-2B)

- Having dedicated trips will likely improve enforceability and administration of the program.
- However, this may increase discards and complicate trips for fishermen.
- "Landing flexibility" allows vessels to possess another state's quota in other states along the coast and was not in place when the previous RSA program was in place which may complicate this option.
- Summary: RSA trips/harvest and non-RSA trips/harvest *for the same species* could not occur on the same trip but harvesting of other species where RSA quota is not used would be allowed. All harvest of a species under a declared RSA trip (e.g., summer flounder) would count against the RSA quota, regardless if under/over the state designated trip limit.
- RSC needs to discuss how to address remnant RSA quota that is not sufficient to justify a separate trip.

Option Set 3 (3A-3B)

• This requirement is feasible and the intent of the program currently.

Option Set 4

• No discussion (RSC indicated this is a state issue and they should identify offload timing requirements based on fishery needs and enforcement capabilities)

Option Set 5 (5A-5B)

- No objection but some thought that both 5A and 5B should both be required for an enforceable program. However, there was considerable concern about requiring an electronic trip report 6 hours before landing since some trips in the Mid-Atlantic are not even 6 hours long.
- eVTRs require reporting (completion of the VTR) before they enter port. Any prelanding reporting will aid enforcement.
- RSC needs to discuss the 6 hour pre-landing reporting requirement (5B).

Option Set 6 (6A-6C)

- This must be interpreted in the context of all of the other requirements specified earlier.
- This allows flexibility (e.g., after season closure and higher trip limits).

Option Set 7 (7A-7C)

• Not discussed (second tier questions)

Public questions/comment

- Topic 3, Option 2A maybe one compromise is to specify by species; require harvest of RSA
- What happens if a vessel has a small amount of RSA quota left over? This needs to be addressed.

Wrapping it all up: Summary of Consensus Decisions

Andrew Loftus (workshop facilitator)

- The RSC needs to assemble a summary table comparing elements of the former RSA program to that proposed through this workshop process, particularly addressing the issues that were identified when the old program was discontinued.
- Goals 1-4 were agreed to with the current priority order. Some reordering of objectives under specific goals and some word tweaking were recommended but not major changes.

Topic Areas

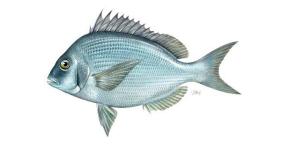
- Recommendations made by the RSC were generally agreed to with some clarification and tweaking.
- More discussion is needed on monitoring electronic and state-observer and the different components of VMS and AIS.
- Possibly provide a state opt-in option (rather than opt out) regarding participation in the RSA program.
- Need to consider a state's ability (or lack of) for regulating a state-permitted vessel participating in a federally approved RSA program; some states lack the authority.
- Include a recommendation "Where feasible, compensation harvest is coupled with research activity."
- Need further refinement of Topic 3, 2A. "Require RSA harvest to occur on separate trips from non-RSA harvest" and the nuances to this in consideration of the impacts on increasing discard of fish. Make sure that it refers to specific RSA species quota.
- General agreement on the need for tight pre-trip notification of an RSA trip (and species) as well as pre-landing notification, although the 6 hour requirement may need to be nuanced.
- At a future meeting, the RSC will be considering all of these discussions and some second tier questions that were not addressed in this workshop before making a recommendation to the Council.

Atlantic States Marine Fisheries Commission

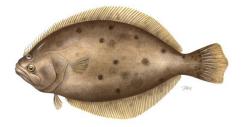
DRAFT ADDENDUM XXXIV TO THE SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS FISHERY MANAGEMENT PLAN AND ADDENDUM II TO THE BLUEFISH FISHERY MANAGEMENT PLAN FOR PUBLIC COMMENT

Harvest Control Rule for Recreational Management

This action is being developed with the Mid-Atlantic Fishery Management Council.









Approved for Public Comment February 2022 Updated March 2022 (Appendix 3)



Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Public Comment Process and Proposed Timeline

In October 2020, the Atlantic States Marine Fisheries Commission's (Commission) Interstate Fisheries Management Policy Board (Policy Board) and the Mid-Atlantic Fishery Management Council (Council) initiated draft addenda (for the Commission) and framework action (for the Council) to address management of the summer flounder, scup, black sea bass, and bluefish recreational fisheries. This document (Draft Addendum XXXIV to the Summer Flounder, Scup and Black Sea Bass FMP and Draft Addendum II to the Bluefish FMP, herein referred to as Draft Addenda) and the Council's framework consider modifications to the process for setting recreational bag, size, and season limits (i.e., "recreational measures") for all four species. The Draft Addenda and the Council's framework action consider an identical set of options and the Commission's Interstate Fisheries Management Policy Board (Policy Board) and Council will select the same

management options for Draft Addenda Developed for Summer & Fall 2021 implementation. This **Board Review** document presents background on Board Reviewed and Approved Draft February 2022 Addenda for Public Comment recreational management Current step in for these species and a the Addenda March 15-April 22 2022 **Public Comment Period** range of options to set development process recreational measures for Board Reviews, Selects Management Options public consideration and June 2022 and Final Approval comment. The addenda process and expected timeline are below.

Public comment may be submitted via public hearings or through written comment and will be accepted until April 22 at 11:59 p.m. If you have any questions or would like to submit a comment, please use the contact information below. All comments will be made available to both the Commission and Council for consideration; duplicate comments do not need to be submitted to both bodies.

Tips for Providing Public Comment

We value your input. To be most effective, please include specific details as to why you support or oppose a particular proposed management option. Specifically, please address the following:

- Which proposed options do you support, and which options do you oppose?
- Why do you support or oppose the option(s)?
- Is there any additional information you think should be considered?

For the options in Section 3.1, we encourage you to think about the following questions:

- In your opinion, which option represents the best process for setting recreational management measures and why?
- What types of information are most important in guiding the selection of management measures (e.g., stock size, recent harvest levels, whether or not overfishing is occurring)?
- What circumstances should trigger changes in management measures (e.g., a change in stock size, an expected harvest limit overage or underage)?

Submit Comments to:

Mail: Dustin Colson Leaning, FMP Coordinator Atlantic States Marine Fisheries Commission 1050 North Highland Street, Suite 200 A-N

Arlington, VA 22201

Email: comments@asmfc.org (Subject: Harvest Control Rule)

FAX: 703.842.0741

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1.0 Introduction

Summer flounder, scup, black sea bass, and bluefish fisheries are managed cooperatively by the Commission in state waters (0-3 miles) and by the Council and NOAA Fisheries in federal waters (3-200 miles). The management unit for summer flounder in U.S. waters is the western Atlantic Ocean from the southern border of North Carolina northward to the U.S.-Canadian border. The management unit for scup and black sea bass in U.S. waters is the western Atlantic Ocean from Cape Hatteras, North Carolina north to the Canadian border. Bluefish are managed in U.S. waters along the entire eastern seaboard, from Maine to Florida.

The Council and Commission jointly agree to recreational annual catch limits (ACLs) and recreational harvest limits (RHLs) for all four species, which apply throughout the management units. They also jointly agree to the overall approach to setting recreational bag, size, and season limits (i.e., recreational measures). Recreational measures in state waters are determined through the Commission process as outlined in <u>Addendum XXXII</u> for summer flounder and black sea bass, <u>Addendum XI</u> for scup, and <u>Amendment 1</u> for bluefish.

In October 2020, the Commission's Policy Board and the Mid-Atlantic Fishery Management Council approved the following motion:

Move to initiate a joint framework/addendum to address the following topics for summer flounder, scup, black sea bass, and bluefish, as discussed today:

- Better incorporate MRIP uncertainty into management
- Develop guidelines for maintaining status quo measures
- Develop a process for setting multi-year measures
- Consider changes to the timing of federal waters measures recommendations
- Harvest control rule

and to also initiate an amendment to address recreational sector separation and recreational catch accounting such that scoping for the amendment would be conducted during the development of the framework/addendum.

During their February 2021 meeting, the Council and Policy Board prioritized development of the harvest control rule referenced in the motion above prior to further development of the other topics. This Draft Addenda and the complementary Council framework address only the harvest control rule; however, as described in more detail in later sections of this document, considerations related to uncertainty in the Marine Recreational Information Program (MRIP) data, guidelines for status quo measures, and multi-year measures are incorporated into many of the options.

The goal of the Draft Addenda and the Council's framework is to establish a process for setting recreational bag, size, and season limits for summer flounder, scup, black sea bass, and bluefish such that measures aim to prevent overfishing, are reflective of stock status, appropriately account for uncertainty in the recreational data, take into consideration angler preferences, and provide an appropriate level of stability and predictability in changes from year to year.

2.0 Overview

2.1 Statement of Problem

As described in more detail in section 2.2, the Commission and Council face a number of challenges setting recreational management measures for summer flounder, scup, black sea bass, and bluefish, including concerns related to uncertainty and variability in the recreational fishery data, the need to change measures (sometimes annually) based on those data, as well as the perception that measures are not reflective of current stock status. In addition, management measures have not always had their intended effect on overall harvest.

The purpose of this document is to consider a management approach called a harvest control rule to establish a process for setting recreational bag, size, and season limits for summer flounder, scup, black sea bass, and bluefish that aims to prevent overfishing, is reflective of stock status, appropriately accounts for uncertainty in the recreational data, takes into consideration angler preferences, and provides an appropriate level of stability and predictability in changes from year to year. The management options aim to rely less on expected fishery performance and instead uses a more holistic approach with greater emphasis on stock status indicators and trends.

Addendum XXXII established an interim management approach for summer flounder and black sea bass that addressed several key management objectives and served as a foundation for broad-based, long-term management reform. The Policy Board and Council are addressing ongoing management challenges and objectives via comprehensive, long-term management reforms over the next several years starting with this document. Those actions will draw upon improved recreational fishery data, updated stock assessments, and innovative management tools.

2.2 Background

For all four species, recreational ACLs are set jointly by the species management board and the Council. ACLs account for landings and dead discards. An RHL for each species is set equal to the ACL minus expected dead discards. Recreational measures (i.e., bag, size, and season limits)

¹ MRIP is an evolving program with ongoing improvements to its methods. Several recent advancements including the transition from a telephone survey to a mail survey to estimate fishing effort have resulted in revisions to the recreational catch and harvest estimates.

are set with the goal of preventing RHL overages. In preventing RHL overages, these measures also aim to prevent ACL overages and overfishing.

The ACLs and RHLs are revised when new stock assessment information becomes available. They are based on stock assessment projections, considerations related to scientific uncertainty, and commercial/recreational allocations. The RHLs incorporate assumptions about dead discards and can be further reduced to account for management uncertainty.

The methods used to determine which measures will prevent RHL overages are not specified in the FMPs and may be modified based on annual recommendations from the Council's Monitoring Committees and the Commission's Technical Committees. MRIP harvest data from one or more recent years are typically used to predict the impacts of changes in bag, size, or season limits on harvest when setting recreational measures. This process typically relies on the assumption that if the recreational measures remain unchanged, next year's harvest will be similar to harvest in the current year or a recent multi-year average. If unchanged measures are expected to result in harvest notably above or below the RHL, then the measures are adjusted to achieve a desired percent liberalization or reduction in harvest based on an analysis of trends shown in recent years' MRIP data.

To allow for consideration of preliminary, current year MRIP data, the Commission's species management board and Council typically determine the overall approach for the upcoming year's recreational measures (e.g., status quo or an overall percentage liberalization or reduction) in December of the current year. They also agree to the federal waters measures in December with the approach for developing state waters measures typically approved by the board in February of the following year.

Of these four species, those that tend to harvest close to or more than their RHL (primarily summer flounder and black sea bass) have required frequent changes to the recreational bag, size, and season limits to prevent future RHL overages. In some cases, the required changes in measures appear to have responded to variability and uncertainty in the MRIP data rather than a clear conservation need. This challenge has been referred to as "chasing the RHL." In addition, many recreational stakeholders expressed frustration that the black sea bass measures did not seem reflective of stock status as they have generally been more restrictive in recent years compared to when the stock was under a rebuilding plan, despite the stock currently being more than double the target level and highly available to anglers.

The bluefish stock was declared overfished in 2019, triggering the development of a rebuilding plan and a need for more restrictive management measures than had previously been in place. The Draft Addenda includes special considerations for stocks in a rebuilding plan. The options in this document are not meant to replace the bluefish rebuilding measures. Any measures implemented for bluefish must comply with the rebuilding plan.

2.3 Status of the Stocks

2.3.1 Summer Flounder

The most recent summer flounder management track stock assessment was completed in June 2021, using data through 2019 (NEFSC 2021a). The Council and Commission FMP for summer flounder defines the management unit as all summer flounder from the southern border of North Carolina to the United States-Canada border. The assessment approach is a complex statistical catch-at-age model incorporating a broad array of fishery and survey data. Results from the 2021 assessment indicate that the summer flounder stock was not overfished, but was 14% below the biomass target, and overfishing was not occurring, in 2019 (Figure 1). Fishing mortality was 20% below the threshold level defining overfishing. More detail on the assessment can be found <a href="https://example.com/here/beauto-state-stat

The 2021 management track stock assessment provided the basis for setting fishery specifications for 2022–2023.

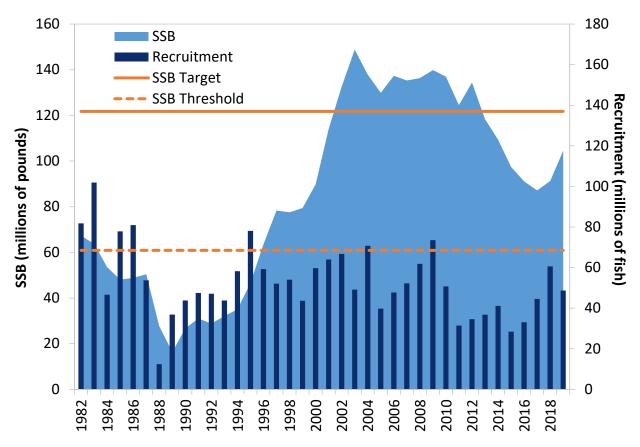


Figure 1. Summer flounder spawning stock biomass and recruitment. Source: 2021 Operational Assessment Prepublication Report, Northeast Fisheries Science Center.

2.3.2 Scup

The most recent scup management track stock assessment was completed in June 2021, using data through 2019 (NEFSC 2021b). The Council and Commission FMP for scup defines the management unit as all scup from Cape Hatteras, North Carolina to the United States-Canada border. The assessment approach is a complex statistical catch-at-age model incorporating a broad array of fishery and survey data. Results from the 2021 assessment indicate that the scup stock was not overfished and was about two times the biomass target, and overfishing was not occurring, in 2019 (Figure 2). Fishing mortality was 32% below the threshold level defining overfishing. More detail on the assessment can be found <a href="https://example.com/here-example.c

The 2021 management track stock assessment provided the basis for setting fishery specifications for 2022–2023.

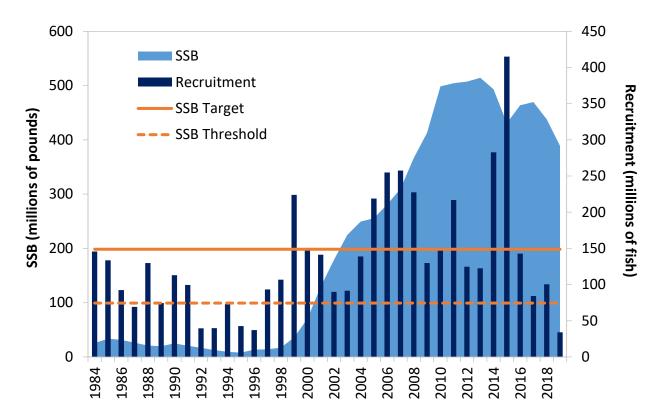


Figure 2. Scup spawning stock biomass and recruitment. Source: 2021 Operational Assessment Prepublication Report, Northeast Fisheries Science Center.

2.3.3 Black Sea Bass

The most recent black sea bass stock assessment update was completed in July 2021, using data through 2019 (NEFSC 2021c). The Council and Commission FMP for black sea bass defines the management unit as all black sea bass from Cape Hatteras, North Carolina to the United States-Canada border. The assessment modeled black sea bass as two separate sub-units (North and South) divided approximately at Hudson Canyon, from which results were combined for the entire stock's status determination. The assessment used a combined-sex, agestructured assessment model. Results from the 2021 assessment indicate that the black sea bass stock was not overfished and was about 2.2 times the target level, nor was overfishing occurring in 2019 (Figure 3). Fishing mortality was 15% below the threshold level defining overfishing. The assessment required an adjustment to account for the significant retrospective pattern. This adjustment was only applied to the terminal year of the assessment and the adjusted values are used for management. Of the four species considered in this action, only black sea bass required a retrospective adjustment in the assessment. More detail can be found here.

The 2021 management track stock assessment provided the basis for setting fishery specifications for 2022–2023.

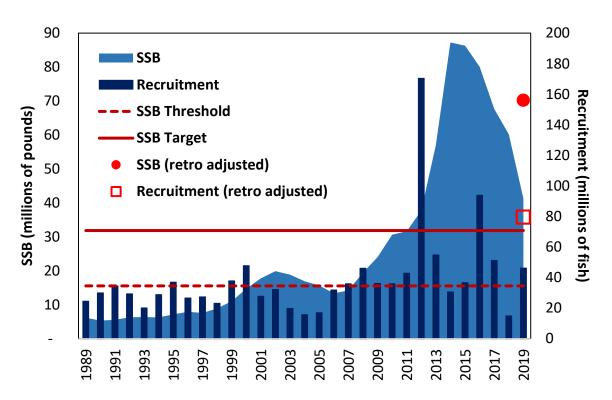


Figure 3. Black sea bass spawning stock biomass and recruitment with retrospective adjusted values. Source: 2021 Operational Assessment Prepublication Report, Northeast Fisheries Science Center.

2.3.4 Bluefish

The most recent bluefish management track stock assessment was completed in June 2021, using data through 2019 (NEFSC 2021d). The Council and Commission FMP for bluefish defines the management unit as all bluefish in United States waters of the western Atlantic Ocean. The assessment approach is a complex statistical catch-at-age model incorporating a broad array of fishery and survey data. Results from the 2021 assessment indicate that the bluefish stock was overfished and was 5% below the overfished threshold, but overfishing was not occurring in 2019 (Figure 4). Fishing mortality was 5% below the threshold level defining overfishing. More detail on the assessment can be found here.

The 2021 management track stock assessment along with the preferred rebuilding plan selected jointly by the Board and Council at their June 2021 meeting provided the basis for setting fishery specifications for 2022–2023.

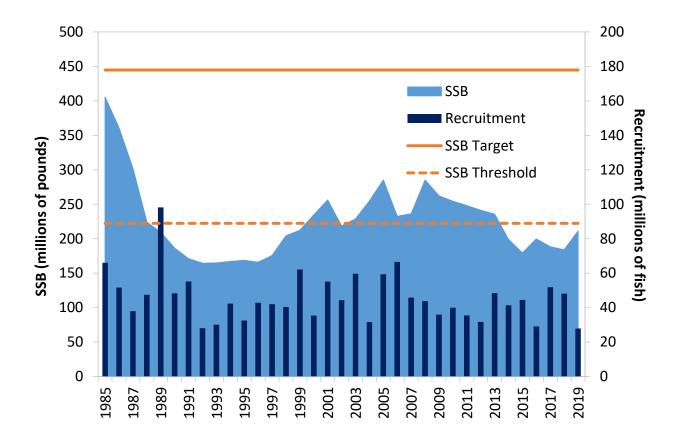


Figure 4. Bluefish spawning stock biomass and recruitment. Source: 2021 Operational Assessment Prepublication Report, Northeast Fisheries Science Center.

2.4 Status of the Fishery

2.4.1 Summer Flounder

Recreational harvest peaked in 1983 at 36.74 million pounds, and declined to a time series low of 5.66 million pounds in 1989. A more recent review of recreational fishery performance from 2011 to present reveals an average of 12.59 million pounds with a high of 19.41 million pounds in 2013 and a low of 7.60 million pounds in 2018. Recreational harvest in 2020 was 10.06 million pounds, a 29% increase from the prior year's harvest of 7.80 million pounds. The total recreational catch (harvest plus live and dead releases) of summer flounder in 2020 was 33.32 million fish, slightly lower than the time series average of 34.46 million fish. The assumed discard mortality rate in the recreational fishery is 10%. In 2020, an estimated 80% of the harvest (in numbers of fish) originated from private/rental boats, while shore-based anglers and party/charter boats accounted for an average of 18% and 2% of the harvest, respectively. In addition, 61% of summer flounder harvested by recreational fishermen (in numbers of fish) were caught in state waters and about 39% in federal waters.

2.4.2 Scup

Most recreational scup catches are taken in states of Massachusetts through New York. From 2011 to 2020, recreational harvest has ranged from 8.27 million pounds in 2012 to 14.12 million pounds in 2019. In 2020, recreational harvest was 12.91 million pounds. The total catch (harvest plus releases) of scup in 2020 were 27.27 million fish, slightly higher than the ten year average of 27.07 million fish. The assumed discard mortality rate in the recreational fishery is 15%. In 2020, an estimated 62% of the harvest (in numbers of fish) originated from private/rental boats, while shore-based anglers and party/charter boats accounted for an average of 28% and 10% of the harvest, respectively. In addition, 90% of scup harvested by recreational fishermen (in numbers of fish) were caught in state waters and about 10% in federal waters.

2.4.3 Black Sea Bass

After a drastic peak in 1986 at 11.19 million pounds, recreational harvest averaged 5.02 million pounds annually from 1987 to 1997. Recreational harvest limits were put in place in 1998 and harvest generally increased from 1.92 million pounds in 1998 to 9.06 million pounds in 2015. In 2016 and 2017 harvest jumped up to 12.05 and 11.48 million pounds, respectively; however the 2016 and 2017 estimates are regarded as implausibly high outliers by the Technical Committee. In 2020, recreational harvest was estimated at 9.12 million pounds with recreational live discards from Maine to Virginia estimated to be 29.79 million fish. Assuming 15% hook and release mortality, estimated recreational dead discards are 4.47 million fish, equal to 51% of the total recreational removals (harvest plus dead discards).

2.4.4 Bluefish

From 2011-2020, recreational catch (harvest plus fish caught and released) of bluefish in U.S. waters of the Atlantic coast averaged 44.46 million fish annually. In 2020, recreational catch was estimated at 30.68 million fish. In 2020, recreational anglers harvested an estimated 9.34

million fish weighing 13.58 million pounds (6,160 metric tons). Harvest during 2018-2020 was exceptionally low compared to the ten year average of 25.69 million lbs. The 2020 average weight of landed fish is 1.45 pounds, which is also lower than the ten year average of 1.65 pounds. This lower average weight is due to the regional distribution of state landings in 2020. The majority of the recreational harvest (pounds) came from Florida (42%), North Carolina (16%), New Jersey (13%), and New York (11%). Fish from southern states (NC-FL) made up 59% of the landings and are typically smaller on average than fish caught in northern states (ME-VA). In 2020, recreational dead releases (15% of released alive fish) were estimated at 3.20 million fish.

3.0 Proposed Management Program

The Policy Board and Council are considering changes to the process of setting recreational management measures for summer flounder, scup, black sea bass, and bluefish. These management changes are considered through the management programs of the Commission and the Council. The Council is bound by the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including requirements for ACLs, accountability measures, and prevention of overfishing. NOAA Fisheries, which has final approval authority for Council management documents, will not approve measures that are inconsistent with the MSA. NOAA Fisheries provides guidance throughout development of Council actions to ensure that the preferred options selected for implementation are consistent with the MSA and other applicable laws.

As proposed, the same options would be selected for all four species. It is not intended that one harvest control rule option would be used for some species and a different option for others. However, depending on considerations, such as ongoing development of statistical models to predict recreational harvest, the Policy Board and Council may consider approving different implementation dates by species for any change to the FMPs. All harvest control rule approaches involve various combinations of input metrics (data inputs), flexibilities, and accountability measures with the goal of standardizing management measure setting and providing stability to these recreational fisheries. A table for comparison across all options can be found in Appendix 1.

Stocks under an approved rebuilding plan are subject to the measures of that rebuilding plan, which may differ from the measures under the options below. None of the options in this document are meant to replace rebuilding plan measures. In some instances, measures implemented through the options below may be used as temporary measures until a rebuilding plan is implemented, which can take up to two years after the stock is declared overfished.

3.1 Management Options to Set Recreational Management Measures

Option A. No Action (Current Recreational Measures Setting Process)

Section 2.2 describes the process used in recent years to set recreational measures. The details of this process are not defined in the FMPs and can be modified without an addendum or other change to the FMPs. The following sections summarize the language currently in the Commission's FMPs regarding recreational measures for each species. Under the no action option, these sections of the FMPs could remain unchanged.²

1. Summer Flounder

As outlined in section 3.1 of <u>Addendum XXXII</u>, management measures are set annually through a specification process. The process involves the following steps:

- At the joint meeting with the Council typically in December, the Board and Council will decide whether to specify coastwide measures to achieve the coastwide RHL or conservation equivalent management measures using guidelines agreed upon by both management authorities. If the latter, the Board will then be responsible for establishing recreational measures to constrain harvest to the RHL.
- The Technical Committee (TC) will continue to evaluate harvest estimates as they are released, and project how suites of possession limits, size limits and seasons might impact recreational landings in each region. In recommending adjustments to measures (reductions, liberalizations or no change), the TC will examine several factors and suggest a set of regional regulations, which when combined, would not exceed the RHL. These factors could include but are not limited to stock status, resource availability (based on survey and assessment data), and fishery performance (harvest, discards, effort, estimate uncertainty, inter-annual variability), as well as the standards and guiding principles set forth below. The Board will use information provided by the TC to approve a methodology for the states to use in developing regional proposals, typically at the Commission's Winter Meeting.
- The states will collaborate to develop regional proposals for the current year's recreational measures that include possession limits, size limits and season length pursuant to the Board-approved methodology. These proposals will be reviewed by the TC to ensure the data and analysis are technically sound.

² Under the no action option, predicted harvest under any combination of measures could continue to rely on the methods described above, or alternative methods could be used if deemed appropriate. For example, the Council and Commission are supporting the development of statistical models for predicting harvest based on management measures and other factors. These models could be used under the no action option.

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- The Board will review state proposals, TC recommendations, and establish final measures at a Summer Flounder, Scup, and Black Sea Bass Board meeting following the release of wave 6 MRIP estimates from the previous year.
- Once the Board has approved the measures and the states have promulgated them, the Commission will send a letter to the Regional Administrator certifying the Board approved measures, in combination, will achieve but not exceed the RHL.

The Board also uses a set of standards and guiding principles to structure the development of measures during specification setting (Addendum XXXII Section 3.1.1).

2. Scup

Addendum XI provides the ability for the Board and Council to establish management measures annually through a specification process. The process involves the following steps:

- At the joint meeting with the Council typically in December, the Board and Council will determine whether to maintain status quo measures or a liberalization or reduction in measures are needed to achieve the coastwide RHL.
- States will then proceed to develop proposals, typically the states MA-NY, but other states could have adjustments, for the upcoming year's recreational measures that include possession limits, size limits and season length. These proposals will be reviewed by the TC to ensure the data and analysis are technically sound.
- The Board will review state proposals, TC recommendations, and establish final measures at the Commission's winter meeting.

3. Black Sea Bass

As outlined in section 3.2 of <u>Addendum XXXII</u>, management measures are set annually through a specification process. The process involves the following steps:

- At the joint meeting with the Council typically in December, the Board and Council will decide whether to adopt coastwide measures or if the states will implement measures to constrain harvest to the RHL. If the latter, the Board will then be responsible for establishing recreational measures to be implemented in state waters to constrain harvest to the RHL.
- The TC will continue to evaluate harvest estimates as they are released, and project how suites of possession limits, size limits and seasons might impact

recreational landings in each region. In recommending adjustments to measures (reductions, liberalizations or no change), the TC will examine several factors and suggest a set of regulations for regions, which when combined, would not exceed the RHL. These factors can include but are not limited to stock status, resource availability (based on survey and assessment data), and fishery performance (harvest, discards, effort, estimate uncertainty, inter-annual variability), as well as the standards and guiding principles set forth below. The Board will use information provided by the TC to approve a methodology for the states to use in developing regional proposals, typically at the Commission's Winter Meeting.

- The states will collaborate to develop regional proposals for the current year's recreational measures that include possession limits, size limits and season length pursuant to the Board-approved methodology. These proposals will be reviewed by the TC to ensure the data and analysis are technically sound
- The Board will review state proposals, TC recommendations, and establish final measures at a Summer Flounder, Scup, and Black Sea Bass Board meeting following the release of wave 6 MRIP estimates from the previous year.
- Once the Board has approved the measures and the states have promulgated them, the Commission will send a letter to the Regional Administrator certifying the Board approved measures in combination will achieve but not exceed the RHL.

The Board also uses a set of standards and guiding principles to structure the development of measures during specification setting (Addendum XXXII Section 3.2.1).

4. Bluefish

As outlined in section 5.1.4.1.3 of <u>Amendment 1</u>, management measures are set annually through a specifications process. The process typically involves the following steps:

- At the joint meeting with the Council typically in December, the Board will determine whether to maintain status quo coastwide measures or a liberalization or reduction in measures are needed to achieve the coastwide RHL.
- In order to achieve the annual RHL, recreational fisheries will be constrained by a coastwide regime of coastwide size limits, bag limits, and seasons. Once a basic regime for these limits is established, typically at the joint meeting

with the Council in December, states will be given the opportunity to vary these measures in accordance with the Commission's Conservation Equivalency process³.

- A state may submit a proposal for a change to its regulatory program to the Commission. Such changes shall be submitted to the ASMFC staff, which will distribute the proposal to the Management Board, the Plan Review Team, the Technical Committee, the Stock Assessment Subcommittee, and the Advisory Panel.
- States must submit proposals at least two weeks prior to a planned meeting of the Technical Committee.
- The ASMFC staff is responsible for gathering the comments of the Technical Committee, the Stock Assessment Subcommittee, and the Advisory Panel and presenting these comments to the Management Board at the Commission's winter meeting.
- The Management Board will decide whether to approve the state proposal for an option management program if it determines that it is consistent with the harvest target and the goals and objectives of the FMP.

5. Current Accountability Measures for Summer Flounder, Scup, Black Sea Bass, and Bluefish

The MSA requires Council FMPs to contain provisions for ACLs and "measures to ensure accountability." The National Standards Guidelines state that accountability measures (AMs) "are management controls to prevent ACLs, including sector-ACLs, from being exceeded, and to correct or mitigate overages of the ACL if they occur. AMs should address and minimize both the frequency and magnitude of overages and correct the problems that caused the overage in as short a time as possible." (50 CFR 600.310 (g)).

The current recreational AMs for these species were implemented through an omnibus amendment in 2013 (<u>Amendment 19 to the Summer Flounder, Scup, and Black Sea Bass FMP</u> and <u>Amendment 4 to the Bluefish FMP</u>). The AMs are included in the Council's FMP. They are not included in the Commission's FMP; however, any changes to the AMs considered through this action will be considered by both the Council and Commission.

Proactive AMs include adjustments to the management measures for the upcoming fishing year (as described in previous sections), if necessary, to prevent the RHL and ACL from being exceeded. Measures to prevent the RHL from being

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³ http://www.asmfc.org/files/pub/ConservationEquivalencyGuidance 2016.pdf

exceeded are ultimately intended to also prevent ACL overages, which in turn prevents overfishing.

Given the timing of MRIP data availability, the regulations do not allow for in-season closure of the recreational fishery if the RHL or ACL is expected to be exceeded. Therefore, measures must be set in a manner that is reasonably expected to constrain harvest to the RHL.

Reactive recreational AMs include a set of possible responses to exceeding the recreational ACL, depending on stock status and which limits are exceeded. Paybacks of ACL overages may be required in a subsequent fishing year, depending on stock status and the scale of the overage, as described below. ACL overages in the summer flounder, scup, and black sea bass recreational fisheries are evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational catch (i.e., landings and dead discards). If average catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

3. If the stock is overfished (B < $\frac{1}{2}$ B_{MSY}), under a rebuilding plan, or the stock status is unknown:

The exact amount, in pounds, by which the most recent year's recreational ACL has been exceeded will be deducted in the following fishing year, or as soon as possible once catch data are available.

- 2. If biomass is above the threshold, but below the target ($\frac{1}{2}$ B_{MSY} < B < B_{MSY}), and the stock is not under a rebuilding plan:
 - a. If only the recreational ACL has been exceeded, then adjustments to the recreational management measures (bag, size, and seasonal limits) would be made in the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and conditions that precipitated the overage.
 - b. If the ABC is exceeded in addition to the recreational ACL, then a single year deduction will be made as a payback, scaled based on stock biomass. The calculation for the payback amount is: (overage amount) * $(B_{MSY}-B)/\frac{1}{2}$ B_{MSY} .
- 3. If biomass is above the target ($B > B_{MSY}$):

Adjustments to the recreational management measures (bag, size, and seasonal limits) will be made for the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and conditions that precipitated the overage.

Reactive recreational AMs for the bluefish recreational fishery are very similar to the process described above with a few key differences. First, ACL overages are evaluated on a 1-year basis as opposed to a 3-year average. Second, if a transfer between the commercial and recreational sectors caused the transferring sector to register an ACL overage, then instead of applying an overage payback to the transferring sector, a transfer in a subsequent year would be reduced by the amount of the ACL overage.

Option B. Percent Change Approach

This option differs from the no action option in that it includes additional consideration of biomass compared to the target level (B/BMSY) when determining if the recreational management measures should be liberalized, restricted, or remain unchanged. The amount of change varies based on the magnitude of the difference between a confidence interval (CI)⁴ around an estimate of expected harvest and the average RHL for the upcoming two years, as well as considerations related to biomass compared to the target level (B/BMSY).

Specifically, the first step in determining the overall percent change in harvest would be to compare the average RHL for the upcoming two years to the CI⁵ of the most recent two years of MRIP estimates, or to a CI around an alternative predictor of harvest based on a robust statistical methodology approved by the Technical and Monitoring Committees. The MRIP estimates (or approved alternative estimates) are intended as a proxy for expected harvest in the upcoming years under status quo measures, similar to the current process. Depending on whether the average RHL is above the upper bound of the CI, within the CI, or below the lower bound of the CI around the estimate of expected harvest, the management responses are narrowed down to those illustrated in rows A, B, and C in Table 1, respectively.

The second step narrows down the suite of management responses further by taking into consideration the B/B_{MSY} ratio. The third column in Table 1 displays the resulting percent change in measures required for the upcoming two years. A range of sub-options is under consideration for the resulting percent change when the RHL is above or below the bounds of the CI, as described below. Regardless of the sub-options chosen, when the RHL is within the CI, no change in measures would be made if the B/B_{MSY} ratio is between 1 and 1.5 (i.e., the stock is between the target biomass level and 150% of the target level). A 10% liberalization in harvest would be allowed when the B/B_{MSY} ratio exceeds 1.5 (i.e., the stock is greater than 150% of the target biomass level). A 10% reduction in harvest would be required when the B/B_{MSY} ratio is less than 1 (i.e., biomass is below the target level).

⁴ A confidence interval provides an upper and lower bound around a point estimate to indicate the range of possible values given the uncertainties around the estimate. For example, a CI of 5% for an estimate of 100 would mean that the value could fall anywhere between 105 and 95. In this option, the CI represents a range of potential harvest estimates that can be reasonably expected to encompass the true harvest value.

⁵ Specifically, an 80% joint distribution CI has been suggested as this method takes into consideration the percent standard error (PSE) of each individual years' MRIP estimate and the variability of the estimates between years.

It is important to note that this option considers changes from a starting set of measures. If the current measures have resulted in notable differences between harvest and the RHL in recent years, then they may not be an appropriate starting point under this option and an alternative starting point may be required.

Table 1. Process for determining the appropriate percent change in harvest when developing management measures under the percent change approach.

Row	Future RHL vs Harvest Estimate ⁶	B/B _{MSY} ⁷	Change in Harvest	
А	Future 2-year avg. RHL greater than upper bound of harvest estimate CI	> 1.5	Sub-Option B-1A: Liberalization percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 40% Liberalization
		1 – 1.5	Sub-Option B-1A: Liberalization percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 20% Liberalization
		< 1	Sub-Option B-2A: 10% Liberalization	Sub-Option B-2B: 0%
	Future 2-YR avg. RHL within CI of harvest estimate	> 1.5	10% Liberalization	
В		1-1.5	0%	
		< 1	10% Reduction	
С	Future 2-YR avg. RHL less than lower bound of harvest estimate CI	> 1.5	Sub-Option B-2A: 10% Reduction	Sub-Option B-2B: 0%
		1-1.5	Sub-Option B-1A: Reduction percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 20% Reduction
		< 1	Sub-Option B-1A: Reduction percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 40% Reduction

Under this option, the Council and Board would consider adjusting the recreational management measures in sync with the setting of catch and landings limits in response to updated stock assessment information. It is anticipated that updated stock assessments will be available every other year. In interim years, the Council and Board would review the catch and landings limits compared to the measures. They may revise the measures in interim years if new data such as a research track stock assessment or other technical

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⁶ The two year average MRIP estimate with associated CI is intended as a predictor of future harvest under status quo measures. This may be replaced with statistical model based approaches for predicting harvest.

⁷ The proposed B/B_{MSY} inflection points are based on the Council's Risk Policy. Future changes to the Council risk policy may warrant reconsideration of this proposed process.

reports suggest that the measures are not performing as expected or if a change is needed for other reasons. The intent would be to only change the measures in interim years if new information suggests strong concerns with the current measures.

Sub-Options for Percent Change When the RHL is Outside the Bounds of the Expected Harvest Estimate CI

If the Policy Board and Council adopt the percent change approach, they must also select either sub-option B-1A or B-1B. In addition, they must also select either sub-option B-2A or B-2B.

<u>Sub-Option B-1A: Percent Change Capped at Difference Between 2 Year Average RHL and Harvest Estimate</u>

If selected, this sub-option would be used in the following two situations: 1) the average two-year RHL is above the upper bound of the harvest estimate CI (Row A in Table 1) and biomass is at or above the target (B/B_{MSY} is at least 1), or 2) the average two-year RHL is below the lower bound of the harvest estimate CI (Row C in Table 1) and biomass is at or below 150% of the target (B/B_{MSY} is less than or equal to 1.5). Other situations either do not have sub-options (RHL is within the CI; Row B in Table 1) or are covered by sub-options B-2A and B-2B, below.

Under this sub-option, the percent liberalization or reduction in harvest would be defined as the percent difference between the two-year average RHL and a point value harvest estimate. The point value harvest estimate would be either a two-year average of recent MRIP harvest estimates or an alternative estimate based on a robust statistical methodology approved by the Monitoring/Technical Committees. The intent behind this sub-option is to scale liberalizations or reductions proportionately when there are large differences between the harvest estimate and the RHL. For example, if there is a 15% difference between the two-year average RHL and the point value harvest estimate, then the reduction would be 15%. The outcome of this sub-option could be very similar to the no action option (section 3.1.A).

Sub-Option B-1B: 20% or 40% Change (Depending on B/B_{MSY})

Under this sub-option, management measures would aim to achieve the following percentage liberalizations or reductions in overall harvest, as illustrated in Table 1:

- **40% liberalization** when the average two-year RHL is above the upper bound of the harvest estimate CI (Row A in Table 1) and biomass is more than 150% of the target level (B/B_{MSY} greater than 1.5).
- 20% liberalization when the average two-year RHL is above the upper bound of the harvest estimate CI (Row A in Table 1) and biomass is above the target level but less than 150% of the target level (B/B_{MSY} of 1-1.5).
- 20% reduction when the average two-year RHL is below the lower bound of the harvest estimate CI (Row C in Table 1) and biomass is above the target level but less than 150% of the target level (B/B_{MSY} of 1-1.5).

 40% reduction when the average two-year RHL is below the lower bound of the harvest estimate CI (Row C in Table 1) and biomass is below the target level (B/B_{MSY} less than 1).

Other situations either do not have sub-options (RHL is within the CI) or are covered by sub-options B-2A and B-2B, below.

The intent of this sub-option is to provide predictable changes in harvest based on the percentage amount applied historically in management.

Sub-Option B-2A: 10% Reduction

Under this sub-option, when the upcoming 2-year average RHL is below the lower bound of the CI around the harvest estimate (i.e., an RHL overage is expected), measures would be modified such that expected harvest is reduced by 10%, regardless of the scale of the expected overage. The rationale behind this alternative is that a reduction is needed to ensure that continued overages do not contribute to overfishing as required by the MSA; however, the assumption is that the reduction need not be greater than 10% per cycle given that biomass is very high compared to the target level. An analysis of potential impacts on stock status under this, as with all other options in this document, has not been performed.

Sub-Option B-2B: No Change in Measures

Under this sub-option, when the upcoming 2 year average RHL is below the lower bound of the CI around the harvest estimate (meaning an RHL overage is expected under status quo measures), no change in the measures would be made, regardless of the scale of the expected overage. The assumption behind this alternative is that reductions are not needed because biomass is very high compared to the target level. However, it should be noted that harvest overages can contribute to overfishing, even at high biomass levels, and, as previously stated, in order to comply with the MSA, any adopted options must prevent overfishing. An analysis of potential impacts on stock status under this, as will all other options in this document, has not been performed.

Accountability Measures under the Percent Change Approach

Background information on AMs is provided in section 3.1 under Option A on page 16. Under the Percent Change Approach, measures would be more restrictive when stock status is poor and more liberal when stock status is good. In addition, when RHL overages are expected (based on the CI comparison described above), measures would be proactively reduced by a predetermined percent when the stock is less than 150% of the target level. Reductions would also be taken if the stock is below the target even when the RHL is within the CI, helping to rebuild the stock back to the target. These aspects of this option could all be considered proactive AMs.

This option requires minimal changes from the current reactive AMs described on page 16. The current reactive AMs would be modified such that when paybacks are required,

the payback could be spread evenly across two years to help facilitate the use of constant measures across two years. When a payback is applied, the percent change would be determined based on the reduced ACL.

Consideration could also be given to options A and B listed in section 3.4. These options consider modifications to the metrics considered when biomass is above the threshold but below the target and a scaled payback of a past overage may be needed.

Option C. Fishery Score Approach

The fishery score is a formulaic method that combines multiple metrics into one value which is used to determine the appropriate management measures. Based on the score, the stock would be placed into one of four bins with corresponding management measures. The fishery score would be based on four metrics: biomass (B) relative to the target (B_{MSY}), recruitment (R), fishing mortality (F), and fishery performance, as described in more detail below and in Appendix 3. Each metric has a weight assigned to it, determined by the Technical/Monitoring Committees such that metrics with a stronger relationship to harvest would have more weight in the fishery score while still accounting for metrics that impact harvest but may not drive harvest. Additional metrics may be added and weighting schemes adjusted as more data become, based on the recommendations of the Monitoring/ Technical Committees.

The fishery score would be calculated using the following formula:

$B/B_{MSY}(W_B) + F/F_{MSY}(W_F) + R(W_R) + Fishery performance(W_{FP}) = Fishery Score$

Where W refers to the weight of each factor. The fishery score value corresponds to a predetermined bin. The fishery score would range from 1 to 5 and the bins are defined as displayed in Table 2.

Weights would have a minimum of 0.1 and maximum of 0.5 to prevent any one metric from being weighed too heavily in relation to the others. The intent is to allow the Monitoring/Technical Committees to recommend changes to the weights through the specifications process based on their expert judgement and empirical methods when possible. Changes should be limited to provide stability in comparisons over time.

Table 2. Fishery score bins and the associated level of concern, stock status, and measures that are associated with each bin.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

A declining fishery score over time could indicate negative trends in stock status and an examination of the individual fishery score metrics can provide insight into why the overall score is declining. This can also serve as an early warning of the need to use more restrictive measures in the future if the trend continues.

Measures associated with each of the four bins would aim to achieve a target level of harvest, catch, or fishing mortality, depending on the option selected from section 3.2. The target would be a point value, but the measures in each bin would be anticipated to produce a range of possible harvest, catch or fishing mortality, given uncertainty and variability in the data. Considerations related to confidence intervals and other statistical metrics and models could be used to determine the appropriate measures for each bin.

Although the fishery score would be calculated based on multiple factors, the management measures associated with each bin could be defined based on four categories of biomass. For example, the most liberal bin (Bin 1, fishery score of 4-5) could have measures based on a target level of harvest, catch, or fishing mortality (depending on the option selected from section 3.2) which is appropriate for biomass that is double the target level. The next most liberal bin (Bin 2, fishery score of 3-3.99) could have measures that are appropriate for biomass at 125% of the target. The next lowest bin (Bin 3, fishery score of 2-2.99) could have measures that are appropriate for biomass at 75% of the target level. The most restrictive bin (Bin 4, fishery score less than 2) could have measures that are appropriate for biomass at 25% of the target level (however; if the stock is under a rebuilding plan, the most restrictive fishery score measures may be temporary until replaced by rebuilding plan measures).

While the measures associated with each bin would be based on biomass compared to the target, placement of a year's measures within one of the four bins would be driven by multiple factors. For example, if the recruitment and fishery performance metrics have low scores, then the stock may be placed in a more restrictive bin with more restrictive

measures than would occur based on biomass considerations alone. The opposite could occur if multiple metrics have high scores. In this way, the measures would be reflective of a combination of biomass relative to the target and assumed future conditions (e.g., high recruitment assumed to result in higher biomass in the future, allowing for more liberal measures).

Under this option, the Council and Board would consider adjusting the recreational management measures in sync with the setting of catch and landings limits in response to updated assessment information. It is anticipated that updated stock assessments will be available every other year. In interim years, the Council and Board would review the catch and landings limits and the measures. As part of this review, the fishery score could be recalculated with updated fishery performance data; however, updated estimates for the other fishery score metrics would not be available. The Council and Board may revise the measures in interim years if new data, such as a research track assessment or other technical reports, suggest that the measures are not performing as expected or if a change is needed for other reasons. The intent would be to only change the measures in interim years if new information suggests strong concerns with the current measures.

Sub-Options for Accountability Measures under the Fishery Score Approach

Background information on AMs is provided in section 3.1 on page 16. For both suboptions in this section, measures are set based on a variety of factors such that they are more restrictive when stock status is poor and more liberal when stock status is healthy. In addition, as described above, this method can provide an early warning of deteriorating stock conditions which can inform the setting of measures. The measures for all bins will be regularly reviewed to ensure that they remain appropriate and prevent overfishing. These aspects of this approach can be considered proactive AMs.

Sub-Option C-1: Reactive AMs Similar to Current AMs

As under this sub-option, ACL overages would be evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational catch (i.e., landings and dead discards). If average catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

- 1. If the stock is overfished (B < $\frac{1}{2}$ B_{MSY}), under a rebuilding plan, or the stock status is unknown:
 - a. The stock is placed in the most restrictive bin. These may be temporary measures until replaced by measures required by a rebuilding plan, which can take up to two years to implement.
 - b. If the stock was already in the most restrictive bin or the measures in the most restrictive bin are otherwise expected to continue to result in overages, then those measures must be modified as soon as possible following the

determination of the overage such that they are reasonably expected to prevent future overages.

- 2. If biomass is above the threshold, but below the target ($\frac{1}{2}$ B_{MSY} < B < B_{MSY}), and the stock is not under a rebuilding plan:
 - a. If only the recreational ACL has been exceeded, then the stock would remain in its current bin, but the measures associated with that bin and all other bins, will be re-evaluated with the goal of preventing future ACL overages.
 - b. If the ABC or F_{MSY} (as determined through section 3.4) is exceeded in addition to the recreational ACL, and the stock has not already moved to a more restrictive bin due to a decrease in the fishery score, then the measures associated with the next more restrictive bin would be implemented. In addition, measures in all bins would be re-evaluated and revised as appropriate. If the stock moves to a more restrictive bin based on a decrease in the fishery score, then an additional AM is not needed as the negative impacts on stock status have already been accounted for in the movement to the more restrictive bin.
- 3. If biomass is above the target ($B > B_{MSY}$):

The management measures associated with each bin will be adjusted, taking into account the performance of the measures and the conditions that precipitated the overage.

Sub-Option C-2: Reactive AMs Based on Overfishing Status to Evaluate Measures

If overfishing is occurring (F is greater than F_{MSY}), even if a change in bin was not triggered through re-calculation of the fishery score as described above, the management measures for all bins will be re-evaluated and modified as needed to appropriately constrain recreational catch and end overfishing.

Option D. Biological Reference Point Approach

Under this option, the primary metrics of terminal year B/B_{MSY} and F/F_{MSY} from the most recent stock assessment would be used to guide selection of management measures. Management measures would be grouped into seven bins, as illustrated in Table 3. Each bin would have a set of default measures which would be implemented the first time the stock is placed in that bin.

To define the bins under this option, fishing mortality (F) would be considered in two states: overfishing (F greater than F_{MSY}) or not overfishing (F equal to or below F_{MSY}). B/B_{MSY} would be further divided to provide more responsive levels of access based on the following:

- Biomass is greater than or equal to 150% of the target.
- Biomass is greater than or equal to the target but less than 150% of the target.

- Biomass is less than the target, but greater than or equal to the threshold (the threshold is ½ the target).
- Biomass is less than the threshold (the stock is overfished).

Recruitment and trends in biomass are secondary metrics under this option which are used to fine tune default measures <u>only</u> when stock conditions (F/F_{MSY} and B/B_{MSY}) relative to the categories above have not changed between the prior and most recent assessments. In this case, biomass trend and a recruitment metric, describe in Appendix 3, can be used to further relax, restrict, or re-evaluate measures. As such, biomass trends and recruitment would impact the management measures, but to a lesser extent than F/F_{MSY} and B/B_{MSY} .

Changes to the measures would be considered based on the following process when updated stock assessment information is available (anticipated to be every other year). The first time a stock is in a new bin, the fishery would be subject to the default measures. If the bin remains unchanged after a subsequent stock assessment update, then recruitment and biomass trend would be considered to determine if measures remain unchanged or if limited liberalizations or reductions can be permitted. As described below, liberalizations within a bin are only allowed in Bins 1 and 2, which are associated with a healthy stock status. Restrictions and/or re-evaluation within a bin can be required based on secondary metrics for Bins 3-6. This allows for relative stability if stock status is unchanged, but also room for tuning of measures if warranted based on biomass trend and/or recruitment. It is intended that the changes within a bin would be based on predetermined guidelines. However, the Council and Board may revise the measures in interim years if new data, such as a research track assessment or other technical reports, suggest that the measures are not performing as expected or if a change is needed for other reasons. The intent would be to only change the measures in interim years if new information suggests strong concerns with the current measures.

Liberalizations within a bin are not permitted when biomass is below the target level or when F exceeds F_{MSY}. For example, if a stock in Bin 2 (F below F_{MSY} and biomass above B_{MSY}, but below 150% of B_{MSY}) remains in Bin 2 based on an updated stock assessment, then measures may be liberalized to preset measures if recruitment and/or biomass trends show positive signs (see Appendix 3). If either of those metrics shown negative signs, then measures would stay status quo. If the updated stock assessment information indicates biomass exceeds 150% of B_{MSY}, then the stock would move into Bin 1, triggering a new set of default measures more liberal than those from Bin 2. Alternatively, if biomass is below the target, then the stock would move to a more restrictive bin (Bins 3-6).

Stocks in Bin 3 are not subject to overfishing and are not overfished but are below their target biomass level. Stocks in Bins 4-6 are experiencing overfishing. The goal of the management measures in Bins 3-6 is to improve stock status by ending overfishing and/or increasing biomass. If the initial default measures do not accomplish this, but the primary metrics of F/F_{MSY} and B/B_{MSY} do not change, then secondary measures can inform how to better adjust regulations to reach the target through additional restrictions. This differs

from stocks in Bins 1-2, where measures would not be adjusted in this circumstance. Additionally, when a stock is in Bins 4-6 (F exceeds F_{MSY}) and the current measures produce catch or harvest that exceed the ACL or RHL (e.g., based on a multi-year average), then the default measures should be re-evaluated.

Any overfished stock (biomass below ½ B/B_{MSY}) would automatically fall into Bin 7 until an approved rebuilding plan is implemented. Stocks under a rebuilding plan must comply with the requirements of the rebuilding plan, and the rebuilding plan measures may differ from the pre-defined measures in this option.

Measures for Bins 1-7 would aim to achieve a target level of harvest, catch, or fishing mortality, depending on the option selected from section 3.2. Although placement in Bins 1-7 would be based on a combination of biomass and fishing mortality, the recreational management measures associated with each bin could be defined based on six categories of biomass and the target level of harvest, catch, or fishing mortality deemed appropriate for that biomass level. The following biomass levels are provided as examples which may be further refined. These examples were constructed such that more risk is allowed when stock status is good compared to when stock status is poor.

- **Bin 1** (biomass greater than or equal to 150% of the target and F below F_{MSY}): default measures are based on biomass that is double the target level.
- **Bin 2** (biomass above the target level but less than 150% of the target and F below F_{MSY}): default measures based on biomass that is 140% of the target level.
- **Bin 3** (biomass between the target and threshold and F below F_{MSY}): default measures based on biomass that is 75% of the target level.
- Bin 4 (biomass greater than or equal to 150% of the target and F above F_{MSY}): default measures based on a biomass that is at the target level.
- **Bin 5** (biomass above the target level but less than 150% of the target and F above F_{MSY}): default measures based on biomass that is at the target level.
- **Bin 6** (biomass between the target and threshold and F above F_{MSY}): default measures based on biomass that is 60% of the target level.
- **Bin 7** (biomass below the threshold): default measures based on biomass that is 25% of the target level, until replaced by rebuilding plan measures.

The measures in each bin would be anticipated to produce a range of possible harvest, catch, or fishing mortality, given uncertainty and variability in the data. Considerations related to confidence intervals and other statistical metrics and models could be used to define the measures associated with each bin. Measures within each bin would take into consideration small changes to allow for liberalizations or reduction to allow for the flexibility to fine tune measures based on both recruitment and biomass trends in addition to the current biomass and fishing mortality levels.

Table 3. Summary of the biological reference point option illustrating bins of measures associated with different combinations of stock conditions. B stands for biomass, F for fishing mortality rate and R for recruitment.

	F ≤ Fmsy	F > Fmsy
B >= 150% Btarget	R↑ R↓ B↑ liberal liberal B↓ default default	R↑ R↓ MRIP ≤ B↑ default restrictive RHL/ACL B↓ restrictive restrictive MRIP > B↑ restrictive & re- RHL/ACL B↓ evaluate measures
Btarget ≤ B < 150% Btarget	R↑ R↓ B↑ liberal liberal B↓ default default	R↑ R↓ MRIP ≤ B↑ default restrictive RHL/ACL B↓ restrictive restrictive MRIP > B↑ restrictive & re- RHL/ACL B↓ evaluate measures
Bthreshold ≤ B < Btarget	R↑ R↓ B↑ default restrictive B↓ restrictive restrictive	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
B < Bthreshold	MOST RESTRICTIV	/E/REBUILDING PLAN

Accountability Measures under the Biological Reference Point Approach

Background information on AMs is provided in section 3.1 on page 16. Under the Biological Reference Point approach, measures are set based on a variety of factors such that they are more restrictive when stock status is poor and more liberal when stock status is healthy. Each bin has two sets of measures: a default set and either a more liberal or more restrictive set of measures. The measures for all bins will be regularly reviewed to ensure that they remain appropriate and prevent overfishing. These aspects of this approach can be considered proactive AMs.

The Biological Reference Point option is unique in that it includes reactive AMs built into the bins to respond to declining stock status (i.e., more restrictive measures implemented when biomass is below the target or F exceeds F_{MSY} and biomass trend and/or recruitment show negative signs or recreational overages have occurred; Bins 3-6). Therefore, no additional reactive AMs are needed under this approach.

Option E. Biomass Based Matrix Approach

This option would define six bins of recreational measures based on two factors: biomass compared to the target level (B/B_{MSY}) and the most recent trend in biomass. Bin 1 represents the optimal conditions, while Bin 6 represents the worst conditions.

Definitions:

- Abundant = Stock is at least 150% of the target level (B_{MSY})
- Healthy = Stock is above the target, but less than 150% of the target
- Below Target = Stock is below the target, but above the threshold (the threshold is half of the target and defines an overfished condition)
- Overfished = The stock is below the threshold
- Biomass trend would be defined as stable, increasing, or decreasing based on the methods described in Appendix 3.

When biomass exceeds 150% of the target level, regardless of the biomass trend, Bin 1 measures are selected. This is aimed at providing an opportunity to keep recreational management measures aligned with stock status, which in this case, is significantly above the target. When a stock is fished at F_{MSY} it is expected that stock size will decrease towards the biomass target unless above average recruitment events occur. Thus, it is not necessarily a negative sign if the stock at such high biomass levels experiences a declining trend.

Measures associated with each of the six bins would aim to achieve a target level of harvest, catch, or fishing mortality, depending on the option selected from section 3.2. The measures in each bin would be anticipated to produce a range of possible harvest, catch, or fishing mortality, given uncertainty and variability in the data. Considerations related to confidence intervals and other statistical metrics and models could be used to define the measures associated with each bin.

Although placement in Bins 1-6 would be based on a combination of B/B_{MSY} and biomass trend, the management measures associated with each bin could be defined based on six categories of biomass and the target level of harvest, catch, or fishing mortality deemed appropriate for that biomass level. The following biomass levels are provided as examples which may be further refined. These examples were constructed such that more risk is allowed when stock status is good compared to when stock status is poor.

- **Bin 1** (biomass greater than or equal to 150% of target level or biomass above target but less than 150% of target with increasing trend): measures are based on biomass that is 150% of the target level.
- **Bin 2** (biomass above the target level but less than 150% of the target with stable or decreasing trend): measures based on biomass that is at the target level.

- **Bin 3** (biomass between the target and threshold and increasing trend): measures based on biomass that is 75% of the target level.
- **Bin 4** (biomass between the target and threshold and stable or decreasing trend): measures based on biomass that is 60% of the target level.
- **Bin 5** (biomass below the threshold and increasing trend): measures based on biomass that is 40% of the target level.
- **Bin 6** (biomass below the threshold and stable or decreasing trend): measures based on biomass that is 20% of the target level.

Table 4. Recreational management measure matrix under the Biomass Based Matrix approach.

Riomass Lavel	Biomass Trend		end
Biomass Level	Increasing	Stable	Decreasing
Abundant At least 150% of target		Bin 1	
Healthy Above target, but less than 150% of target	Bin 1		Bin 2
Below Target but above threshold	Bin 3		Bin 4
Overfished Below threshold	Bin 5		Bin 6

Sub-Options for Accountability Measures Under the Biomass Based Matrix

Background information on AMs is provided in section 3.1 on page 16. For both suboptions below, measures are set based on a variety of factors such that they are more restrictive when stock status is poor and more liberal when stock status is healthy. The measures for all bins will be regularly reviewed to ensure that they remain appropriate and prevent overfishing. These aspects of this approach can be considered proactive AMs.

Sub-Option E-1: Reactive AMs Similar to Current AMs

As under this sub-option, ACL overages would be evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational catch (i.e., landings and dead discards). If average catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

- 1. If the stock is overfished (B < $\frac{1}{2}$ B_{MSY}), under a rebuilding plan, or the stock status is unknown:
 - a. The most restrictive measures (Bin 6) would be implemented. These may be temporary measures until replaced by measures required by a rebuilding plan, which can take up to two years to implement.
 - b. If the most restrictive measures were already in place or are otherwise expected to continue to result in overages, then those measures must be modified for the upcoming fishing year such that they are reasonably expected to prevent future overages.
- 2. If biomass is above the threshold, but below the target ($\frac{1}{2}$ B_{MSY}< B < B_{MSY}), and the stock is not under a rebuilding plan:
 - a. If only the recreational ACL has been exceeded, then the stock would remain in its current bin, but the measures associated with that bin and all other bins, will be re-evaluated with the goal of preventing future ACL overages.
 - b. If the ABC or F_{MSY} (as determined through section 3.4) is exceeded in addition to the recreational ACL, and the stock has not already moved to a more restrictive bin due to a decrease in biomass, then measures associated with the next more restrictive bin would be implemented. In addition, measures in all bins would be re-evaluated and revised as appropriate. If the stock moves to a more restrictive bin based on a decrease in biomass, then an additional AM is not needed as the negative impacts on stock status have already been accounted for in the movement to the more restrictive bin.
- 3. If biomass is above the target ($B > B_{MSY}$):

The management measures associated with all bins will be adjusted, taking into account the performance of the measures and the conditions that precipitated the overage.

Sub-Option E-2: Reactive AMs with a Trigger Based on Overfishing Status to Evaluate Measures

Under this sub-option, if overfishing is occurring (F is greater than F_{MSY}), even if a change between bins was not triggered through an updated comparison of the Biomass Based Matrix metrics as described above, the management measures for all bins will be reevaluated and modified as needed to appropriately constrain recreational catch and end overfishing.

3.2 Target Metric for Setting Measures

The options in this section define the target metric which would be used when setting measures appropriate for the set of stock conditions that define the bin under options C-E in section 3.1. The options in section 3.2 do not apply if either options A or B in section 3.1 are selected. While the PDT/FMAT has not come to a consensus on which method was preferable, they did agree that if option C is selected, a secondary option should also be selected if the primary option cannot be calculated for any reason.

Option A. Recreational Harvest Limit

Under this option, the measures associated with each bin in options C-E under section 3.1 would aim to achieve but not exceed a target level of harvest which is informed by the RHL. Options C-E in section 3.1 use a binned approach to setting recreational management measures, with each bin representing a range of stock conditions. For this reason, the target level of harvest for each bin may not always be equivalent to the RHL under the no action alternative as a range of RHLs could fall under the same bin.

The RHL is calculated by removing projected dead discards from the Recreational ACL. Both the RHL and ACL are based on stock assessment projections, considerations related to scientific uncertainty, and commercial/recreational allocations. The RHLs can also be adjusted to account for management uncertainty.

Option B. Annual Catch Limit

Under this option, the measures associated with each bin in options C-E under section 3.1 would aim to achieve but not exceed a target level of dead catch (i.e., harvest and dead discards) which is informed by the recreational ACL. Options C-E in section 3.1 use a binned approach to setting recreational management measures, with each bin representing a range of stock conditions. For this reason, the target level of catch for each bin may not always be equivalent to the recreational ACL under the no action alternative as a range of ACLs could fall under the same bin.

The ACL is based on stock assessment projections, considerations related to scientific uncertainty, and commercial/recreational allocations.

Option C. Recreational Fishing Mortality Target

Under this option, the measures associated with each bin in options C-E under section 3.1 would aim to achieve but not exceed a target level of fishing mortality (F) for the recreational fishery. It remains to be determined how a recreational fishing mortality target would be calculated. The stock assessments for each species calculate a fishing mortality reference point (F_{MSY}) for the commercial and recreational fisheries combined. Overfishing occurs at the stock level when fishing mortality exceeds this reference point. There are no fishing mortality reference points specific to the recreational fisheries. Furthermore, although the current stock assessment models for summer flounder, scup,

and bluefish generate estimates of recreational fishing mortality, the current stock assessment model for black sea bass does not model the recreational fishery separately from the commercial fishery. Therefore, unless the model structure changes, it would not be possible to generate a fishing mortality estimate for black sea bass to compare against a recreational fishing mortality target. For these reasons, if this sub-option is selected as preferred by the Policy Board and Council, a secondarily preferred sub-option may also be selected for use in the event that a recreational fishery F target or F estimate cannot be generated.

3.3 Conservation Equivalency Options

The options in this section consider how the <u>Commission's conservation equivalency policy</u> would apply to the management options listed under section 3.1. The options in this section may only be considered if a harvest control rule management option other than Option A (No Action) in section 3.1 is selected.

Option A. No Action (States Retain Ability to Propose Conservation Equivalent Measures)

This option maintains the ability for states to submit proposals for alternative recreational management measures that are expected to achieve an equivalent level of recreational harvest, catch, or F (as determined by the sub-options in section 3.2). If a state submits a proposal outside of an implementation plan process, it must provide the proposal two months in advance of the next Board meeting to allow committees sufficient time to review the proposal and to allow states to respond to any requests for additional data or analyses. Further details describing the process and procedures can be found in the Commission's conservation equivalency policy noted above.

Option B. Regional Conservation Equivalency

This option allows for regions, as defined by the pre-determined species regions in Appendix 4, to submit proposals for alternative recreational management measures which are expected to achieve an equivalent level of recreational harvest, catch, or fishing mortality (depending on the option chosen from section 3.2) as the pre-defined measures of the bin. If a region is submitting a proposal, it must provide the proposal two months in advance of the next Board meeting to allow committees sufficient time to review the proposal and to allow the regions to respond to any requests for additional data or analyses.

Option C. Conservation Equivalency is Disallowed

Under this option, conservation equivalency under the Commission process will not be permitted for any of the four species on a state or regional level. This would reduce the flexibility afforded to states/regions compared to the previous two options, but would help achieve the goals of stability and predictability in measures. Several of the options

proposed in this document have mechanisms in place to allow for the revision of management measures at different bins if they are not working as intended.

3.4 Accountability Measures Comparisons

The options in this section consider a change to one component of the reactive AMs under options A, B, C-1, and E-1 in section 3.1. Specifically, they address situations when a reactive AM has been triggered and biomass is above the threshold but below the target level. All other components of the AMs are summarized along with options A-E in section 3.1. These changes are only considered for the recreational AMs. No changes to the commercial AMs are considered through this action. Regardless of option chosen, AMs should be regularly revaluated following the provisions of the MSA.

Option A. Catch compared to the ABC

Under this sub-option, when a reactive AM has been triggered by a recreational ACL overage and the most recent biomass estimate is between the target and the threshold, catch relative to the ABC would also be considered. The response to the overage would be stricter if the ABC was also exceeded (e.g., a payback would be required or the stock would be placed in a more restrictive bin, depending on the option). If only the recreational ACL was exceeded, the response to the overage would be less strict (e.g., measures would be revised but a payback would not be required or the stock would remain in its current bin, depending on the option).

Option B. Fishing mortality compared to an F threshold

This sub-option maintains ACL evaluations within the AMs, but rather than considering if the ABC was also exceeded (see previous section), consideration would be given to if the fishing mortality threshold (F_{MSY}) was also exceeded. The intent behind this option is that it considers if total fishery removals negatively impacted the stock based on the most recent information. For example, catch in a past year may have exceeded the recreational ACL, but a subsequent stock assessment update may indicate that the stock did not suffer notable negative impacts if the fishing mortality threshold was not exceeded. The most recent fishing mortality estimate considers more recent information than the information used to set a previous year's ACL. To set the ACL and ABC, projections must be made that make assumptions about how the fishery may perform. This approach using a fishing mortality comparison would look at data that represents what transpired in the fishery or stock during the time being evaluated, according to the most recent stock assessment. If regularly updated estimates of total fishing mortality compared to the threshold are not available, then this comparison would default to the ABC comparison described above.

4.0 Compliance

TBD

5.0 Literature Cited

NEFSC. 2021a. Summer Flounder Management Track Assessment Report.

NEFSC. 2021b. Scup Management Track Assessment for 2021. Prepublication copies prepared for use by Fishery Management Council staff and SSC. Available at https://www.mafmc.org/ssc-meetings/2021/july21-23.

NEFSC. 2021c. Black Sea Bass Management Track Assessment for 2021. Prepublication copies prepared for use by Fishery Management Council staff and SSC. Available at https://www.mafmc.org/ssc-meetings/2021/july21-23.

NEFSC. 2021d. Atlantic Bluefish Management Track Assessment for 2021. Prepublication copies prepared for use by Fishery Management Council staff and SSC. Available at https://www.mafmc.org/ssc-meetings/2021/july21-23.

4.0 APPENDICES

Appendix 1. Comparison of Options and Current Stock Status

The following table summarizes metrics considered when setting recreational measures under each option in this Draft Addenda/Framework. Primary metrics determine in the appropriate bin (see section 3.1 for more details); secondary metrics are only used if, through the evaluation of the primary metrics, the stock stays in the current bin. Metrics considered through accountability measures may differ from those shown below. See section 3.1 for more details on the options.

		Metrics used to set measures					_	
Option	Expected harvest*	Biomass compared to target level (B/B _{MSY})	Fishing mortality compared to threshold level (F/F _{MSY})	Recent recruitment	Biomass trend	Measures are pre-determined	Expected number of sets pre-determined measures	Measures specified for 1 or 2 years
No action	Primary					No	N/A	1
Percent change	Primary	Primary				No	N/A	2
Fishery score	Primary**	Primary**	Primary**	Primary**		Yes	4	2
Biological reference point	Only when F>F _{MSY}	Primary	Primary	Secondary	Secondary	Yes	13	2
Biomass based matrix		Primary			Primary	Yes	6	2

^{*}Expected harvest refers to expected harvest under status quo measures compared to the upcoming year(s)' RHL and could be based on past MRIP estimates, including consideration of confidence intervals for those estimates, or a model-based estimate of harvest, including considerations related to uncertainty in that estimate.

^{**}As described in section 3.1-C, the fishery score metrics may not be weighted evenly. The Monitoring/Technical Committees will recommend the appropriate weight for each metric. These weights can be modified through the specifications process.

Appendix 2. Placement of Each Species in Each Option with Current Data

Option B: Percent Change Approach

As illustrated in the figure below, for summer flounder, the 2022-2023 RHL is within the CI of the 2019-2020 MRIP harvest estimates and the most recent B/B_{MSY} ratio is 0.85. Therefore, a 10% reduction would be needed under the Percent Change Approach.

For black sea bass and scup, the 2022-2023 RHL is below the CI of the 2019-2020 MRIP harvest estimates and the most recent B/B_{MSY} ratio exceeds 1.5. Therefore, depending on sub-option selected, either a 10% reduction would be needed or no change in measures would be made under the Percent Change Approach.

Row	Future RHL vs Harvest Estimate	B/ _{BMSY}	Change in Harvest		
	Future 2-year avg.	> 1.5	Sub-Option B-1A: Liberalization percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 40% Liberalization	
А	RHL greater than upper bound of harvest estimate CI	1 - 1.5	Sub-Option B-1A: Liberalization percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 20% Liberalization	
		< 1	Sub-Option B-2A: 10% Liberalization	Sub-Option B-2B: 0%	
	Future 2-YR avg.	> 1.5	10% Liberalization		
В	RHL within CI of	1-1.5	0%		
	harvest estimate	< 1	10% Reduction		
		> 1.5	Sub-Option B-2A: 10% Reduction	Sub-Option B-2B: 0%	
С	Future 2-YR avg. RHL less than lower bound of harvest	1-1.5	Sub-Option B-1A: Reduction percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 20% Reduction	
	estimate CI	< 1	Sub-Option B-1A: Reduction percent equivalent to difference between harvest estimate and 2-year avg. RHL	Sub-Option B-1B: 40% Reduction	

Option C: Fishery Score Approach

The Monitoring/Technical Committees will recommend the appropriate weight for each metric within the fishery score approach. These weights can be modified through the specifications process. In this example the weighting for each metric was assigned as follows:

 $B/B_{MSY} = 40\%$

 $F/F_{MSY} = 20\%$

Recruitment = 20%

Fishery Performance = 20%

Summer Flounder

Using the results of the 2021 management track assessment for summer flounder we calculated the current fishery score as follows, assuming the weighting described above:

• $B/B_{MSY} = 47,397/55,217 = 0.85 (FS=3)$

• $F/F_{MSY} = 0.340/0.422 = 0.81 (FS=5)$

• Recruitment Percentile: 81-100% (FS=5)

• Landings: 2019-2020 avg. RHL within CI (FS=3)

$$3(.4) + 5(.2) + 5(.2) + 3(.2) = 3.8$$

Given a fishery score of 3.8, summer would be considered at medium risk with a moderate stock status and the corresponding management measures would be liberal.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

Scup

Using the results of the 2021 management track assessment for scup we calculated the current fishery score as follows, assuming the weighting described above:

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• B/Bmsy=176,404/90,019 = 1.95 (FS=5)

• F/Fmsy = 0.136/0.200 = .68 (FS=5);

• Recruitment Percentile: <20% (FS= 1)

• Landings: 2019-2020 avg. RHL below lower bound of CI (FS=1)

$$5(.4) + 5(.2) + 1(.2) + 1(.2) = 3.4$$

Given a fishery score of 3.4, scup would be considered at medium risk with a moderate stock status and the corresponding management measures would be liberal.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

Black Sea Bass

Using the results of the 2021 management track assessment for black sea bass we calculated the current fishery score as follows, assuming the weighting described above:

- B/Bmsy= 30,774/14,441 = 2.1 (FS=5)
- F/Fmsy =.5 (FS=5)
- Recruitment Percentile: 61-80% (FS= 4)
- Landings: 2019-2020 avg. RHL below lower bound of CI (FS=1)

$$5(.4) + 5(.2) + 4(.2) + 1(.2) = 4$$

Given a fishery score of 4, black sea bass would be considered at low risk with a healthy stock status and the corresponding management measures would be the most liberal.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

<u>Bluefish</u>

Using the results of the 2021 management track assessment for bluefish we calculated the current fishery score as follows, assuming the weighting described above:

• B/Bmsy= 95,742 /201,729 = 0.47 (FS=1)

• F/Fmsy =.95 (FS=3)

• Recruitment Percentile: 41-60% (FS= 3)

• Landings: 2019-2020 avg. RHL below lower bound of CI (FS=1)

$$1(.4) + 3(.2) + 3(.2) + 1(.2) = 1.8$$

Given a fishery score of 1.8, bluefish would be considered at the highest risk with a very poor stock status and the corresponding management measures would be the most restrictive.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

F ≤ Fmsy F > Fmsy R↓ MRIP ≤ default restrictive R↓ B >= 150% Btarget liberal RHL/ACL restrictive restrictive liberal default MRIP > default BΛ restrictive & re-RHL/ACL B↓ evaluate measures R↓ R个 MRIP ≤ default restrictive RHL/ACL restrictive restrictive Btarget ≤ B < 150% Btarget B↓ B↑ MRIP > default default В↑ restrictive & re-RHL/ACL B↓ evaluate measures $R \downarrow$ MRIP ≤ default restrictive B个 default restrictive Bthreshold ≤ B < Btarget RHL/ACL B↓ restrictive restrictive restrictive restrictive MRIP > BΛ restrictive & re-RHL/ACL B↓ evaluate measures

Option D: Biological Reference Point Approach

B < Bthreshold

As illustrated in the figure above, under the Biological Reference Point option, each stock under consideration is shown in the respective bin based on the most recent stock assessment results (summarized under the fishery score alternative)

MOST RESTRICTIVE/REBUILDING PLAN

- Both scup and black sea bass would be in Bin 1, with the default measures. If the 2023 stock assessment update indicates that both recruitment and biomass have increasing trends with no change to biomass or fishing mortality, then measures would be liberalized.
- For summer flounder, the stock is placed in Bin 3. This bin indicates a low biomass without overfishing occurring, and measures would be the default measures of this bin. If in the 2023 stock assessment, biomass and fishing mortality show stable trends but either recruitment or biomass showed a decline, measures would be restricted. If biomass improves, then the stock will move from Bin 3 to Bin 2 as long as overfishing isn't occurring.
- For bluefish, the stock is under a rebuilding plan and defaults to Bin 7. The stock will remain here until the Board/Council determine if can once again enter into the harvest control rule.

Option E: Biomass Based Matrix Approach

According to the most recent stock assessment information, both scup and black sea bass have biomass levels that are over 150% of the target with a decreasing biomass trend. This places them in Bin 1 under the Biomass Based Matrix Option. Summer flounder has a biomass below the target and an increasing biomass trend. Therefore, the stock is in Bin 3. Bluefish is in Bin 6 because it is in a rebuilding plan.

Stock Status	Biomass Trend		
Stock Status	Increasing	Stable	Decreasing
Abundant At least 150% of target		Bin 1	
Healthy Above target, but less than 150% of target	Bin 1		Bin 2
Below Target but above threshold	Bin 3		Bin 4
Overfished Below threshold	Bin 5		Bin 6

Appendix 3. Determining Metrics for Each Option

Please note that the methodology for determining metrics for each option could be revised pending further PDT/FMAT and Board/Council discussion. These changes would only affect the calculation of metrics under each option, and would not impact the management framework for using the harvest control rule approaches.

Confidence Intervals for MRIP Comparison

For options that incorporate comparison of harvest to recent MRIP estimates, the FMAT/PDT recommends using an 80% confidence interval (CI) around the most recent two years of MRIP harvest estimates. An 80% CI balances concerns related to certainty (higher CI %) and precaution when reductions might be needed or economic opportunity when liberalizations could be allowed (lower CI %). As described in section 3.1, the intent of this CI is to serve as a proxy for expected future harvest under status quo measures. This proxy could be replaced by an alternative estimate and associated CI generated from a robust statistical methodology approved by the Monitoring/Technical Committees.

Option C: Fishery Score Approach

Determining Metric Values for the Fishery Score

The following section provides an example of how the metrics could be used to generate a fishery score value ranging from 1 to 5.

$B/B_{MSY}(W_B)$

Biomass from the most recent stock assessment would be given a value of 1-5 based on the following criteria, which are loosely based on other aspects of the management program (e.g., the Council's risk policy).

- 5: Biomass is equal to or greater than 150% of the target
- 4: Biomass is less than 150% of the target, and equal to or greater than the target
- 3: Biomass is below the target, and equal to or greater than 75% of the target
- 2: Biomass is below 75% of the target, and equal to or above the threshold (which is ½ the target and defines an overfished state)
- 1: Biomass is below the threshold

$F/F_{MSY}(W_F)$

Fishing mortality could be scored based on whether the most recent fishing mortality estimate is at, above, or below the threshold level. Only three increments were selected for fishing mortality as other aspects of the management program consider only

whether F is at, above, or below the target. This scoring methodology may be revised based on further analysis and additional stock assessment considerations.⁸

- 5: F/F_{MSY} is at least 5% less than 1
- 3: F/F_{MSY} within 5% of 1
- 1: F/F_{MSY} is at least 5% greater than 1

$Recruitment(W_R)$

To determine the recruitment metric, the most recent three year average estimate of recruitment will be compared to the 20th, 40th, 60th, 80th, and 100th percentiles of the time series of recruitment used in stock projections. This percentile categorization of the relative strength of an incoming year class was deemed more informative than measuring trends in recruitment, especially given the highly variable nature of recruitment from year to year. Assessing where recruitment fell in the percentile distribution was determined a more appropriate measure of recruitment's impact on future levels of biomass.

- 5: 3 year average R in the 81-100 percentile
- 4: 3 year average R in the 61-80 percentile
- 3: 3 year average R in the 41-60 percentile
- 2: 3 year average R in the 21-40 percentile
- 1: 3 year average R is in the 0-20 percentile

Fishery performance (W_{FP})

Fishery performance is evaluated by comparing the confidence interval (CI) defined based on the method described on page 43. The score is determined by where the average RHL appears in relation to the CI.⁹ The following three categories are used for this metric:

⁸ An alternative scoring method which may be further developed by the FMAT/PDT is to consider the probability that the terminal year fishing mortality estimate (F) from the most recent stock assessment exceeds the threshold level defining overfishing (F_{MSY}). The following four categories are provided as examples.

^{• 5: 0-24%} probability that terminal year F exceeds F_{MSY}

^{• 4: 25-49%} probability that terminal year F exceeds F_{MSY}

^{• 2: 50-74%} probability that terminal year F exceeds F_{MSY}

^{• 1: 75-100%} probability that terminal year F exceeds F_{MSY}

⁹ When developing a CI from two years of MRIP data, the PDT/FMAT recommends the use of a joint distribution 80% confidence interval that takes into consideration the PSE of each individual years' MRIP estimate and the variability of the estimates between years. This recommendation is based on an analysis of several years of MRIP

- 5: 2-yr avg. RHL above upper bound of CI
- 3: 2-yr avg. RHL within CI
- 1: 2-yr avg. RHL below lower bound of CI

Option D and E: Biological Reference Point and Biomass Based Matrix

Evaluating B/Bmsy and F/Fmsy

Fishing Mortality (F)

- $F \le Fmsy Fishing mortality is less than or equal to the target.$
- F > Fmsy Fishing mortality is greater than the target (overfishing is occurring)

Biomass (B)

- 150% B_{MSY} target $\leq B$ Biomass is greater than or equal to 1.5x the target
- B_{MSY} target $\leq B < 150\%B_{MSY}$ target Biomass is greater than or equal to the target but less than 1.5x the target
- B_{MSY} threshold $\leq B < B_{MSY}$ target Biomass is less than the target but greater than or equal to the threshold
- B < B_{MSY} threshold Biomass is less than the threshold (Overfished), a management response (Rebuilding Plan) is required under the MSA. See Accountability Measures for more information.

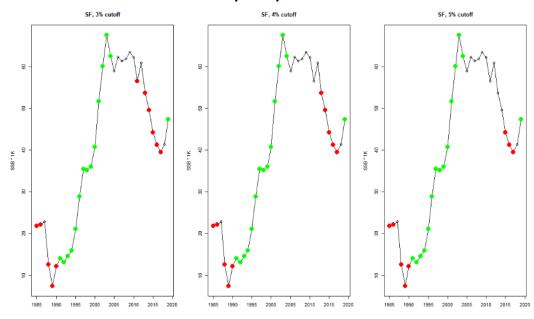
Evaluating Biomass Trends – This Section was revised March 2022

Evaluating biomass trends can be accomplished using a variety of statistical methods. The PDT/FMAT is working on a number of potential options.

One possible approach would use the average percent change in biomass (or spawning stock biomass) from the three most recent years in the assessment. The average percent change would then be compared to a pre-defined breakpoint. In the figure below we have tested three potential breakpoints 3, 4, and 5 percent. For a 3 percent breakpoint a biomass trend would be considered stable if the percent change was between -3 percent and 3 percent change; considered increasing if the percent change was greater than 3 percent; and, decreasing if the percent change was greater than -3 percent. The number of years in the average, and the breakpoint selected will influence the resulting trend. For the purposes of the biological reference point approach (option D), which only has two categories for biomass trend, the stable and increasing biomass trends would both be considered a positive biomass trend and the decreasing biomass trend would be considered a negative biomass trend.

data for each species. The use of MRIP data in this context is intended as a proxy for expected future harvest under status quo measures. This may be replaced with statistical modelling approaches for predicting harvest, with associated CIs, if such approaches are available in the future.

Summer flounder Trend Sensitivity Analysis



An alternative approach to derive a biomass trend would combine survey indices into a biomass index that could be used to determine the trend. The approach was designed to combine multiple indices and generate a single value to use as a catch-multiplier to provide catch advice in plan-B assessment approaches. We could use a similar approach to combine information from multiple indices and get a single quantitative metric to judge biomass trends. The following steps would be followed: 1) Create an average biomass index from one or more surveys; 2) apply a LOESS smooth to average; 3) fit log linear model to the most recent three years of smoothed data; and 4) transform slope back to normal scale to get a value. This approach may also be considered a back-up approach if an analytical model with biomass estimates is unavailable.

Recruitment - This Section was revised March 2022

Recruitment will be evaluated based on the most recent three-year average recruitment estimate compared to the median of the time series of recruitment used in stock projections. "High" recruitment will be considered a three-year average that is equal to or greater than the median and "Low" recruitment will be considered a three-year average that is below the median.

<u>Fishery Performance - This Section was revised March 2022</u>

This secondary metric comes into play only when a stock remains in its current bin for a second specifications cycle and overfishing is occurring ($F > F_{MSY}$). This metric considers whether or not the current measures resulted in catch and/or harvest greater than the specified limit from the previous specifications cycle. Specifically, a two-year average of catch or harvest from the previous specifications cycle will be compared to the two-year average of the ACL or RHL. A CI

around the catc	th and/or har	vest estimate	es can be co	onsidered w	hen eval	uating if ar	n overage
occurred.							

Appendix 4: Regions for Each Stock

Under Addendum XXXII, summer flounder and black sea bass were divided into the following regions:

Summer Flounder: Section 3.1.1

Measures will be developed using a six-region approach, where the regions are defined as: 1) Massachusetts, 2) Rhode Island, 3) Connecticut-New York, 4) New Jersey, 5) Delaware-Virginia, and 6) North Carolina.

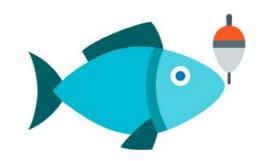
Black Sea Bass: Section 3.2.1

Measures will be developed using a three-region approach, where the regions are defined as Massachusetts through New York; New Jersey; and Delaware through North Carolina (north of Cape Hatteras).

Regions have not been established for management of the recreational scup and bluefish fisheries. The Board and Council can develop regions for these species during final action on this addenda or through a separate action.

Current Process

This is the current process used to set recreational measures for summer flounder, scup, black sea bass and bluefish.





New Harvest Limits are Set

Recreational harvest limits (RHLs) are set based on the most recent stock assessment, considerations about scientific and management uncertainty, commercial & recreational allocations, and assumptions about discards in upcoming years.



Harvest Data Reviewed

Harvest estimates from recent years are used to generate an estimate of expected harvest in the upcoming year under status quo measures.



Determine Changes Needed

If the estimate of expected harvest is similar to the upcoming RHL, then no change in measures is needed. If it is higher or lower than the RHL, then a percentage liberalization or reduction in harvest is agreed upon to allow harvest to meet but not exceed the upcoming RHL.



Set Management Measures

State and federal waters management measures are set based on the agreed upon percentage liberalization or decrease in harvest, or no change.

Percent Change Option



RHL compared to MRIP estimate

2

Compare Biomass to target level



Set Management Measures

Determine if the RHL for the upcoming management period is above, below, or within the confidence interval of the most recent MRIP time-series estimates.

Compare the Biomass estimate from the stock assessment to the biomass target level. Biomass categories are as follows:

- 150% above biomass target
- Between 100 and 150% biomass target
- Less than 100% of biomass target

The RHL and Biomass comparison determines the appropriate percent change in harvst needed (if any).

Management measures are either liberalized, restricted, or maintained at status quo to acheive the percent change determined through step 3.









Fishery Score Option

STEP 1

Stock Assessment Results

An updated stock assessment is completed and approved for management use.

STEP 5

Determine Management Measures

Pre-determined management measures from the relevant bin are implemented.

STEP 4

Determine Management Step Based on Fishery Score

Based on the calculated Fishery Score, the stock is placed into one of four bins. Each bin has a pre-determined set of management measures (see below)

STEP 2

Calculate Fishery Score Metrics

Fishing mortality, biomass, recruitment, and fishery performance metrics are drawn from the stock assessment and recent MRIP estimates

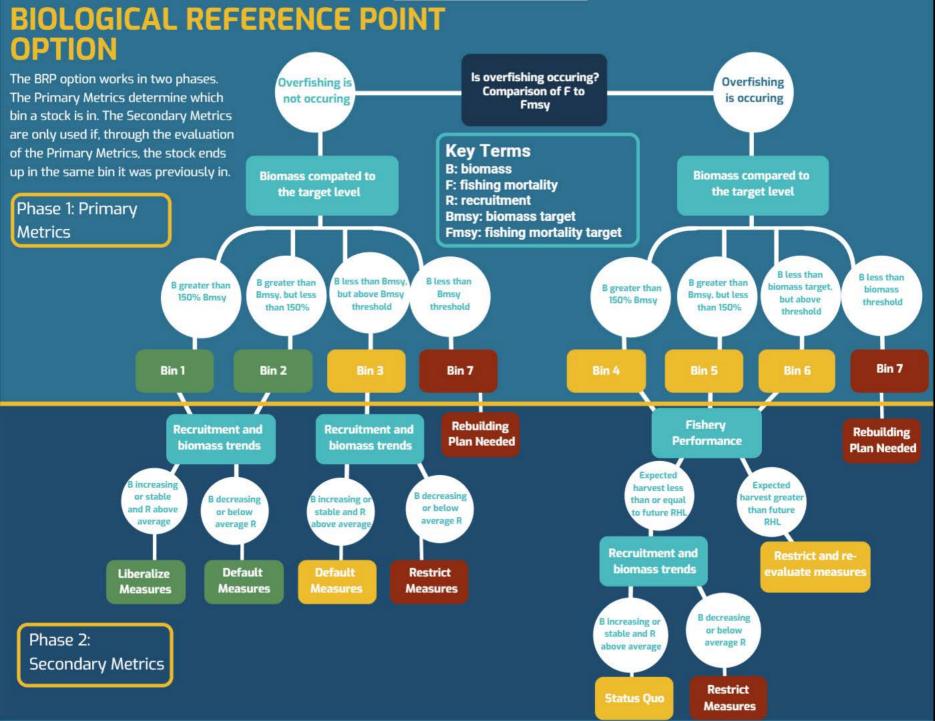
STEP 3

Use Formula to Calculate Fishery Score

Fishery Score metrics are entered in the Fishery Score formula to produce a value ranging from 1 to 5. On this scale, 1 is the lowest possible score and 5 is the highest possible score.

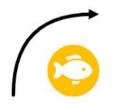
Fishery Score bins and the associated stock status, fishery performance outlook, and measures that are associated with each bin.

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1	4-5	Good	Most Liberal
2	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4	1-1.99	Very Poor	Most Restrictive

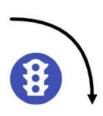


Biomass Based Matrix Approach

Stock Status is



Based on the relationship of biomass to the target level, biomass is categorized as either very high, healthy, below target, or



Determine Management Measures

Pre-determined measures from the determined bin are implemented. If the bin is the same as in the prior years, measures remain status quo.

Biomass Trend Evaluated

A stock's biomass trend is considered increasing, stable, or decreasing.



Bin Determined

Based on biomass level and biomass trend, stock is placed in one of 6 bins: Bin 1 (optimal conditions) and Bin 6 (worst



Recreational
management measure
matrix under the
Biomass Based Matrix
Approach

Stock Size (i.e., biomass compared to target level)	Trend in stock size		
	Increasing	Stable	Decreasing
Very High: At least 150% of target stock size	Bin 1		
High: Above the target, but below 150% target stock size	Bin 1	Bin 2	
Low: Below the target stock size, but more than 50% of the target stock size	Bin 3	Bin 4	
Overfished (Too Low): Less than 50% of the target stock size	Bin 5	Bin 6	