PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ATLANTIC MENHADEN MANAGEMENT BOARD

The Westin Crystal City
Arlington, Virginia

August 3, 2022

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ATTENDANCE

Board Members

Megan Ware, ME, proxy for Pat Keliher (AA)
Cheri Patterson, NH (AA)
Ritchie White, NH (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Nichola Meserve, MA
Raymond Kane, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Justin Davis, RI (AA)
Bill Hyatt, CT (GA)
Jim Gilmore, NY (AA)
Emerson Hasbrouck, NY (GA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
Kris Kuhn, PA, proxy for T. Schaeffer (AA)
Loren Lustig, PA (GA)
G. Warren Elliott, PA (LA)
John Clark, DE (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Lynn Fegley, MD, Administrative proxy
Russell Dize, MD (GA)
Allison Colden, MD, proxy for Del. Stein (LA)
Pat Geer, VA, proxy for J. Green (AA)
Bryan Plumlee, VA (GA)
Chris Batsavage, NC, proxy for K. Rawls (AA)
Jerry Mannen, NC (GA)
Malcolm Rhodes, SC (GA)
Chris McDonough, SC, proxy for Sen. Cromer (LA)
Doug Haymans, GA (AA)
Erika Burgess, FL, proxy for J. McCawley (AA)
Gary Jennings, FL (GA)
Marty Gary, PRFC
Max Appelman, NMFS
John Coll, USFWS

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

Ex-Officio Members

Joshua Newhard, Technical Committee Chair

Staff

Bob Beal
Toni Kerns
Lisa Carty
Tina Berger
Pat Campfield
Lisa Havel
Chris Jacobs
Jeff Kipp
Geoff White

Guests

Steve Atkinson
Pat Augustine, Coram, NY
Gerald Ault, Univ Miami
Rachel Barrales, Cape Cod CFA
Rob Beal, ME DMR
John Bello
Alan Bianchi, NC DENR
Ingrid Braun, PRFC
Jeff Brust, NJ DEP
Al Erskine
Thomas Burkett
Diane Bynum
Will Caldwell
Debbie Campbell
Nicole Caudell, MD DNR
Mike Celestino, NJ DEP
Benson Chiles, Chiles Consulting
Matt Cieri, ME DMR
John Cooke, Saving Seafood
David Fuller, Kelley Drye
Nicole Costa, RI DMF
Heather Corbett, NJ DEP
Robert Crockett
Monty Deihl, Ocean Fleet Svcs.
Greg DiDomenico, Lund's Fisheries
John Duane
Paul Eidman
Al Erskine
Shaun Gehan, Gehan Law

Guests (continued)

Angela Giuliano, MD DNR
Lewis Gillingham, VMRC
Brendan Harrison, NJ DEP
Marin Hawk, MSC
Helen Takade-Heumacher, EDF
Amanda Higgs, NYS DEC
Jaclyn Higgins, TRCP
Peter Himchak, Omega Protein
Kyle Hoffman, SC DNR
Harry Hornick, MD DNR
Jesse Hornstein, NYS DEC
Jeff Kaelin, Lund's Fisheries
Adam Kenyon, VMRC
Rob LaFrance, Quinnipiac Univ
Ben Landry, Omega Protein
Tom Lilly
Brooke Lowman, VMRC
Sharon Luk, House Rep. (ME)
Pam Lyons
Shanna Madsen, VMRC
Shanna Madsen, VMRC
Joshua McGilly, VMRC
Dan McKiernan, MA (AA)
Jason McNamee, RI (AA)
Kevin McMenamin
Christi Medice
John Maniscalco, NYS DEC
Steve Meyers, Williamsburg, VA
Mike Millard
Chris Moore, CBF
Brandon Muffley, MAFMC
Allison Murphy, NOAA
George O'Donnell, MD DNR
Scott Olszewski, RI DEM
Gerry O'Neill, Cape Seafoods
Derek Orner, NOAA
Nick Popoff, US FWS
Will Poston, SGA
Jill Ramsey, VMRC
Harry Rickabaugh, MD DNR
Mike Ruccio, NOAA
Eric Schneider, RI DEM
Somers Smott, VMRC
Rene St. Amand, CT DEP
David Stormer, DE DFW
John Sweka, US FWS
Christina Vaeth
Bob Vanasse
Scott Curatolo-Wagermann, Cornell Univ
Mike Waine, ASA
Ellen Waldrop SC DNR
Meredith Whitten, NC DENR
Angel Willey, MD DNR
John Page Williams
Chris Wright, NOAA
Phil Zalesak, Tall Timbers, MD
Faith Zerbe, DE Riverkeeper
Erik Zlokovitz, MD DNR
Renee Zobel, NH, F&G

The Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia, via hybrid meeting, in-person and webinar; Wednesday, August 3, 2022, and was called to order at 2:15 p.m. by Chair Mel Bell.

CALL TO ORDER

CHAIR MEL BELL: Okay folks, let's go ahead and get started. I'm Mel Bell; I'm Chair of the Menhaden Board, and we'll call the Menhaden Board to order. Welcome! We've got a fun, action-packed agenda today, literally. We're already 45 minutes behind or so. My objective is to get us finished here without having to order out for pizza, okay?

I'm sure they have good pizza here; but I don't want to do that.

APPROVAL OF AGENDA

CHAIR BELL: First item on the agenda is approval of the agenda. Do any of you have suggested changes to the agenda? I have one. Okay, we have one topic that we will discuss that has no action item, and that is a briefing on the stock assessment.

Dr. Amy Schueller, who graciously came up from Morehead City has to drive back to Morehead City as soon as she's finished. I would rather not keep her here late, so we're going to move her first, in terms of when we get to the items on the agenda. That will be one change to the agenda. Any objections to that? I don't see any, then that stands approved.

APPROVAL OF PROCEEDINGS

CHAIR BELL: Next, would be Approval of the Proceedings from the May 2022 Meeting. Are there any edits or changes necessary to the proceedings from May 2022? I don't see any hands. Then the proceedings will be approved.

PUBLIC COMMENT

CHAIR BELL: Okay, it takes us to public comment. Again, we're running a little late, but I know we have public comment in person, and I think online as well. What I would like to do is limit it to three minutes for each individual. We can start either online or in-person, whichever is easiest. Do we have somebody in person that would like to go first?

MR. PETER HIMCHAK: I'm surprised they called me so quickly. My name is Peter Himchak; and I work for Omega Protein. We are getting to the point where it's becoming intolerable to see the same public comments coming to this management board every time it meets. The particular comments only come from a few individuals. There are some form letters, or there are petitions now being circulated. There is always this accusation of overfishing menhaden in the Chesapeake Bay.

We're threatening the forage base of the predators. We would like to see some of these statements backed up by scientific fact or a publication. We rely on the ASMFC and its technical scientists are exploring the special component of the BAM. We've supported them through the ERP process, and we will consider to support them in whatever direction they go from here. But this whole issue of Chesapeake Bay. We hope it stays in the domain of the ASMFC scientists.

Just because you are constantly flooded with faxes and articles and letters, etcetera, etcetera, that talk about how we are crippling the forage base in the Bay. We would like to see that abate to some extent. We get tired of reading it, and hopefully you do as well. Until some science comes along, I just can't stand reading the same comments over and over, and I hope you feel the same way.

CHAIR BELL: Thank you, Sir, appreciate your comments. All right, we'll shift over to online. First, I have Phil Zalesak. Phil, if you would like to go first. Three minutes.

MR. PHIL ZALESAK: Yes, Board members, and the representative of Omega Protein. My name is Phil Zalesak; I'm a recreational fisherman in southern Maryland. It's time to shut down the last remaining Atlantic menhaden reduction fishery on the Atlantic

coast, as the overharvesting of Atlantic menhaden is destroying the future of striped bass in the Chesapeake Bay and beyond.

Allocating 71 percent of the total allowable catch of Atlantic menhaden to a Canadian reduction fishery, Omega Protein, is of no benefit to American fishermen or American taxpayers. That is a total of 136,313 metric tons or over 653 million fish per year allocated to less than 300 workers in Reedville, Virginia, and the corporate profits go to Canada.

This is truly stupid. I call it the Canada first policy. To add insult to injury, the Board annually allocates 51,000 metric tons of Atlantic menhaden or 244 million fish to Omega Protein, to be harvested from the Chesapeake Bay. That is 26 percent of the total allowable catch for the entire Atlantic coast. That's obvious overharvesting, and violates common sense, and is totally stupid.

These allocations violate the mission of the U.S. Commerce Department, the goals and objectives of this Board, and the fishing regulations of Virginia. These allocations are not an equitable allocation of a natural resource to all user groups. They are based on political science not biological science.

The Commission lowered the total allowable catch of Atlantic menhaden from 216 metric tons to 194,400 metric tons to decrease the mortality rate of striped bass. Did you hear that representative of Omega Protein? And I'll send you the references. But this Board has done nothing to protect the striped bass in the Chesapeake Bay, where striped bass feed and breed. Finally, it's time for the Board to live up to its goals and objectives to the benefit of American fishermen and American taxpayers. It's easy, just do the damn job. I thank you for your time.

CHAIR BELL: All right, thank you, Phil. Next is Tom Lilly.

MR. TOM LILLY: I would like to try and answer Mr. Himchak's of Omega Protein's objection. Sir, the Commission ERP work concluded that the commercial harvest should not exceed 4 percent of the stock, if it did so it would damage the menhaden, and in turn would damage the striped bass. Because as you know, the main conclusion of that study, Sir, was that striped bass are the most sensitive fish to menhaden harvest. Mr. Himchak, how can you assure the public that you are not taking more than 4 percent of the menhaden present in the Bay?

Because from all the observations that we have seen, there are many days that your ships can't even locate any menhaden, substantial number of menhaden in the Bay, because you have harvested all of them. Please advise the public how you can assure them that you are not catching more than 4 percent. Can I have a little more time to give my statement, please?

CHAIR BELL: Stick to the time, Tom, and also, please address the Commission. You're not here to address anybody else, okay please?

MR. LILLY: Okay. The Chesapeake Bay spawning stock has failed, three years of the worst young of the year ever. Shouldn't the Menhaden Board be looking at the location of the harvest? The poor condition of the Chesapeake Bay in fish and wildlife is a goal for the following. That the Board determine the ecological, social and economic consequences of moving the factory fishing out of Virginia waters into the U.S. Atlantic zone, compared to leaving it where it is in the Bay.

This action is supported by the Maryland legislatures, legislators that represent over a million Marylanders, by charter captains, ten statewide fishing clubs and the Maryland Sierra Club with 70,000 Maryland members. In Virginia as you know, a petition has been filed by the Theodore Roosevelt Partnership that represents over 100 organization, CCA, Virginia Saltwater Sportsmen, and the American Sportfishing Association.

There has never been a time where the damage being done to Chesapeake Bay and fish and wildlife and the interest of millions of people by the reduction fishing industry was more obvious, and there has never been a time where so many

responsible organizations are requesting the Menhaden Board to act.

A lot of people say that you will never face up to your obligations and the responsibilities to wildlife and the people of the Chesapeake Bay, protect American jobs and resources. We say, our menhaden delegates care about Maryland, about our communities, about American jobs. But they will act to protect and enhance Chesapeake Bay experience for millions of our fishermen, and these are our deserving caregivers, our veterans, our disabled, our retired.

There are millions of these Maryland families and children that find a special happiness together enjoying the wonders of Chesapeake Bay, as Sierra Club put it. The people and their representatives have done everything they can do to convince the delegates the menhaden delegates, especially the Maryland delegates, to carry out their duty at this meeting. We will know shortly whether this will happen or not. Thank you.

CHAIR BELL: Thank you, Tom, and we also have your written comments as well. I had at least one more online right now. Robert Newberry. If you would like to take three minutes. I think we're having some technical issues. He can't successfully unmute. All right, I think we have some technical issues here with unmuting Robert, so let's go ahead and move along in the interest of time.

REVIEW 2022 ATLANTIC MENHADEN SINGLE-SPECIES STOCK ASSESSMENT UPDATE

CHAIR BELL The first item will be Dr. Amy Schueller. Amy was the Chair of the Menhaden Stock Assessment Committee, and she is going to brief us, this is just a briefing no action here on the Assessment. Amy, take it away.

DR. AMY SCHUELLER: Good afternoon, everybody. Happy to be here and talk about the update assessment for Atlantic Menhaden. I guess I'll first off start by saying that you may have noticed that the report looked a bit different than it has in the past. It was a modified report for updates, called a Term of Reference Report.

As I go through this presentation, I'm basically going to go through each of the terms of reference that were in that report, and hit on the sort of highlight items from that report. The first term of reference was to update fishery dependent data, including landings, discards, catch at age, etcetera that were used in the previous peer reviewed and accepted benchmark stock assessment.

Basically, I'm going to just talk about the landings. All of the other data pieces there, for example catch at age, etcetera, were updated but I'm not going to go through the nitty gritty details of all of that. I'm starting off with this is a time series of the reduction landings in thousands of metric tons over time from 1955 to 2021.

The boxes are colored, north in the dark and south in the light, so you can see which reduction landings were attributed to the southern area and the northern area. To remind everybody, the landings are split at Machipongo Inlet, with those landings in the Bay being in the southern region. Overall, landings have declined over time, and are clearly limited by the coastwide TAC in the more recent years.

We also updated the bait landings. This is bait landings in thousands of metric tons for the same time period. Again, south is in the white and north is in the darker color. Notice the scale difference here. I do have another slide sort of showing total landings with both combined. One thing of note on this slide is that there is this sort of change in the mid-eighties, so sort of 1985 to 1990 time period, compared to the last benchmark assessment.

That is and was addressed in this update assessment through a bridge run. Particularly, the states are able to update their landings data from 1985 to the present based on information that they have, and there were some updates that were done since the benchmark assessment, which changed the landings time series.

It is best scientific information available, and it is the most accurate landings time series, and we addressed it through a bridge run, which I will talk about in future slides. This is the total landings coastwide for the duration of the time series. In this particular slide the sort of dark gray color is reduction, and then the black is the bait plus the recreational landings over time.

This just gives you an idea of the scale between the fisheries, and that the bait and recreational landings are becoming a bigger proportion of the total landings as we're moving into the future. For term of reference Number 2, it is to update the fishery independent data, so the abundance indices and then the associated age/length data that were available, that were used in the previous accepted benchmark stock assessment. We updated all of the indices. This is a picture of the index for the young of the year or recruitment index. In the past we may have called it JAI, Juvenile Abundance Index.

If you've been around a while, you've heard this called JAI, YOY, Recruitment Index. It's all the same thing. It's very similar to what the index looked like during the benchmark assessment, with just some minor nuances. In addition to that we also updated the adult abundance indices, and I included the table here for these indices.

We have termed those indices the NAD the MAD and the SAD, so sort of northern, mid-Atlantic, and southern adult indices. They are based on different sets of data. I really put this up here just to talk about which datasets go into which of these indices. The NAD is a combination of Connecticut lists, the Delaware Bay Adult Trawl, and the New Jersey Ocean Trawl.

The MAD is the Maryland gillnet with the VIMS shad gillnet, and then the SAD is the North Carolina p915 SEAMAP and the Georgia EMTS. The other reason I put this up here is just to show that not all of these surveys had data for 2020 and/or 2021, which is a common thing that I'm sure has been discussed at multiple boards, or anywhere that is dealing with data regarding anything, really, because there is just a lack of data in some years.

I say all that to say that the Stock Assessment Subcommittee still determined that there were sufficient data to update the indices through the terminal year of 2021. Each one of these datasets at least had one dataset that went through the terminal year, and so we went forward and updated them.

I put those three indices on one slide here, the NAD, the MAD and the SAD, just to give you guys an idea of what they look like. We'll see them again later on, but they generally were fairly similar. I guess nothing stood out as a concern. Also, in the lower right-hand corner here is the updated MARMAP and EcoMon, or I've called it MARECO in a lot of places, just a combination of MARMAP and EcoMon.

It's another index that was included during the benchmark assessment, and the Stock Assessment Subcommittee censored it from this update assessment for various reasons, which I will get to in future terms of reference. The third term of reference was to tabulate or list the life history information used in the assessment and/or model parameterization, so things like natural mortality, start year maturity, sex ratio, and note any differences from the benchmark.

There weren't any notable differences from the benchmark, in fact I don't think there were any differences from the benchmark, except for the change in the terminal year of the assessment, which is why we did this update to begin with. The model years include 1955 to 2021. The plus group was six plus, so the model represents Ages 0 to 6, with 6 being a plus group.

There are two fleets in the parameterization of the model. There is a bait fleet and a reduction fleet, with each of those being split north and south. Two fleets, yet four different time series of landings and age compositions. Fecundity was time varying. Fecundity at Age, which was updated this go around, using the exact same methods used in the benchmark assessment, which were done by VIMS.

Maturity was time varying maturity at age, based on the time varying length at age information. The sex ratio was fixed at 1 to 1 for males and females, and then the natural mortality vector was based on a scaled Lorenzen, using the tagging data analysis done by Liljestrand et al, which is what we did during the last assessment as well.

All right, term of reference Number 4, this is probably where I'm going to spend like the bulk of the presentation, I guess. It's to update the accepted models and estimate uncertainty, including sensitivity runs, retrospective analyses, and compare them with the benchmark assessment results, including bridge runs to document any change from the previously accepted model.

This update assessment had basically two changes that were decisions made by the Stock Assessment Subcommittee. All of the data were updated through the terminal year of 2021, but we did sensor two items. The first is we excluded the 2020 Southern Commercial Bait Age Compositions.

I put this figure in here as sort of our, just to show why we did that. I'll give a bit of an explanation. For the southern commercial bait fleet, there were a few samples taken for ages, and of the samples that were taken, I think all of them were Age 3. Basically, the age composition for that year looked odd compared to other years, just because the sample size was very, very low.

You can see on this figure, on the bottom part of this slide is something called the CORR. That is the correlation between the observed and predicted data. We want our predictions to be as close to what we observed in a catch at age as possible. You'll notice for 2020 there is this little red circle with an X through it.

That means we're doing a horrible job predicting what the age compositions look like for 2020, and that is because they were all Age 3s, which doesn't really match with the surrounding years, and it doesn't match with the estimated selectivity that we are estimating within the model. We censored those data, we did a number of runs looking at how to handle data from 2020 and 2021 with respect to the age compositions, and all of that is in the report.

A lot of it is in the appendix, so if you want to look at that in further detail, you can. The second change that we made was the exclusion of the MARMAP EcoMon or the MARECO Ichthyoplankton Index. In particular, this index, I'll talk about it more later on in this term of reference 4, but the inclusion of this index was causing problems with.

If you don't run statistical catch at age models, maybe this is too much lingo, but the Hessian didn't invert, and we had a high gradient. Basically, what that means is the model didn't do a good job finding that sort of place where everything matched up cohesively within all of the datasets.

It didn't know what to do, because it couldn't fit that dataset with the rest of the data in the model very well. I'll show some more slides about that in a little bit. I just have a couple slides for what the base run looks like here. This is the full fishing mortality rate over time for the base run of this update assessment on the left, and then on the right is the full fishing mortality but broken up by fishery. Each of the colored bars represents one of the fleets, and so you can see here there is reduction north, reduction south, bait north and bait south. The red and green are the reduction fleet, and then the blue and pink is the bait fleet. I also included in here the recruitment and the spawning stock, which is the fecundity value. Remember the spawning stock biomass for Atlantic menhaden is based on fecundity and numbers of eggs.

On the left in here is the recruitment time series, as estimated from the update assessment. It looks very similar to what we've seen in the past, but adds a couple more years on. One thing about the recruitment estimation is that typically statistical catch at age models have a difficult time estimating recruitment at the end of the time series, because there is little data informing it, because it doesn't have that full age composition structure to inform whether or not it was a big recruitment class or not.

In particular that's an even less data in this case, because the terminal year is 2021, and so we're missing some data for 2020 and 2021. What ends up happening is sort of you end up at your median value. For the figure on the right that is the spawning stock biomass over time. Remember that's in fecundity or numbers of eggs.

That was an extremely fast like what the base run looks like in a nutshell, and then now I'm going to compare it with a few different runs that may be of interest to the Board. The first one here is a bridge run. I already mentioned that the bait landings for the northern commercial bait landings, changed in 1985 in that mid-eighty section.

We did some runs to look at whether or not that had an impact on the overall outcomes of the model, and so this is the geometric mean fishing mortality rate for ages 2 to 4 on the left, and then the fecundity values on the right. Those are our metrics by which we're looking at for the benchmark, so that is why I included those.

You do, if you look in the mid-eighties, you know you see a little bit of deviation from the benchmark. The benchmark assessment is in green on here, the update, base run is in black, and then the red is using the northern commercial bait landings from the last assessment. Over all I would say that this wasn't a huge change, even though it does look like the landings changed quite a bit in some of the other figures.

These next two slides are looking at comparisons of the update assessment, which is in black, so it's sort of black with black circles. It's underneath a lot of the runs that are on here, with the benchmark, which is in that cyan blue, sort of that lighter blue color, with a bunch of different runs looking at how to handle the 2020 and 2021 data.

The red run here excludes 2020. Okay, I can't read this on my screen very well, but each of these runs excludes 2020 or 2021 data in different ways, and that's described in the report. Basically, we're looking at what are the impacts of that on this assessment overall. Mostly as you would expect, the impacts are in the last few years of the time series, and generally they're not big impacts. I say that because this is going to be within the uncertainty analysis runs that we did. This is for the full fishing mortality time series on the left, and then the geometric mean fishing mortality rate for ages 2 to 4 on the right. Then on the left here is the recruitment time series. Then on the right is the fecundity time series. You can kind of see here that depending on the assumptions you make or which data you use for 2020 and 2021, that has an impact on what's going on with recruitment. Are you informing recruitment at the end of the time series with those age composition data, or not?

I say all that, and the Stock Assessment Subcommittee discussed this. There is just some uncertainty about the recruitment. It's one of the things that we're always uncertain about, so just something to keep in mind. The other difference between the benchmark and the update is the use of the MARMAP or MARECO Index. The ultimate result was that the Stock Assessment Subcommittee decided to sensor that index, although we did make recommendations to explore it further in the future.

One thing we did do was, we compared our benchmark from the last go around, which is a black line here, and our update, which is also a black line, with different terminal years for that MARMAP/EcoMon Ichthyoplankton Index, and those are the different colored lines here. Basically, in the early part of the time series in the eighties, the lines are pretty much all on top of each other.

But as you go into the more recent time series from 2000 on, that index is having a difficult time increasing at a rate at which the observed data are increasing. If you look at this slide on the left here, that is the observed index, which is the black open circles, and then the fits to that index are the individual lines.

There was a lot of discussion. There is some discussion in the report with respect to this. We plotted this plot on the right here, which is the fecundity in red, which is pretty flat, versus the

observed MARMAP or EcoMon Ichthyoplankton Index in black, with the black open circles. Then in the blue open circles is the predicted index from the model.

The reason we plotted this together is because this index is an index of fecundity. It's basically a larval Ichthyoplankton Index, which we matched with fecundity. Some of the discussion that was had within the SAS was that there is a lot going on between when spawning stock biomass is defined, versus when the larvae are counted.

I think, you know, we're maybe missing some of the interactions that are occurring there, or maybe there is some nonlinearities that we didn't account for, which is why we made a research recommendation to look at this in the future and consider some different options, such as changes in catchability related to the index over time. Just to show you the impact that this exclusion of this index had compared to the benchmark.

We have on the left here the geometric mean fishing mortality rate for ages 2 to 4, and on the right is a plot of the fecundity over time. The black line on the top here is the benchmark assessment. The black line underneath all of the other lines with the black open circles, you can see it in some places, is this update assessment. Then all of the different colored lines are running the assessment with different terminal years for that Ichthyoplankton Index. We put this up here to basically show that the impact on the overall outcome of the assessment isn't significant. We do think that this was a reasonable decision to make, given that this was an update, and that we need to do some further work to look at this index in the future. One of the other typical analyses that is done for an assessment is something called a retrospective analysis. That is when we're peeling off terminal years of data to look at the impact of those terminal years of data on the overall assessment outcome.

The base run is in black here with black open circles, and that goes to the terminal year 2021. Then each of these colored lines says retrospective with a year. That is the terminal year for that retrospective run. This is showing geometric mean fishing mortality rate for ages 2 to 4 on the left, and then on the right is the fecundity over time.

Generally, we want to see an even dispersion of those terminal year points above and below the line. The SAS did caveat this analysis, given that there were with 2020 and 2021 there were some data missing. It wasn't as uniform or as representative, in some cases, as it has been historically. You sort of take this analysis with a bit of a grain of salt.

That being said, this retrospective analysis looks pretty good, and it would be within the bounds of the uncertainty analysis that I'm going to show next. We did run the Monte Carlo Bootstrap Ensemble analysis, so the MCB or the MCBE analysis, and we ran it exactly the same way we did for the benchmark assessment, so we included the exact same uncertainty components, which were in particular natural mortality and fecundity, I think.

I just showed a plot of recruitment here, time series, and the black circles with the black line is the base run of the update assessment. Underneath of that in this slide is a dashed black line, which is the median of the runs. There are 4,000 some runs contributing to this figure. Then, the gray shaded area is the 5th and 95th percentiles of those different uncertainty runs.

Just giving an idea of the range of recruitment uncertainty. This is a plot of fecundity over time on the left, and then the geometric mean fishing mortality rate for ages 2 to 4 on the right. This slide is set up the same as I just described for recruitments. The base run is the black filled circles with the black line.

In this case you can see the black dashed line under there. That is the median of all those uncertainty analyses runs, and then the gray again is the 5th and 95th percentiles of those runs. That was term of reference 4, which basically tried to quickly walk through the update assessment itself.

Then the thing that the Stock Assessment Subcommittee discussed at length during our meetings, and so I'm going to move on to term of reference Number 5, which is update the biological reference points for trend-based indicators or metrics for the stock, and determine stock status. This figure is one that ASMFC uses, and we updated.

This is the fishing mortality, and in particular it's the age 2 to 4 geometric mean fishing mortality rate, which is the fishing mortality benchmark that we use, based on the peer review. That is shown over time here in green, and then we have the two reference points. There is the ERP target is the blue solid line, and then the ERP threshold is the blue dash line. The management board moved forward with using the ERP targets and thresholds, and so that is what we are basing our stock status on. As of right now, the fishing mortality rate for 2021 is below the ERP target. Okay, and then the alternative reference point is fecundity. This is in quadrillions of eggs. The green here is the fecundity value over time from 1955 to 2021.

Then the solid blue line is the ERP target, and then the dashed blue line is the threshold. We've been above the threshold for fecundity for a number of years, and then in the most recent terminal year the fecundity value is above the ERP target and the threshold. The question is always, well what does this look like compared to, you know our uncertainty analysis.

We did not run every single version of this model through and get an ERP with every single iteration of the Monte Carlo Bootstrap runs that we did, but we are comparing this, just to give like an indication of what the time series look like with respect to those reference points. On the left here is the geometric mean fishing mortality rate over the ERP threshold. We are below that in all of the runs in the uncertainty analysis. We're below that.

Then on the right is the fecundity time series over the fecundity threshold. In the terminal year, the majority of those runs were above that, which is where we would like to be. Stock status with respect to fishing mortality rate and fecundity, so the F for 2021 over the F threshold, remembering that this is the ERP threshold at 0.28, and then the F 2021 over the target. Again, the ERP target is 0.85.

We want those values to be, well we want the value with respect to the threshold to be less than 1. The value of the target is sort of the purview of the management board in their risk. For fecundity, the fecundity value in 2021 over the fecundity threshold is 1.76. We want that value to be over one, and we are. Then for the target we're also above 1, which is 1.28. For stock status we are not overfished, and overfishing is not occurring.

Just to reiterate, this is with respect to the ERP benchmarks that were adopted for this species. Term of Reference Number 6 is to conduct short term projections when appropriate, and discuss assumptions if they're different from the benchmark. Projections were run. We gave one example. We used the exact same methods as in the benchmark assessment, and we projected at a TAC of 194,400 metric tons, which is the current TAC. We used the exact same allocations.

Pretty much just showing you what it looks like if you stayed with status quo, with the expectation that you will request additional projections to be run for your consideration. But the SAS not wanting to guess at the possibilities of what those could be, so just providing this as a kickoff point for you guys to then make some decisions about what you want to see for projections.

To remind you, during the last benchmark assessment we moved towards using a method called nonlinear time series analysis for projecting recruitment. That is basically using the time series of recruitment and its internal coherency, to predict forward what we expect the recruitment to be in the future. We maintained that for this assessment, and just to sort of reiterate, we moved to that method because it showed that we did show that Atlantic Menhaden had good internal consistency within its recruitment time series, and that it was able to predict forward fairly well, and it actually ends up giving us a little bit smaller confidence interval on our recruitment projections than what

we had been doing in the past. This is the projections of the current TAC of 194,400 metric tons. In the upper left-hand side is the fecundity in billions of eggs. In the lower left-hand side is the fishing mortality rate. In the upper right-hand side is recruitment, and then the lower right-hand side is landings. Landings is one straight line at 194,400 metric tons, because we're specifying that.

In the other figures you see several black lines. The black dashed line is the median or 50th percentile across all the runs for the projections. The dashed lines are the 25th and 75th percentiles, and then the solid black lines are the 5th and 95th percentiles. Then in the figures on the left there is an orange line, which is the ERP target for fecundity and fishing mortality rate respectively, and then the blue line for the threshold is on there too.

You guys can see sort of where you are with respect to that target and threshold. When you look at this for 2022, if you are catching what you caught. This last year you have the same TAC. You are below the fishing mortality rate target, and you are above the fecundity target for 2022. As you move forward in time you get closer to that target.

All right, term of reference Number 7 is to comment on research recommendations from the benchmark, and note if there has been any progress, and if we have any further research recommendations. I tried to keep this short, they are in the document. But I'll go through a couple that were sort of highlighted.

The first was to develop and implement a coastwide menhaden specific multiyear fishery independent index of adult abundance at age, with ground truthing for biological information. You guys, if you've sat at the table for any length of time, know that we've asked for this over and over and over again.

Congress did include Chesapeake Bay Atlantic Menhaden Abundance Provision in their fiscal year 2022 Consolidated Appropriations Act, so there is some movement happening at a higher level. Mike Wilbur did a project to evaluate potential survey designs for an aerial hydroacoustic survey within the Chesapeake Bay specifically.

However, no funding has been attached to these projects, and they remain unimplemented. But there has been some Board movement on this, which is nice to see. Continue current level of sampling from the bait fisheries, particularly in the Mid-Atlantic and New England. That is a wish from the Stock Assessment Subcommittee.

We're noting here 2020 and 2021 had reduced sampling. Everybody knows that because of the global pandemic. But the SAS does not expect that this will continue past the pandemic, so we do expect, as we're moving past 2020 and 2021 that the levels of sampling will increase, and we hope to see them increase even more.

Conduct an aging workshop to assess precision and error among aged readers with the intention of switching the bait fishery age reading to state aging labs. This was discussed during the last benchmark assessment, with the intention of having an in-person aging workshop. Again, this was postponed due to the pandemic, but there is still a want and a need for this to happen. It's still on the list. I just made a note here. These are just a couple that we picked out to present, but there is a full list of research recommendations in the report itself. That runs me through all of the terms of reference. I basically just have this slide to start hopefully discussion, and about what the Board would like to see for projections, and what they would like to request for their next meeting.

In the past, the Board's request, some options similar to what's up here. This is, you guys have requested based on a percent increase to the TAC or decrease to the TAC of some percentage, usually 10 to 40 percent increase, and what do the risks look like with that. You've also requested, based on some percent probability of exceeding the threshold or target, what would the landings be, or what would the TAC be?

The example here is an example of 50 to 60 percent probability, so if I want to exceed the ERP target or

threshold, that's your choice, by some amount with some risk level, what are we looking for? I put this up here as just a queue to you guys, as to sort of what would you like to see for projection runs? Then I just have a slide here for any questions on the presentation of course, and on the assessment itself.

CHAIR BELL: All right, thank you very much, that is very detailed, and thank you for the work of the Subcommittee and all you've done. First of all, any questions for Amy? Claire, oh it's Allison Colden. Go ahead, Allison.

MS. ALLISON COLDEN: I will echo thanks for your presentation, and for your work, Amy. I just have a question on the projections for recruitment. It looked like, recognizing too that you mentioned during your presentation that recruitment is one of the trickier aspects that you guys are working on within the assessment.

It looked like for the top end, from the median up for those projections, that there would be a decline in the out years of recruitment under the existing or the current TAC. Can you comment on that at all, or do you have any indication of why that might be expected, when it looks like the fecundity and the abundance were within the ERP target and threshold level?

DR. SCHUELLER: Yes, that is a good question. The way in which the recruitment is projected is it basically takes the terminal year, and it says okay, I'm in this state space. That's what it's saying, and then it says what other points in the past have been in this similar state space, and where did they go?

What you have at the end of the time series is you have points in a certain state space, and they're moving in the same direction. Then you have a new point. It's going to do that every single time. I guess my statement is, just it's because of where the state spaces are forcing it to go as it's moving through time. I don't know that I have a super satisfactory answer besides that.

I will say during the benchmark assessment, we did this moving window analysis of this method, and we projected for ten years like, you know we peeled off time and said, okay if we were projecting this from you know 1995 or something forward, how close would we get? We did pretty well. I mean it's just using what I'm calling that internal consistency within the recruitment time series, and that's where it's putting you, based on the state space of those recruitment points.

CHAIR BELL: Any other questions? Yes, Conor.

MR. CONOR McMANUS: Thanks for the presentation, and nice work to the Assessment Committee. Just to follow up on the EcoMon. It sounds like the recent years caused challenges for fitting of the model. The hypothesis is that there is a misalignment, perhaps of spawning in the survey.

I guess did you look at the sampling intensity or sampling periods to see if those differed from previous years, to kind of test that, or could there be other things like reduced larval production perhaps, or different spatial mismatch in where the sampling is occurring and where they are spawning?

DR. SCHUELLER: Yes, I'm just conferring, because I can't remember every fine detail of everything, so 2021 was missing. But the rest of the years were similar. It isn't just a phenomenon in like the last couple years since the benchmark, meaning there is an uptick in the larval index. It looks like from 2010, 2012 on there is this increase in larvae over time.

You know because this was an update, we didn't have a ton of time to explore what would be going on there. But we did discuss it, and what's happening is the model has one sort of catchability coefficient for that whole time series. It's having a hard time estimating that value while also trying to get an uptick in the index, given that the fecundity information or estimation is still relatively flat but variable.

The fecundity is informed by that index, but all the other data components and pieces, and so there is some like incongruity between sort of all those

other pieces and this piece. We need to figure out what that is. We did have a discussion about why that might be, and there is a lot of different possibilities.

But we weren't necessarily able to rule them out, given the timeframe of the update. That's why we made a research recommendation to look into it further. Keeping in mind that this is one dataset in a whole group of datasets, and when we did run this assessment without the index, and compared it with a benchmark and this current update, there wasn't extreme differences in the overall model outcomes. I hope that answers your question.

MR. McMANUS: Yes, thank you very much. Just trying to think through how missing surveys, difference in timing of sampling from year to year may impact the ability for the model to fit the data. Thanks, appreciate it.

CHAIR BELL: Any other questions? Yes, Lynn.

MS. LYNN FEGLEY: Thank you so much, Amy, for this presentation. I'm not entirely sure where this question belongs. Just please put it off if it's not in the right place, but it really is about the projections, which it looks like are through 2026, based on the current ERP. My question is, the next ecological reference point bench for update is schedule for 2025, I think. I guess my question is, what are the conditions under which those ERPs that we're projecting against might change, and when might they change? What would be the scenario where they would be lower or be higher, so that maybe we can just have that in the back of our mind when we do our projections.

DR. SCHUELLER: I can speak to that. I don't know if it's my place. But you're right, the next benchmark assessment for Atlantic menhaden is in 2025. I mean one of the things we do discuss is how many years to project forward, and what to provide. You guys can do with that what you will, right. If the expectation is that you will be delivered an assessment in 2025.

I mean let's face it, the real expectation will probably be winter meeting of 2026, by the time you would get it. Usually that's what happens. It comes in February, I think. My expectation would be you would use this through 2025, and then 2026 is a question, right. What are you going to do? These are projections for you guys to use to inform your management decisions. You know you can take them how you will.

CHAIR BELL: All right, other questions. We can shift to the question you had for us, I guess, guidance for the Committee, assessment folks, in terms of coming back to us with a future meeting. Yes, Megan.

MS. MEGAN WARE: Thank you, Amy. Yes, I had some, I guess suggestions for different projections to look at. Based off of Lynn's question. I guess they would be for 2023, 2024, and 2025. But I think the Board would still have the option at the next meeting to only set for two years if we so chose.

I guess I'm asking for three years, acknowledging that may not be what the Board ultimately chooses. I think you've already done one of them, which is our existing TAC. I would be curious, at a 5 and 10 percent increase in the TAC, and I'll just note the 10 percent increase, I think is 216, which is what we were at a few years ago.

Then kind of the other style of projection, looking at a 40, 50 and 60 percent probability of exceeding the ERP target. I think in the last round we saw those as individual years, and then also there was a run where they were all combined. I found that really helpful, so if that is possible, I realize that is probably more work given it is three years. Feel free to comment on workload, but I found that comparison really helpful last time. Thank you.

CHAIR BELL: All right, thanks for that, Megan, any other suggestions, desires of the Board? Nichola, do you want to go?

MS. NICHOLA MESERVE: I agree with Megan's suggestions, and was just going to ask that the probability-based projections be at the 5 percent

increment, not 10 percent, which was similar to the last time you asked for projections.

CHAIR BELL: Thanks. I had another hand, yes, Ma'am. Allison.

MS. COLDEN: Similar to our last round of projections as well, I was going to ask if we could do the 5 and 10 percent below the current TAC for completeness, and so that we can see the full range above and below the existing TAC.

CHAIR BELL: Tom.

MR. THOMAS P. FOTE: As in the last couple years stimulating my thought. I'm trying to think if there is any speculation of what climate change is doing with the menhaden population. Because I look at nursery areas, we know it is affecting striped bass because of the warming of the waters. We know it's affecting other species like that, and do we have any idea, because as the Bays and estuaries warm up and we have more algae and plankton blooms, will there be any affect in the menhaden, or have we seen any?

CHAIR BELL: Other ideas, suggestions? Kristen.

DR. KRISTEN ANSTEAD: Yes, so in the previous benchmark Rob Latour did an analysis for us, a habitat analysis with all the data from the indices that we used, and looked at salinity profiles, temperature and kind of graphed ideal ranges for menhaden, based on the data that we have from our surveys, and we did not redo that for the update. But we could look into doing that again for the benchmark, and that at least gives us an idea of where menhaden tend to be, in which ranges, and where we are currently.

CHAIR BELL: Okay, thanks, Kristen, anything else?

DR. KATIE DREW: Can we get just a clarification from one of Megan's requests, where, so you had asked for looking at runs that would give you a 40, 50, and 60 percent chance of being at or above the ERP F target. You had said we could do that in each year, which would give you a variable TAC every year, then for sort of a one TAC option.
The question would be, obviously you're going to get as recruitment comes in and goes out, you're going to get different percentages if you keep the TAC the same. When you say you have like a 40 percent chance of being at or above a target, do you mean in that first year, in the last year, in the middle?

MS. WARE: Yes, I mean the maximum TAC for those three years that keeps all three years at the 40 percent or 50 percent.

DR. DREW: All three years would have no more than a 40 percent chance of being at or above the target.

MS. WARE: Yes, all three years would have no more than a 40 percent chance of exceeding the ERP target.

DR. SCHUELLER: I just want to clarify too; you want me to cut 2026 off.

MS. WARE: That would be my recommendation. I'm not comfortable at this point setting a TAC for 2026. That seems pretty far off.

DR. SCHUELLER: Sure, I can do that really easily.

CHAIR BELL: Online, Rob LaFrance.

MR. ROB LaFRANCE: I just wanted to agree with the idea that we take a look not only at going up higher with the TAC, but also taking a look lower. I do think that is very beneficial. I think what I just heard about the idea of trying to take a look at some of the habitat impacts and some of the ecological aspects, I think makes a lot of sense.

CHAIR BELL: Anything else? I think you've got a good list there.

DR. SCHUELLER: Yes, we're just conferring with one member, to make sure we didn't miss anything. I mean I'll summarize. It looks like clearly 2022 is going to be projected at the current TAC. Then

we're looking to project for 2023 to 2025, plus and minus 5 percent and 10 percent, so in 5 percent increments around what 194,400 is for those three years.

Then we're also looking for a 40, 50, and 60 percent risk of exceeding the ERP F target for two different options. One for the individual years, so variable TAC, and then two, for all years combined, where we're basically looking for the maximum TAC value that keeps all of the years below that target risk percentage that we stated. Okay, so we want 40, 45, 50, 55, 60. Okay. Did we capture everybody's requests?

CHAIR BELL: I don't see any hands.

DR. SCHUELLER: I see a lot of head nodding.

CHAIR BELL: Good job! Thank you, everybody. Do you need anything else from us then? All right, then we're concluded with this particular item, so thanks, thanks so much for all the hard work again, the Subcommittee and for being here.

CONSIDER FISHERY MANAGEMENT PLAN REVIEW AND STATE COMPLIANCE FOR 2021 FISHING YEAR

CHAIR BELL: All right, well thanks, folks, we'll move along then. We're going to go back to the originally, I think it was Item Number 4 on the agenda, which would be Consider Fishery Management Plan Review and State Compliance for 2021 Fishing Year, and James Boyle is going to walk us through that.

MR. JAMES BOYLE IV: Nice to be here in person with everybody, and start putting some faces to e-mail addresses mostly. Yes, I'm going to go through the 2021 FMP Review, and a lot of it will seem familiar from the data update I presented in May. I'll probably try to go pretty quickly through some of those sections.

Here is a quick overview of the presentation. I'm going to start out with a very brief reminder of the status of the FMP with last year's TAC, although we did get reminded in the last presentation as well. Since we just had the presentation of the stock assessment update, I omitted the usual status of the stock section of the presentation. I'll be able to move on straight to the landings information that I presented in May, and then the compliance requirements and PRT recommendations, and then I'm going to return to the landing's information at the end, because I have a bit of an update with validated landings, and the discussion around that should apply both to the FMP review and possibly the Addendum we'll talk about later going forward as well. Just a quick reminder of the FMP.

Amendment 3 approved in 2017 and implemented in 2018, is still the most current management document that the fishery operates under. For notable changes from 2020, the Chesapeake Bay cap was returned to 51,000 metric tons as outlined in Amendment 3, and the Total Allowable Catch or TAC for the 2021 and 2022 fishing season is set at 194,400 metric tons, based on the Board approved Ecological Reference Points or ERPs.

The 2021 landings, this is the same as I showed in May. The total landings including everything directed, EESA, and incidental catch or small-scale fisheries landings amounted to 195,092 metric tons, or about 430 million pounds, which is approximately 6 percent higher than 2020, and 0.36 percent over the TAC if incidental catch was counted against the TAC, which it is not.

The nonincidental catch, so if you take those incidental catch landings out, is at 189,343 metric tons or 417 million pounds, which is also a 6 percent increase from 2020, and about 97 percent of the coastwide TAC. The incidental catch on its own is 5,750 metric tons, or something like 7 million pounds, which is a 9 percent decrease from 2020.

Also, I don't have a slide for you, but I'll throw a quick note in that I presented the quota transfers to be 17 in May. Between some new ones and some corrections, it's actually 25. I bring that up, because it is part of the objectives for the reason the Addendum that we're going to talk about later.

Next to look at the reduction fishery, again this has not changed. The reduction harvest for 2021 is

estimated at 136,690 metric tons, or 301.3 million pounds, which is a 10 percent increase from 2020, but only 0.06 percent above the previous five-year average. Of those landings, about 50,000 metric tons came from Chesapeake Bay, which is approximately 1,000 metric tons below the Chesapeake Bay cap.

This figure shows landings in the reduction and bait sectors over time. The reduction landings are on the left-hand access, and bait landings on the right. Note the different scales. The reduction landings are an order of magnitude larger than bait landings. The overall trend is still reduction landings declining, bait landings increasing, although 2020 to 2021 differences are slightly against those trends, but overall, the trend is the same.

A breakdown of the incidental catch over time. As I mentioned previously, the total was 5,750 metric tons, or about 12.7 million pounds, which is a 9 percent decrease. There were six states that reported incidental catch from 2021, that's Maine, Massachusetts, Rhode Island, Connecticut, New York and New Jersey.

Eighty-eight percent of those landings came from purse seines, and 9 percent from gillnets. The state of Maine accounted for 96 percent of the total incidental fishery landings in 2021. The incidental catch trips were lower than in 2020, but still higher than 2016 through 2019. In the episodic event set aside there were three participating states, Maine, Massachusetts, and Rhode Island. Their total combined landings were 2,213 metric tons or 4.9 million pounds, which was over the total set aside by 592,250 pounds. But a few quota transfers and donations at the end of last year and then earlier this year resolved that, so there was no overage going into the 2022 fishing year.

Moving on to the biological monitoring requirements, which was not presented in May. We have the non de minimis states are required to conduct biological monitoring, based on their landings as well as their geographic region. From Maine to Delaware, they are required one 10-fish sample per 300 metric tons and from Maryland to North Carolina it's one 10-fish sample per 200 metric tons. In 2021 Massachusetts, Rhode Island and Connecticut fell short of their required samples, but I have some explanations and a compliance report here.

Massachusetts received a number of quota transfers to extend their fishery August 5th, but then were not able to complete the additional monitoring before it closed again five days later on August 10th. In Rhode Island some late reported landings pushed them from the four required sample sets to five, and so they only got the four 10-fish samples.

But they did note that over those four events 55 fish were sampled from the fishery, as well as an additional 49 from the coastal trawl survey. Connecticut has long faced difficulties collecting bait samples, and they rely primarily on their Long Island Sound trawl survey for sampling, which produced 103 age samples and 302 length samples over 139 tows.

The de minimis requests were the same as last year, so as a reminder to be eligible for de minimis status a state's bait landings must be less than 1 percent of the total coastwide bait landings for the most recent two years. The states of Pennsylvania, South Carolina, Georgia and Florida all requested and qualified for de minimis status for the 2022 fishing season.

For the PRT recommendations, the PRT continued to discuss a topic that was brought up in last year's FMP review, whether a sufficient number of samples are being collected from different gear types and regions, and whether substituting from fishery independent sources is appropriate for meeting the requirement.

The PRT reiterated its recommendation to reevaluate the sampling requirements, and suggested the Board task the Technical Committee with conducting a review of the requirements. Now having said that, after the PRT made that recommendation, we had a discussion with the, we the policy staff not the PRT, had a discussion with

the science staff, and we went ahead and put that request to evaluate it in the draft terms of reference for the benchmark stock assessment in 2025. In the next six months or so those draft TORs will be presented to the Board.

They have gone ahead and done that. With that, the actions for the Board today are to approve the 2021 FMP review and state compliance, and approve the de minimis requests for Pennsylvania, South Carolina, Georgia and Florida. That brings me to the landing's discussion. The information I just presented comes from the state compliance reports, but because it's an assessment year and because the Board requested 2021 landings in the Addendum. The data were validated in time for this meeting. Now most years, data are not validated on the state-by-state level by species, and go through the normal ACCSP process. This slide shows the differences between the validated landings on the left, and the compliance report landings on the right. From the validated figures, the total commercial landings, included directed incidental catch and EESA landings, are estimated at 195,481 metric tons, or about 431 million pounds, which is approximately 6.2 percent above the 2020 values and 0.56 percent over the TAC, again if incidental catch was counted against that.

The nonincidental catch fishery landings are estimated at 189,500 metric tons, or 418 million pounds, which is 6.6 percent increase in 2020, and represents about 97.5 percent of the coastwide TAC instead of 97 percent. Landings from the incidental catch fishery in total are 5,981 metric tons, or about 13.2 million pounds, which is still a 5.5 percent decrease from 2020.

For context, out of the 15 states that have their data validated, so for example Pennsylvania is excluded, because they don't have any landings. Out of those 15, 6 matched exactly between their compliance report numbers and their validated numbers. The differences varied from as little as one pound to more than 700,000 pounds.

The biggest difference for an individual state was 3.5 percent from compliance reports to validated landings. I'm bringing this up here, because how the Board chooses to address this issue or not, affects both how we monitor for compliance and calculate overages, and possibly how we set allocations, depending on the options chosen in the draft Addendum coming later.

One suggestion that came from the PDT, not the PRT, because we first discovered this issue working on the Addendum, is to move the compliance report deadline later. On April 1st, when compliance reports are due, some states are still working with preliminary data, especially on the specific, like gear type level on the very small level.

Moving the deadline could improve accuracy. On top of that staff was reviewing Amendment 3, and the timing of validated landings data does not line up with the payback provisions in Amendment 3 very well. While the Amendment says that overages need to be paid back in the subsequent year following the overage, so if you have an overage in 2021, it needs to be paid back in 2022.

What we've found out is that final landings aren't really ready until midsummer, so you could have a situation where states need to remove quota in the middle of a fishing year. As far as the FMP review is concerned, we recommend the Board consider moving the compliance report deadline later, possibly the summer, like July 1st was the example we said.

Then as we pivot to the Addendum discussion, staff will be recommending a new option for the Addendum that opens paybacks to the following year after the subsequent year. If we find an overage based on validated data in the middle of the year, states can pay it back in the next year, if needed, so then they can plan for having that less quota in their fisheries. Are there any questions?

CHAIR BELL: Yes, Lynn.

MS. FEGLEY: Thank you so much for that report. Just out of curiosity, did you reach out to states who have the largest differences between their validated, you know their two sets of data, to see if

moving the deadline would help them, or if it was some other issue for them?

MR. BOYLE: We did reach out to a lot of the states that had some of the biggest differences, especially in working to create the tables in the Addendum, to make sure they were accurate, and especially also because normally the validation process doesn't break the landings down into categories, so we needed that as well. I do believe they said that that would be a significant help, I believe.

MS. TONI KERNS: We didn't discuss it specifically. I did have a conversation with one or two states earlier on in the compliance report process, in particular those states that do not have their landings divided up by gear type early on, and they can't provide that. All they can provide is the total, and those states had said that a later date would be beneficial to them. Several of the PDT members did say that it would be helpful.

CHAIR BELL: I guess then the question is, is there interest from the Board in moving the date for the compliance report? Chris and then Megan.

MR. CHRIS BATSAVAGE: I think I heard it correctly. The proposed compliance report date you're thinking of moving it to is July 1st, is that it? Okay. Yes, I think any push later in the year will help the final landings The only thing I would I guess consider is the number of other compliance reports that are also due on July 1st.

You know you have staff internally review a lot of these before they get sent to ASMFC. I think there might already be six that are due on July 1st, so I'll know if June is workable or if August is too late, but just something to keep in mind, as far as if we decide to move the compliance report due date for menhaden. Thanks.

CHAIR BELL: No, it's a good point, Chris. Megan.

MS. WARE: I think it may be prudent to move it back. I think that would help several states. James just to help you a little bit. My recollection is having a month to compile the FMP review from 15 states is a lot of work in a little time. If you choose July 1st, you're setting it up for the same kind of situation, where the first week of August is when you have to report out. I don't know if June 15th might give you a little extra time, unless you have a different system you've set up. But my recollection is that was always really tight.

CHAIR BELL: Toni, do you want to weight in here?

MS. KERNS: Our intention was to not provide an FMP review until the annual meeting if we switched it to July 1st, Megan, just because of what you said. I just did a quick count, Chris, you are correct. We currently have six compliance reports due on July 1st, this would make seven. If we did it in August, if we had August 1st, that would make a total of four due then. That would be the same for June, it would make a total of four due then. I think if we did August 1st, we would still have enough turn time to provide the FMP review at the annual meeting as well.

CHAIR BELL: Okay, so August 1st is kind of, does anybody have a problem with August 1st? It's my birthday, just thought I would mention that. See what I did on my birthday this year. Okay, do we need a motion for that or just general consent? Okay, is everybody good with that? We will move the compliance report for menhaden to August 1st, for all the reasons we just discussed. Yes, I guess we probably would need a motion for that, yes to accept the compliance reports.

MR. JOHN CLARK: Is that motion prepared? I would be glad to make it.

MR. BOYLE: Yes, I think Maya prepared a motion.

MR. CLARK: Ah, the magic mysterious Maya. There we go. You want to read that or I can read it.

CHAIR BELL: Go ahead.

MR. CLARK: Move to approve Fishery Management Plan Review, state compliance reports and de minimis requests for Pennsylvania,

South Carolina, Georgia and Florida for Atlantic menhaden for the 2021 fishing year.

CHAIR BELL: Okay, that knocks out two things. Yes, is that a second, Pat? Pat seconds. Any discussion of that? Any objection to the motion? Toni.

MS. KERNS: Mr. Chair, since Maya is not here, I just wanted to make sure she knew it was Pat Geer.

CHAIR BELL: Okay, yes. **No objections to the motion? All right the motion carries, great**. Does anybody need a break? Okay, I don't see any hands. If I can do this you can do it.

CONSIDER DRAFT ADDENDUM I TO AMENDMENT 3 ON COMMERCIAL ALLOCATIONS, EPISODIC EVENT SET ASIDE PROGRAM, AND INCIDENTAL CATCH/SMALL-SCALE FISHERIES FOR PUBLIC COMMENT

CHAIR BELL: All right, it takes us to Item 5, now we're going to get into Draft Addendum I to Amendment 3, so we've got some unfinished business there we need to clean up, right? James will walk us through that and hopefully this will go smoothly.

MR. BOYLE: I'll just jump right in. A quick outline of the presentation. I'm going to give a very quick overview and recap of the process that we've gone through until this point. Then I'm going to move on to covering the contents of the Draft Addendum. As in previous meetings, I'm going to go section by section, and pause for discussion and motions at the end of each one.

First the allocations, and then the EESA, and then incidental catch. Those will all be done separately. The goal of today's meeting is to finalize the options in the document, and consider approving it for public comment. Additionally, going off what we discussed just now at the end of the FMP review, staff is recommending adding language int eh Addendum that will allow for overage paybacks in the year following the subsequent year from the overage.

A quick recap. The Board initiated the development of Draft Addendum I in August of 2021. The first draft was presented to the Board in January of 2022, after which Board comments were incorporated into the document and presented again in May, where the PDT received further edits that are included in the version presenting here today. Ideally the document will be approved for public comment today, and hearings will commence from August until October, and the Board will consider final approval at the annual meeting in November. Like I said, to help work through the Addendum we're going to take each section at a time, and consider Board action specific to each section.

As a quick note, there are two options, two sub-options removed between briefing materials and supplemental materials. The total is 33 options not 35, as is written in the document. There is only one option remaining that the PDT specifically recommends removing. But any additional options the Board would like to remove, will always help ease the process going forward, presenting it to the public.

First up is allocation. The objective of the options in this section are to align with the recent availability of the resource, enable states to maintain current directed fisheries with minimal interruptions during the season, reduce the need for quota transfers, and fully use the annual TAC without overage.

The PDT used the same two-step approach as outlined in Amendment 3. First, we're going to consider the fixed minimum allocation step, and then second is allocate the remaining TAC based on the timeframes. Before I start going through the options, the tables that are associated with each combination of the two steps are in the Draft Addendum provided in supplemental materials, if anyone would like to compare.

Then I have them in the presentation here, but I think it's easier to see them in the document, so we'll just skip through those when I get to the slides of that. Okay, so for the fixed minimum approaches we have the status quo option of 0.5 percent to

every state, and a three-tiered option that would have different minimums for different groups of states.

The PDT developed the tiered option to reduce the amount of TAC that was reserved for minimum allocations, while still allowing for states to acquire the necessary allocation when combined with the second allocation step. Under the status quo option, 8 percent of the TAC is apportioned out to the fixed minimum, and under the tiered option that would be reduced to 5.53 percent.

The three-tiered option still contains the changes made by the Board at the January meeting, of course, and the PDT previously voiced their concerns over that, but have no new recommendations regarding those options. Moving on to Step 2. Options 1 and 2 are fairly straightforward. They are the average landings from each of those listed timeframes, the current one being 2009 to 2011, status quo.

I'll add a quick reminder that at the last meeting the Board voted to replace 2020 with2021 landings in all of the relevant options, so that is reflected up here. For the weighted timeframe allocation, the PDT still recommends removal of Timeframe Number 2, or Option 3B. The Board requested two versions of the weighted allocation timeframe be developed in October of 2021. While the state allocations vary slightly between the two versions, by expanding the range of years by one, they are conceptually the same. The PDT reiterates its recommendation that Timeframe Number 2 be removed, because the same objective is achieved with Timeframe Number 1, which utilizes the original timeseries that we use now, and then adds on the most recent three years. Then we have Option 4, which is the moving average option. In response to Board concerns in the January meeting about the types of landings that can affect the moving average, the PDT split Option 4 into three sub-options, two of which remain after the May meeting.

Option 4A represents the original moving average method that include all catch types, including episodic even set aside landings and incidental catch or small-scale fisheries landings to most accurately reflect the distribution of stock and effort. The PDT continues to support the retention of this option, as it's the most responsive to the current fishery. But if the TAC is exceeded, it could impact states that use their full quota.

Option 4B only uses landings under or equal to the TAC in the moving average calculation. This option recognizes the importance of incidental catch and small-scale fisheries landings, and episodic events landings in a state's total landings, to reflect stock distribution, and as a way to move averages up, if needed.

However, it does not reward states for activities that could lead to overfishing, such as exceeding the TAC, and it does not damage existing markets in other states by, for example, shifting quota away from states that fully utilize their allocation. A proportional allocation of the incidental catch and EESA landings among participating states eliminates concerns about the timing or availability of when fish become available, so it's not a first come first served situation.

The PDT supports the retention of this option, as it adds protection for states that fully utilize their fishery, but is not as representative of the current fishery as in Option 4A. Due to the fact that in 2021 incidental catch landings put the total harvest above the TAC, this is the first time we could utilize the calculation to only count a portion of those landings, and there is a full explanation of that calculation in the document, if you would like to see it in more detail.

Here we are, we've gotten to the tables. If anyone has any questions, I'm happy to try to answer them, but otherwise they are the same as have been presented before and have been in the document before, except with the update of replacing 2020 landings with the validated 2021 landings. I think Maya, we can go ahead and skip to Slide 16, please, which brings us to the end of the allocation section. Are there any questions?

CHAIR BELL: All right that's simple, any questions at this point? I don't see any hands. We have recommendations from the PDT. There is the PDT recommendation that we have, and they have been consistent.

MS. KERNS: Maya, do you want to put that slide back up? I think it was on.

MR. BOYLE: It's Slide Number 8, please.

MS. KERNS: We're in the PRT presentation somehow, Maya.

CHAIR BELL: Again, remember what we're doing is just approving for taking it to public comment, so there will be much more time with this. But the PDT has been pretty insistent in their appeal for some simplification if we can. Joe then Cheri.

MR. JOE CIMINO: Yes, and I appreciate that. I think the PDT has really gotten this document to a really impressive place. I've been fighting to keep Option 3B in. It's more inclusive of data. You know there is a lot of interannual variability in the landings for this species. I don't think it makes this a more complex document, slightly larger with more tables. But the understanding of, it's a different set of years, not any older data, just more inclusive. I would like to see it stay in.

CHAIR BELL: Joe would like to see it stay in, well, Cheri, you're next. You don't have to comment on that if you don't want to.

MS. CHERI PATTERSON: Well actually, I was going to agree with the PDT and recommend that it be removed. I think that there is just a lot of similarities to it, and there is not much difference.

CHAIR BELL: Right, and they pointed that out, I think consistently to us. Someone in favor, some want to leave it in, take it out. Any other thoughts on that? All right, well if someone wanted to make a motion one way or the other, I guess we could do it that way. Cheri.

MS. PATTERSON: I would like to make the motion to remove Option 3B under 3.1.2. I'm sorry: Move to remove Option 3B: Weighted Allocation Timeframe #2 from Section 3.1.1 in Draft Addendum I.

CHAIR BELL: Thank you, can I get a second? Does anybody want to second that? Yes, Sir, is that a second?

MR. KRIS KUHN: Yes, Kris Kuhn.

CHAIR BELL: Okay we have a second, good. We have a motion then, we had discussion of the motion.

MS. KERNS: Maya, that second was Kris Kuhn.

MR. BOYLE: Sorry to jump in also, Maya. My mistake in drafting the motion, 3.1.2.

CHAIR BELL: Okay, so we'll correct that. Thank you, Kris. Discussion of the motion. You all are kind of quiet. Well, we could vote on it if there is no further discussion. Emerson.

MR. EMERSON C. HASBROUCK: I agree with Joe, so I'm going to vote against this. I would not support this motion. I would support keeping it in the document, and let's see what the public has to say. Thank you.

CHAIR BELL: All right, would anyone like to speak the other direction? Yes, go ahead, Toni.

MS. KERNS: I just point out that if we do remove this option it takes us from 16 to 12 allocation options that the public would have to weigh.

CHAIR BELL: I think from the beginning we've been kind of having a plea for simplification, and I understand taking a large suite of things out, let them comment. But at some point, it does get a little overwhelming, I think. It's my opinion. All right, any other discussion? We can vote on this then.

All right, all in favor of the motion, raise your hand. Oh, first of all, does anybody need to caucus? Yes, caucus. All right, we'll take three minutes. The magic three-minute timer, three-minute caucus. We've finished caucusing, good deal. All right, everybody ready? All in favor of the motion, just raise your hand, please.

MS. KERNS: I have Rhode Island, Massachusetts, Pennsylvania, Florida, Georgia, South Carolina, North Carolina, Virginia, PRFC, Maryland and New Hampshire. Did I miss anybody on this line?

CHAIR BELL: All opposed raise your hand.

MS. KERNS: I have Connecticut, New York, New Jersey, Delaware and Maine. Two abstentions, NOAA Fisheries and Fish and Fish and Wildlife Service.

CHAIR BELL: Two abstentions. That's 11 in favor, 5 opposed, 2 abstentions and no null votes. All right, it passes. Thank you. Yes, Megan.

MS. WARE: Just before we get off this section. I just wanted to provide one suggestion on tweaking wording, if that's okay. It was on 4B, the calculation procedure for the overage. There is a sentence that talks about overages to episodic and evaluating state landings on a weekly basis. I understand that we in the FMP report our episodic landings by week.

But in reality, we're reporting them by day, and I think a lot of the states are making decisions, not on a weekly basis, but on a day-by-day basis. For example, I don't assess, should Maine be an episodic in Week A, I assess, should Maine be an episodic on Monday versus Tuesday, versus Wednesday.

I was just going to recommend that we slightly tweak that wording, to consider each state's landings in day or days, but specifically each state's reported landings, because I know, and I'll clean this for Maine. We've had like a late report come in, and so that would be counted towards the overage in using that word reported. Does that make sense what I'm suggesting? I'm seeing head nods. I realize it's really specific, but I just think it better captures where we're at.

CHAIR BELL: All right, I think that makes sense. Nichola.

MS. MESERVE: Just regarding the background information for this section. I think there is a mistake in the number of transfers that are reported occurring in each year. James, I think you mentioned it, with the FMP review there are 25 in 2021, and I don't think that is reflected in this document. Then with the background information for the episodic event set aside, that we're going to talk about next, I think the count is also off for Maine and Mass for the number of years that they have participated in the set aside. If you could just doublecheck those numbers before it goes out to public comment that would be great.

CHAIR BELL: Okay, thanks, Nichola. All right, anything else? Speaking of episodic set asides. That's what we'll move to next.

MR. BOYLE: Thanks for that, I'll doublecheck those. Moving on to the Episodic Event Set Aside Provision. The objective of the options in this section are to ensure sufficient access to episodic changes in regional availability, in order to minimize in-season disruptions, and reduce the need for quota transfers and incident catch or small-scale fisheries landings.

There are no changes to these options since the May Board meeting. As a reminder, Option 1 is to maintain the set aside at 1 percent of the coastwide TAC, the status quo, and then Option 2 would be to set the set aside at some value between 1 and 5 percent, with sub-options that would allow the Board to decide how the set aside could be adjusted, either as a statis value during final action of this Addendum, or dynamically during specification proceedings.

Then I made a quick note that's just for clarification or for information. If the 0.5 percent fixed minimum was replaced by the three-tiered

minimum allocation strategy, then the minimum allocated TAC would be reduced to 5.53 percent from 8 percent, like I mentioned before. That 2.47 percent freed up by selecting the three-tiered option, will be reallocated to the states.

But if you increase the EESA to 2.47 percent or less, then you would result in a similar value in terms of pounds of fish, being removed from the TAC prior to timeframe based allocation, prior to the Step 2 of allocation. That's all of this section as well. Thank you.

CHAIR BELL: All right, any questions? Any desire to mess with anything? Okay, I don't see any hands. All right, so we'll just hold what we've got. Good.

MR. BOYLE: Lastly, we have the incidental catch or small-scale fishery section, the objective of which, for these options, is to sufficiently constrain landings to achieve overall management goals of meeting the needs of existing fisheries, reducing discards, and indicating when landings can occur, and if those landings are part of the directed fishery.

In this section there are four subtopics to address incidental catch landings. For simplicity in this outline, I've only shown the non-status quo options. The topics include changing or proposed changes to the timing of when states can begin landing under the provision, permitted gear types, changes to the trip limit for those permitted gear types, and considering a new accountability system for incidental catch or small-scale fisheries landing.

To start with the timing of the provision, Option 1 is the status quo. Once a quota allocation is reached for a given state, the fishery moved to an incidental catch fishery. Currently, individual states can interpret that differently, so whether they consider it a sector or a gear type reaches their allocation, and they move into incidental catch, or whether the whole state reaches its allocation, and that whole state moves in incidental catch. Option 2 would unify it at sector, fishery or gear type allocation. Currently, states such as New Jersey and Virginia divide their state allocation into sector and gear type specific allocations. This provision would confirm that once a sector or fishery or gear type specific allocation is reached for a state, then that sector or fishery or gear type fishery moves into the incidental catch provision.

Option 3 is the opposite. Once the entire quota allocation for a given state is reached, regardless of the sector or gear type allocation, then the menhaden fishery for that state moves into incidental catch for small scale fisheries. Section 2 is for permitted gear types. In the process of editing the options, the PDT discovered that fyke nets were mistakenly listed as both directed and non-directed gear in Amendment 3.

Additionally, in the May Board meeting the PDT was asked to review the classification of trammel nets, and consider redefining them as nondirected gear. In Options 2 and 3, which were drafted by the PDT, fyke nets and trammel nets are both reclassified as only nondirected gear. However, the status quo option must match Amendment 3.

Underneath the status quo option we created sub-options that would present the Board the chance to still choose the status quo provision, but change the classification of one or both of those gear types, if they so choose. Option 2, the incidental catch provision would apply to both small-scale directed gears and nondirected gears, but exclude purse seines.

This option is included due to the growth of directed landings from small scale purse seine gears in recent years. Landings from purse seine gears would count against a state's directed fishery quota. In Option 3, the incidental catch provision would apply only to nondirected gears. Under Amendment 3 this includes pound nets, anchor staked gillnets, drift gillnets, trawls, fishing weirs, fyke nets and floating fish traps, and we've added trammel nets to that as well. Section 3 is to modify trip limits.

Option 1 would maintain the status quo of 6,000 pounds per trip, or 12,000 pounds for two people for all permitted gear types. Options 2 and 3 would

lower the limit for directed gear types only to 4,500 pounds or 3,000 pounds respectively. For both Options 2 and 3, the proposed change in the trip limit would only apply to small-scale directed gears.

Those gear types are listed in full in the document again, but as a reminder, it's cast nets, traps except floating fish traps, pots, haul seines, hook and line, bag nets, hoop nets, handlines, bait nets and purse seines, which are smaller than 150 fathoms long and 8 fathoms deep. Again, fyke and trammel nets have been removed from the directed gear category for Options 2 and 3.

Nondirected gear and stationary multispecies gears would still be able to land up to 6,000 pounds of menhaden per trip per day, with two individuals working from the same vessel, fishing stationary multispecies gear permitted to work together can land up to 12,000 pounds. Section 4, the catch accounting.

This section has changed significantly with comments from the Board at the May meeting. Option 1 is the status quo, where incidental catch or small-scale fisheries landings continue to not count against the TAC. In Option 2, total landings under this provision would be evaluated against the annual TAC, and then if those total landings exceed the TAC, the trigger is tripped, and the Board must take action as specified in Option 2A and 2B. Option 2A is for the Board to modify the trip limit for permitted gear types, and Option 2B is for the Board to modify permitted gear types.

Both 2A and 2B have a sub-option that would provide the Board a mechanism to make a change through Board action and not have to use adaptive management or create a management document. The PDT chose to draft the options in this way, and not to make a specific recommendation on whether the Board use Board action or adaptive management, because they felt it is a strictly Board decision to weigh the pros and cons of those two strategies for any given situation.

I'll also just throw in a couple of reminders here that with regard to these options, the first is the Board could always choose to use adaptive management, and create a new management document instead. Even if you have the power to use Board action, you do not have to use it. There is no sub-option for using adaptive management. Second, as in other sections of this document, the Board is not limited to the options as written here, and can make any combination within the scope of these options.

I would like to thank the PDT for all their hard work, especially for me, as I joined into the Commission in January, and I appreciate their help and patience in getting me up to speed in this process. Thanks a lot! Board actions to consider. Consider amending the language regarding overage paybacks, as I talked about earlier, and then consider approving Addendum I to Amendment 3 for public comment as modified today. That brings us to questions.

CHAIR BELL: All right, any questions about all of the language in there, the options available to us? Again, this is taking things out to public comment. Yes, Nichola.

MS. MESERVE: I had a question about Section 3.3.4, the catch accounting provisions. I appreciate the way that the PDT restructured Option 2. My question is whether adopting Option 2 there, which has a trigger mechanism for when the TAC is exceeded, would remove the language that is currently in the plan about the Board having the discretion if they see a nondirected gear directing, or the landings increasing significantly, even if the TAC isn't exceeded yet to ask for adaptive management, then.

MS. KERNS: Maya, can you throw up the trigger slide, which James will help me with which one it is. I just want to make sure I am reading.

MR. BOYLE: That's Slide 25, Maya, please.

CHAIR BELL: Conferring on that question.

MR. BOYLE: No, I don't think so. The wording here we believe, means that if the trigger is tripped the

Board has to act, but does not preclude the Board from acting if it is not.

MS. MESERVE: Okay, thank you. I guess my hope then is that if the Board does pick something under Option 2, then that language that is already in the status quo about that the Board may act if they see nondirected directing, that that would be in the final document, based on the answer that you just provided.

CHAIR BELL: Okay, Lynn and Allison.

MS. FEGLEY: Just to recap Nichola's question and the answer. Regardless of whether or not the trigger is hit, the Board will have the discretion to make changes to that provision, based on how gears are performing, so that the gear is really increasing, we maintain that ability. Toni.

MS. KERNS: I guess, Nichola, the question would be. Well, what we described is true, but collectively we wouldn't know how you are performing in the middle of the year, and your trigger would get tripped at the end of the year. I don't know if the Board would be able to respond in the middle of the year to make that change. I don't know if that's what you're thinking or not. I just want to make sure.

MS. MESERVE: No, I wasn't thinking of that timely response. But if I use the last five years as an example, for four years we saw purse seines directing, and the landings increasing, increasing, and it was causing concern. We started the working group, and we had this process. It was only in 2021 that we actually exceeded the TAC. I don't want that ability for the Board to see that.

I think it's the normal adaptive management process, but it kind of spells it out in Amendment 3 now, like what the Board can consider, if they see a direction under the provision happening. Just maintaining that language there, I think provides the Board a little bit of guidance that even before the TAC may be exceeded, they can still act under adaptive management. Option 2 kind of adds to the Board's current ability, as opposed to replaces it.

CHAIR BELL: Lynn, did we leave you hanging, or did it answer your question? Good, Allison, did you have a question as well?

MS. COLDEN: Yes, maybe just a clarifying question to jog my memory. Option 2 addressed a situation in which the TAC is exceeded when the IC/SSF landings are added. If there is another situation in which the TAC is exceeded, the overages are only accounted for on a state-by-state basis at this point for directed landings, is that correct?

MR. BOYLE: Yes.

MS. COLDEN: The reason why this is addressing just in the cases where the incidental catch landings exceed the TAC, is because otherwise it would be directed under the state landings. Just want to make sure I've got that correct.

CHAIR BELL: Toni.

MS. KERNS: There is episodic overages that get addressed through theirs, and that comes out of next year's episodic set aside, and then you have your directed landings for your directed state quotas, which come back out of your state which you're referencing.

MS. COLDEN: But basically, there are mechanisms depending upon where we see the overages.

MS. KERNS: That is correct.

MS. COLDEN: Yes, okay, just wanted to clarify, thank you.

CHAIR BELL: Other questions? Yes, Megan.

MS. WARE: If it's okay, I had just another wording suggestion. But I can hold that if you would like.

CHAIR BELL: Oh, yes Ma'am, go ahead.

MS. WARE: I realize it's not necessarily a question. I guess under the trip limits and the gear types there were sub-goals, I'll call them that were under each section. I'm wondering if we can just add the

word consider to those goals, because I think as they are currently written, they are actually narrower than the scope of options in the document. For example, for the trip limit one it would be, limit the annual volume of IC/SSF landings by considering reductions to the trip limit.

MR. BOYLE: Yes, okay. Thank you.

CHAIR BELL: Is that it? Thanks. Any other comments, questions, suggestions, tweaks? I don't see any up here yet. Chris. Who is that?

MS. KERNS: Before we go to the public, can I ask the Board a question about the staff recommendation to the payback provision? We figured this out after the PDT had met, so the PDT did not see this recommendation. When James and I were thinking about it, I was like, I guess we could just add another year.

But in further consideration as I've thought, I think that if the Board agrees that it is good to move it back, that payback should only come in a single year, we shouldn't spread it out over a two-year timeframe. I am suggesting that the option just be two years later. For example, if we find out that there was an overage in 2021, it would come out of quotas in 2023. I just want to make sure the Board is okay with adding that language to the document.

CHAIR BELL: Yes, Nichola.

MS. MESERVE: I'll admit I haven't had long to think about this, other than today. But I don't like that there is additional lag if it's not needed, in accounting for overages. I guess my question is really whether this has been an issue for any states that have had overages, and having to account for them in the subsequent year, to know if this is really a necessary change that we need to make right now and add it to the document.

CHAIR BELL: Yes, Megan.

MS. WARE: I think to respond to that, Nichola. For example, we've had situations where incidental landings have changed slightly from April 1st to May 1st. I think in one of the weighted options, if total landings were over the TAC, those would then be used to reduce our quota in the subsequent year, and I'll look to staff to confirm that. I think we may not have a final number on those at the end of the existing fishing year, if I am understanding the option correctly, unless that is already lagged. It's already lagged. Then I think it would be okay.

MS. KERNS: Trying to remember the language from that weighted option, Megan, hold on.

CHAIR BELL: We'll answer that, and then I'll get to you, Joe.

MS. KERNS: It's lagged, and it's spelled out specifically to two years, which overage payback is not spelled out that way. Does that help, Nichola?

MS. MESERVE: I don't know, is this consideration being added because of the moving average option, or this is a distinct issue that the PRT came up with, staff realized, and just looking to add it here? From a Massachusetts state perspective, we have a good enough sense to handle any overage that we have in the immediate year.

From my standpoint, I'm not seeing a need to add this. But if it's helpful to other states I would be willing to consider it. Just I don't want to complicate the document with an option that we don't need, if no one around the table things we need to address overages two years later, as opposed to one year later.

MS. KERNS: I can help clarify where James and I ran into this issue. As we were trying to figure out the validated data and kept going back and forth with a couple of different states on the issue. We realized that a, Jeff tells me to never say data is final, but a good value for that fishing year is often not going to come until sometime in the summer.

There are states that divide their quota up by quarters, by gear types at the beginning of the season. One gear type may have already had their run. They wouldn't be able to take a quota overage out of that gear type, and wouldn't be able to

address the overage in that year, and so it would have to come out of their next year's quota, in order to get it out, once we told them that they had an overage. Because they would have already allocated out to their fishery. That's why we had made the suggestion.

CHAIR BELL: Okay, so there is utility in leaving that in. Joe, you had a question?

MR. CIMINO: Actually, I was just going to ask Toni to do what she just did, but it wouldn't be leaving it in, it would be adding language. Is that also, correct? Yes. Nichola, we would be one of those states that Toni just created that scenario. You know we have vessels that harvest a great amount at one time, and if one of those was missed and that overage needed to come out in the next year. But we didn't know that until sometime during the year. It would impact all the allocations for all the other fisheries.

CHAIR BELL: Yes, that was leaving it in in the context of the draft where we are right now.

MR. BOYLE: I would also just like to add really quickly that the way we're going to draft the language it wouldn't stop a state from paying an overage if they could in the subsequent year, like in the original, the year after the overage.

MS. KERNS: I just suggested that we only do one year for accounting purposes, sorry. That was what I was getting at, where I was correcting, because I think accounting purposes it would be maybe a bit of a nightmare if we had it spread over two. Yes, it's my fault.

CHAIR BELL: Anything else? Yes, Allison.

MS. COLDEN: I just wanted to sort of agree and reiterate Nichola's point. If there is no need for a lag, especially for a species like menhaden, which we're managing on an ecosystem context. I would hope that we could make those changes, and respond to those overages as quickly as possible.

I'm not quite sure why whatever we're discussing today would be different than how we've dealt with directed landings overages since Amendment 3. I don't know if I'm just not following the issue here, because we have had overages, but is it that they've always been covered, so we haven't dealt with this yet? I'm not sure what is different, thank you.

CHAIR BELL: Toni.

MS. KERNS: We have not had any overages, but I anticipate we are going to start getting very close to our quotas as we change these allocations, and there could be overages. Because of the difficulties we had in getting a version of final landings this year, I realized that this would become a problem in the future if we had overages.

CHAIR BELL: It's just thinking ahead and changing the field. Okay. Anything else? We have a draft motion we could put up on the board. Hang on, Jim Gilmore.

MR. JAMES J. GILMORE: Sorry, my energy level has dropped below most of what is in the room right now. This goes to Section 3.3.2, which we had raised the issue at the last meeting, and it had to do with the IC/SSF and particularly the small-scale fishery. In that scenario that I raised at the last meeting.

New York's fishery really is a beach seine fishery now. That is what we catch 85 percent of the fishery is prosecuted with a beach seine. I raised a point that under Option 3 under 3.3.2, if you chose that option, you would eliminate New York's fishery, essentially. We've already banned purse seines, the Legislature did that. We have the ultimate small-scale fishery. We're catching everything with a beach seine. We had made a request that the PDT essentially fix that, and one suggestion was to add it in as an exemption under Option 3, and it would be considered under a nondirected fishery, even though technically it wasn't. I think the response that the PDT came back with was, and if I can raise it. At the spring meeting the PDT requested to review Option 3, and consider creating an exception for beach seines to

continue operating if this option is selected. However, given that Options 1 and 2 both allow for beach seines to continue under the IC/SSF provision, so I agree, if we pick one of those options, we don't have a problem.

However, Option 3, the intent was to create a provision where there was no menhaden-directed fishery. Such an exception would be contrary to the spirit of the option, and essentially did not have a directed fishery. I tend to agree with that. But the spirit of it was not to eliminate a state's fishery. It essentially goes on to say that since because of that that we didn't want to have a directed fishery, that the PDT chose not to modify the option.

Right now, I'm looking at this, and if the PDT can't fix it, we've got two things that New York can do. Either eliminate Option 3, which I know may give some folks some Ajita, or I have a motion ready to put up to maybe consider adding beach seines in under Option 3, so that it could be considered if that option is selected. If you would like me to, Mr. Chairman, I would go ahead with that motion.

CHAIR BELL: Toni.

MS. KERNS: Jim, go ahead with your motion. I just would point out that New York is not the only state with a fishery that gets eliminated by Option 3. There are other state fisheries that do get eliminated, and the PDT was following the direction of the Board to eliminate these directed fisheries as requested, and so that is why they had the response. Some other fisheries were also eliminated by that option. It's not just New York.

MR. GILMORE: Okay, so is there a different solution to it then, Toni? That again was the intent was not to, we're talking about small-scale fisheries, and it was trying to restrict harvest so that we wouldn't. I mean the whole intent of that section was that we would not exceed harvest. But now we're eliminating valid harvest.

Maybe there is a different way to go about doing this, because all I was going to do in the motion was to add on essentially, it was essentially Option 3, and change the language to nondirected and beach seines only. That would fix my problem, but is that going to cause other problems for other states?

MS. KERNS: I will leave that to the Board's discretion. I'm just telling you what the PDT was directed to do, and therefore that was their rationale.

CHAIR BELL: Allison, to that.

MS. COLDEN: Just a clarifying question. Wouldn't removing it as a gear under the incidental catch provision simply move those landings to directed landings? I'm not sure I understand how it would end the fishery. It would just change the pot under which it's accounted for.

CHAIR BELL: Go ahead, Jim.

MR. GILMORE: I'm not sure. If the quota increases, yes. I don't think it's going to be an issue. But if it doesn't, and that's what we don't know right now, then it could be an issue, because if we go over our directed fishery quota, then essentially, we would be into the incidental catch section, and then we may come up short.

CHAIR BELL: Yes, Lynn.

MS. FEGLEY: I do understand the concern here, but I just want to take everybody back to the objective of this Addendum, which is one, to align with the availability of the resource, and two, to enable states to maintain current directed fisheries with minimal interruption during the season. I think, looking at the tables. It looks like you guys are harvesting 300,000 pounds, and one year you maybe have 800,000 pounds.

I think we would be better off, rather than trying to craft an exception to a very specific piece, to really consider when we're finalizing this document. This is the sort of thing that we need to consider. It's not that much fish. I mean I would hope that we could figure out a way that your directed fishery isn't eliminated, because that's directly counter to

one of the goals of the Addendum. I don't know if that helps, but I just wanted to flag that.

MR. GILMORE: Let me ask Toni a question then. The PDT response was something to the affect that we would create some kind of a loophole. That I didn't quite understand where the loophole was coming in that all these states are going to come out of the woodwork now and start having big beach seine fisheries, which if anybody has ever tried to catch menhaden with a beach seine, it's not the most efficient way of doing it. What is the loophole, if anybody knows, from the PDT?

MS. KERNS: I'm going to go to one of our PDT members in the back of the room and ask her to come to the table, unless James remembers, but Nicole. I'm phoning a friend.

MS. NICOLE LENGYEL COSTA: Thanks, Toni. Yes, you are correct, Mr. Gilmore. The concern from the PDT was that other states could then develop beach seine fisheries. We did have a conversation about it. We do recognize it is small scale. It is not the most effective method, as you said.

But it still would open that door for the opportunity, and we just felt that beach seines being a directed gear, we didn't feel it was appropriate to move it into the nondirected gear. We would be open to other suggestions of how to address the issue, but we just felt it was really a directed gear, so it didn't belong in the nondirected gear category.

CHAIR BELL: Okay.

MR. GILMORE: Let me try a motion, and maybe that will help out.

CHAIR BELL: Why not?

MR. GILMORE: I've got two different versions of this, but I'll try Emerson's suggestions first, because the other one was going to be, for any state that's got a beach seine fishery that hasn't banned purse seines, but I'll try a simpler way. **Move to modify Section 3.3.2, Option 3, nondirected and states with existing beach seine fisheries.** Put it up there and let me wordsmith it a bit.

MS. KERNS: Jim, we're going to probably need you to, let's see what Maya gets. Then s-l-o-w-l-y.

MR. GILMORE: Sure, I will slow down. Okay, 3.3.2 nondirected, move to modify Section 3.3.2, Option 3 to read, nondirected and beach seines. Give me a second, Maya. And states with existing beach seine fisheries.

CHAIR BELL: That's good enough for you, can I get a second to that from someone? Okay, Tom had his hand up. Okay Tom first.

MR. FOTE: I'm trying to get the term straight in my mind. When I look, because there is a haul seine, and a haul seine is the same as a beach seine, because the haul seines are a very efficient way of harvesting. I mean think what North Carolina did on striped bass back in the seventies, and we think that's why New York eliminated the haul seine for striped bass before it was done, because it could basically see a large area.

I mean I used to drive to beaches out in Montauk, and basically watch the haul seines load up pickup trucks with striped bass, and also it was basically kind of destructive about the fishery. It had a lot of bycatches of other fish, and once you dragged them on the beach, you weren't basically releasing them alive. I'm a little confused here, so I want to know how it operates.

CHAIR BELL: That wasn't a second from you then, that was just a question about gear type, because what you're describing haul seine, yes that is in my mind a different gear from probably a beach seine, I think. Yes, Joe.

MR. CIMINO: You have a motion on the table, so I will second for discussion, and then we can get to Tom's question.

CHAIR BELL: Joe seconds that, now we'll have some discussion. Jim.

MR. GILMORE: Yes, actually, as Emerson and I were just looking at it. It might be easier to leave the heading alone, and just add on at the end, you know the last thing with the states with existing beach seine fisheries. Let me change, do you want to try it, Toni?

MS. KERNS: Jim, I'm not sure it should say states with existing beach seine, it should just existing beach seine fisheries. You would just add to the gear list existing beach seine fisheries. Maya, we will friendly amend. Move to modify Section 3.3.2 Option 3 to add or by adding, and then take out parentheses, nondirected. Exactly, thank you, Maya.

CHAIR BELL: Okay, Jim, is that good, as far as modifying wording. Joe seconded.

MR. GILMORE: I think, yes Joe has the second, not Tom.

CHAIR BELL: Okay then, discussion of the motion. Nichola and then Emerson, and then Megan.

MS. MESERVE: I am going to oppose the motion. I agree with the PDTs rationale that this is counter to the intent of the option. I understand New York's situation, I believe, but think that this option has to be taken in consideration of the other options that look at quota reallocation. I'm sure we could all find one option that we don't like on its own. But you have to think about this in the context of what else the Addendum may do. I'm going to oppose this.

CHAIR BELL: All right, Emerson.

MR. HASBROUCK: Obviously I support this motion. Under some of the goals that we have in this document, one of which is to maintain current direct fisheries. It doesn't say if they're large scale directed fisheries or small scale directed fisheries, but to maintain those fisheries. That is under the allocation section.

We don't know at this point in time where we're going to end up with allocation, and that is some of the issue in New York is that we really don't have sufficient allocation, because menhaden landings weren't really tracked until just recently in New York. If we knew where we were going with allocation, we may not need this.

But since we don't know where we're going with allocation, I think we're going to need this. Another goal was to meet the needs of existing fisheries, and as Jim said, in New York the fishery is a beach seine fishery. That is what it is. You know they really depend on that bycatch allocation. To answer Tom's question.

The beach seine is different from the haul seine, and the fishery is also executed in an area and in a method where there is essentially hardly any, if any, bycatch, including striped bass. I know the people who are involved in this fishery. I've had discussions with them several times about bycatch, and it's almost nonexistent. This is a totally different fishery than the haul seine fishery for striped bass that used to occur in New York.

CHAIR BELL: To that Tom, just really quickly.

MR. FOTE: Yes, I'm trying to figure out how is it different if you basically are taking a boat and launching it from the beach, and then wrapping it around or is that the way it's being done, because that is a haul seine. I'm trying to figure out, and what areas are they doing this in? That's all I'm asking the question before I vote.

CHAIR BELL: All right, Emerson.

MR. HASBROUCK: It's up in Flanders Bay and Peconic Bay. It's an area where there was never a striped bass haul seine fishery. This is not occurring along the south shore ocean beaches.

CHAIR BELL: Okay, thank you. Megan.

MS. WARE: I mean I think I can confidently say I probably best understand people's concerns about reliance on small scale, given where Maine is right now, and I certainly get New York's angst about where Option 3 could go. But respectfully, both

Options 2 and 3 are threatening Maine's small-scale fishery, which we've become completely reliant on, given our quota. I'm just getting a little nervous here that we're starting to carve out exemptions for certain gear types over others. I think how the options are listed right now is appropriate, and I think we should keep them that way.

CHAIR BELL: Chris, and then Cheri.

MR. BATSAVAGE: Yes, I think just confusion and specificity of the definition of a beach seine makes this problematic when you look across states. I appreciate the definition of how the beach seine is being fished in New York, but the way this is written, the beach seine would be fished much differently in North Carolina, and possibly other states.

Then if you get any gear changes that are still called a beach seine, you know it can then kind of snowball on top of there. I mean I understand New York's dilemma, but I think just the unintended consequences of this makes me reluctant to support this motion.

CHAIR BELL: Okay, Cheri.

MS. PATTERSON: Yes, I think this kind of, I completely sympathize with New York. I know that this is going to likely affect us also in New Hampshire. But I think it goes against what the option is indicating. It's indicating nondirected gears, and this sounds like a directed gear. That is where I'm a little confused about why we're adding something that's directing, when it's under a nondirected gear revision.

CHAIR BELL: Jim.

MR. GILMORE: Yes, and both Cheri and Chris. You are 100 percent right, it's a directed gear. From a technical standpoint I will not argue that. From a practical standpoint, it's essentially a fishery that if I go back two years ago, before our Legislature banned purse seines, I would have other gears that I might be able to prosecute the fishery.

But I don't. We're down to, the intent of that legislation was to preserve the menhaden fishery in New York, and keep a population high, so we're restricted to the smallest gear possible. Now it's created this dilemma, because of the name. But let me put a couple of more points in here before we vote. The concern, and it's in the Addendum, is that we want to prevent fish kills. Each year for the last couple of years, we've run through our directed fishery quota and we've gone to this small-scale fishery using beach seines to keep fish kills from happening. Fish kills that, trust me I've had town supervisors at meetings and I said, the fish are alive in the water, I can catch them. They are my problem. They die and they are on the beach they are your problems. They've been spending hundreds of thousands of dollars taking these fish off the beach. That is our bigger concern about it. Yes, if our quota goes up and everything, it's not going to be an issue. If it stays the same, then I get to the fall. I've got menhaden kills all over the Peconic's.

We've got fish not going to market, just essentially going to a landfill. The guys that are doing this, and it's one guy with a group of people now, are catching that fish, Megan, and they're going to Maine. That is where they are selling them for the lobster fishery. This is a practical management right now.

I understand getting into yes, it's not directed fisheries. But we're trying to get something that maintains the fishery, and essentially prevents some of the other issues like fish kills and loss of a resource or waste of a resource. Again, we need something better than what's in there right now. Thank you.

CHAIR BELL: Okay, any other discussion on this really quickly? Max.

MR. MAX APPELMAN: Yes, I just want to raise a technical point, maybe, a concern about inconsistent terminology. I mean we're hearing haul seine, beach seine. It's the first time that beach seine is even entering this document, and so if we want to keep things, avoid any confusion, and

if this is a haul seine, as what's been described here in the small-scale directed gears, maybe we should be talking about haul seines. I'm being confused between beach versus haul seine, and if I'm being confused maybe some others are getting confused too.

CHAIR BELL: Thanks, Max. Let's go ahead and vote on this. All right, there is the motion. Do you need to caucus? Yes, probably so. Let's take three-minute caucus. Maya, can you hit the timer? I guess that's three minutes, folks. Everybody finished caucusing? Yes, Jim.

MR. GILMORE: Just a suggestion, because of consistency in the document. We've been calling it a beach seine, which is not in the document. But we have haul seine that is in the document, and if they are synonymous, because we changed the word.

MS. KERNS: They are not the same. A haul seine is not a beach seine.

MR. GILMORE: No, I agree with you. But we don't have beach seine anywhere else in the document. We probably could have a good coffee discussion or a drinking discussion about a haul seine and a beach seine, what the difference are. But anyway, all right, we'll leave it alone.

CHAIR BELL: Max, do you have something to that?

MR. APPELMAN: I don't mean to open up a can of worms, but with all due respect, the small-scale directed gears identified in the document does not include beach seine, so how if we're saying they are different gear types, how is it that a state is using beach seines under the small-scale directed fishery provision? I mean I think the discussion is that they are essentially synonymous. We're calling them the same thing. That is where this concern is coming from.

CHAIR BELL: All right, I think we've had plenty of discussion on this, and plenty of gear confusion a little bit. Let's go ahead and vote then. See the motion to modify the wording in 3.3.2. All in favor of that motion, please raise your hand.

MS. KERNS: I have New York.

CHAIR BELL: All right, all opposed to that motion, please raise your hand.

MS. KERNS: I have Rhode Island, Massachusetts, Connecticut, Pennsylvania, Florida, Georgia, South Carolina, North Carolina, Virginia, Potomac River Fisheries Commission, Maryland, Delaware, Maine and New Hampshire.

CHIAR BELL: All right, any abstentions? Two abstentions.

MS. KERNS: NOAA Fisheries and Fish and Wildlife Service.

CHAIR BELL: Any nulls?

MS. KERNS: New Jersey.

CHAIR BELL: One null, all right. What is the final score there, 1 for, 14 opposed, 2 abstentions and 1 null? All right, so the motion does not pass. I guess we're back. We have a Draft, right? We could put a motion to approve this Draft to move forward, get that up there. Is that a Maya thing? Would anyone care to make this motion to approve? Okay, I saw Megan's hand first. Megan.

MS. WARE: Sure, move to approve Draft Addendum I for public comment as amended today.

CHAIR BELL: All right, a second, Cheri. Just got a second from Cheri. See if we can do it this way. Any opposition to the motion? Thank you, she's holding me to this. Before we vote, I think we have a member of the public that would like to comment, so we will take a public comment on this right now before we vote.

MR. SHAUN GEHAN: Thank you, Mr. Chairman, Members of the Board. This will be quick. My name is Shaun Gehan, I work with Omega Protein

and will be doing comments on this. It's just a question about what specifically may be within the range of options in the document that could be selected.

The question is whether the way the document is laid out is, advocating for allocations based strictly on current and/or current and historic use within the range of options. That would be either without any minimum allocation to the states, or no minimum allocation and no episodic even set aside. Is that just purely done on the basis of current and/or current historic landings within the range of options?

CHAIR BELL: Did you get the question?

MS. KERNS: Shaun, I don't think so. The only thing that the Board can choose from are within the current range of options that are in the document itself. The document does state that the Board has the prerogative to cross options, but it has to be within the current range of options of the document.

MR. GEHAN: Okay, thanks. Just wanted clarification.

CHAIR BELL: Okay, thank you for that question, Shaun. All right, okay now, are there any objections to this motion to adopt the Draft document? We have one objection.

MS. KERNS: Note who that objection is. New York objects.

CHAIR BELL: Yes, so just one. Okay, we're good, then that carries. Motion passes, woo, on to public comment.

MS. KERNS: Maya, motion carries with one objection, and then you can put in parentheses, New York. Thank you.

CHAIR BELL: What have we got left? Yes, is Tina going to do that, are you doing that?

MS. TINA L. BERGER: I'm here.

REVIEW AND POPULATE ADVISORY PANEL

CHAIR BELL: We were just talking about you. Yes, the last agenda item we have is an Advisory Panel Appointment, so Tina, do you want to do that?

MS. BERGER: Be happy to. Members of the Board, I have for your review and consideration and approval the nomination of Barbara Garrity-Blake from Gloucester, North Carolina. Her nomination form was in your main meeting packet. That's it.

CHAIR BELL: Thank you, Tina. Yes, Chris.

MR. BATSAVAGE: Yes, I'll move to approve the nomination of Barbara Garrity-Blake from North Carolina to the Atlantic Menhaden Advisory Panel.

CHAIR BELL: All right, Pat, are you seconding? Pat seconds. All right, any objection to the motion**? I don't see any objection. The motion carries.** All right, thank you and thank you, Tina. Wow, I guess that's it. All right, any other business to come before the Menhaden Board?

MS. BERGER: Toni, could you tell us who the seconder was.

CHAIR BELL: Pat Geer.

MS. BERGER: Thank you.

ADJOURNMENT

CHAIR BELL: I got us finishing on time then. All right, well done, folks. Thank you very much. We are adjourned then.

(Whereupon the meeting adjourned at 4:55 p.m. on Wednesday, August 3, 2022)