PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ATLANTIC MENHADEN MANAGEMENT BOARD

Hyatt Place
Dewey Beach, Delaware
Hybrid Meeting

October 28, 2025

Approved February 4, 2026

TABLE OF CONTENT

INDEX OF MOTIONS

Motion to Amend
Move to amend to add after 50% "and set the bay cap as a percentage of the TAC or allow the bay cap to be set by specification" (Page 49). Motion by Nichola Meserve; second by David Borden. Motion fails (5 in favor, 9 opposed, 4 abstentions) (Page 51).

Main Motion
Move to initiate Addendum II to the Atlantic menhaden FMP to address Chesapeake Bay Management concerns. The addendum shall develop periods for the Chesapeake Bay Cap that distributes fishing effort more evenly throughout the season and a range of options to reduce the Bay Cap from status quo up to 50%. Motion passes (13 in favor, 2 opposed, 2 abstentions, 1 null) (Page 52).

6. **Move to adjourn** by consent (Page 53).

ATTENDANCE

Board Members

Megan Ware, ME, proxy for C. Wilson (AA)
Steve Train, ME (GA)
Rep. Allison Hepler, ME (LA)
Renee Zobel, NH (AA)
Doug Grout, NH (GA)
Dennis Abbot, NH, proxy for Sen. Watters (LA)
Nichola Meserve, MA, proxy for D. McKiernan (AA)
Raymond Kane, MA (GA)
Rep. Sarah Peake, MA, proxy for Rep. Armini (LA)
Nicole Lengyel Costa, RI, proxy for J. McNamee (AA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Matthew Gates, CT (AA)
Robert LaFrance, CT, proxy for B. Hyatt (GA)
Marty Gary, NY (AA)
Emerson Hasbrouck, NY (GA)
Joe Cimino, NJ (AA)
Jeff Kaelin, NJ (GA)
Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
Kris Kuhn, PA, proxy for T. Schaeffer (AA)
Loren Lustig, PA (GA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Lynn Fegley, MD (AA)
Russel Dize, MD (GA)
Allison Colden, MD, proxy for Del. Stein (LA)
Joe Grist, VA, proxy for J. Green (AA)
JJ Minor, VA (GA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Ben Dyar, SC, proxy for B. Keppler (AA)
Malcolm Rhodes, SC (GA)
Mel Bell, SC, proxy for Sen. Cromer (LA)
Doug Haymans, GA (AA)
Spud Woodward, GA (GA)
Erika Burgess, FL, proxy for J. McCawley (AA)
Gary Jennings, Fl (GA)
Ron Owens, PRFC
Kelly Denit, NMFS
Rick Jacobson, US FWS

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

Ex-Officio Members

Caitlin Craig, Technical Committee Chair
David Bailey, Law Enforcement Committee Rep.

Staff

Bob Beal
Toni Kerns
Tina Berger
Madeline Musante
Caitlin Starks
Tracey Bauer
James Boyle
Chelsea Tuohy
Emilie Franke
Katie Drew
Jeff Kipp
Samara Nehemiah
Jainita Patel

The Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the Ballroom East/West via hybrid meeting, in-person and webinar; Tuesday, October 28, 2025, and was called to order at 1:15 p.m. by Chair John Clark.

CALL TO ORDER

CHAIR JOHN CLARK: Let's get started everybody. I see we've got quite a crowd here for our Atlantic Menhaden meeting, so welcome to this meeting of the Atlantic Menhaden Management Board. The Board is now in session. Chairing the meeting is John Clark from the state of Delaware, that's me; and I'm joined up here at the head table by, from the Law Enforcement Committee, David Bailey.

From our Stock Assessment Subcommittee, Dr. Katie Drew and Dr. Matt Cieri. From our Technical Committee, Caitlin Craig, and of course our Plan Coordinator, James Boyle. I believe, have I introduced everybody here? Oh, and then we do have, I'm going to turn it over to Toni, because we have some Commissioners who are attending virtually.

MS. TONI KERNS: We also have Sarah Gaichas, who is the Peer Review Presenter online, but we have Kelly Denit from NOAA Fisheries and Rick Jacobson from Fish and Wildlife Service online today. I believe that's it; I apologize if I've missed anybody. I also want to inform the Board and the members of the public that we are being videoed today.

APPROVAL OF AGENDA

CHAIR CLARK: All right, thank you, Toni, we'll go right to the consent items. Does anybody have any revisions to the agenda? Seeing none; the agenda is approved as written.

APPROVAL OF PROCEEDINGS

CHAIR CLARK: Does anybody have any revisions from the August 2025 meeting? Seeing none; then the proceedings are approved as written.

Before we got to public comment, we have a statement from Commissioner Jeff Kaelin, of New Jersey, regarding a possible conflict of interest. Go ahead, Jeff.

MR. JEFF KAELIN: Thank you, Mr. Chairman, and members of the Atlantic Menhaden Management Board and members of the public. As the New Jersey Governor's Appointee and employee of Lunds Fishery in Cape May, New Jersey, a family owned and operated vertically integrated harvesting and processing company, and a marketing and processing entity, with a 10 percent interest in the marketing or processing of the total coastwide harvest of the Atlantic menhaden purse seine fishery, I am declaring my conflict of interest.

I'm making this request today and notifying the Board of the conflict consistent with the Commission's 2014 Policy on financial disclosure and financial interest, and my required financial disclosure for Lunds, and I'm doing so prior to the management board taking final action on setting the specifications for the 2026 to 2028 Atlantic menhaden fishing years during this meeting. The Commission's policy requires me to announce to the Board that I am recusing myself from that vote. Once recused, the policy permits me to participate in the board debate, although I will not be able to make or second motions on that specific issue.

Prior to that vote I am required to remove myself from the Board table, thereby alleviating the perception that a recused Commissioner is participating in a caucus on taking final action on that specific agenda item today. I hope I don't have to stand in the corner, Mr. Chairman, when I leave the Board table, but anyway, that's my statement, and I appreciate the opportunity to make that today. Thank you.

CHAIR CLARK: Thank you, Jeff, and no, we won't make you stand in the corner. Before I go to public comment, I just want to remind everybody, we do have a hard stop today, it is an action-packed agenda, literally, there is a lot of action involved in this.

PUBLIC COMMENT

CHAIR CLARK: With the public comment, we have a lot of people who signed up.

Could I just see the hands of the people who want to comment for items that are on the agenda. This is items that are on the agenda. Okay, if you want to comment on items that are on the agenda, there will be a chance for public comment during the time we are debating each motion of that item. I see most of you put your hands down, so you want to speak to items that are not on the agenda.

We have quite a list here, and in the interest of time, we're going to limit you to one-minute points you can make. We have some people online also, from Omega Protein, who has an item he would like to bring up that is not on the agenda. Pete, would you just state your name and your affiliation before you make your comment?

MR. PETER HIMCHAK: Thank you, Mr. Chairman, my name is Peter Himchak, I'm with Omega Protein. I am the fishery scientist, and I'm here to talk to you about research. I took the liberty of distributing a SCEMFIS pamphlet to Board members. SCEMFIS stands for Science Center for Marine Fisheries.

It's an industry and academia working together under the administration of the National Science Foundation. We have been funding research for eleven years now, and this is highly supported by, you can read about all of the companies that contribute to SCEMFIS. The centers, the academic centers are the Virginia Institute of Marine Sciences and the University of Southern Mississippi.

But scientists are on this to do work all over the United States, and some internationally. What I would like to talk to you today is about a recent project that was funded, and it includes a research team of Dr. Genny Nesslage and Mike Wilberg.

CHAIR CLARK: Pete, I'm sorry, we're very short on time, so can you just wrap it up quickly?

MR. HIMCHAK: Okay. Dr. Nesslage, Mike Wilberg, Rob Latour, James Gartland and Amy Schuler were funded to develop a detailed and actionable roadmap for Atlantic menhaden research, necessary to inform a scientifically defensible and ecologically meaningful Chesapeake Bay Cap. The industry supports this and will provide data and anything else they need.

CHAIR CLARK: Thank you, Pete. Okay, next up I have Phil Zalesak and Phil, this is for something not on the agenda, correct? All right, thank you, go right ahead, state your name and your affiliation if you have one, and then make your comment.

MR. PHIL ZALESAK: My name is Phil Zalesak; I am President of the Southern Maryland Recreational Fishing Organization. I am going to speak about a proposed presidential executive order which is not on the agenda, but has been delivered to the White House. The proposal requires no reduction in Atlantic menhaden allocations for commercial bait fishermen, none.

The proposal does end all industrial reduction harvesting of Atlantic menhaden on the Atlantic coast by Canadian controlled companies. I have five points; we have no time to cover them. But every member on this Board got an e-mail from me at 12:00 today; so, go take a look at it. If you only cut the total allowable catch by 50%, you could all increase your commercial harvest of Atlantic menhaden by 53%, all states, with the exception of Pennsylvania, which would be about 49 percent. With that, Mr. Chairman, I thank you for the time.

CHAIR CLARK: Thank you, Mr. Zalesak. Next up I have Vinnie Calabro, and if you would come up to the microphone, Sir, and state your name and affiliation; and then make your comment.

MR. VINNIE CALABRO: Good afternoon, Vinnie Calabro, Karen Ann Fisheries, Jamaica Bay in New York and Fort Pierce, Florida. I think it goes without saying that the Atlantic States Council has failed

miserably at fisheries management, and I think that everyone in this room would agree. For the past 50 years, every species that you've targeted to salvage has been a disaster.

The one thing that you are very successful at is pitting the recreational sport fishing community against the commercial harvesters. That being said, you are not addressing things that were mandated by the Magnuson Act. Okay, you had to address water quality, pollution, stocking programs, environmental impact and climate amelioration.

None of these mandates were addressed, and I think you can't point the finger at one specific group for what is going on right now. In nature you can seldom say one thing is the cause of a decline. I think rather than our groups being, okay.

CHAIR CLARK: Thank you, Mr. Calabro, and sorry, we're just short on time and we're going to move on to our next commenter, and that is Monty Diehl.

MR. CALABRO: Quick note. I met with President Trump about a month ago on his request. In the brief moment that I had with him; I was grateful that we had that time with him. He assured me he was going to address this issue. Now, I know there is a lot on his plate right now, but if he is able to see or hear this, I hope he gives it some more consideration. Thank you.

CHAIR CLARK: Thank you, Mr. Calabro, and next up we have Monty Diehl from, and please state your name and affiliation.

MR. MONTY DIEHL: Yes, Monty Diehl, I am the CEO of Ocean Harvesters. I just wanted to clear up some things that have been said here over the last few years that are strictly untrue. Ocean Harvesters, which is a reduction company in Reedville, is an American owned company, owned by American born, raised, educated in Georgia, and I run this company. I can assure you my American creds are real. I've been fishing there, started fishing in early 1980s, my family has been doing this for five generations, as 100 % of our employees at Ocean Harvesters and Omega Protein, who we sell our fish to, are U.S. residents, 94% live within 15 miles of that plant, with the exception of some North Carolinians, they all are also Virginians.

There has been a lot of rhetoric here and it starts right here that makes our fishermen targets. They get chased on the water, they get harassed on the water, they get threatened over social media to put a 50-caliber round in them, and all that starts right here with the debate and the falsehood that you hear around this table. You know this fishery is not overfished and it's far from overfishing. Any other fishery and we would be all happy to celebrate.

CHAIR CLARK: Thank you, Mr. Diehl, please wrap it up.

MR. DIEHL: I'm done, Mr. Chair, thank you.

CHAIR CLARK: Thank you, Mr. Diehl. Next up we have John Lawler, Jr. Please, come up to the microphone, state your name and your affiliation and make your comment. Is it Lawler? I believe it says Lawler.

RESPONSE: He's going to comment on something on the agenda, so he'll come up later.

CHAIR CLARK: Oh, okay, that's fine, thank you. The next up after that is Kenny Pinkert, and same thing, so we'll skip. How about, is it Geron Kenner? How about Tom Lilly. Tom, I take it your comment has something not on the agenda, and state your name and your affiliation if you have one, and then your comment.

MR. TOM LILLY: Tom Lilly, White Haven, Maryland. The industry catches thousands of schools in the Bay in the Virginia Coast in July and August. The Beaufort aging graphic showed that 70% of those thousands of schools caught are Age 1 and younger. There are fish that have never spawned and neve will spawn.

Thousands of schools in August being taken out away from the Chesapeake Bay's earning potential. Year after year of catching those breeding schools has destroyed the Mid-Atlantic stock and something has to be done to stop it. Real quick here, there seem to be a lot of people that are going to be talking here in a few minutes about threatening about losing their jobs.

Omega Protein and Ocean Harvesters aren't going anywhere. Virginia is the only state that allows this. So far as in fishing up the Atlantic Ocean, the Mid-Atlantic is a very calm water, compared to the New York Atlantic.

CHAIR CLARK: Thank you, Tom, you need to wrap it up.

MR. LILLY: Give me one more sentence. Cod fishermen routinely go 600 miles out in the ocean. If bad weather comes up in the Mid-Atlantic they can tuck into the Chesapeake Bay or Delaware Bay. There is no reason they can't be fishing out in the Atlantic Ocean.

CHAIR CLARK: Thank you, Tom, next up we have Captain Robert Newberry. Captain, if you'll come up to the microphone and state your name and affiliation and make your comment. Thank you.

CAPTAIN ROBERT NEWBERRY: My name is Captain Robert Newberry; I'm Chairman of Delmarva Fisheries Association, located on the eastern shore of Maryland. This is more of a confusing statement than a comment. You have seen all the things about the young of the year. We've had three-year record young of the year in the state of Maryland.

They say there is no menhaden in the Bay. There is plenty of menhaden in the Bay. As a matter of fact, they were the star of the Annapolis Boat Show. I don't know if you've seen the video, but it took more attention with all the menhaden in the Annapolis harbor than the boats, millions of dollars' worth of boats there.

What I respectfully ask is that we have had three years of record hatches, 30 years consecutive, each year a better year. I think we need to weigh on the side of caution and let these fish grow up, so that our bait industry doesn't suffer. Our crab industry will suffer from this, and I'm keeping it under a minute, thank you very much.

CHAIR CLARK: Thank you, Captain Newberry. Next up we have Patrice McCarron., okay, thank you, Patrice. Following that we have Benson Chiles, is Benson chiles here? Okay, got it. Next up we have Roberta Kellam. Just state your name and your affiliation, Roberts, if you have one, and then make your comment. Thank you.

MS. ROBERTA KELLAM: My name is Robert Kellam; I live in North Hampton County, Virginia. I don't have an affiliation; nobody is paying me to be here. I am here for the osprey. I spoke with you last time about the catastrophic disaster we're having with osprey reproduction in the Chesapeake Bay.

I think the osprey have been telling us what your scientists have finally figured out is that based on the last report you just issued that here aren't actually as many menhaden as you thought there were. I would hope that this Board will actually consider the data from the osprey reproduction study; I don't think you considered it last time, and the osprey need your help. Thank you.

CHAIR CLARK: Thank you, Ms. Kellam. Our final commenter, oh I'm sorry, there is somebody on the other side too. Okay, is this Johnny Millard? Johnny Millard can come to the microphone. Please state your name and affiliation, and then make your comment, Ms. Millard.

MS. JONI MILLWARD: My name is Joanie Millward, and I am President of the Virginia Osprey Foundation. I live in Colonial Beach, Virginia. I would like to talk briefly about a beloved seabird, which has experienced population decline, possibly related to overfishing of their primary food source.

A small but highly nutritious filter feeding forage fish that is being industrially harvested, with highly destructive harvest methods. Forage fish are harvested and reduced to oil and fish meal, which is being used to keep farm raised salmon in a foreign country, and in turn that salmon is then sold back into the markets of the country where the forage fish were caught.

Think I'm talking about osprey, menhaden, purse seine industrial harvesting by Omega Protein and its Canadian operations, I am not. I am talking about puffins, sandeels, bottom trawling, Danish industrial fishing and reduction processing to supply feed to Danish family farms. Sound familiar?

What is the big difference? The UK and Scottland have closed their coastal waters to sandeel harvesting to give the puffins, kittiwakes, dolphins, whales and other species the opportunity to recover. The UK just won a lawsuit because they followed the science. The science, and it justified the action.

CHAIR CLARK: Please, wrap it up, Miss Millward.

MS. MILLWARD: Our government establish to manage our fishery. We have done nothing, absolutely nothing. If you get a chance, you can google that. Thank you for your time.

CHAIR CLARK: Thank you, Ms. Milward, and I'm sorry for mispronouncing your name. Now we move on. The next comment we have is from Brian Collins.

MR. BRIAN COLLINS: Hello, my name is Brian Collins; I'm a citizen from Alexandria, Virginia. A quick couple comments. One, I saw the study, the study says there is no data on the quota for the Chesapeake Bay, and I think that is what everybody understands. It seems reckless to have 112-million-pound quota in the Chesapeake Bay, the nursery for striped bass and menhaden and the world's largest breeding ground for osprey.

We should have some data before we allow any fishing of menhaden to save the jobs for Omega. Let's keep that stock full, and then with our jobs 2016 study on striped bass showed there were 100,000 jobs in that industry. That just dropped by about 50%, so we probably lost about 50,000 jobs there. When we talk about jobs, I mean Omega might have 300 or more, but let's keep everything in balance. Thank you.

CHAIR CLARK: Thank you, Mr. Collins. Do we have any commenters online? Okay, we do not have any commenters online.

CONSIDER 2025 SINGLE-SPECIES ASSESSMENT UPDATE AND ECOLOGICAL REFERENCE POINT BENCHMARK STOCK ASSESSMENT AND PEER REVIEW REPORT

CHAIR CLARK: So, we will now be moving on to Agenda Item Number 4, which is Consider 2025 Single-Species Assessment Update and Ecological Reference Point Benchmark Stock Assessment and Peer Review Report. This is an action item, and we're going to start off with an overview of the Sigle-Species Assessment, and Caitlin Craig will be giving that. Go right ahead, Caitlin.

OVERVIEW OF SINGLE-SPECIES ASSESSMENT

MS. CAITLIN CRAIG: Good afternoon, everyone; my name is Caitlin Craig. I am with the New York State Department of Environmental Conservation, and I am the current Atlantic Menhaden Technical Committee Chair. I am going to be presenting on the 2025 Atlantic Menhaden Single Species Assessment.

The Assessment update was conducted by the Atlantic Menhaden Technical Committee and the Stock Assessment Subcommittee, a large group, and just wanted to acknowledge them here. Lots of effort and work went into this. For this presentation I will go through the terms of references 1 through 5 and the TOR Number 7,

which will cover data, model results, stock status and research recommendations.

TOR 6, which is projections is going to be including the additional scenarios. Scenarios requested by the Board will be presented under the next agenda item, which is specifications for the 2026 through 2028 fishing years. The first TOR covers fisheries dependent data. For this update we added two additional years of reduction, bait and recreational removals to the last assessment. That was years 2022 and 2023 that were added.

We also think we need to revise historical bait landings, and this has resulted in some minor changes to the time series. Continuing with TOR 1. This is just this graph shows the time series of landings by sector. The orange is the date and recreational landings, and the blue represents the reduction landings.

Since 1990, reduction landings have generally been declining, while the date and recreational landings have been increasing. TOR 2 covers fishery independent data. There are three different adult indices for Age 1 or Age 1 plus, and that is the northern adult index, the Mid-Atlantic and the southern adult.

Different states surveys are combined with the statistical technique called the Kahn method, to develop these three composite indices. I won't list them out, but you can see which surveys are included in each index on this slide. The indices have generally been variable, without much of a strong trend throughout the time series.

Additionally for TOR 2, further fisheries independent data includes the state YOY surveys, and again, these are combined with the same method as the other indices to the Kahn method, to create a coastwide index of young of the year abundance. The index was highest in the early part of the time series, but that is the time period when we only have indices from the Chesapeake Bay. All the other surveys that are listed there were not necessarily included in that earlier part.

Term of Reference 3, Life History and Model Structure. For this update the estimate of natural mortality used in this assessment was revised. This was brought about, because Alt and All submitted a reanalysis of the tagging data that resulted in a lower estimate of M than the one that Liljestrand et al used in the 2020 benchmark.

Because of this the SAS formed a work group to review the data and analyses and consulted with the authors to understand what was causing the differences and what was the best estimate of M for use in the single-species model. The revised tagging model M is about 20% lower than the M used by Liljestrand et al, and based on the sizes of the tagged fish, most fish in the study were approximately 1.5 years old.

The SAS developed an age varying estimate of M to use in the BAM or the Beaufort Assessment Model by scaling a Lorenzen curve so that M at age 1.5 was equal to the tagging model M. A sensitivity run was done with that lower M, which was used by the Alt et al method, and also included the use of confidential effort data.

This figure just shows the pink line shows the 2022 update for natural mortality. The black line shows the 2025 base run, and the green shows the 2025 lower M sensitivity. For population estimates, the change in M had an impact on the scale of the population, but did not necessarily change the trends.

A lower natural mortality resulted in a higher F. This plot shows this geometric mean fishing mortality was on Ages 2 through 4. Changing M also changes the selectivity pattern, so the full F is less comparable across the different runs. The differences were data at the beginning of the time series, but are smaller and they are harder to see on this plot towards the end of the time series, where they are closer together.

Across all runs F is the highest in the early years, where it peaked in 1973 and then declined in the 1990s and the early 2000s, and since then have been generally stable. In addition to the lower natural mortality resulting in a higher F, it also resulted in a lower recruitment. Across all runs again there were several years of very high recruitment at the beginning of the time series, with the 1958-year class being the highest by far in the time series.

Then this was followed by a period of lower recruitment, and then an increase to more moderate levels. Recruitment has varied without a strong trend since the late 1970s, and the 2022 update did predict a strong year class in 2019 and 2020 that did not show up in this 2025 update. Further, with the lower natural mortality resulting in higher F and lower recruitment, it also resulted in lower fecundity.

Again, across all run's fecundity was highest at the start of the time series and then declined through the late 1960s to a period of lower fecundity from the early '70s to the early 1990s. As fishing mortality declined in the 1990s fecundity increased. Fecundity has declined somewhat in recent years, but not to the levels that were seen in the 1970s and 1980s.

As mentioned, the revised M in the 2025 update results in the lower fecundity compared to the 2022 update, and to note the sensitivity run with the even lower natural mortality results in the lowest fecundity at the beginning of the time series. But over time as fishing mortality goes down, more fish survive to the oldest ages in the lowest natural mortality scenario, and overall, the population fecundity is higher than the base run. Continuing with Term of Reference 4, the Retrospective Analysis.

The TC and the SAS applied the ASMFC Retrospective Pattern Guidance Document to determine whether the retrospective pattern in the assessment was significant enough to warrant an adjustment, and this ASMFC Guidance Document looks at three things. Is the Mohn's rho outside the recommended bounds?

Is the adjusted estimate outside the 90% confidence intervals of the unadjusted estimate, and is the terminal year of each tier outside the confidence interval of the base run? The Mohn's rho for fecundity is 0.12, and then negative 0.09 for fishing mortality, which are both within the accessible limits for short-lived species like menhaden.

But the retrospectively adjusted value of F is outside that 90% confidence interval of the unadjusted value. But the adjusted value of fecundity is within the confidence intervals. From Mohn's rho and the retrospective plot you can see that the model is overestimating fecundity in the terminal year, compared to when we add more years of data.

Again, the Mohn's rho for fecundity was 0.12 and then the terminal year of all fields is within that confidence interval of the base run. For fishing mortality, the Mohn's rho is negative 0.09, and from the Mohn's rho and the retrospective plot we can see that the model is underestimating F in the terminal year compared to when we add more years of data.

However, to note the confidence intervals on fishing mortality are much narrower in the 2025 update with the lower natural mortality, compared to both the 2020 benchmark and the 2022 update. The TC/SAS noted that the ASMFC Guidance Document is not clear about what to do with one metric, such as fishing mortality would qualify for adjustment, and then another metric such as fecundity would not.

The TC/SAS in this case chose not to apply a retrospective adjustment and for these reasons. Fecundity does not require one. Fishing mortality does, but based on being outside the confidence intervals, but that is likely just caused by that more narrow confidence intervals that were appearing in the update.

Then the Mohn's rho for F is within the bounds, and the adjustment would not change the stock status and F is not used in the projections, so again that is why the TC/SAS chose not to apply the retrospective adjustment in this case. Term of Reference 5, Stock Status was determined using the updated ecological reference points model from the 2025 benchmark assessment, and the definitions adopted by the Board in 2020.

Just for review, the ERP F target is defined as the maximum fishing mortality rate on Atlantic menhaden that sustains Atlantic striped bass at their biomass target when striped bass are fished at their F target. The ERP F threshold is defined as the maximum F on Atlantic menhaden that keeps Atlantic striped bass at their biomass threshold, when striped bass are fished at their F target. The fecundity target and threshold are from the 2025 update of the BAM and are defined as the long-term equilibrium fecundity that is expected when Atlantic menhaden are fished at the ERP F target and threshold respectively. Continuing with TOR 5 Stock Status. Stock status is that menhaden are currently not overfished and not experiencing overfishing.

F in 2023 was above the target but below the threshold, and fecundity in 2023 was below the target but above the threshold. Again, stock status is based on the current definitions of the ERPs and the 2025 ERP model. If the Board decides to redefine the ERPs, the stock status could potentially change, but Matt will talk about that more, about the updated ERP model in the next presentation.

The final Term of Reference for this presentation is Research Recommendations. The TC and the SAS continue to endorse the research recommendations from the 2020 benchmark, and the 2022 update. This slide just highlights some of the recommendations where some progress has been made.

For the first one there is to develop and implement a multiyear, coastwide or regional fishery independent surveys for Atlantic menhaden. Some pilot studies have been conducted, but there is no long-term survey established. Evaluate the adequacy of the current sampling levels for the bait fishery that is currently in progress.

Lastly, conduct an aging workshop to assess precision and error among readers, with the intention of switching bait fishery age reading to the state aging labs away from the Beaufort Lab. So far, the progress on that, there has been a workshop that has been conducted and then additional work on standardizing protocols are currently ongoing. That is the end of the presentation.

CHAIR CLARK: Thank you, Caitlin, for that comprehensive overview of the single-species assessment. I forgot to mention, please hold all questions until we're finished with the two follow up presentations.

OVERVIEW OF ECOLOGICAL REFERENCE POINT ASSESSMENT

CHAIR CLARK: Now I'm going to turn it over to Dr. Matt Cieri for an overview of the Ecological Reference Point Assessment. Go ahead, Matt.

DR. MATT CIERI: Great, hi guys, my name is Matt Cieri; I'm from Maine DMR. Today I'm going to be talking about the ERP Assessment that was just recently benchmarked for peer review. There has been a number of people that have been involved in this project over the last couple of years.

Just to give them all sort of a shout out, they put in a lot of work and a lot of time into this particular assessment. Just to give you sort of an idea of what we're going to be talking about today. At first, I'm going to be talking about the recommendations for using ERPs. We're going to talk a little bit about a model that we've considered, some data updates, some model updates, some results, some uncertainties and then some next steps.

As you guys know, with the bottom-line sort of up front, the ERP Working Group recommends using a model of intermediate complexity for evaluating a tradeoff between predator abundance and menhaden removal. That sort of sets the ERP targets and thresholds for menhaden. We still sort of support the use of the single-species BAM Assessment for evaluating stock status and setting TAC using those reference points. As you guys may remember from last time, we supported a whole suite of modeling approaches from really complex to pretty simplistic during the last benchmark.

This time around we want to focus in particularly on models of intermediate complexity, based on the peer reviewer's comments, as well as what met your needs the last time. Just to go over some of our ecosystem models. Our EwE models, they basically came in two flavors. One is the NWACS-Full model, which pretty much covers the entire Atlantic coast, and all different types of species that you can possibly imagine. Everything from phytoplankton all the way up through whale.

We also have a model intermediate complexity, the MICE Model, which is sort of a stripped-down version of the larger model that is focused in on the species that you guys care the most about. We also have a Virtual Assessment for the Description of Ecosystem Responses, VADER which we call for short, which Jay McNameee developed, and that is a multispecies statistical catch-at-age.

Getting into a little bit of our data. As you guys may remember from the last time, we have a number of predators and prey within our EwE MICE model, and those include for predators, bluefish, spiny dogfish, striped bass and weakfish. We also have for prey; we have Atlantic herring and Atlantic menhaden.

All of this is sort of based on the consumption ranking, what predators ate menhaden the most, and also about the availability of data sources, as well as the relevancy to ASMFC management. During this benchmark we took a look at some other species as candidates, one blue catfish. When we went and took a look at some of the data regarding blue catfish, what we found is that it didn't eat quite so much menhaden, and that its diet and its forage range was pretty restricted, right to the Chesapeake Bay and close environs like that.

We haven't really considered it for inclusion in any of our models this time, but as we move more towards spatial analysis, we may want to consider those in the future. The other one we considered was bluefin tuna, they can consume a lot of menhaden, particularly in the Gulf of Maine and off of North Carolina in the winter.

What we ended up doing is after taking a look at their migration patterns, and realizing that they spend considerable amount of time outside of the models, sort of domain, we decided to take bluefin tuna and to use those as sort of the highly migratory place holder than the NWACS-Full model. The other one we looked at was marine mammals, and for marine mammals, both the diet and abundance are pretty sparse, different when it comes to menhaden as forage.

We used a bunch of updated sources for the NWACS-Full model, but they were not included in the MICE model. We also took a look at osprey; it's a high-profile species but a lot of stakeholder interest. While there is some better data that has come along in recent years, it is still limited compared to what we have for fish consumption. While it was not included in the MICE Model, we did include it in the Full model as its own separate biomass pool. We also updated a lot of our single-species data that goes into our ERP models, and one of the chief changes has been with dogfish. Dogfish, as you might know, the last time around in gold during the 2020 benchmark. That model has since changed, and the picture for dogfish has also changed. Dogfish have actually been found to have increased versus the 2020 benchmark.

Without a lot of surprise, Atlantic herring hasn't had much of a change. There is not much change between the 2020 benchmark in gold and the 2025 benchmark this time in black. However, one thing to really notice is the fact that, you guys can see that, the stock overall has declined even further since our last benchmark. It has not rebounded at all, and so it is actually in a worse place.

As Caitlin was talking about earlier, there has been a change in menhaden biomass. As you can see during the last benchmark again in gold, and this benchmark now in black. The other things that go into our ERP models include diet data. We've got long-term monitoring programs for both the ChesMMAP, NEAMAP, as well as the Northeast Fishery Science Center food habits.

We also have some new modeling programs that have come online, including New Jersey and Rhode Island. Then we had a plethora of individual studies that we had coalesced and brought together into one complete database. These are all new studies that have happened since the last time that we spoke about ERPs.

I'm not going to go into all of this modeling updates, but suffice it to say, we've made a lot of changes to our models over time. When we went through and we examined the VADER Model, we started realizing that it was having some issues, in sort of capturing that bottom-up processes, which is so important for ERP development, and so we decided not to recommend that model in moving forward at this time.

The NWACS-Full Model does do those bottom-up processes. We put in some primary productivity forcing functions and a lot of other bells and whistles. But it is a big hairy model that requires a lot of time and effort to update on a regular basis. We're only recommending that as a supporting model.

As we talked about earlier, the NWACS-MICE model has gone through some changes as well, including seasonal timesteps, changes to Atlantic herring recruitment and lots of other things. This is the model that we're recommending for developing management advice. I put in this slide here, which is probably too busy, but that's okay.

It's just as good as a placeholder for me to talk about stuff. But what you can see when you look at, if you change menhaden's F on the X axis and you look at the Y axis and that is a percentage change in whatever population you're talking about, what you find is that the most sensitive species that we found for both the NWACS-Full and the NWACS-MICE is striped bass, nearshore vociferous birds and ospreys at about the same amount.

The idea is if you manage to striped bass in a precautionary manner, you know you ensure that those other species are taken care of as well. If you guys want to go back to the last time we were talking about all this stuff, and the idea of this rainbow plot. In this rainbow plot we have striped bass F here on the Y. Atlantic menhaden here on the X, with higher striped bass concentration at the lower left, and higher, I'm sorry, higher striped bass concentration here at the lower left, and the lowest concentrations up at the upper right, with the top line being the boundary for the threshold, and the lower line being the target.

What you can see is that there are many different combinations of striped bass F and menhaden F when done in the long term that can get you to your goal of striped bass, you know at its target or above. Higher menhaden Fs require therefore lower striped bass Fs and vice versa. Instead of doing this as sort of one thing, there is a whole horizon over which you can make the choice.

In 2023, the last time we had data for striped bass, because this is such a long process. Striped bass was pretty much here, as you can see, and if you fished striped bass at its 2023 F in the long term and menhaden at its 2023 F in the long term, all of the

things being equal, striped bass would settle in around its threshold now.

In 2024 it looks a little bit different. Striped bass has actually had its F actually reduced in 2024 versus 2023, and if you look at it here you can see if you fish striped bass continuously, at equilibrium is the catch phrase that we use, at its equilibrium and keep it that way, and menhaden F and you keep it that way at equilibrium.

Striped bass would settle in above its target. What you can do is you can define ERP target, basically for menhaden that allows striped bass to stay at their biomass target when striped bass are fished at their F target. The caveat being, all other species being equal or being at their 2023 value. That doesn't account for changes in spiny dogfish, it doesn't account for changes in Atlantic herring.

You can also define an ERP threshold, or that threshold for menhaden that keeps striped bass at its threshold when fished at its target. Based on what you guys did the last time; we have developed ERP reference points based on what you guys decided the last time around when we did this.

As you can see from 2025 versus 2020 there have been some changes. The F target for the ERP reference points has declined from 0.19 to 0.15, and the same with the threshold. When you look at this you can also calculate fecundity targets and thresholds, and those have also declined. Let's talk about some uncertainties associated with this.

The first is that the NWACS MICE Model is highly sensitive to the relationship between striped bass and spiny dogfish, particularly it's really vulnerabilities. As we've increased or recalibrated our expectation around spiny dogfish biomass you can see how that would have quite the effect. Other sources of uncertainty are probably stuff that you all have heard before, we need more diet data, particularly if we start talking about doing things in a more spatially explicit manner.

One thing to keep in mind is that these ecosystems models tend to be biomass based, and therefore, don't quite capture the recruitment variability that you would see with menhaden in general, and in particular any type of environmental forcing. There is also no spatial dynamics associated with this model, and in getting into that point is that this is an ERP tool that has been developed for coastwide species, not for individual regions within that coastwide unit stock. It is a coarse coastwide tool at this point.

What are our next steps? We're pretty well aware that ERPs are the high priority for the Board and for stakeholders, particularly spatially explicit ERPs. We're going to recommend a workshop with the Board to understand spatial management objectives that you all have, as well as to create a data plan and a modeling plan to get you those things that you want.

But to do so, we really need a workshop for us to sit down and talk about this stuff. Meanwhile, we'll continue playing with our Eco space models to support whatever future assessment spatial stuff that you guys want to have. One of the things that we also were recommending is that the next single-species benchmark be done before we start doing this spatial stuff.

We have heard from at least two peer review panels now; they also contain the same people. That trying to do an ERP Assessment along with a single-species assessment, to do those both together in a peer review is something that we should never do ever again. They were not real fans. The idea would be to sort of split this up into a single-species benchmark, and an ERP species benchmark. With that we can take questions or we can move on to the next thing.

CHAIR CLARK: Thanks, Matt, thank you very much for the very informative overview there.

PRESENTATION OF PEER REVIEW REPORT

CHAIR CLARK: We're going to go right on to the presentation of the Peer Review Report and we have Dr. Sarah Gaichas is going to do that remotely, correct? Okay, we are ready to go.

DR. SARAH GAICHAS: All right, thank you for taking this report. My name is Sarah Gaichas, and we'll just jump right in. I am here to tell you about the Peer Review that Matt was just talking about. As you've just heard, there was a working group that developed a new ERP assessment, and we held a peer review workshop back in August in Charleston, South Carolina.

At this review we looked at the data inputs, the analytical methods, the results and the overall quality of the ERP assessment. You have just seen a very short version of what we looked at. There is a SEDAR Stock Assessment and Review Report, and it is available at that link. I would just like to take this moment to really acknowledge everyone who worked on this.

It was a real excellent review, well supported by SEDAR, really appreciate the organization of the workshop, and also, I just have to say you have an excellent team that is developing the ERPs. They are a pleasure to work with, they are extremely responsive to all our requests, and I really appreciated working with them.

The Review Panel was myself, I am formerly of the National Marine Fisheries Service, Northeast Fisheries Science Center, but retired earlier this year, and am now Hydra Scientific LLC and my colleagues Daniel Howell of the Institute of Marine Research in Norway, and Yong Chen from Stonybrook University.

We are the CIE reviewers on this panel. The expertise across all three of us included stock assessment and integrated ecosystem assessment, marine fish ecology and population dynamics models, and multispecies and ecosystem models. As Matt mentioned, both Daniel and I were on the previous review panel back in 2019 for the 2020 review. Just a few words on scope, before I dive into the terms of reference for the review. As you've already heard, the ERP assessment was developed, reviewed and approved previously. The panel met in 2019 and was approved in 2020 for use. For this review we focused on whether the existing methods, the ERP methods and updated hybrid models were still appropriate, and any changes to the underlying models.

But we didn't go all the way back to square one, and fundamentally review every element of the ERP, since it has already been accepted and used. We evaluated the updates to the ERP models and the changes in the single-species assessment model for menhaden, mostly discussing the revision to the natural mortality value.

But we were not explicitly reviewing the menhaden assessment during this. As Matt just said, that is going to be done through a separate process. I want to emphasize we agreed with the decisions made to update the single-species model, but this review wasn't designed to "approve the menhaden single-species assessment model," since that has happened in another process.

Now I'll just go through in order our terms of reference for the review. Our first term of reference was to evaluate justification for inclusion or exclusion of assessment data in the ERP models. Overall, we felt that the use of the assessment data was well justified. It makes a lot of sense to use the best available information for each stock that has already been vetted in individual species assessments, and that is what was done here.

It is not only efficient, it also aligns the ERP models with the information that is currently used in management on the single-species level, so this is we thought exactly what you would want for this process. We also found the modifications from previous assessments to be well justified, so the menhaden natural mortality estimate M was thoroughly reevaluated and updated as was described a couple presentations ago.

Also, there was a change to the weakfish assessment information that was adjusted to reflect tagging mortality estimates that actually made the ERP model function more smoothly, and so all of these were well justified and made a lot of sense. One recommendation that the reviewers had on this term of reference was that there might be a way to further inform menhaden natural mortality in the future, if age data from surveys could be obtained.

Our second term of reference was to evaluate the thoroughness of data collection and the treatment of data. Because a lot of the single-species assessment inputs were already vetted in other processes, we were really focusing on the new datasets introduced for the ERPs. Again, we assumed that the vetted datasets that were selected in consultation with species assessment teams had already been through review in another place, and did represent the best available science.

We found that the diet data sources that were expanded and combined in a more systematic way was a real improvement to the way diet data was handled in these assessments, and gave probably a broader outlook on what diets were for the models. The new data analyses really improved the inputs for multiple unassessed model groups, that is in both NWACS-MICE and the NWACS-Full Models.

In particular there is some data poor groups that are really important in ecosystem models such as anchovies, benthic invertebrates, zooplankton, phytoplankton that were all improved in this model, so we felt that was really good, and also there were some examinations of temporal changes in spatial distribution for some of the stocks.

I think a recommendation coming out of this might be in the future a more comprehensive multispecies distribution analysis, where we could look at potential changes in predator and prey overlap, which might be important to the ERP models. Term of Reference 3 was to evaluate the choice of ERP methods and models and the model specifications.

We agreed with the proposal by the Working Group that the NWACS-MICE Model is the most appropriate ERP Model, given the available information and the objectives. It does include all the key managed fish predators of menhaden, and it does balance the appropriate predator/prey dynamics and model complexity to meet the objectives.

VADER, while it is a statistical multispecies catch-at-age model, does not yet include bottom-up prey effects on predators, which is very important to meeting your objectives, and the NWACS-Full Model does include the two-way coupling but is very complex, as Matt described already. For operational model updates it just would take probably too long and be too cumbersome, and in addition would require a lot more data that is probably lower spatial and temporal quality than what is going into the NWACS-MICE.

The NWACS-MICE also can include reasonable optimization methods and projections, to ensure the stocks are responding appropriately to fishing pressure. That would be extremely difficult in the larger model, but is something that is manageable in the MICE Model. We looked at the modeling process all the way through, it was extremely transparent and very well presented, and we endorsed the choice of the base case and sensitivity configurations for the NWACS-MICE Model.

We did have a number of recommendations on Term of Reference 3. One was to continue the investigation of uncertainty surrounding the spiny dogfish predation. As you saw from what Matt just presented, the change in spiny dogfish assessment really changed the perception of the stock, and that feeds into the ERP model, and so that makes them a much more influential predator than they were the last time around, so there is some more work that can be done on that.

For future ERP assessments, it would be highly recommended to have a suite of plausible model

configurations that would be variants from the base case run. That way one could look at the uncertainty around the base case. I think in the current assessment it takes a very long time to get to the base case, given how long it takes to develop these models.

That type of sensitivity analysis wasn't possible to do. But one could look at the impacts of uncertainty in that way in the future, given a bit more time. The other recommendation was to align the methods for NWACS-MICE and NWACS-Full in future assessments to the extent possible. If both models were fit to the same indices and used similar optimization methods, especially saying MICE was the starting point for the Full model. Then you could have more direct comparisons across the two models. As it was, they already provided these Full comparisons. Both identified striped bass as the most responsive predator to menhaden, for instance. But there could be other more direct comparisons done, given alignment of methods. Term of Reference 4 was to evaluate the methods used to estimate the reference points and total catch, and our conclusions here similar to the conclusions the last time these methods were reviewed is that the methods are sound.

These are basically the same approved methods that were used in 2020. The hybrid approach estimates the reference points with NWACS-MICE model, so that includes all of the key predators and also alternative prey to menhaden, and then uses the single-species menhaden assessment for the projections.

That way you can include in the menhaden assessment projections uncertainty in both natural mortality and fecundity to generate the probabilities of being within the F and fecundity targets or limits for a given total allowable catch. The Review Panel felt this was an appropriate way to evaluate tradeoffs, given the objectives and the risk tolerance of you, the Management Board.

For Term of Reference 5, we were to evaluate the diagnostic analyses performed for each model, and I have to say they were very thorough and they were appropriate for each model type, even though each model type does have different diagnostics. We saw quite a bit of model sensitivities to the change in natural mortality, both from the 2022 to the 2025 M and then also with the lower M sensitivity.

There was a lot of exploration of that, it was very enlightening and useful to the reviewers, and the sensitivity in NWACS-MICE was explored, mainly to the predator/prey interaction parameters during calibration. There was an initial sensitivity for the base-case run, which is the tiny little plots over there that you can't read.

But these were both really valuable things to do, and it helped us understand how the models were working, and helped us be more sure about our recommendations, so we really appreciated the work that was done on this. I think our recommendations were to expand the future assessment timeline, so that the NWACS-MICE base case can have more sensitivity analysis done, in particular the input assessment values.

Not just natural mortality, and not just for menhaden, but for all of the key species, as well as the input biomass and input Fs. Also, sensitivity to data weighting during calibration to prey switching parameters and to other predator/prey interaction parameters would be really important, and that would be enlightening, but will also take some time.

Term of Reference 6 was to evaluate methods to characterize and communicate uncertainty. Again, we found the methods were appropriate, given the time and software constraints. The menhaden assessment model incorporates uncertainty in both natural mortality and fecundity, and these two were found in the last round to be the most, basically sensitive parameters.

They basically swamped out the uncertainty from all the other parameters, so that was the focus this time. This allows us to carry those uncertainties into the projections, and those uncertainties are

then communicated as probabilities relative to the ERPs, so that makes a lot of sense. The NWACS-MICE model focused on these key predator/prey interaction parameters, and looked at the implications for the striped bass productivity in the ERPs, which again brought the uncertainty all the way through into what the implications would be for management.

These were very appropriate. The recommendations here were that the menhaden assessment could consider a broader range of M uncertainties in the future, and as well a suite of plausible NWACS-MICE models as was said in several other TORs, would be really helpful for uncertainty analysis for that model.

Term of Reference 7 was just a minority report, so there wasn't one, so that was quick. Now we're on Term of Reference 8, which is to recommend the best menhaden biomass and status estimation methods. One again we do endorse the use of the menhaden single-species model to estimate the menhaden biomass abundance and exploitation rates, and we endorse the use of the ERPs arising from the NWACS-MICE model to evaluate the menhaden stock status.

That would then, of course, be done with the menhaden single-species model. This is the same methodology that was approved before, and we really thought it provides an appropriate tool for managers to select from a range of fishing levels, given goals for striped bass and menhaden fisheries and risk tolerance. It's again, not just striped bass and menhaden, that's in the ERPs, but the model is also still including the other interactions.

Term of Reference 9 was to look at the research recommendations and prioritize them. We supported the research recommendations that were brought forward by the ERP Team, and the priorities from the reviewer's standpoint were to continue and expand the collection of population, life history and diet data across all the ecosystem components, that includes menhaden, as was mention before, but also many other species.

We also really want to echo the recommendation to determine and agree on clear objectives for any spatially explicit ERPs with managers and stakeholders together, prior to any spatial model development. Spatial models can go in a lot of directions, and I think having those clear objectives will make everything much more efficient in moving on to that next step.

Finally, to allocate adequate time, after the single-species assessments are finished for the ERP model updates, calibration and base-case selection, and then to be able to proceed to that full uncertainty analysis. Again, same recommendation is that NWACS-MICE plausible model suite that could come from the base case to assess uncertainties.

We're almost there, Term of Reference 10 is to recommend the timing of the future ERP assessment. As Matt already said, the reviewers are fully onboard with continuing asynchronous benchmarks for the menhaden single-species assessment and the ERP assessment. I think this gave us enough time to really focus on the ERP model this time, and dig into it a bit more, which was very helpful.

The recreational fishery data recalibration timeline is going to affect many stock assessments that are involved in the ERP models, and so that is going to be a consideration for the timing of the next ERP assessment. Then once those individual assessments are complete, updating the ERP models is going to take some more time to include the sensitivity analysis. Our estimate would be that the ERP benchmark should be at least a year after the key single species assessments are finalized and that information is available for the ERP team.

To conclude here, the Review found that the ERP assessment provides you all with a scientifically sound framework for evaluating ecosystem tradeoffs in menhaden management. This continues to advance ecosystem-based fishery management, considering the dual role of Atlantic

menhaden, as both harvested species and part of the forage base for managed predators.

This ERP assessment remains one of very few cases and examples globally, where there is operational EBFM, given that it has actionable advice for menhaden management, so it is still a real sign of leadership in this area, and it does enable informed decision making about acceptable risk levels.

It's not prescribing a particular number, but it gives you a tool to figure out where you want to be in that space. Finally, it will require some updates after the MRIP recalibration, and probably to 2028 or later for the next full ERP benchmark. I believe that is everything I've got; next slide should be a question slide. Thank you, very much.

CHAIR CLARK: Thank you, Dr. Gaichas. Thanks to our presenters for these excellent presentations and many thanks to all who worked on this, truly impressive work here to bring us these assessments of the menhaden population. I'm sure there are a lot of questions, so let me see some hands here, and keep them up. Let's get started then. We'll go first to Doug Grout and then to Nicole Costa, thank you.

MR. DOUGLAS E. GROUT: Thank you very much for a very informative assessment and Peer Review. My question is, we have clearly had a lowering of the abundance levels, comparing the 2022 assessment compared to this. I am looking for from any of the experts up there a layman's explanation of what the driving factors for that was, so that I can explain to my constituents why there is such a huge difference.

I mean some of the potential quotas that are being thrown are lower than we've ever had. Are there two or three? Is it the natural mortality change? Is it some new abundance indices in current years? Can you give me just the layman's term, what are the two or three big things that are driving this?

CHAIR CLARK: Who wants to take that one on? Looks like Katie.

DR. KATIE DREW: Yes, the big driver of the change is the natural mortality estimate. This can be unintuitive, but basically in these types of models, these statistical catch at age models, when you use a lower natural mortality, it results in a lower population size coming out of the model. What the model is doing is it is looking at things like our trends in abundance.

It's looking at the age structure of the catch, it's looking at the length structure of the indices, and it's trying to figure out, given the catch that we see and the trends that we see, how many menhaden had to be out there in the population to get the amount of catch that we saw and the trends that we saw? Then you give it information on natural mortality, that is we know how many are dying because of the fishery, and we think this percent are dying because of natural mortality. When you combine all of that you get an estimate of the population size.

If the only thing you change is that natural mortality, what you're saying is, actually from year to year fewer of them die from natural causes than we thought. If we're saying, let's do a real simple example here of, we go out and we do our survey and we get 50 fish per tow in this survey. The fishery goes out and catches 1,000 metric tons of the population.

Next year we go out and we do the survey and we only get 25 fish per metric ton, so we know basically the population just went down by half when you took out 1,000 metric ton. We can say, okay, there has to be at least 2,000 metric tons of the population in there, because we took out 1,000 pounds and the population went down by half.

Now we can say, okay, but we think the natural mortality rate means that 100 metric tons got lost due to natural mortality, so 10 percent of the

population died because of natural mortality. We went from we're going to scale that 2,000 up to 220,000 fish were out there. But if we come back and we're like, whoops, actually we were wrong. Only 5% of them died because of natural mortality.

That means we took the same number out of the population and the population went down the same amount, but the number that we thought died due to natural mortality was smaller. That means there has to be less of them out there to see the same trends in the population. I don't know if this is helpful or not.

Maybe it's helpful to think about it the other way, which is basically, if we're saying we're killing a lot more than due to natural mortality, but we're still able to take out thousands of metric tons of catch and the population is changing a little bit, but not dramatically. If a lot of them are dying due to natural mortality, that means there has to be a lot of them there to support the fishery.

If less of them are dying due to natural mortality, and we're still seeing that same fishery, those same trends. That means the population has to be smaller. What is happening with this assessment is we've changed that estimate of natural mortality. We overestimated natural mortality. We thought way more of them were dying due to natural causes than the data actually say they should be.

More of them are surviving, that means the population is smaller, in order to see the same trend that we see in the catch, that we see in the indices. That is basically what happens. We scaled that population down, and so sort of the overall change is that with this new lower natural mortality rate we're estimating that the time-series average of biomass is about 30% lower, compared to where it was in the last assessment.

There is also a little bit of an artifact of, I think Caitlin pointed this out, is during the last assessment update we thought the 2019- and 2020-year classes were going to be really strong. Those were like the last two-year classes we saw at the end of the time series. We thought they were going to be really strong. When we did the update, they did not show up as very strong. They showed up as maybe sort of average compared to recent years. As a result, the quota that we vet in 2022 was based on a higher total abundance in the population at the end of the time series than we realized was actually there in the population at the time.

CHAIR CLARK: Thanks, Katie. Doug, did you have any follow up after that very thorough explanation?

MR. GROUT: A 20% decline in M resulted in a 50% or a 30% decline in total biomass.

DR. DREW: In total biomass. The tagging estimate that was sort of that Age 1.5 was 20% lower. It basically shifts the natural mortality, that whole curve down so its lower on all of the ages, and yes, results in an average of about a 30% decline.

MR. GROUT: The additional lower quotas are due to the fact that those year classes that we thought were strong, if you remember the last assessment, with additional data over the years are not as strong as they were. Okay.

CHAIR CLARK: Thanks, next up we have Nicole Costa.

DR. CIERI: I was just going to add that we told you about the uncertainty associated when you guys were setting the quotas the last time. We told you that we were most uncertain about those two most recent year classes. We let you know about that uncertainty at the time.

CHAIR CLARK: Thanks, Matt. Next up, Nicole Costa.

MS. NICOLE COSTA: Thank you to everyone for the very thorough, informative presentations and all the work that went into this. My question actually is pretty in line with Doug's question, and so as a

follow up. I know the focus has been on natural mortality and the changes to the single-species assessment.

But it also seems like an ERP model, the changes with spiny dogfish, particularly the increase in biomass from the changes in the area swept method to the new stock synthesis model, as well as a higher predation of spiny dogfish on Atlantic menhaden. Could you also hypothesize that that was partially responsible for the reduction in the TACs?

I was also curious about the higher predation of spiny dogfish on Atlantic menhaden. Is that strictly an artifact of the increase in biomass of spiny dogfish, or is it potentially related to the reduction that we've seen in the herring fishery and the herring biomass, or is it a combination of factors, perhaps including the new diet data sources?

DR. CIERI: The short answer is yes. All of the above; we've made some significant changes to the model. You know including changes in the vulnerability. The vulnerability sort of captured that relationship between spiny dogfish, striped bass, menhaden and herring. With that coupled within the seasonal forcing function has significantly changed how the model's function. That is the reason we went to Peer Review. If we were just recycling the stuff we did last time, we wouldn't need a Peer Review. We significantly changed a lot of those relationships, as well as like I said, putting in seasonal forcing functions, putting in things like primary productivity forcing functions. The answer is, it's a completely new model in that regard.

DR. DREW: To add on. It's hard to separate out what's causing what from that. But I would also say that the lower menhaden biomass in the ocean is then carrying through to the ecosystem models that there is also taking the fishing mortality pressure on menhaden if there is less of them out there, than has like a bigger impact on the predator populations. Because there is less menhaden to go around for everybody. That also contributed to some of the lower reference points that we're seeing. But it was in combination with all of the other changes to the data and the model structure.

CHAIR CLARK: Are you good with that, Nicole. Matt still has a follow up and then you go.

DR. CIERI: In addition to the fact that Atlantic herring has remained low, it has actually gotten further lower, actually, and so all those things combined it's hard to tease out what the differences really are.

MS. COSTA: Thank you, Mr. Chair, for a quick follow up. I think it's safe to say from your initial response to Doug, that yes, natural mortality is the biggest driver here. But it sounds like spiny dogfish and those changes in the predator/pretty dynamics and the scaling up of the biomass is also potentially a significant factor here as well.

DR. DREW: Those changes affected the reference points, so it's going from, for example. 0.19 for the target to 0.15 for the target. Yes, the reference points are lower as well. I think that probably the scale change from the M is the biggest drivers, but for sure if we were using the exact same reference points a higher F target and a higher F threshold would also give you somewhat higher quotas. We didn't redo the calculations with those, but there is an impact of that change in the reference points themselves on the quotas.

CHAIR CLARK: We have another question from Rob LaFrance.

MR. ROB LaFRANCE: Again, thank you all for great presentations. During the presentations you mentioned the concept of doing a workshop with the Board on various issues. How do we go about doing that and what is the timescale of that?

DR. CIERI: Yes, the idea would be to sort of reproduce what happened during the e-mail workshop back, like I want to say, was that a decade ago, really? Basically, just to get everybody in the

room, lock the door, throw away the key until we can come to some sort of resolution from what you guys want to see, as far as spatial management. What we can provide with the data we have in hand, what we need to go out and get, and then how amongst ourselves, how we're going to go about doing this.

MR. LaFRANCE: That is sort of exactly what I've been asking for, so thank you for raising it. Hopefully I am very happy to help in any way I can on it.

CHAIR CLARK: Thanks, Rob, questions? Okay, I see Lynn and then Allison. Lynn Fegley, Allison Colden.

MS. LYNN FEGLEY: Thank you to all the team parts of what is again an impressive body of work. I wanted to ask a little bit about the recruitment, the '22 and '23 juvenile recruitment that, I think the comment was you were sort of expecting to see that strong year class and it didn't show up. I know we have been seeing a lot of juvenile recruit menhaden in Maryland. Our '22 seine survey was a fairly high number, and I'm wondering if you can talk a little bit about what you think washed that out. Why didn't you see what you expected?

DR. DREW: I think that was an artifact of the retrospective pattern that we had during the '22 assessment update, and so that may have been related to overestimating natural mortality in that assessment. But we saw something similar with the benchmark, where we thought there would be a year class, two strong year classes at the end of the time series, like very strong, much stronger than anything around it.

That didn't materialize in the 2022 update. We saw something, you know the two strong year classes, and they didn't materialize in the update. I think recruitment has been picking up a little bit in recent years, but not to the extent that it caused that extreme jump, where we were basically above our target at the end of that update, and we were clearly at that point overestimating what that recruitment was.

CHAIR CLARK: You okay, Lynn? Okay, go right ahead, Allison.

DR. ALLISON COLDEN: This is actually just a quick follow up question to Rob's question related to the spatially explicit modeling, and appreciate the group for continuing to keep this at the forefront of your conversations and discussions. Obviously, for Maryland and the Bay we have some later discussions today, and obviously that is something that we hope we can eventually get to a place where it can move forward.

In that vein, there was a request of the Technical Committee a few years ago to basically define given existing information, as well as future information. What would be the potential approaches for spatially explicit management in Chesapeake Bay. I know at the time, you know feedback from the Board, which I believe our delegation supported as well, is that we wanted to focus on continuing to improve and develop the coastwide ERP model.

Do you all feel with this iteration of the ERP assessment that you have achieved some of those goals that you had for improving the model, and that you are comfortable at this point continuing down that conversation of further direction on spatially explicit modeling in the next iteration of the ERP assessment.

DR. DREW: Yes. I think we accomplished a lot of what we wanted to sort of in the short term with the ERPs that we have this time around, which includes sort of including a seasonal component to it, which can capture some of the spatial dynamics, but also improvements to the diet data, improvements to the other assessment models, et cetera. I think we had said, you could basically either choose, push back the benchmark in order to get the spatial stuff done, or do the benchmark now and then move on to the spatial stuff at a further point, among some other choices.

Yes, I think continuing down the spatial path is sort of the next logical step for what we have accomplished. I think we've already started talking internally about what are some things we could do on that front. But we would need input from the Board and from stakeholders about what are our objectives, what should we be focusing on, so that when we come back with a spatial approach it will address what management really wants from that context.

CHAIR CLARK: Do we have any more questions? Look around, Jeff Kaelin.

MR. KAELIN: I guess this question is for Sarah, because I was taking notes on some of the slides she showed, and there was a statement about the EwE models not capturing highly variable recruitment, which is exactly the situation with Atlantic menhaden. It seems to me that the output from the EwE model is extremely conservative, and doesn't really consider recruitment effectively. That's one question and then I have a follow up after an answer on that.

DR. GAICHAS: Sure, I can try to take that, and I'm sure Matt could cover it as well. The EwE model is not doing age-structured dynamics the same way that a single-species assessment model does. That is exactly why you can get the general trends out of this model, but you won't get the interannual variation for any of the species, really, because it's just not modeling incoming recruitment on an annual basis.

I think that's why the Review Panel thought it was appropriate to use the EwE to generate the reference points, but then if you're doing any projections, you still want to capture that interannual variability using the single-species menhaden assessment model. Does that help?

MR. KAELIN: Yes, it does, and that's why I think the BAM model is the most robust model that we have here. The other question I have is, you know the projections from the ERP model assumes striped bass at its target, but in fact it is overfished. What does that mean relative to the ERP outputs? Is that fact factored in, in terms of the actual demand for menhaden that the model thinks would be the case if they were fished at their target rather than being overfished.

DR. GAICHAS: I think I can try that, but Matt can also jump in. What you're seeing here on the screen is actually the F levels for both menhaden and striped bass are projected across a whole range here. What each one is fished at is in this mix somewhere, but the simulation is looking across the entire range of them, and that's how you get the big two-dimensional colored plot.

That's why even if what is currently happening is an F of a different level, you can still use this plot to say, if we were fishing at the F target for whatever predator species, you can draw that line over and find out what level of fishing mortality on menhaden would support that. Maybe Matt can explain it better, but I think all of the F levels are covered in this.

DR. CIERI: I'll take a whack at this too. Sarah is exactly right. It's baked into the cake. You know and the facts that in looking backwards, and as we project forward. If you look from this graph. If you look directly on that Y axis, it's like you choose your own adventure. You choose where you want striped bass to be, and then you can follow along from there to get you whatever menhaden F is appropriate for that level of striped bass target.

One of the things to sort of keep in mind is the idea of keeping those things as congruent, to not choose a menhaden level that is inappropriate for whatever striped bass level you've chosen and vice versa. On some level this will tie into whatever conversations that you all will have tomorrow, about where you want striped bass to be, keeping in mind the decisions that you make today with menhaden. Does that make sense?

MR. KAELIN: It does. It seems to me it's kind of the cart before the horse though, and choosing your own adventure makes me extremely uncomfortable. It always has, from five years ago

with this rainbow plot, which is so nonspecific to the actual situation that we have now, relative to menhaden abundance versus the F rate for striped bass. I can't tell from this chart.

DR. CIERI: One of the things to keep in mind, Jeff is that this is at equilibrium, which means that you've got to keep your striped bass F or your menhaden F at those levels over the long term. This isn't short term sort of decision making. That is why ERPs are designed to be your reference points, not your stock status determination criteria. Does that make sense? Although Katie has probably got a better explanation than I do.

DR. DREW: I think it is sort of, I would say a weakness of this approach, which is that the ERP models are really good about your long-term ecosystem interactions, and so understanding what are the long-term consequences of how you fish menhaden versus how you fish predators, et cetera.

The single-species assessment like the striped bass assessment and the BAM are really good about sort of your short term, what's going to happen in the next few years and your longer, historical what happened in the past. But they can't tell you anything about what's the right menhaden level. You know what does this menhaden F mean for striped bass this year?

I think there is a little bit of a disconnect between your long-term reference points and your short-term immediate conditions, which is what we see even in the single-species model, right. To try to get striped bass back to their SSB target, we actually have to fish them at below their F target, we have to fish them at the F rebuild, in order to take into account recent below year classes, and the fact that we have a deadline of 2029.

Your F rebuild can be different than your F target. In this multispecies context we can sort of look at, where are we now? For striped bass we are a little bit below the threshold. We're projected to be above the threshold in the next, maybe this year maybe next year, so we're around the striped bass threshold.

The ERP fecundity threshold is designed to keep striped bass at their biomass threshold, to provide enough forage for striped bass when they are at their biomass threshold if they are fished at their F target. Right now, for menhaden we are a little bit above that fecundity threshold. That suggests that there is currently enough menhaden to sustain striped bass where they are right now.

However, we are trying to rebuild striped bass. The fishing mortality on striped bass is lower in 2024 and probably 2025, below that F target, so that is going to help striped bass. Basically, we're still trying to rebuild that striped bass to their target, which would need a lower menhaden F rate. We would need to keep menhaden at that F target in the long term, once striped bass are rebuilt.

I think what the Board has to decide, when we get to the projection is, right now in sort of 2023, 2024 where we think we are for menhaden is sufficient for where we think striped bass are now. However, we know in the future we want those to be in different places. How fast are you going to respond to this assessment, and how risky do you want to be about making those changes in response tot the assessment that we see today?

The ERPs, as we're saying are not good. The ERP can't tell you if we want to rebuild striped bass by 2029, what quota should we have every year from here to 2029? The models just are not well designed for that. We have to kind of think about what is the menhaden population going to look like under these different F rates, what levels of TAC are going to give you different fishing mortality rates for menhaden, and then what are we trying to do for striped bass?

MR. KAELIN: Thank you for that, and I think that is one of the reasons why I have been skeptical of the ERP output. The Board is considering setting specs for the next three years. The ERP model is telling us where we ought to be if striped bass are rebuilt in

2029 and so forth. I just think the BAM model is so much easier to understand, in terms of where we are.

CHAIR CLARK: Hey Jeff, you're starting to get into comments now, we still have some other questions here.

MR. KAELIN: I'm sorry.

CHAIR CLARK: No, that's fine, that was an excellent question. I just wanted to be clear. We have a question online from Kelly Denit from NOAA Fisheries. Go right ahead, Kelly.

MS. KELLY DENIT: Thanks for all the presenters. For obvious reasons I don't have access to my experts, so apologies for what I think is perhaps a pretty basic question, and I think it builds a little bit on what Katie was just describing. The way I have understood the ERP model outputs is that that is incorporating those different predator/prey dynamics.

I am trying to understand best the forage availability component of this. In my layman's brain of this on the last couple exchanges in the discussion of this rainbow plot. What I think I've understood is some of it depends on ultimately where we decide the respective Fs need to be. But if we are in between these two solid black lines that are up there right now, that is at least in theory, providing adequate storage for striped bass and other predators, and that can move on a continuum, right? Depending on where we want those other predators to be. Is that a really simple way to try to talk through this in my head, or is that completely off base?

DR. CIERI: No, it's about right, but one of the things to keep in mind is if you expect to have striped bass near its target, you are going to have to have the menhaden to back it up. That is one of the things to keep in mind is that this is also a bottom-up process, and that you'll find it easy to rebuild striped bass if you have enough menhaden in the system.

MS. DENIT: Okay, thank you, and then maybe just one quick follow up. I think Matt, it was on your first uncertainty slide from your presentation. It went by really quickly, but I thought I saw something on that slide that specified that even with no menhaden catch those spiny dogfish predations would overwhelm that system of trying to take it over.

I'm not sure I completely captured that. I was trying to read and listen to you at the same time. Again, I think that was your first slide on uncertainty. If you could speak to that a little bit or clarify that for me that would be helpful.

DR. CIERI: Yeah. Basically, it's the small changes in the vulnerability parameters that the model is sensitive to. The vulnerability parameters are what we sort of use to estimate the relationship between striped bass, menhaden and Atlantic herring and a lot of other things. Striped bass are more vulnerable to spiny dogfish predation.

If you tweak it one way you never get striped bass to rebuild, and if you tweak it the other way you can rebuild it and take all the menhaden you want. What we're sort of stressing is, is the sensitivity of that model to those vulnerability parameters. That is the uncertainty. Does that make sense? I'm hoping.

CHAIR CLARK: Kelly, did that answer your question?

MS. DENIT: It did, thank you so much, sorry the mouse slipped away from the button and it took me a second to re-corral it. Thank you.

CHAIR CLARK: No problem, Kelly, thank you. Any further questions? If anybody is in the back with their hand raised, please wave it, because man, that's far away. Okay. Not seeing any more questions. Oh, wait, do we have another one online? Not seeing any more questions from the Board, why don't we finish up this item and then take a break.

CONSIDER ACCEPTANCE OF 2025 STOCK ASSESSMENTS AND PEER REVIEW REPORT FOR MANAGEMENT USE

CHAIR CLARK: What we need to do next after that great discussion there is consider acceptance of the 2025 stock assessments and peer review report for management use. Okay, we have a drafted motion here. Who would like to make that motion? Doug Grout.

MR. GROUT: Move to accept the Ecological Reference Points Benchmark Assessment and Peer Review Reports for management use.

CHAIR CLARK: Who would like to second that? I have Ray Kane. Okay, Doug, looks like you've got to read it again because we added the year.

MR. GROUT: Take 2. **Move to accept the 2025 Ecological Reference Points Benchmark Stock Assessment and Peer Review Reports for management use.**

CHAIR CLARK: Any discussion of the motion? Ray Kane was the seconder. I'm not seeing any hands for discussion. Let's see if we can do this the easy way**. Is there any objection to the motion? Not seeing any then, the motion is approved and the assessments are accepted for management use.**

CONSIDER MANAGEMENT RESPONSE

CHAIR CLARK: Next, we're considering management response if necessary.

I'm seeing this is kind of tied into Number 5 here, which is to set the specs for the '26 to '28 fishing year. Before we get to that, unless there is something somebody wants to say right now about the management response. Otherwise, I think I would like to tie this one in with Number 5, and we just take a break before we do that. What says the Board? Okay, I like the way you think, Dennis. Let's take a ten-minute break and we'll be back here at 3:10.

SET SPECIFICATIONS FOR THE 2026-2028 FISHING YEARS

CHAIR CLARK: Okay, we are getting started again and we are moving on to Agenda Item Number 5, which would be the really quick topic of setting the specifications for the 2026 to 2028 fishing years. First, we have a presentation from Caitlin Craig about it.

MS. CRAIG: This next presentation will be the Stock Projections to Inform 2026 through 2028, Total Allowable Catch levels. The coastwide TAC has typically been set at an annual or multiyear level, based on the Board action. The Board has used the best available science, such as historically or more recently been a projection analysis that uses the data from the most recent accepted stock assessment model.

In setting a TAC the Board should consider what level of risk they are willing to accept, and to note if the Board is unable to approve a TAC for the subsequent fishing year by December 31st of the current year, the TAC for the subsequent year will be set at the current year's TAC. Here is just a list of the TAC since 2013, with the most recent one being 232,550 metric tons.

At the spring meeting the Board requested that the projections include the TACs associated with a 40 to 60% probability of exceeding the ERP target for 2026 through 2028 combined in their separate years, and then the percent risk of exceeding the ERP target and threshold for 9 different TACS ranging from negative 20% to positive 20% of the current TAC and going in 5% increments.

Monte Carlo Bootstrap runs were used to feed the projections and the natural mortality and fecundity at age were resampled from the uncertainty around those parameters, and the BAM is refit using those new values. This creates a distribution of results, including estimates of recruitment for the time series and population size at the start of 2024.

This graph just shows the uncertainty around the Age 1+ biomass that came out of the Monte Carlo

Bootstrap Analysis. Recruitment for 2024 through 2028 was predicted from a nonlinear time series analysis for each MCB run, and this has better predictive power than just using the time series median. Again, this figure just compares to nonlinear time series predictions of recruitment, which are shown with the green line to their recruitment predicted by the base model run, which are the black line with the points and it shows that it's able to track increases and decreases in recruitment fairly well.

There are a few different scenarios that we run, so assumed the catch in 2024 and 2025 would be equal to the current TAC, which is 233,550 metric tons, and then some sensitivities were run, the first one being the 2024 catch is equal to the realized catch. Then the 2025, it equaled to what the 2025 TAC was set at, and the additional run was the 2024 catch is equal to the realized catch.

But then the 2025 was equal to 80% of the TAC, and that 80% came based on the recent TAC utilization. These runs were to identify the TAC that would have a 40% to 60% probability of exceeding the ERP F target, and runs to calculate the probability of exceeding the ERP F target and threshold from the TAC ranging from a 20% decrease to a 20% increase from the current TAC.

There are a few figures that we're going to show of the results to help rigorize the trends, one of them being the status quo, with a TAC that has a 50% probability of exceeding the ERP F target and then the 20% increase in the TAC. This covers a range of scenarios; scenario runs that were requested by the Board, and after they go through some of these graphs, we'll present the table results of all the scenarios.

These figures are the type of figure that has been shown to the Board before. The blue line represents the target, and the orange line represents the threshold for fecundity which is in the top left, and then fishing mortality F at the bottom left. The dashed black line in the center represents the median or the 50th percentile of the results, and the dotted black lines are the 25th and the 75th percentiles, with the solid black line representing the 5th and 95th percentile.

For the first scenario with the status quo cap, there is 100% probability of being above the F target and a 4% chance of exceeding the F threshold by 2028. There is a 50% probability of being below the fecundity target and an 8% chance of being below the fecundity threshold. The next scenario is the 50% probability of exceeding the F target. The TAC for this for 2024 through 2028 would be 108,450 metric tons to 124,800 metric tons, and this is a 50% probability of exceeding the ERP F target and a 0% probability of exceeding the F threshold.

The third scenario would be a 20% increase in the current TAC. If landings increased for 2026 through 2028, the probability of being above the F threshold increases, and fecundity declines by 2028. More specifically, there would be 100% probability of being above the ERP F target and a 32% probability of being above the ERP F threshold in 2028, and then there would be a 66% probability of being below the fecundity target and a 13% probability of being below the fecundity threshold.

Here is the table with some of the TACs, so the TACS are 2026 through 2028. If all three years are the same, you would pick the TAC that would result in no more than X percent probability of exceeding the F target in any year. For this it is the lowest TAC that would be out of the three years. The 50% probability that I went over with one of the scenarios for the previous figures is bolded to reference, and it can just be seen in the middle of the table. Here are more results from the table format to the status for the TAC and the 20% increase, again from the scenarios that we reviewed are shown, they are bolded to reference with the current one being in the middle and the 20% increase at the bottom, at 280,260 metric tons.

Using a lower landing estimate for 2024 and 2025 did not have a significant impact on the TAC. You can see that there is some change but it's pretty

minimal. This is because the fishery primarily captured ages 2 through 4, so the fish that were vulnerable to the fishery in 2024 and 2025 will contribute minimally to the exploitable population by 2028.

This tier results show the 50% probability of exceeding F target scenario just as an example, but the results were similar across other probabilities and percent changes to the TAC. The usual sources of uncertainty for the single species assessment models were here as well, so these included some uncertainty around key parameters like M, fecundity, and recruitment.

They are included, but this approach doesn't capture the full range of potential uncertainty. The projections assume no change in fishing effort, no changes to the timing or makeup of the fishery, and no structural model uncertainty as in the projections. While a retrospective pattern is present, it was not significant enough to warrant an adjustment.

Matt has kind of gone over ERP source of uncertainty, but here is a bit more on that. The projections do not incorporate any uncertainty around the ERP target and threshold values, because there is not currently a comprehensive quantitative way to estimate that uncertainty within the current model framework.

As noted earlier, better quantification of uncertainty around the reference points themselves was a recommendation from the 2025 Peer Review Panel. The ERP model is sensitive to the relationship between spiny dogfish and striped bass, and small changes in parameters of that relationship affected striped bass ability to rebuild to their biomass target under different combinations of striped bass and menhaden F rates.

But in some scenarios, striped bass can rebuild above the SSB target, even under higher levels of menhaden F, but then another sensitivity run resulted in a lower ERP F target when some assumptions about spiny dogfish biomass in this ecosystem were changed. Then additionally, there is some uncertainty about future ecosystem conditions, so ERPs are currently defined based on the current, which is the 2023 population level for other species in the ERP models, but if those conditions change in the future, it would affect the ERP values.

For example, a sensitivity run where herring returned to their long-term average productivity levels resulted in a higher ERP F target for menhaden, and that is because there was more herring in the ecosystem that would be able to provide forage for striped bass. The results of this reflect the current definition of the ERPs.

But if the Board redefine the ERP target and threshold, for example, using different assumptions about the biomass levels of other species in the ecosystem, either in the future or about striped bass fishing mortality in the future, the values of the reference points and the associated TACs could change. I believe that is it.

CHAIR CLARK: Thank you, Caitlin, for that very informative presentation about the decisions we have facing us right now. Before we go to that, are there questions for Caitlin about the TACs she just presented? Megan Ware.

MS. MEGAN WARE: Obviously there has been a lot of discussion on the target information coming out of this for fishing mortality. I was actually hoping for a little bit of explanation on some of the fecundity results in the projection memo. For example, whether we do a 20% increase or decrease, it will probably be at the same probability of being at the fecundity target.

I was hoping someone could talk about that a little bit. Then it looked like we were a little bit closer to our target in the projection memo than in the assessment we were a little bit closer to the threshold, so just curious for the change there.

DR. DREW: I'll take that second question first, which is why we're closer to the threshold in 2023, and then for the projected year we're closer to the

target for the fecundity. That is a function of the fact that number one, the end of the assessment is 2023, and then we are predicting a little bit of an uptick in the biomass in 2024, and we are also sort of the uncertainty envelope around that we're using to start the projections for 2024 forward.

The median of those projections is a little higher than the natural likelihood estimates from the assessment itself. It's basically where we end in 2023, according to the single-species model, is a little lower than where we're starting for 2024, and that is enough to get you back to the fecundity target, especially as a couple more, because we're seeing a little bit of an uptick in recruitment, and those stronger year classes are moving into the fecundity at that point.

By the time we get to '25, '26, sorry by the time we're getting to these projected years. We are starting out a little closer, a little better shape than we were at the end of the 2023 assessment in the projection. Then I think your second question was about the fecundity and why the probabilities are different for the, sorry, can you repeat that question?

MS. WARE: Absolutely. I was looking at Table 5, and it was a 52% probability of going below the fecundity target, just over a 40% TAC range.

DR. DREW: That is mainly because by the time we get out to these numbers of uncertainty around sort of fecundity is encompassing a large range of numbers. The numbers of runs above that versus the number of runs below that, which is what we're trying to complete about that probability is centering around is the uncertainty and recruitment and natural mortality of fecundity is sort of rolling into large uncertainty that is less affected by the central tendency of the constant F that we're using.

It's really more of a reflection of our uncertainty about what fecundity is going to be like in those future years. I think you probably noticed we have tighter confidence intervals on the F rate, and so although the uncertainty extends around that as you get further out, it doesn't have the same range of starting uncertainty that the fecundity does. I think essentially, we're more uncertain, at least in these projections about future fecundity than we are about future F rates.

CHAIR CLARK: Are you good, Megan? Okay, any other questions? Nichola Meserve.

MS. NICHOLA MESERVE: Regarding the sensitivity analyses with the different assumptions about past utilization in 2024 and 2025. I was just wondering if we have any further information, this might be a question for James or to TAC utilization in 2025 on a coastwide basis. I know in Massachusetts and other New England states have utilized their quota in full. I just want to check if you could make any projections, James, at this point about quota utilization in 2025.

MR. JAMES BOYLE IV: Unfortunately, no, I don't have any information on what the utilization is looking like this year. I mean as it mentioned, I think in Matt's presentation of ERP and Utilization, that will come up in my FMP ERP presentation as well in 2024, and I believe it was 71% in 2023 in that F material.

CHAIR CLARK: There is a question from Joe Grist.

MR. JOSEPH GRIST: To everyone who worked on this, great job. Looking between Table 3, 4, and 5, the percent risk of falling below the ERP fecundity target and fecundity threshold, there is a gap. We have some of the tables reflecting possible reductions from 0 to negative 20, then we have one that is focused more around its central tendency around 40 to 50.

There seemed to be a gap between some of that information. I know I brought this up to Dr. Drew. Is there any further clarification such as Table 5 on what is in between, if we were to know what a negative 30 or a negative 40 would look like in comparison with the percentage on probability?

DR. DREW: I think there should be an extra slide at the end of this, hopefully presentation, if you go forward one. I think it's a hidden slide, which is a mistake on my part. But I think Madeline can go from the current slide, you should be able to. All right, so trying to be too clever there. Yes, so we did look at some probabilities of exceeding, basically the same type of information that we provided for the 20% reduction, or a 30% and a 40% reduction.

We still have essentially for the 30% reduction by 2028 you have a 97% probability of exceeding the F target, and a 0% probability of exceeding the F threshold across all three years for a 40% reduction we have a 79% probability of achieving the F target by 2028, and again a 0% probability of exceeding the F threshold over all those years. Then if we compare that to the fecundity information, the probability of being below the ERP fecundity target in 2028 is 40% or 35%, depending on the reduction.

Then the probability of falling below the ERP fecundity threshold is still about 1 or 2%, and again that is related to how wide that uncertainty around the fecundity values is at the end of the projections, if we're taking a larger cut we're still not getting down to a 0% probability, just because the range is so big. But those are the numbers for, as you're saying, sort of filling out the gaps between Table 3 and Table 5.

CHAIR CLARK: Are you okay, Joe? Okay, further questions? I'm not seeing any at the table. Any on line? Okay, no questions. Now we move into the interesting portion of this agenda item. I've been told we have several motions, so maybe the best way to facilitate discussion would to be get a motion up. We can discuss that. I'm guessing there will be amendments, substitutions, and a fun time will be had by all. Who would like to lead things off here? Okay, I see Matt Gates.

MR. MATTHEW GATES: Thanks, Caitlin and Katie for your presentations and discussion on this. I appreciate that. I would like to make the motion for the TAC recommended in the TC Working Group's memo to achieve a 50% probability of achieving ecological reference point F target. It's up on the board now. **Move to set the TAC for 2026 through 2028 at 108,450 metric tons to maintain a 50% probability of not exceeding the ERP F Target**.

CHAIR CLARK: Do we have a second? I see Ray Kane.

MR. RAYMOND W. KANE: Mr. Chairman, that is for the purpose of discussion.

CHAIR CLARK: For the purpose of discussion, got that. Matt, I'll send it back to you to give us some explanation.

MR. GATES: This is a TAC that is informed by the best available science, and setting a TAC higher may not provide enough menhaden to fill their role in the ecosystem. This includes providing striped bass forage, the conservation of which we have set aside an entire day at this meeting to discuss.

The reason that the Board has chosen to use ecological reference points is to help us make these hard decisions, so that we know how many fish we need to leave in the ocean. A single-species assessment can provide useful information to manage menhaden on their own does not provide information on their role in the ecosystem.

As stated in Table 3 of the TC and ERP Working Group memo to the Board, this TAC maintains a 50% probability of achieving the ERP F target. No doubt this is a significant reduction of coastwide removals, but it is necessary to support the productive ecosystem. Again, this is the TAC that is supported by the best available science. Thank you.

CHAIR CLARK: Okay, we have a motion on the floor right now, and can I see hands of those who want to speak in support of the motion. I see Allison Colden. Go ahead, Allison.

DR. COLDEN: Thank you to the maker of the motion and the seconder. I think this is an incredibly important discussion for this Board, because as our history of the Board has shown, and the history of this Commission in managing other species. We do tend toward this 50% probability of achieving our target. At the end of the day recognize that that is a coin flip, but it's something that ensures that we are properly managing the risk to the species that we are directly managing, and of course in this case also all of the other species that are part of the ecosystem component of the menhaden framework, under which we are managing this species. In taking a look back at the last time that we have had the pleasure of setting specifications for the menhaden fishery.

You know we have just, since 2012, had a coastwide quota for this fishery, which is pretty impressive how far we've come. The other thing is that when the science shows that the Board is justified in increasing the Total Allowable Catch for this fishery we have done so. In the last four out of five times we set specs for this fishery, the science has said that we had a reasonable risk to take in increasing the coastwide quota, and we have done that.

In this situation the changes to the ERP assessment and the single-species assessment have shown, and the Peer Review Panel has indicated that this is our best available science, and for best indication approvement over the 2022 assessment of our understanding of menhaden as a species and of the ecosystem.

It is suggesting that we need to take a reduction, not just a small reduction, a significant reduction. I would encourage this Board to think just as we were confident in increasing the Total Allowable Catch when the science says we should, that we need to be as willing to take reductions when the science indicates that that is warranted as well.

Lastly, I just wanted to touch on the discussion of striped bass, because obviously it's a tremendously important species to the Commission, one where there is going to be some very difficult conversations I anticipate tomorrow. I do not envy those who will be around the table for that marathon meeting.

But as Matt pointed out during our technical discussions and review, we have the ability as a Board, the Menhaden Board, to help set up the striped bass discussions for success. We are working extremely hard and fishermen all up and down the coast have already made and are likely to make additional sacrifices on striped bass, to help rebuild that population.

But unless we also help with the bottom up here on the menhaden side of the equation, it is very unlikely that we are going to get to a place where we can rebuild striped bass in a timely manner, in a way that makes those sacrifices worthwhile. The last thing I just wanted to mention is, just remember that striped bass is a proxy.

If we are managing strictly with the thoughts of striped bass in mind, with everything else in the ecosystem that is going on with striped bass, that has less to do with menhaden. We may not be accounting for those needs, for example, of the increased predatory demand of spiny dogfish, or dealing with the fact that we have fewer Atlantic herring that are not coming back.

I just wanted to get that to the forefront of everybody's mind as we continue these discussions. But yes, striped bass is incredibly important, and obviously the focal point of our ERP definitions. But they are just a proxy for the entire ecosystem and the 30 plus other species that we have by proxy taken on to manage in this context.

CHAIR CLARK: Do we have anybody who would like to speak in opposition to the motion? I see Joe Grist.

MR. GRIST: I have a motion prepared, a motion to substitute if staff will bring that up.

CHAIR CLARK: Okay, we're going right to a substitute motion. All righty.

MR. GRIST: I'm going to highlight the day I understand.

CHAIR CLARK: Yes, indeed, Joe, that's fine. As I said, I think we've been told there are other motions out there. As soon as it's up, go right ahead and read it.

MR. GRIST: **Move to substitute to set the annual Atlantic Menhaden coastwide TAC for 2026-2028 at 186,840 metric tons per year (representing a 20% reduction relative to the 2023-2025 TAC).**

CHAIR CLARK: Thanks, Joe, do we have a second? Looking around the table for a second, Eric Reid. Go ahead, Joe, if you would like to speak to explain your motion.

MR. GRIST: I think menhaden, as we all know is a data rich species, and one of the most regular stock assessment processes, It appears to be one of the most regular stock assessment processes in the U.S. The stock status is based on reference points that take in account regular populations. Overfishing is not occurring.

The stock is not overfished. Both the single-species assessment and the ecosystem assessment have passed the peer review for those. The proposed TAC is associated with a 0% probability of overfishing in each of the next three years, despite this it managed to get 75% of the target level. As a dear colleague of mine, who I won't mention, reminded me last week, we manage to fecundity.

Based on the projections produced by the Stock Assessment Committee, the proposed TAC is associated with a 0% probability of exceeding the ERP fishing mortality threshold in 2026 through 2028, and a low 2 to 4% probability of falling below the ERP fecundity threshold during the same period. For reference you can see Tables 4 and 5 in the projection's memo or the PDF pages 68, 69 of the Board materials.

By comparison, under the Mid-Atlantic Fishery Management Council's Control Rules for our 2018 Omnibus ABC Framework adjustment, the Acceptable Biological Catch for stocks that are not subject to a rebuilding plan is required to achieve a 0 percent probability of overfishing, only when the ratio biomass to the biomass target is less than or equal to 0.10.

Furthermore, when you review Table 5, there is only a 2% probability of falling below the ERP fecundity threshold in 2026, 4% in 2027, and 4% in 2028. When you set the TAC at 186,840 metric tons. With the additional information provided by Dr. Drew, to even take a 54% reduction, associated with a 50% probability of exceeding F target, the probability remains, 2% in 2026, no change, and 1% in 2027 and 2028, which is only a 3% change from the 20% TAC reduction proposed here. To reduce any further than 20% would put at risk, directly or indirectly, hundreds, if not thousands of American jobs across several states. It will also result in the decrease of supply and increase in demand and prices of menhaden that are utilized by both the commercial and recreational fishing industries across numerous jurisdictions represented around this Board. This motion is made to balance the ecological concerns as well as the socioeconomic issues that have been provided.

CHAIR CLARK: Eric, did you have any follow up on that?

MR. ERIC REID: I'll be quick, Mr. Chair. I was concerned about the devastating socioeconomic impacts that 50% would do. Mr. Grist touched on that already. But I am concerned about the socioeconomics. The interesting thing is we've been talking about striped bass and menhaden so far, this entire meeting. The difference there is, when we talk about striped bass we talk a lot about socioeconomics, and we're not talking about it here.

CHAIR CLARK: Let's do this now. Why don't we see some hands. Does anybody want to speak in favor? I see Megan Ware and Doug Grout. Let me write that down. Megan, before you start, are there people who would like to speak, oh and Joe. Hands of those who would like to speak against this motion. Nichola Meserve, Rob LaFrance. Okay, we'll do the old back and forth. Go right ahead, Megan.

MS. WARE: In comparing these two motions, I am opposed to the underlying motion of a 54% reduction. I understand our scientific information has changed and a reduction is certainly needed, but again you have that socioeconomic impact. I'm not sure how we can survive three years of a 45% reduction.

Menhaden has really become essential in Maine. We don't have herring. Bait is already the highest input cost in the lobster fishery. I think we're really struggling with profitability in that fishery, and this is a link to exacerbate that. I do want to specifically respond, I guess, to some of the comments I've seen in the written comments that if we do a 20% reduction that is not going to result in a decrease in catch, because we've been landing about 80% of the TAC.

I would say from Maine's perspective we will see reductions under this, because our allocation is going to decrease. The episodic quota is going to decrease, and the transfer market is more competitive, and that is where we get our quota from. Just to put some numbers behind that, we landed 29 million pounds this year and 3 million of that was via transfers.

Under a 20% reduction we're going to lose 5 million pounds in our state allocation, about a million pounds in episodic. There is no way we will make up 6 million pounds in transfers on top of the 3 million we are already getting. That would be the most transfers we've ever received. This does cut Maine, but I am supportive between these two motions of the motion to amend.

CHAIR CLARK: Now we'll go to an opposition argument coming from Nichola Meserve.

MS. MESERVE: Regarding the substitute motion, I have to disagree with the statement that we manage to fecundity. The past two times that the Board has set the TAC for menhaden it has been based on the ERP fishing mortality target level, and not just the threshold level but the target level. It would be my preference to uphold that higher Board decision and choose TACs that will provide for striped bass and other species we've seen came to their target level, not just their threshold level.

However, the underlying motion also causes me concern, to take the full reduction in a single year. I prefer a phased in approach that would balance the needs of the menhaden fisheries and the industries that rely on it, and would also provide for some time for managers to ask to be able to assess the impacts and take some adaptive management if need be.

The underlying motion also foregoes some increases that would be allowed in 2027 and 2028 if we did go that low for 2026, so at the current time I can't support either of these motions and if maybe after we've dispensed with the substitute motion, whether it's up or down, I would have another substitute to consider as well, Mr. Chair.

CHAIR CLARK: Okay, next up we have Doug Grout.

MR. GROUT: I would like to echo some of the comments that were made by Megan about this. My concern is, you know over the years we've been increasing the TAC in very deliberate stepwise increments. I am completely opposed to the underlying motion that would require us to take a 54% cut in one year.

I think a phased in approach would be easier on the fishing industry, particularly in my state. The lobster fishermen that rely so heavily now on menhaden, since we have no herring left to catch. I

am also going to foreshadow some comments I'm going to be making in striped bass, that I am getting concerned with our management, that we may not be able to get to the target biomass anymore, because of the low production and low productivity that we've had.

To me, the important thing is to have this particular quota, which is directly linked to what we're trying to provide food for striped bass, above the fecundity threshold and somewhere in the middle, because I do not think that striped bass in the coming years are going to be able to get to that target, and in fact over the entire time series if you look at striped bass, we've only had four years where we've exceeded our biomass threshold.

CHAIR CLARK: Rob, before I go to you, just wanted to remind the public that we will be taking comments once we get to the point where we're actually going to vote on a motion. Go right ahead, Rob.

MR. LaFRANCE: I think we have to recognize that when we set the TAC at 233,000 metric tons, the information we had, which was we thought at the time best available science, was horrid. We did not know what we know now about the natural mortality of the species. The fact that we're looking at a 20% reduction from that number seems to me to be, it's almost like a false compromise. The reality of it is, we were at 194 when we moved to 233, and we should be looking at reductions from 194,000 down, not the other way around. I base that on a couple things as well. I hear what we're, from our friends to the north. When we looked at the idea of trying to allocate this species, we talked about different methodologies for doing that. We have not really gotten ourselves in a position to do those allocations now that we're tightening up that. One of the things we did when we allowed the reallocation to take place. We had the benefit of an increase in TAC. Now we're going the other way.

I do think we need to revisit how we allocate, because the folks in the northern areas who use this species for bait, need to have the availability of that species in the water. I am supportive of the underlying motion, because I think it moves us in the right direction. I also think we need to rethink about how we allocate, particularly for the northern states.

CHIAR CLARK: I have Joe Cimino speaking in support of the motion. Before you go, Joe, are there any further hands that want to speak, either in support or opposition to this motion? Steve Train in support. Go right ahead, Joe.

MR. JOE CIMINO: I am in support of the motion to substitute, although I will say, I do have concerns as Rob just pointed out. You know we have a new understanding of the productivity. I think that we do need to regroup. I think that the 20% kind of starts that off. This is not a set it and forget it species, especially when you are doing multispecies management.

One of my concerns is seeing those strong year classes that are supposed to be coming out of the Chesapeake Bay that we are not seeing. It's heartening to see some of the research that is going in for this species. I think we need to continue that. Whether or not we're setting a three-year TAC, which I'm supportive of, I hope that we're kind of always staying ever cognizant of what's happening here.

I very much appreciate and I hope, you know we've already approved this for management. I hope that no one is questioning the science. But we also need to keep in mind something that Matt said, which is, we're at the "choose your own adventure "part, not the best available science part. To say it's best available science to go to the 50%, which I don't support is actually just what we told that group to do.

Our understanding of that also needs, I think, to evolve. Although maybe spiny dogfish is at a higher place than it was when we last ran this, we know that spiny dogfish is fluctuating, we know that

striped bass are fluctuating. We have two species that we try and manage at multispecies levels.

But it's often a tool that doesn't say, and this has always concerned me, if the needs of predators are lower than there is more available for human use, and that is our whole job, is to make sure that we're doing it. If we're saying we're going to do multispecies management, then I think we need to be willing to fluctuate if those needs aren't there in the environment.

I don't know what we can do for striped bass. I don't know when that species will get rebuilt. I think we have to realize that there are fish on the table, so to speak. That's why I'm supportive of this, but again, even with a three-year TAC I think we need to stay on top of this at all times.

CHAIR CLARK: Before I go to Steve, who I know is going to speak in support, is there anybody who wants to speak in opposition to this motion? Anybody else? David Borden. I'll go to David and then to you, Steve.

MR. DAVID V. BORDEN: Complicate your life, Mr. Chairman. At this stage I'm not speaking in opposition to it. I have a question. Can I ask staff a question?

CHAIR CLARK: Certainly, yes, go ahead.

MR. BORDEN: If the substitute motion passes the question is, in subsequent years, say in the following year from now, if we want to change it does it require a two-thirds vote? It's a three-year specification.

CHAIR CLARK: Do you want to answer that correctly, James?

MR. BOYLE: Yes, for final action, which would require two-thirds majority vote.

MR. BORDEN: Okay, I'm opposed to it the way it's currently constructed. Because of that I could accept 20% reduction for one year, or with a phase down strategy.

CHAIR CLARK: Steve Train.

MR. STEPHEN R. TRAIN: While I can agree with David Borden, it might be a reservation about the time to be the concept. I support the substitute. Somebody had already mentioned that as we kept increasing the harvest tonnage, we are also decreasing the fishing mortality each time we did that.

I kept saying this is a dream species to manage. We're leaving more fish in the water and yet keeping more fish on the boat. Nothing has changed with the fish. Fishermen up there sacrifice tonnage they could have caught to lower fishing mortality because of the data we gave them. The input data has changed, we see something differently.

I just think if we have a problem and it has to come back down; we need to ride it down with them. We don't just go down and chop down the tree. We need to ride it down with them. We got here. We gave them the information and told them what they could catch, and we can't just shut it off like that. I support the substitute motion.

CHAIR CLARK: We have a question from Dennis Abbott.

MR. DENNIS ABBOTT: If we were to approve this motion, would the Chesapeake Bay cap of 51.000 metric tons stay the same or would that suffer a 20% decrease also?

CHAIR CLARK: I'll let James answer that, but the cap is unrelated to this issue, so go ahead, James.

MR. BOYLE: Yes, Chesapeake Bay cap is set through Amendment 3, and so it would stay the same from this.

CHAIR CLARK: I see Doug Haymans.

MR. DOUG HAYMANS: Just a procedural question. Must we dispense with the substitute before we have an inkling of what the stepdown motion may be, because I would really like to hear that to help me decide on this?

CHAIR CLARK: Well, we can do a second substitute. Okay, there we have it. We could have a second substitute, which makes me think that there is a stepdown motion out there. Is that you, Nichola?

MR. REID: Point of order, Mr. Chair. I don' t believe that that is correct in Robert's Rules of Order. Robert's Rules of Order is if you have a main motion and a motion to substitute, you have to dispense with both of those motions before you can move on.

CHAIR CLARK: Oh boy, okay. I'll put Bob on the spot now too Bob, is that the definitive opinion of ASMFC that we can go two deep?

EXECUTIVE DIRECTOR ROBERT E. BEAL: That has been our practice, you can go two deep. The other way to do it if folks think that's too much of a procedural quagmire is, Nichola can describe what her motion might be, and not make that motion now, but just fill the Board in. Somewhere along the way I may make this motion, kind of a message and we don't have to have it up on the screen. If folks are worried about the procedural problem with having too many layers here, just to get a gist of what is coming I think would be helpful.

CHAIR CLARK: Bob, you've always come up with great compromises. Would that satisfy you, Eric, to hear what Nichola is proposing, and then we'll dispense with the substitute and the main motion, and then possibly move on to another motion. Thank you, I'll take the I suppose so. Nichola Meserve, would you like to describe what your motion would be?

MS. MESERVE: Yes, thanks, Mr. Chair, I'll just give a brief preview to it without making a motion at this time. It would still be setting three-year specifications. It would apply the 20% reduction in 2026 as in Mr. Grist's motion, but it would follow it up with two 18.27 percent reductions, the amount that it takes in equal amounts to get down to a value of 124,800 metric tons in 2028, which is the value associated with a 50% probability of achieving the ERP F target in 2028, and you can see that number in Table 3 as well. It changes the number that you get to ultimately and it phases it in over three years and roughly 20% reductions for a year.

CHAIR CLARK: Thank you, Nichola, so we know what we will see, supposing both of these motions do not pass. As I said before, okay, Dennis.

MR. ABBOTT: Yes, before we get into a quagmire, I agree with Mr. Reid over there that what we should be doing is eventually getting to a vote on this substitute motion, which would replace the main motion, and then Nichola could then provide her a new substitute motion. We shouldn't be going and talking about a third motion before we've handled one of these two. That is whether we go up or down on that. It's not a final action on the substitute motion.

CHAIR CLARK: I get it, Dennis. I'm sorry, I misworded it. That's what I meant was that we would work on the substitute right now, and then depending on what happens with that. As you said, either it's going to pass or fail and we can go from there. But before we vote on it, as I said, we will accept some public comment on the motion.

Do we have anybody in the audience here that would like to speak to the substitute motion or the main motion, I guess. We'll give you one minute, and please come up to the public microphone over here, sir. State your name, if you have an affiliation, please give that, and then please start your comment.

MR. ROSS CALLUM: I'm Ross Callum, I own and operate a vessel engaged in a purse seine bait fishery, Tel-marathon from Virginia. I just would like to shed some light on a situation that will occur if major adjustments are made to the TAC. We're

all well aware, or should be anyway, of the price of bait and bait products are historically high this year.

Do not be misled into believing that the quantity of landed fish is the only factor affecting price. The interstate marketplace of bait products is not different than any other commodity. It's highly subject to the confidence of consumers, current events and stakeholder changes, such as business startups and shutdowns.

The main idea here is that with any change in the TAC the businessmen of the bait marketplace will absolutely take advantage by raising the price, because the prerogative of a salesman is to get as much as possible, and to turn any degree change into an opportunity, inducing volatility into an already unstable marketplace is a terrible recipe that will only result in extremely high prices.

The lobstermen in New England will no longer be able to afford to work, the crabbers in Maryland and Virginia won't be able to afford to work, shrimp prices will skyrocket. It will depress recreational activity all along the Atlantic coast. Thank you.

CHAIR CLARK: Thank you, Mr. Callum. Was there anybody else who would like to speak to the motion from the public? I see a raised hand there. Please come to the microphone, Sir. Why don't you guys just line up there if you would like to speak, and you'll each have a minute before you make your comment. As I mentioned, please state your name and your affiliation if you have one.

MR. THOMAS MOORE: My name is Thomas Moore, I'm a fifth-generation menhaden boat captain for Ocean Harvesters. I have a crew of 15 men; most are here today. They are also generational workers. They are some of the hardest working, most dedicated men that you would meet. Their ages range from 22 to 66. Three of them with me for the last 20 years, the first day I went Captain. We love our jobs and are very passionate about them. Our owner and our name have changed over time, but the men's names that are on these boats has not for five generations. Any cuts we face today will hurt us, our families and our community. Thank you.

CHAIR CLARK: Thank you, Mr. Moore. Can I just ask for a show of hands. Anybody who is standing up right now, are you all speaking in favor of this motion, are you all opposed to this motion? All in favor. We'll take two more in favor. If there is no one in opposition then we will stop public comment there in the interest of time. I appreciate that, sorry I can't accommodate everybody here, but we do have time restriction.

MR. LILLY: I would like to speak in opposition.

CHAIR CLARK: Okay, and I'll allow three in opposition then, in addition to three in favor. Go right ahead, Sir.

MR. KENNETH PINKARD: Thank you, Mr. Chair, good afternoon. My name is Kenneth Pinkard and as the fellow before me, I'm a third-generation fisherman with two nephews who are fourth generation fishermen sitting behind me. I've basically come to say that I'm also the Vice-President of United Food and Commercial Workers Union Local 400, representing bait fishing for over 30 years.

I retired off the boats in 2022, but I've been serving in this capacity, coming before boards like this and commissions and what have you. I speak for all working people in Virginia. We're in a time now, Virginia, that Virginia middleclass jobs are suffering. From Northern Virginia with the Dodes you all have nothing to do with. From the furloughs, which you all have nothing to do with.

But you do have something to do with the livelihood of these gentlemen behind me. I would just like for the fishermen, the captains and the crews that I've been working with for 30 years just to stand, so you can see who will send this message

back to Virginia. These gentlemen work hard and they care about their jobs.

The message that you give today is the message that they are going to have to go back home and tell their wives or tell their children. We do not like cuts, of course we don't. The first amendment really would send all of you guys' home with bad news to tell their wives. But with this here, we want to try to comply and try to move forward.

CHAIR CLARK: Thank you, Mr. Pinkard. I think we have one more in favor and then we have three opposed, so who's up next? Go right ahead, Ma'am.

MS. PATRICE McCARRON: I'm opposed to the first motion; I hope that counts. Good afternoon, my name is Patrice McCarron; I'm the Executive Director of the Maine Lobstermen's association. Excessive quota cuts in a fishery that is not overfished and where overfishing is not occurring, represents an overcorrection that would cause significant harm to Maine's lobster industry. Maine's lobster fishers are small boat fleet of 4,300 lobstermen and 800 students, all of whom are owner operators that sustain local families and Maine's coastal economy.

About 400 of them are also menhaden harvesters. They've long depended on fresh local bait, but the bait supply has diversified due to herring cuts, and prices have sky rocketed. Imported baits now face tariffs of up to 30%, and Maine's infrastructure for storing frozen bait is very limited. Any reduction in the menhaden quota will only increase our reliance on non-local imported bait, which is not only uncertain and more expensive, but relying on nonnative species is also riskier for the ecosystem.

The MLA urges you to address the importance of menhaden bait fishery to Maine's lobstermen, our coastal communities and marine ecosystem, by limiting quota reductions to 10%. Thank you for the opportunity to speak on behalf of our members.

CHAIR CLARK: Thank you very much, and our next up in opposition will be Mr. Lilly, and I think, was it you, Phil that also. You go right after Tom, Phil.

MR. TOM LILLY: The people that say there was plenty of menhaden in the Bay this year are certainly not talking about May and June. That is what we're really talking about from our point of view. Is there enough menhaden in the Bay to sustain the striped bass, because the truth is, folks, our striped bass fishing in the Bay is in a catastrophic failure.

Nineteen of the 20 striped bass charter fishermen in the Somers Cove Marina are going out of business in the last four years. Even the people that know how to catch the fish in the river where I am are not catching anything. When people say there was plenty of menhaden in the Bay this year that is not true.

Practically no menhaden came into the Bay in May and June. The factory boats, as you all know, sat at the dock for one solid month. It did not fish the first month of the season, because there were no fish. Up on Tillman Island, where the wholesalers buy the menhaden from our Maryland of menhaden watermen, nothing was brought in for the first six weeks of the season. That's the situation in Chesapeake Bay. We don't have menhaden.

CHAIR CLARK: Please wrap it up, Tom.

MR. LILLY: As I pointed out to you earlier, the reason and outcome again is because you are allowing the fishery to catch thousands of the pre-spawned schools in the Bay, and they never get out into the spawning grounds. That is one thing that has to be addressed here.

CHAIR CLARK: Thanks, Tom, thank you for your comment and up next we have Phil Zalesak.

MR. PHIL ZALESAK: I'm deadest against this modified motion; it is grossly inadequate. You could cut the Total Allowable Catch by 50% and increase the commercial bait catching industry by roughly 53% for all the states, with the exception of Pennsylvania, which would be at 49%. Think about that. You could increase the commercial bait harvest by over 50%. All you have to do is end reduction fishing in the Atlantic coastal waters, period.

CHAIR CLARK: Thank you, Mr. Zalesak. That concludes our public comment period on this motion. Now we will take a three-minute caucus, and then we will vote on this motion. Doug, is Georgia ready to vote? All right, it looks like all states have made a decision, so let's see the hands of all those in favor**. Raise them high so they can be counted.**

MS. KERNS: New York, New Jersey, Florida, Georgia, I need faces to lean forward, is that South Carolina. I think I have Virginia, PRFC, Delaware, Maine, New Hampshire, NOAA Fisheries, and Fish and Wildlife Service.

CHAIR CLARK: Okay, hands down, and now those opposed to this motion, please raise your hands.

MS. KERNS: Rhode Island, Massachusetts, Connecticut, Pennsylvania, Maryland, North Carolina.

CHAIR CLARK: All right, the motion is approved. What was the vote, 12 to 6. Now the substitute motion. I'm sorry, were there any abstentions or nulls? I don't see any, so 12 to 6. This becomes the main motion, do we need time to caucus on it again, or do we just go right to vote on this? Oh, I'm worry, long day already and we're not even halfway done. Nichola, you had a substitute motion, correct?

MS. MESERVE: Yes, thanks, Mr. Chair. Again, I need to change the wording a little bit to move to substitute to set the annual Atlantic menhaden coastwide TAC for 2026 to 2028. This is not my motion. Oh, that's okay, sorry. **Move to substitute to set three-year specifications for Atlantic menhaden with the following TAC; 2026 = 186,840 MT; 2027 = 152,700 MT, and 2028 = to 124,800 MT.**

CHAIR CLARK: Do we have a second? Nicole Costa. Okay, Nichola, would you like to speak to the motion?

MS. MESERVE: Yes, thank you, Mr. Chair. Again, the values in this motion represent a 20% reduction in 2026 followed by two equal reductions of 18.27% in order to reach 124,800 MT in 2028, which is the value associated with the 50% probability of exceeding the ERP F target in 2028. They uphold the prior Board decision with regard to how we use the ecological reference points and aim for TAC being set that achieve the ERP F target with a 50% probability.

However, I also recognize that the end TAC of 124,800 metric tons is a significant reduction of 46 percent overall. There are implications for the menhaden fisheries and those associated and rely on their product. Yesterday we heard how the lobster industry's number one concern with their operations is the cost of input, and we take that seriously. By phasing it in over three years it does provide for a little bit more stability.

Time for the industries to adapt, or for us as managers consider other tools in the tool box to better balance the needs of the fisheries before we get to year three. I also have comfort with phasing in the end TAC over the three years based on our current definitions of the ERP F target. As we heard Katie Drew discuss, the ERP F threshold is defined as supporting striped bass at their biomass threshold, which is where we currently are. However, we are working on the rebuilding plan for striped bass to get to their biomass target, and that has not yet been abandoned as our goal for striped bass. If we continue to aim for the target with ERPs, then we'll be supporting striped bass both now at their threshold level, and the target we try to get to within several years. Overall, this approach is to get to the TAC that is associated with the ERP F target in

a phase in approach that lessens the impact on the menhaden fishery and the fisheries it supports, gives management an opportunity to further pursue adaptive management, and which according to ERP F definitions will support striped bass at their current and future projected levels.

CHAIR CLARK: Nicole Costa, do you have any follow up on that as seconder?

MS. COSTA: I think Nichola did a great job. I'll just add that as a Board we approved these for the ecological reference points in 2020 to account for menhaden's role as a forage fish. Since then, we have been setting the TACs based on projections that provide these risk scenarios of exceeding the ERP F target.

I'm very concerned about the socioeconomic impacts of these reductions. I don't think anyone here today is taking these decisions lightly. We all have concerns, and this is a difficult decision for everyone. But I like this motion, because I think it spreads out the reductions over time, and it's also supporting the work that we've spent over a decade of putting work into. I continue to support the ERP reference points and the ERP stock assessment, but again, I think spreading out this reduction helps lessen the socioeconomic impacts, so that's nice work.

CHAIR CLARK: Could I see the hands of Board members who are in support of this motion would like to speak in support of it. I see Chris Batsavage. Before you go, Chris, could I just see hands of Board members who would like to speak opposed to this. I see Dennis Abbott, Joe Grist. Okay, go ahead, Chris.

MR. CHRIS BATSAVAGE: Yes, I support the substitute motion for the reasons that Nichola and Nicole gave. Kind of coming into this reviewing the meeting materials, I was thinking a phase in approach would probably be the way to go. But I was thinking about doing it over a shorter period of time, and ending up with a TAC closer to the 108,000 MT to get to 50% probability of the F target.

But when you talk about big reductions for any fishery, that's pretty hard to do in one year. When you talk about the magnitude of the menhaden TAC where we're reducing by hundreds of millions of pounds, potentially. That's a whole other level. As Nicole and Nichola said, I think we do need to recognizes the big impacts to the industry from a socioeconomic standpoint.

But on that note, standing here considering that the main motion of a 20% reduction will lessen the impacts, socioeconomically at least over the next three years, but of course worried about ecological impacts to menhaden and what eats them, but also worry about down the road as we get regular assessment updates and benchmarks.

If we find ourselves in a situation where the best available science says that natural mortalities are lower than we thing currently, and find ourselves in an overfished situation, and have to take even bigger cuts. I think phasing down to what is described here in the substitute motion not only protects menhaden, and you've got ecological impacts, but I think also kind of buffers against any future shocks that could hit the menhaden industry if the science changes.

CHAIR CLARK: In opposition we have Dennis Abbott.

MR. ABBOTT: Whatever we do is a bitter pill for the industry that is prosecuting this fishery, and I would never think that I would probably be speaking on the side of Omega Protein. You know I just can't picture myself doing it, and I again appreciate the science that was put into this. The science though did not deal with the socioeconomics, because we would be crippling the lobster industry and a lot of things.

My concern is, as I mentioned in a question that I knew the answer to, is that the amount of menhaden being taken out of the Bay is really a big problem. I think we really need to adjust that part

of it. In the underlying motion, it was supported by a vote of 12 to 6, which is two-thirds of the members sitting here, so I think that I would like to see this motion defeated at the present time and take a vote on the underlying motion and put this to bed for this year.

CHAIR CLARK: Before I go to Joe, is there anybody else who would like to speak in support of this motion from the Board? I do not see that, so go right ahead, Joe. Wait a second, you want to speak in favor, Rob?

MR. LaFRANCE: Thank you for the time. I think this represents a really significant and meaningful compromise. I think this is something that everyone around this table should be able to support, and the reason I say that is we go with the 20% reduction in the first year, and then we start to phase it down.

In the event, to what Dennis was saying, that we really have trouble, the years out, you have two-thirds to try and move that differently. In the meantime, I think we need to continue to put pressure on making certain that the science moves forward, and making certain that we have the availability for the species where they need to be, again Maine, Massachusetts, New Hampshire, Rhode Island.

I mean that is where the lobster fishery is and we need to think about that as we think about allocation. I come back to that same question, and to me this is an allocation issue. The science is pretty clear; we need to reduce the overall TAC.

CHAIR CLARK: Joe, we'll go to you. Could you also speak, Joe, just because it has come up in the comments about Virginia's flexibility, in terms of reduction and bait, because if I recall you do have restrictions on what you can do as a state, in terms of what goes to reduction and what goes to bait?

MR. GRIST: Well, I don't have the regulation pulled up in front of me, but yes, we do. I'm in opposition. I see this as a motion, though I understand trying to compromise and everything, I respect that. It is still going to cost the industry jobs and other things. It could cost an entire community. Twenty percent reduction is not something that is not going to cost something. It's going to probably have an increase in bait prices. It's probably going to cause some other things that we haven't thought about with an economy that is right now kind of in a weird state, and we don't know what it's going to be like next year, and this year has already been a roller coaster as it is. Prices are still high. I just see this as a maneuver that would end up, socioeconomically it's going to cost jobs. It's going to cause an issue.

I think Mr. Reid hit it right. With striped bass we talked about socioeconomic all the time, and this one we don't. That is kind of strange considering it has the best stock assessment of any species we deal with. Why is this not also an equal important element to this? I cannot support this motion.

CHAIR CLARK: Thank you, Joe, I didn't mean to put you on the spot there, I was just thinking in terms of the fact that if people think that all this is going to come out of the reduction fishery that is not the way Virginia operates. As we've already mentioned, to change this once it's in effect again is a two-thirds vote. Before we go to caucus on this, we are going to take some comments. Oh, Eric, you have a comment before we go to the public. Then we'll go to the public and go right ahead, Eric.

MR. REID: Sorry, Mr. Chairman. I would like to speak in opposition, is that all right, to the substitute?

CHAIR CLARK: Go right ahead, and I'll just see if there is anybody else. If anybody else wants to speak in support, could you raise your hand right now on the Board? Oh, Doug, go right ahead.

MR. DOUG HAYMANS: I just want to get that question before we go to you, Eric. It's a question, either way. The question being, if the main motion were to read 20% reduction for one year, what new

data might we have other than catch levels for next year to change any decision for ’27 or ’28? What would we be gaining if it were for one year?

CHAIR CLARK: I’ll ask, I think we just have catch, right? The only data we would have, Doug, would we would have to catch level for this year.

MR. HAYMANS: We would be right back at this table this time next year deciding the same thing over again.

CHAIR CLARK: Are you referring to the motion as written has the lock, you know it will step down, unless the Board comes back, and you’re right. The Board would be here saying like, based on what was caught last year or just kind of continuing the argument that has been going on here already, and deciding whether to continue with the reductions or hold the line.

MR. HAYMANS: I guess what I’m saying, Mr. Chairman, is I’m having a real difficult time with 20% in perpetuity or at least for the next three years. I also have a difficulty taking a 50% cut over three years, and I’m trying to decide, we all discussed a two-thirds vote can change this, but what new information would we have to change either one of those, seeing as how they both are at three years. I need to process that to find my decision.

CHAIR CLARK: We’ll go to Eric Reid.

MR. REID: You know we’re talking about reduction versus bait. That is about as far from what we’re really talking about as we can get. Honestly, we’re talking about jobs, we’re talking about socioeconomics. The price of driving a boat around the ocean is not going down, not going down. Paper towels cost more money; everything costs more money.

We’re at a point now where the economic viability, return on investment, return to owner, is so marginal that going in a stepdown approach. We’re not going to get any more information, so the reality is we’re not going to revisit. Probably not at least for maybe two years. But we’re going to take the fishery right out of it, because they can’t function at these numbers, and we’re not just talking about lobster bait in Connecticut, Rhode Island and Maine.

We’re talking about bait all up and down the east coast in many, many forms. We’re also talking about fish oil, which is used in I don’t know how many products, everything from ice cream to paint, and we’re talking about supplements, vitamins, vitamin this, vitamin that, fish oil, which are sent not only throughout this country, but probably around the world.

That is what we’re talking about. We are talking about a giant economic engine for not just people in this room, or on this coast, it’s a worldwide market for a variety of products that the fishery itself produces. We can’t lose sight of that, and I don’t want to lose sight of that either, and I don’t want to lose one drop of market share on any one of those things, because once you lose it you never get it back.

CHAIR CLARK: Thank you, Eric, seeing no more comments from the Board, are there any members of the public that would like to speak? Hold on one second, I can only take three in favor, three opposed. Let me see three hands of those in favor of this motion. Okay, we have one in favor on line, so can I have two from the audience?

We have two in favor. Then I see we’ve got the online. I saw Mr. Lilly and the other gentleman there. I’m going to be going one, one, one. Let me see three hands opposed to the motion. Okay, so you, sir, one online. You in the front row there, and you on this side in the second row it looks like. Let’s start with in favor, so Tom, I see you are already standing up, why don’t you come to the microphone.

MR. LILLY: Speaking in favor of the substitute motion, it itself is a substantial reduction in what we saw originally with the error in the assessment.

You know the first function of the Commission, I think it's fair to say, is conservation. When we say conservation, we mean conservation versus exploitation.

The substitute motion, the gradual change or the gradual decrease over the years, that is a good compromise. It supports conservation. Remember, what we're talking about here is saving the Commission's flagship species, the striped bass. When we talk about jobs, the striped bass business, recreational and commercial, it's over a billion-dollar industry. There are 100,000 jobs involved, there are 24,000 small businesses involved.

CHAIR CLARK: Thanks, Tom, wrap it up.

MR. LILLY: That's the thing that we need to work toward say that's an objective for conservation and that's what you can do.

CHAIR CLARK: Thanks, Tom, and now I am going to take one opposed to the motion. You, Sir, you can come to the microphone. State your name and affiliation and then begin your comment.

MR. BRIAN COLLINS: Yes, Brian Collins, I'm a citizen of Virginia in the public. I'm concerned about this group, because it doesn't seem like you are taking into account the Chesapeake Bay ecosystem. Chesapeake Bay is the nursery. On your website it says 70 to 90% nursery of all the east coast striped bass. How can that not be in the equation? That's nutty, as far as I can see.

I mean if you're trying to rebuild stripe bass, which is a statutory responsibility, why isn't all the attention on the Chesapeake Bay? They are taking out every school in the Bay. When you talk about socioeconomic, and I understand that, there are 100K jobs. In 2016 striped bass, 8-billion-dollar industry in 2016, it is half that now. The Bay is dying, Chesapeake Bay. You go out and talk to the fishermen, there are no schools in the Bay.

CHAIR CLARK: Excuse me, Sir, this was for somebody opposed to the motion. Are you in favor of the motion?

MR. COLLINS: This was opposed to the motion, right, my comment?

CHAIR CLARK: It's opposed. You sound like you're speaking in favor.

MR. COLLINS: I apologize for not clarifying. I think to phase in so slowly is risky, because the Bay is already gasping for breath. Blue crabs are an all-time low, striped bass are pretty much gone. Osprey nests are failing. It's terrible. I don't hear anybody talking about this factor of 70 to 90% of striped bass come out of Chesapeake Bay, and industry can take every menhaden schools out of the Bay. There is no requirement for them to leave one fish in the Bay.

CHAIR CLARK: Thank you, Sir. Okay let me go next to somebody opposed to the motion. Okay, we can go to the one online who is A.J. Erskine.

MR. A. J. ERSKINE: Thank you, Mr. Chairman, I appreciate the opportunity. My name is A.J. Erskine, I'm with two baitfish packing companies in Virginia. One company packs bait for the crabbing industry up and down the east coast. The other company will grind menhaden for chum for the recreational sport fishing industry.

I'm strongly opposed to this substitute motion. This essentially yields a 50% reduction. I agree with the gentleman that said, we won't have any more information in 2027 or 2028. I would be in favor of the main motion, and seeing a 20% reduction. I think there are environmental factors that need to be discussed further, I appreciate the work that's been done by the scientific community, but I stand in opposition to the substitute motion. Thank you.

CHAIR CLARK: Thank you, Mr. Erskine, we'll take one from the room in favor, and I see Mike Waine. Why don't you come to the microphone, Mike.

MR. MIKE WAINE: Thank you, Mr. Chairman, Mike Waine with the American Sportfishing Association. I'll try to keep this pretty simple. I'm speaking in support of this substitute motion, which achieves the ERP fishing mortality target in the third year. If this motion fails and the main motion passes, this Board will have essentially abandoned ecosystem-based fisheries management for menhaden. I do not see a path in which passing the main motion also means this Board is managing menhaden for the ecosystem. Thank you.

CHAIR CLARK: Thanks, Mike. In opposition I have the gentleman in the second row there. Yes, you're coming to the microphone. Step right up, Sir.

MR. SAUN GEHAN: Shaun Gehan for Ocean Harvesters and Omega Protein. Really, I wasn't going to speak, but the gentleman from Connecticut has raised the issue. I just want to point out. I certainly can't speak for Virginia, but in terms of, if you think that whatever cut can be minimized by reallocating away from Virginia, which has already given up 10% or maybe 75% of its original allocation.

I would just point to the ISFMP charter which states, "conservation programs and management measures shall be designed to achieve appropriate management results throughout the range of a stock. As I said, I don't speak for Virginia, but we'll be certainly keeping an eye on this, because if Virginia is going to be stuck with the tab for whatever you do, then most certainly has standing to raise the fishery science.

CHAIR CLARK: Thank you, Mr. Gehan. We have one more public comment from Virginia Olsen.

MS. VIRGINIA OLSEN: The Maine Lobstering Union does not support the substitute motion. We would like to see the new main motion pass.

CHAIR CLARK: Thank you, Virginia. Why don't we take another three-minute caucus and we'll vote on this. Is everybody read for the question to be called here? Okay, quiet please. Is everybody ready for that? It looks that way. **All those in favor, please indicate by raising your hand.**

MS. KERNS: Rhode Island, Massachusetts, Connecticut, New York, Pennsylvania, North Carolina, Maryland.

CHAIR CLARK: All righty, hands down. All those opposed, please raise your hand.

MS. KERNS: New Jersey, Florida, Georgia, South Carolina, Virginia, Potomac River Fisheries Commission, Delaware, Maine, New Hampshire, NOAA Fisheries, and Fish and Wildlife Service.

CHAIR CLARK: Are there any abstentions or null votes? I see none. The tally is, the motion fails 7-11, so the main motion is still on the floor. But I've been told Ms. Costa has another motion she would like to make.

MS. COSTA**: I would move to substitute to set the TAC for 2026 at 186,840 mt, this represents a 20% reduction from status quo, and revisit the 2027 TAC and 2028 TAC at the 2026 Annual Meeting.** If I can get a second, I'll provide some rationale.

CHAIR CLARK: We have a second by Senator Peake. Go right ahead, Nicole.

MS. COSTA: I think we've heard a lot of discussion already here today. We've had several motions. This represents, in my opinion, a good compromise and a way forward to simply set the TAC for 2026, allow the Board to take a pause to thoroughly consider all of the information presented in the single-species assessment and the ERP assessments, and also to go home and engage our stakeholders.

There was a question earlier about what new information we might have next year to consider when setting specifications for 2027 and '28. I think a lot of this information is still new to the Board members and the public, and it will give us the

opportunity to go back, do some public engagement, explain the assessment and the results to our stakeholders, and then seek some public comment, so we can come back here, hopefully with a clear mine at annual meeting next year, and tackled 2027 and '28 at that time.

CHAIR CLARK: Thank you, Nicole. Senator Peake, would you like to add anything to that?

SENATOR SARAH PEAKE: Sure, just in simple terms I've heard, expression-able out of confusion and uncertainty around the table. I think this sets the TAC at a reasonable level, and gives us the opportunity to revisit it. It's a do no harm and do some good kind of compromise, and I would encourage people to support it.

CHAIR CLARK: Can I just get a clarification from James or Toni? If the Board does not revisit this next year, would the TAC stay where it is for the following year? It's been confirmed. What this is doing is kind of addressing a point that Doug Haymans brought up before. If we set this for one year it's set. If we don't do anything next year it stays where it is.

Although as just mentioned by Ms. Costa, the Board had a chance to revisit this, possibly do further reduction, possibly leave it alone, whatever the Board wants to do. I just wanted to clarify that. Do we have any, okay, go right ahead, Bob.

EXECUTIVE DIRECTOR BEAL: Just to be crystal clear. You know if this substitute motion were to pass, when the Board considers the 2027 TAC it is just a simple majority. You are not changing something, so you don't need the two-thirds vote for anything, a simple majority will make that change, since the Board hasn't set anything for 2027. It would just be a simple majority if this were to pass at the annual meeting next year.

CHAIR CLARK: Got it, Bob, thank you. Who would like to speak to this motion? Those in favor, raise your hands. Okay, we've got Doug and Megan. Are there any who would like to speak in opposition to this motion? I have Allison Colden. Go right ahead, Doug.

MR. HAYMANS: To the point of what new information. We may only have catch, but we really haven't heard from SAS on this. We've heard through our e-mails a lot of impacts that each reduction may get, but it's varying sides of the industries or the recreational. But I would like to hear from SAS the number of jobs involved in both the reduction fishery and in the bait fishery, as well as the recreational side, and what the true impact of a reduction may be to the number of jobs in those. I would like to see that for next year's meeting.

CHAIR CLARK: Okay, we'll go to Allison Colden; who wants to speak in opposition.

DR. COLDEN: I'm good with it, Chair, thank you.

CHAIR CLARK: Then I'll go to Megan Ware to speak in favor.

MS. WARE: I'm in favor of this. I think looking back at our past two motions, the Board is clearly divided. But the one thing in common was a 20% reduction in 2026. I think we should move forward with that today, come back, and keep discussing this later.

CHAIR CLARK: In the interest of time here, Eric Reid, you would like to make comment?

MR. REID: Yes, I like a challenge, I suppose. If the only new information that will become available really is what Mr. Haymans is speaking of, but can also come from the industry as well, is that correct?

CHAIR CLARK: I believe so, are you talking about information regarding, socioeconomic information. I believe that is the case, yes. We're getting assent from Bob and Toni there. Yes.

MR. REID: I guess it's more than me that has been challenged. Okay, thank you.

CHAIR CLARK: Very good, and Ray Kane.

MR. KANE: Question. When we come back to discuss this next year at this time, we will have the overall TAC established for '24 and '25, what was landed of the available TAC for both '24 and '25?

CHAIR CLARK: You're talking about the catch, the landings? We will definitely have the landings. You are talking about the actual landings, not the TAC. We'll definitely have the actual landings for '25 by then. Okay, in the interest of time if there is no further discussion, let's caucus again. We'll take another three minutes. This time it will be three minutes, my bladder does not need to caucus. Okay, let's get ready to vote, everybody. Are we ready? Let's have quiet in the room, please. **Will all those in favor of this motion, please raise their hands, the substitute motion.**

MS. KERNS: Rhode Island, Massachusetts, Connecticut, New York, New Jersey, Florida, Georgia, South Carolina, North Carolina, Potomac River Fisheries Commission, Maryland, Delaware, Maine, New Hampshire, NOAA Fisheries and Fish and Wildlife Service.

CHAIR CLARK: That sounds like a lot, who is opposed?

MS. KERNS: Pennsylvania and Virginia.

CHAIR CLARK: Virginia, okay, are there any nulls or abstentions? Not seeing any, what is our tally, James, 16 to 2, the substitute becomes the main motion. Now that it is the main motion, before we take a final vote on that we will take two more public comments, one in favor, one opposed. Sir, you can come to the public microphone. State your name and your affiliation, and make your comment, please. The gentleman who is close to the microphone right now, are you both in favor or opposed? Opposed, okay, just one of you please, make a comment.

MR. DUSTIN DELANO: Good afternoon, my name is Dustin Delano of Friendship, Maine, Chairman and chief strategist for the New England Fishermen's Stewardship Association, a former menhaden seiner and a fourth-generation lobsterman. If we are revisiting this in one year, we shouldn't be considering anything more than a 10% cut, which would be a 0% chance of overfishing in the first year.

I urge the Commission to avoid these drastic cuts, even a lesser cut of 20% will have devastating effects. The science clearly shows menhaden are not overfished and overfishing is not occurring. The fishery is marine stewardship council certified, providing it being managed responsibly and sustainably. We also have to recognize the scientific uncertainty in the models can be used.

These big swings in results, driven by sudden modeling corrections, come out of left field in a road confidence in this process. That uncertainty should be a priority concern, not a reason for overreaction. The current measures already keep the stock healthy, and the risk of overfishing extremely low. Further sweeping cuts won't help the resource, but they will hurt working fishermen, bait suppliers, and the lobster and crab fisheries that depend on menhaden. Thank you.

CHAIR CLARK: Thank you, Mr. Delano. Is there anybody who wants to speak in favor of this motion in the audience? Not seeing any. Okay, this is now the main motion. Does anybody need time to caucus? Not seeing any. **Is there anybody opposed to the motion? Let's see if we can do this easy. Yes, okay we have Virginia, we will take a vote. Once again, those in favor, please raise their hands.**

MS. KERNS: Rhode Island, Massachusetts, Connecticut, New York, New Jersey, Florida, Georgia, South Carolina, North Carolina, Potomac River Fisheries Commission, Maryland, Delaware, Maine, New Hampshire, NOAA Fisheries, Fish and Wildlife Service.

CHAIR CLARK: Those opposed.

MS. KERNS: Pennsylvania and Virginia.

CHAIR CLARK: Okay, and I take it there are no abstentions or nulls. The motion carries by the same measure, 16 to 2. We have now settled that agenda item, thank goodness. Okay, we're not done yet. Now we move on to Item Number 6, which is consider approval of the fishery. Oh, Bob has something to say here.

EXECUTIVE DIRECTOR BEAL: I don't know, clock's running and the next agenda item is the FMP Review, and part of that FMP Review is going to be a history of landings and sort of feed into the allocation conversation. The Board could approve the FMP Review via e-mail and speed that up. But if there is interest in reallocation, which I haven't heard anyone say there is, necessarily right now.

We'll go the other way. If there is no interest in reallocation, I think we can probably change the FMP Review to approval via e-mail, and then we can move forward. But I think in order to make that change you would need to verify that no one wants to have a conversation about reallocation at this point, to initiate.

CHAIR CLARK: That is exactly what we were, I know when James and I spoke about this, if there was no interest in reallocation at this point, as you said, we could do the FMP Review by e-mail, because I know Maryland is very not much concerned about getting to the following agenda. Let me just ask for a show of hands. Is any state of jurisdiction looking to revisit allocation at this time? Nichola Meserve.

MS. MESERVE: I don't want to have the discussion today, but if we don't have it today, I would ask that it be on the annual meeting agenda for 2026, if we bypass it today, if that is possible. When we are also talking about setting the TAC for 2027.

CHAIR CLARK: Sounds good to me, I won't be the Chair. Yes, Toni.

MS. KERNS: Nichola, if you were interested in reallocation, what is the year that you would like to see that reallocation go into effect? If we put it out in the annual meeting, we couldn't do that for 2027, it would be 2028 at the earliest. Okay, just wanted to confirm.

CONSIDER APPROVAL OF FISHERY MANAGEMENT PLAN REVIEW AND STATE COMPLIANCE FOR THE 2024 FISHING YEAR

CHAIR CLARK: Okay, so this is where we are now. We are going to do the FMP Review by e-mail.

CONSIDER COMMERCIAL QUOTA REALLOCATION

CHAIR CLARK: We are putting off any action on commercial quota reallocation until 2026.

CONSIDER PLAN DEVELOPMENT TEAM DIRECTION ON CHESAPEAKE BAY

CHAIR CLARK: That brings us to Item Number 8, which is, Consider Plan Development Team Direction on Chesapeake Bay. I believe we can go right to the Board on this one, James. James has a couple slides to put up here, and then we'll go to the Board on this.

MR. BOYLE: I have a very, very quick update, just to provide a little bit of background. At the summer meeting the Board tasked the PDT with developing a white paper of options for distributing the Chesapeake Bay Cap more evenly throughout the fishing season, with the intent of providing drafts of those options at the winter meeting in 2026. So far, the PDT membership has been approved by the Board, that will be on the slide. We have not met yet, and are still working on finalizing confidential access for each member for all the Bay jurisdictions, including NOAA Fisheries Southeast Region, so they can get our work with the landing's information. That is what has happened so far. That is a brief update, and I can take any questions, or if we can accept further direction from the Board.

CHAIR CLARK: Are there questions for James or is there further direction? I see question from Emerson Hasbrouck.

MR. EMERSON C. HASBROUCK: Based on the motion that we just passed, we were going to have a 20% reduction for next year, and we're not sure what we're going to have in subsequent years. We'll decide that a year from now. If we're going to be talking about the Bay catch, I would suggest that we have a discussion about reducing the Bay Cap comparable to whatever we reduce the TAC.

CHAIR CLARK: Yes, that is where we're heading is, once again reiterate, the TAC did not include the Bay Cap, so that whole discussion we had about the TAC did not actually touch the Bay Cap, and that is something that I think is a big concern to Maryland, and Lynn, you would like to speak to that.

MS. FEGLEY: I would, Mr. Chairman, and I really appreciate the time and the opportunity to address this again with the Board. This is a very important issue to Maryland, and I thank you, James, for the update of where we are. Last summer we did ask for a white paper about the Bay Cap. I do want to back up a little bit for everybody, and just describe again the fishery that we have in Maryland.

We have a very small menhaden fishery that is primarily pound net. These are stationary gears that dig in shoal water. They are for the most part manually fished. The fish come to the net, we do not pursue the fish. For that reason, the netes are in a way an index of what is within the Bay, and the pound net indices have been used in the past part of our stock assessment.

What is harvested, the menhaden that are harvested in our pound nets support our iconic and culturally important trap fishery. We have talked a lot about socioeconomic impact, and I want to be really clear about the social and economic impact we are seeing in our community that rely on menhaden harvest to support our trap fishery.

We are not seeing menhaden. We have a failing menhaden fishery. In 2024 we barely cleared a million pounds. This is a fishery that used to harvest somewhere around 10 million pretty easily. In the last three years we have not seen harvestable fish. We have seen the little fish. We have seen them, but we haven't seen the big fish. Against this backdrop, last spring we were presented with the Precautionary Chesapeake Bay Management Work Group Report, which was an excellent piece of work.

We saw data that we hadn't seen before, and one of the things that we saw was intensive fishing pressure in the northern part of Virginia in the mid-summer, which would be the time when our nets should be catching. Again, I want to be really clear that we are not trying to single out a single cause. The Bay is under an incredible amount of stress right now. Things are changing. There are multiple causes to what we're seeing, but in our mind, we have been waving our arms, and we would like to very much explore how we can release some pressure, and mitigate some stress on our Chesapeake and potentially get some access to these fish. Without belaboring the point, we do want to make a motion, and that is:

Move to initiate Addendum II to the Atlantic menhaden fishery management plan, to address Chesapeake Bay management concerns. The addendum shall develop periods for the Chesapeake Bay Cap that distribute fishing effort more evenly throughout the season and also develop a range of options to reduce the Bay Cap from status quo to 50%. If I get a second, I'll talk about that last part, I'll justify that a little bit, Mr. Chair.

CHAIR CLARK: Second we have Rob LaFrance. Okay, Lynn, go ahead and speak to the motion.

MS. FEGLEY: We heard it around the table that some thought that it would be wise, put in the position that we're in that we reduce the cap commensurate with the TAC. Because now we're putting in a situation where we've only got the TAC set for a year, we really don't know what that TAC is going to be going forward. As everybody knows,

the TAC, which was set by Board action, this is going to be an addendum.

I'm assuming we'll get something back for comment for the Board to review in the winter, and then we will, something will happen in the spring, in terms of finalizing the addendum, but we won't know how to reduce that cap, because we don't know what the TAC is going to be going forward. The idea there would be for the PDT to come up with options to reduce the cap that they feel would be commensurate with the TAC reductions, if that made any sense at all.

CHAIR CLARK: Just so I'm clear. I know we've been hearing talk about linking the cap more directly to the TAC, like as a percentage. But this would just be taking the current cap and reducing it up to 50%. Still the cap would be separate from the overall TAC. Okay, thank you. Rob LaFrance, as seconder.

MR. LaFRANCE: Yes, I just want to support this motion, primarily because we had a working group report and we started looking at this issue, and last meeting talked about pulling together a PDT. I think what Lynn is putting forward here is putting a finer point on that, after the vote we had today on the TAC. My sense is again, we would be able to kind of pull out all this information, and understand the Bay cap better. I think the PDT is the expertise that we have been looking for to do this to help inform the Board. Again, I support the motion, I think it's a place we need to go.

CHAIR CLARK: Now let's open it up for discussion. Can I see hands of those in favor of the motion. I'm not seeing any. Can I see hands of those opposed to the motion. Joe Grist. Go right ahead, Joe.

MR. GRIST: At the beginning of this meeting during public comment we heard about the Science Center for Marine Fisheries study, and also many of us received an e-mail last week, a surprise to a lot of people. We've got five renowned fishery scientists of impeccable integrity, who are going to be looking at this very thing, and looking at what it would take to do a science-based cap. The cap is not science based; it's based on whatever the whims of this Board is.

It hasn't changed for a number of years, even though the TAC has gone up and down the Bay TAC hasn't changed, it's been steady. There is no causation for that. We have a group of scientists who we all know, we've all received work for, we've all respected that are going to work on this issue. Our PDT wouldn't even have to do the work.

Somebody else is going to do it for us and pay for it. Why not wait and let the scientists come up with the answer, instead of us sitting here and trying to do it piecemeal, and then their results come out and we go oh, we either got it right or we got it wrong. That is not a risk I'm willing to take.

CHAIR CLARK: Next, I have Dennis Abbott and then Allison Colden.

MR. ABBOTT: To Joe Grist's comments. We received on our desk this paper about Science Center for Marine Fisheries, whatever it is, and a number of prominent scientists signed on to this. But what it doesn't talk about is it specifically never mentions menhaden, and it also, being a private organization.

I don't see they are under any time constraints to provide any results to us in one year, two years, three years, four years or ten years. Though I appreciate what they want to do, I don't think that should be at this moment in time part of our management process. Thanks.

CHAIR CLARK: Next up is Allison Colden and then Joe Cimino, and then Jeff Kaelin.

DR. COLDEN: You know with all due consideration to this study that was just announced last week. Obviously, this Board is well aware that this is something that we have been asking for and pursuing for over a year. We took the time to very deliberately bring together a Board Work Group,

which I was happy to serve on, and serve with my fellow Board members to explore a range of different options.

We presented that, we got to a point where we wanted to move something forward. We got to the August meeting, couldn't necessarily move something forward, and here we are again asking this Board to please help us address the significant issues that we are seeing in the Chesapeake Bay. Not only that, initiating this addendum today.

One, as we all know how this process works, it does not obligate us to take any action. We are initiating an addendum to explore different options for the Chesapeake Bay, and nothing about initiating an addendum or even taking final action on this addendum would preclude the science and the information that this SCEMFIS study would pursue. To that end, I'm just urging the Board, and asking to allow this addendum to be initiated. We can continue these conversations as the addendum process proceeds, with appropriate public process and input as we're designed to do.

CHAIR CLARK: James Minor, I'm assuming you're also going to be opposed to this motion, so let's go to you to speak.

MR. JAMES MINOR: Yes, I have a question. I just want to note. Lynn, can you confirm that you have the same amount of pound netters, and/or effort to be catching less menhaden?

MS. FEGLEY: I believe the answer to that is yes. Yes.

CHAIR CLARK: Follow up, Mr. Minor?

MR. MINOR: I'm good.

CHAIR CLARK: We'll go to Joe Cimino, then I have Jeff Kaelin and then Marty Gary.

MR. CIMINO: I was kind of coming in with a question more than anything. I'm not speaking for New Jersey, just for myself. I'm definitely not opposed to the motion. I agree with a lot of what Allison said. I just wondered, since there is no time specific here, my assumption is that if we start an addendum, it's not necessarily going to put us ahead of any new research that comes out. In the process we can adjust as we go, if we do believe there is new research coming forward. In general, I think this is a discussion that needs to happen.

CHAIR CLARK: I'm sorry, Joe, was there a question there?

MR. CIMINO: Yes, I guess it's just to the time certain. If there isn't, and it's just that we're going to begin working on something with no time certain, this isn't for the annual meeting in 2027 or 2026, then I think I personally could support the motion. Again, I'm not speaking for the state.

CHAIR CLARK: There is no time certain in the motion. I don't know if after we vote on it, if somebody would want to set one, but as of right now, Lynn, correct, there is no time certain on this. Okay, great, next up we have Jeff Kaelin and then Marty Gary, then Nichola.

MR. KAELIN: I just wanted to respond to Dennis' questions. If you take a look at the handout, you'll see a list of companies that have been involved with the Science Center for Marine Fisheries for the last 11 years. It's an Industry/University partnership that is supported by the National Science Foundation, and we went down that road because we had a lot of trouble with the voracity of industry funded research being minimized because it came from the industry.

We work with the National Science Foundation. This project was just funded; the meeting just occurred in Annapolis a couple of weeks ago. We've been at the table for 11 years by then. That is after doing applied research. This project will be available within the next calendar year. They are going to go to work.

The money has been funded, it's a $60,0000.00 project, which was funded by this collaboration of

industry people that have been at the table with NSF for 11 years. That's who SCEMFIS is, and I'm sure you've heard of it before. I think we have a lot of integrity with that process. We have two host institutions, VIMS being one and the other being University of Southern Mississippi. The track record is very, very good. We're very proud of the work that has come out of SCEMFIS, and we were happy to do this because this issue has been sitting around for so long, we felt that it needed a scientific review. Personally, I'm opposed to the addendum myself. We haven't figured out where we are as a caucus yet.

But I think we should wait and get that information. We don't have the white paper yet, which we talked about earlier on the direction of the Chesapeake Bay. Two things, I wanted to talk about SCEMFIS and what we've accomplished there, and the second thing I'm saying, I think this addendum motion is premature, and I'm personally opposed to it.

CHAIR CLARK: Is there anybody else who has a question right now? I think I have Marty, Nichola and Adam in the queue. Did you guys have comments, or either of you just have a question. Okay, so Adam, you have a question? I'll go to Eric first, and then to Adam on questions.

MR. REID: I agree with Mr. Kaelin, we've all seen work by SCEMFIS already, through the Mid-Atlantic Council, and they do fabulous work. But my question is, the last two lines of the motion says, a range of options to reduce the Bay Cap from status quo to 50%. I would like to know if that means from status quo directly to 50%, or is it status quo up to 50%? Okay, thank you.

CHAIR CLARK: Then a question, yes up to. Can that be added, or does that have to be added with a motion. Is the Board good with just putting the word up in there so it's clear? Okay, sounds that way, so Adam, go ahead with your question.

MR. ADAM NOWALSKY: I'm just trying to get clarity on the interplay of the motion that was shown earlier from the summer meeting, where the PDT is developing options for distributing the reduction cap more evenly, and this says the Addendum shall develop periods that distributes fishing effort more evenly.

The only difference I see between the tasking from them from the summer meeting was that we're going to go ahead, distribute harvest differently. This is saying we're looking at fishing. What is the difference here that we're going to get from the work that we tasked the PDT work to be done in the summer and the initiation of this addendum? It seems like that work has already been tasked and underway.

CHAIR CLARK: Let me turn that over to Lynn Fegley and see if she can respond to that.

MS. FEGLEY: The idea here was to take the work that we had asked for in the summer and roll that into an addendum document. I understand now that the language looks different, but the idea here is to now create an addendum that develops options to distribute the Bay Cap to removal of those fish more evenly through the season to mitigate potential bottlenecks. That part of the tasking really hasn't changed, except that now it gets rolled into an addendum that also addresses keeping the Bay Cap in the same, reducing it proportionately to the TAC.

CHAIR CLARK: Follow up, Adam?

MR. NOWALSKY: Yes, so I'll just offer if you want to continue moving through your queue, the answer to that question kind of cements a position in my mind. I'll either defer to letting you continue to the queue, or wherever you want me to go with that.

CHAIR CLARK: Let's go back to the comments then, and we can move on after that. We have Marty Gary and then Nichola Meserve.

MR. MARTIN GARY: Mr. Chairman it was another question if it's okay.

CHAIR CLARK: Another question, okay, go ahead, Marty.

MR. GARY: It's to Maryland. I understood what Lynn said clearly, but my question was to Russel if you could. I know you mentioned it at the previous meetings, Russel, but you're based out of Tilman, I've worked with you a lot over the years, and I know you know every single pound netter in the Chesapeake Bay and the Maryland section. Jut wondered if you could offer a free characterization from your viewpoint.

MR. RUSSEL DIZE: Marty, I would be glad to, but my voice is shot. Our pound netters in Maryland have caught 0 fish this year, none. We have Robby Wilson at Tilman, I spoke to him Thursday, and his recall one bushel of menhaden, the average fish was 4 inches. That is all he's caught this summer. Also, Bill down at Obers Island, they haven't caught enough fish to sell, so we're in a bad position in Maryland. I'm sorry for my voice.

CHAIR CLARK: No problem, Russel, thank you for that information. Now we move on to Nichola Meserve.

MS. MESERVE: I support a lot of what is in this motion. My concern with it, however, is that it doesn't address any reduction to the Bay Cap for 2026, is my understanding, based on the timeline that is presented, this is a normal addendum process, and so we have taken action to reduce the coastwide quota, affecting all the states by 20%, but we're not taking a commensurate reduction in the Bay Cap for next year. That is a concern with it.

I think I can get past that. However, I did like what you brought up, Mr. Chair, the idea of linking the same cap more directly to the TAC, such as setting it as a percentage, so that we don't always need an addendum to react quicky to a change in the TAC. Addendums also take up a lot of Commission resources.

Another way that the Bay Cap could also be adjusted commensurate with changes in the TAC for specifications. You know we do that for the TAC affecting all the states, but for some reason we can't do that for the Bay Cap. I'm not sure I understand why that is. I think I would like to amend the motion, and I'm sorry, I'm going to have to do this a little bit on the fly, because my prior motion that I submitted is not quite going to work now. Move to amend to add setting it as a percentage of the TAC or allowing the Bay Cap to set your specification.

CHAIR CLARK: Once that is up on the screen we'll see about getting a second. Yes, and maybe when it's up there, Nichola, you can check it out and see that it's what you are wanting.

MS. MESERVE: Move to amend to add "setting it as a percentage of the TAC."

CHAIR CLARK: Where would that be added?

MS. MESERVE: The very end of the sentence. It would be a range of options to reduce the Bay Cap from status quo up to 50%, setting it as a percentage of the TAC or allowing the Bay Cap to be set by specifications. That is how it would read altogether.

CHAIR CLARK: Okay, is what is up there on the board what you want? While we're waiting, I think we've all got the idea here. Is there somebody that would like to second this amendment? David Borden, okay. If that is acceptable, Nichola, would you please read that into the record?

MS. MESERVE: **Move to amend to add after 50% and set the Bay Cap as a percentage of the TAC or allow the Bay Cap to be set by specification.**

CHAIR CLARK: Thanks, so we have a motion to amend and a second. Do we have comments on this new motion? Nicole Costa.

MS. COSTA: Yes, I just had a clarifying question to the maker of the motion. The way the Amendment reads is that it would be a percentage of the TAC or

be set by specifications. Is that the intent, or did you want to allow for both?

MS. MESERVE: I was envisioning it as an "or". An addendum could set the Bay Cap as a percentage of the TAC, and so each time the TAC changes the Bay Cap would also change, you wouldn't need further addendums, or as an alternative the Bay Cap could be set via specifications, therefore also alleviating the need to have an addendum each time we change the Bay Cap.

CHAIR CLARK: Did that answer your question, Nicole? Okay. Lynn.

MS. FEGLEY: I really appreciate the intent behind this, but I think we need to be extremely careful here. I don't think that I could support it, because of comments. You know the point made earlier by Mr. Kaelin across the table. You know we are, I think in the best-case scenario, in several years we are going to have a science-based way to estimate this cap. We have been waiting for that. We have been waiting for that and waiting for that, and so I would rather than get in the business of tying the Bay Cap to specifications.

I would rather get through a public process such as an addendum, and I would in my mind, the cap there it should be until we have a new stock assessment, or until we have the science, to tell us how to appropriately set that cap. I get a little worried. You know this is a lot that we've thrown out there, and speaking of instability, this just concerns me a little bit. I think I'm more comfortable with the addendum process.

CHAIR CLARK: Lynn, are you saying that you're just opposed to the allowing the cap to be set by specification or the entire amended amendment?

MS. FEGLEY: I just misspoke. I'm just opposed to the amended motion.

CHAIR CLARK: Okay, so the entire amended motion.

MS. FEGLEY: Correct.

CHAIR CLARK: Anybody else who would like to speak to the amendment to the motion? I'm not seeing any hands. Just to be very clear, what this amendment would do is, in addition to what Lynn, I just want it clear, because I'm trying to think out loud here. What you said is just to reduce the static Bay Cap by either a 0 status quo or up to 50%.

What this would do would be allow the Bay Cap to be set as a percentage of the TAC, which would then kind of get it away from that static Bay Cap that we have now or just set it as part of our specifications, which I assume means that it could be changed at any time, any time the Board takes specification action.

Okay, Bob is nodding. Is everybody on the Board clear about that? Okay, great. In that case why don't we caucus then, take another three minutes' worth. Okay, can the Board return to the table? Is it just me or were some of these decisions easier to make years ago? I don't know, shows how old I am. The good old days.

The good old days where we got together. Okay, we have an amendment on the floor to a motion. We've had a caucus here, and so I believe it is time for us to take a vote. **Those in favor of the amendment, please raise your hands.**

MS. KERNS: Rhode Island, Massachusetts, Connecticut, North Carolina, New Hampshire.

CHAIR CLARK: All right, those opposed please raise your hand.

MS. KERNS: New York, New Jersey, Pennsylvania, Georgia, South Carolina, Virginia, Potomac River Fisheries Commission, Maryland, Delaware.

CHAIR CLARK: Abstentions? Yes, we have Maine that is just abstaining. Okay, and who else?

MS. KERNS: NOAA Fisheries, Fish and Wildlife Service, Maine, Florida.

CHAIR CLARK: Holy Chamoli that's a lot of abstentions. Nulls, do we have null votes too? Okay, we don't have any nulls, so what is our final tally, James? Okay, motion fails 5 to 9 to 4 to 0. I think from discussions, I don't think people were opposed to what Nichola's idea was, more that just the original motion fits in better with where Maryland wanted to go with this.

CHAIR CLARK: If there is no further discussion on the main motion is the Board ready to vote? Do we need to caucus? Are there any further comments that need to be made? Okay not seeing any, oh, Adam Nowalsky.

MR. NOWALSKY: I just wanted to make a comment here, Mr. Chairman, and that comment is that, first off, I want to say I am very concerned about what I'm hearing about Maryland issues here. I am 100% confident that there is a very real issue here. I am very concerned though at the same time about the optics of what transpired between the summer meeting and now, doing this at the very end of a meeting, rushing through it.

Having comments from yourself about a non-motion and a non-management action, having certain individuals saying, well we're going to go develop options for some future management action. The expectation, reading through the minutes from the previous meeting was we were going to get that PDT work before we initiated a management action.

Now, here we are today, we initiated options previous meeting, we haven't seen them yet. Now we're going to initiate the management action. I'm just really concerned about the optics here. I'm going to put that on the record. I'm not going to take any other action with it, but I just wanted to put that out there.

CHAIR CLARK: Thanks, Adam, I'm sorry if I've confused things worse, but I think the Board understands that what Maryland is proposing here. Once again, Lynn, this is different than what was agreed to at the summer meeting, correct?

MS. FEGLEY: The tasking to distribute the fishery, so whether we're talking about target or effort, the tasking really, in my mind, isn't changing from the summer. What we want to do is take that conversation we had at the summer meeting, and take what we were looking to have in a white paper and roll it into a single addendum with options for the Bay Cap, it's a single addendum.

CHAIR CLARK: Okay, is the Board clear about that? Are there any further questions or comments on this? Not seeing any; does anybody does anybody need to caucus? Not seeing any. Why don't we see if we can do this the easy way. Does anybody oppose this motion? Oh, Virginia does oppose?

Gee whiz, how could I forget? Sorry, I'm getting ahead of myself here. Let's go to the public, are there comments either in favor or opposed to this? I see in the front row here, and Sir, you're opposed to this motion? Okay, come to the mic, you have one minute. Then Sir, are you in favor of the motion? Okay, then you come up after him, and once again state your name and your affiliation.

MR. BEN LANDRY: Hi, my name is Ben Landry, and I'm with Ocean Harvesters. I think it is clear to everyone that this is not, you can change the name of it, it's an Ocean Harvesters Cap and it only applies to the reduction fishery. You can mask it in any way. You know when you have dozens of fishermen in the back and it's just such a callous conversation about, let's hurry up and figure out how we can cut their harvest in the Bay.

It just sets a really wrong tone, particularly when you hear from the Maryland delegation talk about how they need more fish for their pound netters, and they listen if that's a concern then we should have a discussion on that. But it's a little hypocritical to say, my pound netters need more fish, but let's hurry up and cut it from the reduction

industry. Bait fish are fish caught in the pound netters. They are not less ecologically important than those caught by the reduction fishery. I think it's kind of an indictment, I guess, on the entire Bay Cap, but thank you for your time.

CHAIR CLARK: Thank you, Mr. Landry. Next up, speaking in favor of the motion.

MR. WILL POSTON: Yes, thank you, Mr. Chairman. Will Poston with the Chesapeake Bay Foundation. I'll focus on two main pieces. There was a lot of discussion about the SCEMFIS study, and I want to clarify based on my understanding. This is not giving us anything new, it's designing a plan to move forward.

We are years away from a scientifically defensible ecosystem-based Bay Cap. I think that needs to be recognized by this Board. Secondly, you know just think about the decision we just made. We made a lot of sacrifice in favor or the socioeconomic impacts and are not addressing the grave concerns that we have in Chesapeake Bay around a struggling ecosystem.

This is an opportunity to explore that and address the stress that we're seeing in Chesapeake Bay and provide management alternatives to alleviate stress. Again, this is a Cap. This is not reducing prosecutable quota by the fishery. Thank you.

CHAIR CLARK: Thank you, Mr. Poston. Okay, back to the Board. Any final comments before we call the question? I am not seeing any, so we're calling the question now. **All those in favor, please raise their hand.**

MS. KERNS: Rhode Island, Massachusetts, Connecticut, New York, Pennsylvania, Georgia, South Carolina, North Carolina, Potomac River Fisheries Commission, Maryland, Delaware, Maine, New Hampshire.

CHAIR CLARK: All those opposed.

MS. KERNS: New Jersey, Virginia.

CHAIR CLARK: Any abstentions.

MS. KERNS: NOAA Fisheries and Fish and Wildlife Service are abstentions, null is Florida.

CHAIR CLARK: Florida is null, okay, so our final tally, the motion passes 13, 2, to 1. Is there anything else on that item, Lynn, or does that settle that? In the interest of time, and because we've all been sitting here for a good long while, James, do you want to address Item Number 8 and maybe we put that one off? You're going to bring up a slide. Okay, Jeff, you want to bring this up?

MR. KAELIN: I do, Mr. Kaelin, and I'm sorry that I withdrew the motions in August, because the point I was trying to make about the cold water on the shelf and the impact on menhaden fishing coastwide, including in New Jersey, was lost in the discussion, because I never made the motion. These are two motions that I was going to make relative to environmental issues back in August, and again, I'm sorry I didn't make them. It is a little late, but we can always eat later.

CHAIR CLARK: That's what you think.

MR. KAELIN: I know that's not a popular thing to say, but I want these motions to be considered by the Board today.

CHAIR CLARK: Understood, Jeff.

MR. KAELIN: The purpose, going back to where we were in August was to make recommendations to the Technical Committee about issues like this. Those are the two motions that I have.

CONSIDER TECHNICAL COMMITTEE DIRECTION ON COASTAL ENVIRONMENTAL CONDITIONS

CHAIR CLARK: I tell you what, Jeff. I was just talking to James here briefly. You did bring these up in August. If the Board would like to task the Technical Committee with investigating, as you've

written these here. We don't need motions; we just need Board consent to have the TC tasked with pursuing these environmental investigations.

MR. KAELIN: I think that is a great way to move forward.

CHAIR CLARK: Let me ask the Board, can everybody read these? Has everybody seen this? Is the Board comfortable with these as tasks to the TC? Okay, James is going to make a clarification.

MR. BOYLE: Just a quick clarification, I see everybody reading them. These are the same that I sent out after the August meeting. They are Number 1 and Number 3 of the three bullet points I sent out after the August meeting, if that helps remind anybody.

CHAIR CLARK: Question from Lynn Fegley.

MS. FEGLEY: Just really quick. I think this is a great idea, but I'm curious with the bullet point about the local abundance of menhaden and other forage in Chesapeake Bay. Would the TC interface at all with the SCEMFIS project? I mean would we be sharing information about that, so we're all working for the same goals?

MR. KAELIN: Yes, Ms. Fegley, yes. I think so. It should be that way, yes.

CHAIR CLARK: Anything else on this? I'm not seeing any opposition from the Board. I think we've had the clarification that was asked for. We're good with moving ahead with tasking the TC these two items, James? Okay. If there are no further comments on that, we're settled with that, which brings us to Item 10, Other Business. Is there any other business to come before the Board? Mr. Grout.

MR. GROUT: Just very quickly. Part of the record here is a very clear, brief discussion by Katie Drew as to why the population abundance and the quotas have been reduced. If that can be included in a press release, you know a very simple clarification so that the general public can understand why there was such a drastic thing. Thank you.

CHAIR CLARK: That's a great idea, Doug.

DR. DREW: We can definitely work on that to the press release. I'll also say, we have been putting together a frequently asked questions document that 100% includes that information, so that would be part of the materials that we distribute after the meeting.

CHAIR CLARK: That will be great, Katie, thank you very much.

ADJOURNMENT

CHAIR CLARK: Okay, well I guess in that case, who wants to make the motion to adjourn? We've got Dennis Abbot and a second. We are adjourned.

(Whereupon the meeting adjourned at 5:15p.m. on Tuesday, October 28, 2025)