

**PROCEEDINGS OF THE**  
**ATLANTIC STATES MARINE FISHERIES COMMISSION**  
**ATLANTIC MENHADEN MANAGEMENT BOARD**

**The Westin Alexandria**  
Alexandria, Virginia  
**May 5, 2015**

Approved August 5, 2015

Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

TABLE OF CONTENTS

Call to Order, Robert H. Boyles, Jr. .... 1

Approval of Agenda ..... 1

Approval of Proceedings, February 2015..... 1

Public Comment..... 1

Biological Ecological Reference Point Workgroup Report ..... 2

FMP Review for 2015 and State Compliance Report..... 10

Technical Committee Report ..... 17

    Review of Biological Reference Points ..... 17

    Review Stock Projections..... 18

    Board Discussion of Technical Committee Report ..... 20

Set Atlantic Menhaden Specifications ..... 24

    Process Overview ..... 24

    Advisory Panel Report ..... 24

    Board Discussion of Atlantic Menhaden Specifications ..... 26

Adjournment..... 50

INDEX OF MOTIONS

1. **Approval of Agenda by Consent** (Page 1).
2. **Approval of Proceedings of February, 2015 by Consent** (Page 1).
3. **Move to accept the 2015 FMP Review report and approve the states of Maine, New Hampshire, South Carolina, Georgia, and Florida for *de minimis* status for the 2015 fishing season** (Page 16). Motion by Louis Daniel; second by Bill Adler. Motion carried (Page 17).
4. **Main Motion: Move that the commission maintain the coast-wide TAC at 170,800 metric tons for 2015 to promote conservation; and initiate Amendment 3 to the Atlantic Menhaden FMP to establish ecological reference points to provide for predators; set a new coastwide TAC based on these new ecological reference points for implementation in the 2016 fishing season; and review state allocations as required by Amendment 2** (Page 25). Motion by Louis Daniel; second by Rep. Sarah Peake. Motion substituted.
5. **Substitute motion to substitute the TAC at 187,880 metric tons for 2015 and initiate Amendment 3 to the Atlantic Menhaden FMP to establish ecological reference points and to review state allocations as required by Amendment 2. The TAC would increase by 10 percent in 2016 and 2017 or until a new coast-wide TAC could be set based on ecological reference points developed by Amendment 3** (Page 33). Motion by Adam Nowalsky; second by Stephen Train. Motion amended.
6. **Move to Amend the Substitute Motion: Move to amend the substitute motion by removing “The TAC would increase by 10 percent in 2016 and 2017, or until a new coast-wide TAC could be set based on ecological reference points developed by Amendment 3”; and adding “and 2016” to set TAC at 187,880 metric tons** (Page 37). Motion by Terry Stockwell; second by Sen. David Watters. Motion carried (Page 44).
7. **Substitute Motion as Amended: Move to substitute the TAC at 187,880 metric tons for 2015 and 2016; and initiate Amendment 3 to the Atlantic Menhaden Fishery Management Plan to establish ecological reference points and to review state allocation as required by Amendment 2.** Motion to divide (Page 44).
8. **Move to Divide Substitute Motion: Move to divide the motion so the TAC of 187,880 metric tons for 2015 and 2016 is one motion; and the second motion would be to initiate an amendment for the development of ERPs and allocation** (Page 45). Motion by Lynn Fegley; second by Martin Gary. Motion carried (Page 46).
9. **Move to initiate Amendment 3 to the Atlantic Menhaden Fishery Management Plan for the development of ecological reference points and allocation** (Page 46). Motion carried (Page 46).
10. **Move to substitute the TAC at 187,880 metric tons for 2015 and 2016.** Motion carried (Page 47).
11. **Main Motion as Substituted: Move that the Commission establish a coast-wide TAC at 187,880 metric tons for 2015 and 2016 to promote conservation; and to initiate Amendment 3 to the Atlantic Menhaden Fishery Management Plan for the development of ecological reference points and allocation.** Motion carried on (Page 49).
12. **Motion to adjourn by Consent** (Page 50).

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

### ATTENDANCE

#### Board Members

Terry Stockwell, ME, proxy for P. Keliher (AA)	Loren Lustig, PA, (GA)
Steve Train, ME (GA)	John Clark, DE, proxy for D. Saveikis (AA)
Doug Grout, NH (AA)	Roy Miller, DE (GA)
G. Ritchie White, NH (GA)	Craig Pugh, DE, proxy for Rep. Carson (LA)
Sen. David Watters, NH (LA)	Lynn Fegley, MD, proxy for T. O'Connell (AA)
Rep. Sarah Peake, MA (LA)	Bill Goldsborough, MD (GA)
David Pierce, MA (AA)	Del. Dana Stein, MD (LA)
Bill Adler, MA (GA)	Rob O'Reilly, VA, proxy for J. Bull (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)	Kyle Schick, VA, proxy for Sen. Stuart (LA)
Robert Ballou, RI (AA)	Cathy Davenport, VA (GA)
David Borden, RI (GA)	Louis Daniel, NC (AA)
Dr. Lance Stewart, CT (GA)	Robert Boyles, Jr., SC (AA)
Rep. Craig Miner, CT (LA)	Nancy Addison, GA (GA)
David Simpson, CT (AA)	Patrick Geer, GA, proxy for Rep. Burns (LA)
James Gilmore, NY (AA)	Spud Woodward, GA (AA)
Emerson Hasbrouck, NY (GA)	Jim Estes, FL, proxy for J. McCawley (AA)
Paul Risi, NY, proxy for Sen. Boyle (LA)	Martin Gary, PRFC
Tom Fote, NJ (GA)	Steve Meyers, NMFS
Russ Allen, NJ, proxy for D. Chanda (AA)	Mike Millard, USFWS
Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)	

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

#### Ex-Officio Members

Jason McNamee, Technical Committee Chair	Lloyd Ingerson, Law Enforcement Representative
Jeff Kaelin, Advisory Panel Chair	

#### Staff

Bob Beal	Melissa Yuen
Toni Kerns	Shanna Madsen
Mike Waine	Max Appelman

#### Guests

Dennis Abbott, NH Leg. Proxy	Dave Gedra, CCA
Ross Self, SC DNR	Rob Allen, CCA
Stephanie Hunt, NOAA	Bryen Stacks, CCA
Michelle Duval, NC DMF	Jack Travelstead, CCA
Alexei Sharov, MD DNR	Tom Ferrugia, House Cte on Natural Resources
Dan McKiernan, MA DMF	Shaun Gehen, Omega Protein/Gehen Law
Shannon Green, Lenfest Ocean Program	Ben Landry, Omega Protein
Jeff Deem, MAFMC	John Landers, Omega Protein

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

Nick Sterrett, Omega Protein  
Ken Pinckard, Omega Protein  
Ron Lukens, Omega Protein  
David Fralk, Kelly Drye, DC  
Adam Ferrer, Natl. Audubon Society, DC  
Amy Price, Ocean Conservancy, DC  
Christine Hopper, Ocean Conservancy, DC  
Jim Price, Chesapeake Bay Ecological Fndtn.  
Cindy Bishop, CBEF  
Patrick Paquette, MSBA  
Clint Waters, MSSA  
Aaron Kornbluth, PEW  
Jennifer Warner, PEW  
Lora Clark, PEW  
Jim Edlam, PEW  
Ken Hastings, Mason Springs Conservancy  
Marin Hawk, MSC  
Drew Minkiewicz, KDW  
Jimmy Kellum, Kellum Maritime  
Wendell Lee, UFCW Local 400, VA  
Lionel Waddel UFCW Local 400, VA  
Michael Newton, UFCW Local 400, VA  
Marius Cockrell, UFCW Local 400, VA  
Irwin Ball, UFCW Local 400, VA  
James Stanck, UFCW Local 400, VA  
Gary Kelliher, UFCW Local 400, VA  
Tony Owens, UFCW Local 400, VA  
George Ball, UFCW Local 400, VA  
Hilton Laws, UFCW Local 400, VA  
Ryan G. Swan, UFCW Local 400, VA

Carroll Diggs, UFCW Local 400, VA  
Ralph Coleman, UFCW Local 400, VA  
Jim Heman, UFCW Local 400, VA  
Jeffrey Abbott, Weems, VA  
Erik Bank, Silver Springs, MD  
Jamie Pollack, Shark Angels, NY  
Paul Greenburg, NY, NY  
Ken Hinman, Wild Oceans  
Benson Chiles, Chiles Consulting  
Chris Moore, CBF  
David Monti, RI Saltwater Anglers Assn.  
Travis Baran, RI Saltwater Anglers Assn.  
Arnold Leo, E. Hampton, NY  
Meghan Lapp, Seafreeze, Ltd  
Robert Brown, MD Watermen Assn.  
Paul Eidman, Menhaden Defenders, NJ  
John Bello, VA Saltwaters Sportfishing Assn., VA  
A.J. Erskine, Reedville Menhaden, VA  
Caitlin Lang, PCJ  
Kirk Brown, Burgess, VA  
Michael Thomas, Burgess, VA  
Keith Mason, Newport News, VA  
Rob Gutknecht, Weems, VA  
Joseph Weldon, Yardley, PA  
Robert Crockett, Richmond, VA  
Allen Russell, VA  
Jerry Morris  
William Taylor  
Raymond Kane, CHOIR

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

The Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, May 5, 2015, and was called to order at 8:00 o'clock a.m. by Chairman Robert H. Boyles, Jr.

### CALL TO ORDER

CHAIRMAN ROBERT H. BOYLES, JR.: Good morning, everyone. My name is Robert Boyles from South Carolina Department of Natural Resources. It is my privilege to chair the Menhaden Management Board. I want to welcome the board members here, welcome our guests. Members of the Public, we appreciate every one of you being here.

We appreciate your interest in the deliberations of this board and the work of the Atlantic States Marine Fisheries Commission.

### APPROVAL OF AGENDA

We have before us a couple of things before we get started in earnest; the first of which is an approval of the agenda. The agenda was distributed as part of the briefing materials. Are there any additions to the agenda? I will see it is an ambitious agenda. Mr. Kaelin.

MR. JEFF KAELIN: Mr. Chairman, it is an ambitious agenda, but there is also no research planning in this discussion today. I wondered if there could be some time at the end of the meeting to talk about a research program for menhaden, because it is not on the agenda.

CHAIRMAN BOYLES: Sure, Jeff, we'll consider that. We'll see what time allows, but certainly in bounds. Any other additions or suggestions? Seeing none; any objection to adopting the agenda? Seeing none; the agenda is adopted.

### APPROVAL OF PROCEEDINGS

CHAIRMAN BOYLES: Also in your briefing materials were proceedings from February

2015, which were also included in the mail-out. Any corrections, additions or otherwise edits to those minutes? I see none; those minutes are approved as presented.

### PUBLIC COMMENT

CHAIRMAN BOYLES: Now the time on the agenda for public comment; and let me say here at the beginning, I again appreciate the vast turnout from all of you here who are interested in Atlantic menhaden management. I see a number of you have visual aids. I would just ask that in the course of the deliberations and public comments that you be respectful with those visual aids, please.

We have a lot of stuff to go through, a lot of things to talk about and a lot of interest. Again, we appreciate your being here and appreciate your presence. What we would like to do with public comment now is take public comment on those items that are not on the agenda. I have had one person who has requested an opportunity to speak at this time. Mr. Hastings, if you would come to the public microphone and give us your brief comments.

MR. KEN HASTINGS: I think I've been doing this too long. The first thing that I remembered about this process that we've been going through for seemingly forever is back when localized depletion was a big deal, so that kind of puts me where I belong in terms of the age spectrum. You never really did anything with localized depletion.

It just sort of died and I don't think you ever even came up with a definition for localized depletion. I was also at the Baltimore meeting. I didn't get a shirt then. I was kind of disappointed because I got there last; but I got here early today and I have a shirt; so I'm starting off the day really happy with the way things are going.

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

I was happy at the Baltimore meeting because actually for the first time that I can remember some conservation issues came to the front, superseded the boom-year dollar value of these fish, and I was happy about that. That happiness didn't last very long because right behind that was the 6,000 pound bycatch allowance. I went, whoa, wait a minute, now, what is this all about; it didn't even count toward the target.

Imagine how I felt a month or so later when I discovered the bycatch allowance for one year was going to go up to 12,000 pounds. We still didn't know what we had. I also went to the Georgia Annual Meeting where people showed up; and I thought we're really presenting a mea culpa moment, because he said, you know, we kind of screwed up.

For all those years we caught menhaden we weren't reporting and we didn't know how many we caught. We probably reported a whole lot less than we did; and that is hurting us now because the commission has established a TAC based on what we reported; and we'd like a do-over. We'd like an opportunity to improve on that record. That was supposed to happen the following winter; but it didn't happen.

At that time it was decided to wait for the compliance reports. This is something that has always puzzled me is why, since people had voluntarily said, you know, our compliance reports aren't very good, we don't know what we're catching, we don't know what we're releasing, we don't have any handle on bycatch at all, and suddenly the compliance reports were very important to some people but they're not for me. Hopefully, things are going to get better. I'm happy to be here today. I'm happy to look around and see that the majority stakeholders have showed up in force. I'm looking forward to this. Thank you.

CHAIRMAN BOYLES: Thank you, Mr. Hastings. For those of you who are waiting to hold your comments for specific motions that the board will be considering, what I would ask you to do – again, we've got a very ambitious agenda. Deke Tompkins is there in the back. What I would ask those of you to do – again, we have gotten a number of comments.

What I would ask those of you who are representing groups or similar perspectives, if you could, in an effort to ensure that your points get across, sign up with Deke. We will try to call on you as motions are made. If you could designate a spokesperson or two to represent your particular perspective, it would be very helpful to the board and would help us in our deliberations.

If you are so inclined to make public comment after motions are made, would you see Deke Tompkins. I have neglected a request from Executive Director Bob Beal. I apologize to our new members, but we do have a number of new faces around the table. I will call on Executive Director Bob Beal to make some introductions.

EXECUTIVE DIRECTOR ROBERT E. BEAL: I introduced a lot of folks at the Lobster Board Meeting yesterday, but there was a much smaller crowd in the room than we have now and not all the commissioners were around the table. I just want to go over a few introductions just so everybody knows the new faces around the table. We have Senator Brian Langley from Maine, who is back at the commission. He was here before and now he has returned; so, welcome, Senator Langley.

From Massachusetts, David Pierce is sitting here as the new Acting Director of the Division of Marine Fisheries Service. Paul Diodati retired on April 24<sup>th</sup>; so David is here in a new capacity. Welcome, David, and congratulations. From Rhode Island we have Eric Reid, who is a new proxy for Senator Susan Sosnowski.

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

From New York we have Paul Ricci, and he is a new proxy for Senator Boyle. From Maryland we have a new legislative commissioner; Delegate Dana Stein. We have two new staff members that are in the room, Max Appelman and Megan Ware. Max and Megan have recently started at the commission. They're both new staff members, new FMP coordinators. Feel free to introduce yourself to them whenever you get a chance. We also have Craig Pugh, who is an ongoing proxy for Representative William Carson. I think that is all the new faces around the table.

CHAIRMAN BOYLES: Thank you, Bob; and to our new members, welcome. We're glad you guys are here. We can certainly use a lot of wisdom and perspective so we appreciate your presence today.

### **BIOLOGICAL ECOLOGICAL REFERENCE POINT WORKGROUP REPORT**

CHAIRMAN BOYLES: We will move right into our agenda; and the first item is the Biological Ecological Reference Point Workgroup Report; Jay McNamee.

MR. JASON McNAMEE: My name is Jason McNamee. I work for the Rhode Island Division of Fish and Wildlife. I'm also a member of the Biological and Ecological Reference Point Group as well as the Menhaden Technical Committee. I've got a report here that will cover our March 26<sup>th</sup> meeting.

Just to refresh your memory a little bit, the last time I was here speaking before this group, we had ended our presentation with this table. Across the top of this table were a number of potential goals or objectives for dealing with menhaden in an ecosystem framework. Down the left-hand column there were a number of tools that we were looking at to get at those types of reference points.

At the end of that meeting, what the working group – so it is the BERP I'm referring to and I'll just call them the working group from here on out. What the working group was tasked with doing is looking at the single-species model; so specifically the Beaufort Assessment Model, the BAM Model, and looking at that in the context of looking at forage services with that.

It got a little more specific after that meeting and we were asked to look at the BAM Model in the context of the Lenfest Report; so that is the Pikitch et al paper from 2012. As we made a note in the ERP Report, all of these models and ecological reference points that we were looking at in that report were going to require further work by the working group.

What I mean by that is we had come up with a number of tools that thought we could use, some shorter term, some longer term; but there were a number of tools that we could use. Based on the goals and objectives that came out of the board, we could then dig a little deeper and review these in more depth. At our meeting we reviewed the methodology in the Lenfest Report. The first task that we covered was to figure out which information tier – these are the categories that are set out in the Lenfest Report to look at your forage species and categorize it.

Then there is a set of rules that go along with that; so the first step is to figure out which information tier your species is in – in our case that is menhaden. We did that and then what we did subsequent to that was to evaluate the applicability of the recommended management actions in the Lenfest Report associated with that information tier.

Some of the findings from our work – a couple of the report recommendations from the Lenfest Report – the first is based on the fact that forage species had variable stock dynamics. Because of this variability that is inherent in these forage species, the Lenfest Report



## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

recommends a more precautionary management for these types of species.

It also assumes a stock-recruit relationship. What I mean by that is the notion in the report is if you leave more fish in the water, you have a better chance of not having that population decline dramatically in a short amount of time. What we interpreted that to mean is that there is an underlying assumption that there is a stock-recruit relationship. If you leave more fish in the water, the chances of having a good recruitment event is higher.

We looked at the report and we looked at the information that we had; and what we did was we classified menhaden as an intermediate information tier. We did this with strong caveats, which I won't outline here but were in our report from this meeting. What the intermediate information tier recommends is that the management actions will have the form of applying a Hockey Stick Harvest Control Rule.

What that does is it says your biomass limit is going to be greater than or equal to 40 percent of your unfished biomass; and when you are above that biomass limit, your fishing mortality reference point will be half of your natural mortality. I'm going to get into a little more detail on these two recommendations from the report.

The first is that fishing would be prohibited when biomass levels fall below 40 percent of unfished biomass; so what you're looking up there on the Y-axis is biomass in thousands of metric tons. Across the bottom is year and then you have this biomass limit noted on the chart by this orange line. You can see there were a couple periods of time when we would have had fishing cease in this fishery, including most recently the mid-nineties to the early 2000s.

What the Lenfest Report recommends is that when you drop below that 40 percent of unfished biomass, you cease fishing. The

second recommendation is that when biomass is greater than that 40 percent of unfished biomass, so when you're up above the orange line from the last graph, fishing mortality will not exceed half of the natural mortality rate.

On this graph what you have is the mean fishing mortality from ages two to four for menhaden on the Y-axis. The X-axis, again, is year. The orange line on here is this reference point F equal to half of natural mortality. You can see that we are currently below that, so that's good. Just a table of the same information; and to give you a little context with regard to where we are, this table gives you different reference points as well as your terminal year fishing mortality from the most recent BAM assessment.

The first two rows there are the threshold and the target. These are the new recommended threshold and target; so we will be talking about this I think at least three more times today. We will come back to this. The threshold fishing mortality is 1.26; the target is 0.38. The reference point from the Lenfest Report equates to an F of 64 percent of maximum spawning potential; and that is right around 0.29. The very last row there is where we are at according to BAM in 2013; and that is 0.22; so we are below all of these different reference points.

Now I will talk a little bit about the applicability of the Lenfest Report recommendations; and this was what we discussed at our meeting, how can we apply the Lenfest Report recommendations to the menhaden fishery. The first thing that we noted was that there is no defined stock-recruit relationship.

Again, what I mean by that is for the menhaden fishery, with the information that we have, it is difficult for us to determine a relationship between the size of your spawning stock and how many recruits you get. There is a good defined relationship there; and there is no nice

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

curve to say when you have a lot fish, you're going to get a lot of recruits.

We see the converse in some situations where we have lower biomass, high recruitment and high biomass and low recruitment; so we have difficulty determining if there is a spawner-recruit relationship in this fishery. In addition, in the Lenfest Report the case studies that they looked at, the predators in those case studies were highly dependent.

How they defined highly dependent was that there was greater than or equal to 50 percent of the specific predator's diet that was comprised of that single forage species. What this does is it creates strong trophic effects. If there are issues with the forage species with these highly dependent predators, there are strong trophic effects for that predator.

As well for menhaden, the predators that we are aware of that we have done the most research on, they are more opportunistic. Bluefish will eat menhaden, but they will also eat pretty much anything else that gets near them. No predators of interest are highly dependent on a coastwide and annual scale, in our view, for the menhaden stock.

Now, striped bass may meet this dependency definition, but it is spatially and temporally defined; so we think that they're very dependent on menhaden in the Chesapeake Bay in the winter; but when you're looking at it in the context of the coast-wide stock across the whole year, it is hard to find a predator that is highly dependent per the Lenfest Report's definition.

Our recommendations; the working group does not believe the reference point recommendations in the Lenfest Report are applicable to this system. It is not that they couldn't be applied; but at this point the working group had enough questions with this and we felt the need to do a little more

research on it; that we didn't feel that it should be applied in the specific-defined way that it exists in the report to the menhaden fishery.

The working group cannot evaluate if the Lenfest buffers will provide enough forage to sustain predators of interest at desired population levels. Again, what we mean by this is we don't know that simply by leaving more fish in the water that we will be able to maintain a high population biomass, nor do we know what those desired population levels for the predators are.

For those two reasons, we have difficulty in evaluating whether or not the buffers provided in the Lenfest Report would be adequate. All that being said, predator removals of menhaden are a large source of mortality for this stock. We're not saying that it is not; we're not denying that it absolutely is. We're just suggesting that we should go through a little more work with some of the additional tools that we outlined in that very first table that I showed.

Through the framework of the ecological reference point report, the working group is working to have better ERP advice specific to Atlantic menhaden management. We want to continue to investigate the tools that we have available that are more geared towards menhaden and use those for this task.

A couple more conclusions here; and this is at the end of our meeting we started to brainstorm a little bit about how best to kind of move forward to get to the end goal that we all have in common. Our recommendation to the board is that they should consider forming a subcommittee to collaborate with the Biological and Ecological Reference Point Working Group and industry to define more concrete ecosystem management goals and objectives.

In this subcommittee setting, we can identify which the models are the most appropriate to

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

achieve our proposed objectives and goals. Then, finally, what we would do in the end is combine the recommendations of the subcommittee with those of the Atlantic Menhaden Peer Reviewers to define an objective approach to developing ecological reference points. That is what I have and I'm happy to entertain any questions.

CHAIRMAN BOYLES: Questions for Jay? Rob.

MR. ROB O'REILLY: Thank you, Jay, and I just wanted follow up on a couple of things that you had indicated. I think you started out by talking about a precautionary approach and that more fish in the water means more success reproductively even though, as you talked about a little bit, there is a lack of a stock-recruitment relationship.

If that is a finding, is the best thing that we can do is to make sure that fishing mortality ensures that we maintain a fecundity that is at an acceptable level according to the targets and thresholds that have been set? I have a little follow-up. If you could address that, that that would be great.

MR. McNAMEE: I think that is correct. When I was talking about the notion of leaving more fish in the water, I was talking about more in the context of the recommendations of the Lenfest Report. Kind of the discussion we had at the working group was we think that is probably a very reasonable and logical assumption. We just lack the quantitative way to prove that for menhaden.

The stock-recruit relationship is your classic kind of gun-blast look. There is no good relationship in that information. I don't disagree with what you said at all; maintaining a reasonable fishing mortality and thereby leaving more fish in the water is the approach the board has taken as of Amendment 2. According to the outcome of the assessment, it appears to be effective.

MR. O'REILLY: Very briefly; so the lack of a stock-recruitment relationship and the idea that we have fecundity thresholds and target; would you indicate a little bit of a converse of what you said earlier we're really looking to make sure that there is enough eggs in the water to account for those times when environmental conditions will boost our recruitment? It is probably the same thing you were indicating earlier about more fish in the water, but with the fecundity target and threshold I think, one, would you say more eggs in the water as well with the way we're managing?

MR. McNAMEE: Right; it is a good point for menhaden. It is used in other fisheries as well; but as far as commission species that most of us are familiar with, fecundity is a different sort of metric. That is how we measure – I don't know; the potential for recruitment is by measuring eggs, and the amount of eggs in the water is actually based on a relationship between the size of the fish and the number of eggs that size fish has.

Again, I guess the point working group was trying to make is sometimes you can have a lot of biomass in the water that produces a lot of eggs, but you still don't get a good recruitment event. It is my understanding from what this board did previously during Amendment 2 was you were working under the premise that, well, at least we can leave a lot of biomass in the water and make sure there is a lot of eggs in the waters so that when environmental conditions, and if we believe environmental drivers are what have the greatest effect on recruitment, then we're going to leave that level in the water and hope at some point we're get a good set of environmental conditions to have a good recruitment event.

MR. WILLIAM A. ADLER: Just a question on your report; back when you were talking about predator percentages of what they need; you said something about 50 percent. Is that roughly 50 percent of the total fish need to be

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

reserved for forage by the predators; was I understanding that correctly?

MR. McNAMEE: The 50 percent is sort of a volumetric type of analysis where we looked at gut contents of striped bass, bluefish, animals like that. The definition in the Lenfest Report has to do with the amount of that individual predator's diet that is comprised of a single forage species. It is not that we to leave 50 percent in the water. It is a definition that says Predator X requires at least 50 percent of their diet to be Forage Species Y. It has to do with amount of their diet, the proportion of their diet and not the amount of population.

DR. DAVID PIERCE: I have on occasion referenced the Lenfest Report and some of the work that I've done in my agency and also with the New England Fishery Management Council. It is a well-done report; many authors with a lot of experience with this particular issue. When this review was done at the request of the board – and thank you for doing it.

I appreciate all the effort put into it – were the authors of the Lenfest Report – you know, little fish/big impact, managing a crucial link in ocean foodwebs – were they present to answer questions and to participate in the debate. I asked the question because now we have a letter from them that challenges the conclusions and recommendations, many of them, anyways, made by your group. Were they involved at all during this review of their work?

MR. McNAMEE: There were no members from the Lenfest Working Group in attendance at that meeting. And just to jump back for a minute, I completely agree with your comments about the report itself. What we did at the working group was to review the report, apply the metrics that are outlined in the report to menhaden, so we did not have any members of the Lenfest Working Group in attendance at our meeting.

DR. PIERCE: If I may, Mr. Chairman, were they given the opportunity to attend, to participate and answer questions for not?

MR. McNAMEE: I don't know.

SENATOR DAVID H. WATTERS: Jay, I have a question about the fecundity and environmental factors, which you briefly alluded to. Is there any indication from your work or from other research that the species' fecundity is potentially being affected by ocean acidification or warming water temperatures?

MR. McNAMEE: I'm not going to answer very directly just because it is not my area of expertise, per se. There is a lot of research on environmental drivers and menhaden recruitment; not only ocean acidification and water temperature but currents; and it is this notion of advection into appropriate nursery habitats and things like that.

There is a decent amount of research on these sorts of topics for menhaden, but it is still early on. There hasn't been a lot of direct work looking – there has been some but not a lot of direct work looking at recruitment specifically and developing environmental covariates into that relationship to see if that explains some of the variance that we see.

MR. EMERSON C. HASBROUCK, JR.: Thank you, Jay, for your report and for the work of the workgroup. I have a couple of questions. Aren't most of the predator-removal needs already taken into account through M in the assessment; and does this suggest that we need to go back and review really what that estimate of M is and revise it in some way? That's my first question.

MR. McNAMEE: In the context of the single-species assessment, the natural mortality vector that we put into the model is supposed to accommodate all of the sources of mortality that exist on that species. That's a direct

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

answer to your question is that it is supposed to account for all of the natural mortality, predation, getting old, all those sorts of things that aren't related to fishing.

However, a lot of the discussion around menhaden is that's good to account for that degree of mortality; but because it is a forage species with a lot of variability in its stock dynamics, you need to be more precautionary with your assumption about how much mortality you can allow on it in either context, fishing or natural mortality.

The second part of your question; that is precisely what the ERP Group is working on is looking at ways to develop better mechanisms for estimating and accounting for the variability in that natural mortality through time. In the past you had listened to discussions about the MS-VPA. That was a multispecies model.

There is a couple of new multispecies models that are in development right now. All of these things are supposed to not only account for that mortality; but to account for it and its variability through time and fluctuations in predator abundance and impacts to natural mortality and how it relates to that. That is exactly the type of question that the ERP Working Group is looking at.

MR. HASBROUCK: Did the workgroup look at all or investigate the dietary needs of menhaden themselves? I guess my question really is menhaden don't graze just on phytoplankton; they graze on zooplankton as well. Some component of that ichthyoplankton. Is the workgroup looking at what the impacts of increased numbers of menhaden are on other fishes, both forage fishes and predators? Some component of the diet of menhaden is probably comprised of planktonic stages of other forage species like sand eels and bay anchovy as well as predators like striped bass and weakfish. Did the workgroup take that into consideration or have that as part of their discussion?

MR. McNAMEE: The short answer to your question is no; but I will offer that one of the multispecies models that I just referenced a moment ago is Ecopath with Ecosim. It is a coast-wide version. That is a full trophic model; so that would account all the way down to nitrogen inputs into the system. In fact we are, in the longer term, sort of looking at that albeit not very explicitly.

MR. ADAM NOWALSKY: In the absence of the adoption of ecological reference points, we've heard numerous comments from the public directed towards us that we are not fully considering the ecological considerations in the place of menhaden in the ecosystem. Can you respond to that a little bit with regards to what you believe the advice the technical committee has given this board in the past has considered those concerns about menhaden's place in the ecosystem and recommending quotas that we have adopted?

MR. McNAMEE: I will offer you this answer; and that is when the technical committee is developing its recommendations, to this point is doing so in the context of the single-species assessment. We're looking at menhaden, its population dynamics, and offering recommendations that account for its population dynamics and its ability to be sustainable through time.

During Amendment 2 I think it was the board who adopted a different approach and not going strictly by the assessment results – we didn't have a very good assessment at that time – and build in buffers or what you felt was precaution to account for that. In the context of the technical committee, we're providing advice per our task explicit to the single-species assessment in the context of one species and its ability to be sustainable.

MR. TERRY STOCKWELL: Jason, I'm just curious about the timeline for the working group to complete your analyses and provide final

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

recommendations to the board and technical committee.

MR. McNAMEE: I don't have a good answer for that. What I will suggest is right at the end of the presentation we offered a potential mechanism for at least moving forward in the short term to begin to itemize out these objectives and goals that we need in order to begin to set concrete reference points.

At the same time, we had a couple of good presentations given at our meeting on some of the tools that we have in play. In particular there was a report on the statistical multispecies model that I gave as well as an update on the Ecopath/Ecosim model. I think we actually put a timeline in the report. I don't recall what it is. It is not way off in the future, but certainly not ready today.

MR. WILLIAM J. GOLDSBOROUGH: Mr. Chairman, I feel the need to echo Dr. Pierce's reference to the Lenfest Forage Fish Task Force letter that we all have; because it is co-signed by a well-respected fishery scientist from the University of Maryland, Dr. Ed Hood, who co-chaired the task force.

I do want to note and thank Jason for his comment that their intent is not to reject this approach out of hand but to continue to study it further. I do think and I think others will agree, if they read this letter, that it offers a lot of promise actually for us. I do think that a lot of us around the table at the February meeting were urging the consideration of this approach so that it would give us more latitude at this meeting to make some management judgments given that it was the only approach to ecological reference points that the analysis in the assessment said was ready to go; so we could get some kind of guidance about how we can account for menhaden's role in the ecosystem and yet move forward with decisions about the quota, perhaps. But given that we have this report from the BERP Workgroup, I think it ties

our hands quite a bit with respect to that. I would encourage us to continue to give strong consideration of this approach.

MS. LYNN FEGLEY: I hope this will be a quick question. I'm looking at the target and the array of target fishing mortalities that you guys outlined in your table. It looks to me like the recommended target coming out of the assessment is F 57 percent, which represents now what appears to be the median fishing mortality rate through the time series on ages two to four.

It looks as though the Pikitch et al, if you applied that, you would come to the conclusion that we should fish at F 64. My question is did the workgroup discuss or do any projections? I'm curious about the difference between those two levels. If you were to fish at F 64 versus F 57, did the group do any projections to look at the impacts of fishing at those two levels on fecundity, biomass or assessment? In your opinion would there be any measurable difference between those two levels of fishing mortality?

MR. McNAMEE: Yes; the direct answer to your question is we did not run projections on the Lenfest reference points; only on the reference points that came out of the peer review recommendations, so we did not project. I think it is relevant to your question as well to jump back to the previous question. I showed the graphs.

We did look at the Lenfest and analyzed those reference points relative to our current stock status; so we did complete the task. We looked at them per the task and showed you where we were relative to them, what those reference points look like. I feel like we did complete the task. I make that comment to the last statement in this letter that we received.

Also, I have a profound amount of respect for Dr. Hood. I think he is great. I don't know Dr. Pikitch as well. I think we could have had a

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

more collegial discourse over this than how it appears through this letter. I don't think we are terribly at odds with the Lenfest Report. However, we had to kind of focus in on the task that we were given. I feel that we did that.

We also took the step to provide our recommendations on what we felt about those and the applicability of those. That was what I just presented. All that being said; directly back to your question, we did not project. Therefore, it is difficult to say what the impacts of the Lenfest-derived reference points would have on the population.

MR. O'REILLY: Mr. Chairman, I just want to make sure; it looks like Jay is going to talk about the review of the biological reference points coming up; and so at that time I'll have some questions and Jay can help out.

CHAIRMAN BOYLES: I think Jay will make himself available to your questions, Mr. O'Reilly. Further questions from the board for Jay. From the AP Chair, Mr. Kaelin.

MR. KAELIN: We've talked about the BERP process, which was a public process; many others participated in it; it was a very open process. Thinking about the development of new models, multispecies models and so forth; my question is about the MS-VPAX Model, which has been under development for so many years and what I understand to be kind of the inability of that model to produce repeatable results in the BAM estimate of M, too, kind of following on to the question that was asked earlier.

Even though that is the case, didn't the BAM model also develop some enhancements to better understand menhaden's role in the ecosystem through things like the north/south components of fleets and young of the year and adult indices and so forth? It is not like that it was done in a vacuum. In fact, I think isn't the BAM model robust to many of those

considerations by better understanding the environment that the menhaden are in and where the resource is being harvested and so forth? What happened to the MS-VPA X estimates in the BAM process?

MR. McNAMEE: The MS-VPA; let me step back one step briefly and say in the past for the Beaufort Assessment Model, we actually populated the natural mortality vector with the output from the MS-VPA. That's how we incorporated time and age-varying natural mortality for menhaden.

The reason why we abandoned that approach for this recent benchmark is we found it is not that the MS-VPA was not repeatable. It is repeatable as a stand-alone model. What we found, though, is it started to produce biomass trends and things like that that were different than the single-species versions for those different species.

That is why we felt it problematic to apply that natural mortality vector or matrix, really, to the BAM Model anymore because they were giving two different answers as far as what your biomass trends are for your important species in that model. That hopefully answers the MS-VPA part of your question. I'm very proud of the assessment. I think we made an enormous amount of improvements to it. The fleeting by area I think was very progressing.

It accounts for not necessarily any of the mortality aspects, but of the differences in the fisheries along this north/south gradient. I think that was a major improvement in this model. In general, we improved the model I think pretty much in every regard. We did also test it and found that it is robust to things. Some things it is more sensitive to; all of that is outlined in the assessment report. I think I answered your question somewhere in there.

MR. KAELIN: Yes; I appreciate the response on the MS-VPAX, because I wasn't really sure how that was used, but it was used to tune the

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

Lorenzen estimates that you also made, I think, or something like that. We'll hear more about that later.

CHAIRMAN BOYLES: Jay, thank you for a great presentation and some very good answers to some very good probing questions. We did have a request to comment on this from a member of the public who wanted to speak on ecological reference points. We are already behind schedule – I would like to move that comment towards Agenda Item 8; discussion of next steps. This takes us to our next item on the agenda from Mike Waine, which is the FMP Review for 2015 and state compliance reports.

### **FMP REVIEW FOR 2015 AND STATE COMPLIANCE REPORTS**

MR. MICHAEL WAINE: My name is Mike Waine; I'm the fishery management plan coordinator for Atlantic menhaden. I'm going to walk the board through the 2014 fisheries' performance. The intent here is to give everybody an idea of how 2014 went before the board considers specifications for 2015 and beyond. This report was in the supplemental materials.

Where we are right now is in Amendment 2 – we implemented that in 2013 – that established the current TAC that we're using, about 171,000 metric tons until completion of board action on the next benchmark assessment. That happened in February. We have an episodic event set-aside that is for the New England states when menhaden occur in higher abundance than normal.

We've allocated this TAC based on landings' history. We have transferability, a bycatch allowance and a reduction to the Chesapeake Bay Reduction Fishery Harvest Cap, as well as some improved timely reporting and biological monitoring. A couple of additions; the board extended that episodic event set-aside program through this year. They also included a

reallocation provision to reallocate what was left over to the states if it wasn't used.

In February of 2014 the board passed a motion to manage cast nets under this bycatch allowance. Remember, the bycatch does not count towards the TAC. Let's review where we are with reference points for a minute. Back in 2011 through actually Addendum V to Amendment 1, we implemented a change to the fishing mortality reference points.

That change was a maximum spawning potential of 15 percent as a threshold and 30 percent as a target. Those were relevant to the status at that point, which was F 8 percent MSP. Fast forward to two grueling long years of a stock assessment subcommittee and working through everything that they did, we produced the 2015 benchmark assessment that recommended new reference points.

That was a peer-reviewed recommended geometric mean F ages two to four. You're going to hear a little bit more about that in Jay's presentation next. Ultimately that is leading to a new threshold and target. The threshold is 26 percent MSP and the target is 57 percent MSP. Then there is matching fecundity reference points that are associated with those fishing mortality targets and thresholds.

Using the new recommended reference points that came out of 2015 assessment, the stock is not overfished and overfishing is not occurring. We are still using interim reference points while the ecosystem reference points are being developed. That was language that was included in Amendment 2; and that is still currently where we are.

Let's get into the performance of the fishery. As I mentioned, our TAC is about 171,000 metric tons. Our total harvest, excluding bycatch, was slightly underneath the TAC, about 1.5 percent increase from 2013. Bycatch this year increased from last year, up to 3,000



## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

metric tons, approximately. It represented 1.8 percent of the coast-wide harvest; but remember that does not count towards the TAC.

In terms of performance, we're just underneath the TAC again this year; but in terms of total harvest, if you included that bycatch in it, we are slightly over the TAC. By fishery, the reduction harvest was just over 131,000 metric tons; a very marginal increase from 2013; and a 17 percent decrease from the last five-year average.

The bait harvest was just over 37,000 metric tons. That is a 7 percent increase from 2013 and a 21 decrease from the last five years. This is just a graphical representation of the landings' history for this fishery going back to 1940 through the current year of 2014. You can see in the blue line that landings historically have been much higher for the reduction fishery and have since leveled out at a lower level. The bait fishery has increased in more recent years; and then through the TAC has been decreased in 2013 and 2014.

Remember that bait reporting has improved so that factors into some of this landings' history as well. Let's talk about the bycatch. In 2014, as I mentioned, bycatch increased 60 percent from 2013; so more fish being landed under this bycatch allowance. You can see this table represents the bycatch pounds by state. It also shows the gear types that were being used.

Once again, a large number of bycatch coming out of the Chesapeake Bay Region of pound nets and gillnets. We also had some bycatch in the Mid-Atlantic and a state in New England and in the South Atlantic as well. Bycatch being used – remember the board went through action to treat the cast net fisheries under the bycatch allowance, and so that is represented in this table as well.

In terms of analyzing this a little further, we've got a bulk of the bycatch trips landing less than

a thousand pounds. We have a 6,000 pound bycatch allowance, but not a lot of trips are harvesting that amount. A bulk of these bycatch trips are for less than a thousand pounds. We took this a step further. This is relatively a later request on my behalf as plan review team chair.

I was reading through the proceedings from last year and picked up on the board wanting to see more information about these bycatch trips. This table represents the percent – these are bycatch trips only; so trips that were deemed bycatch in the compliance reports. It represents the percent of menhaden that were caught on that trip relative to all other species.

This is summed across all gears and across all trips just to give the board an idea that on these bycatch trips a lot of what is being harvested is menhaden. I will update that table before we finalize this report. Thank you to the states that were able to turn that around quickly for me. In terms of the episodic-event set-aside, we had one state that declared participation in 2014.

That state harvested less than 300,000 pounds; so not a lot of pounds landed under the set-aside. The unused set-aside was then reallocated to the coastal states on November 1<sup>st</sup>. In terms of the quota performance, this table breaks down what each state landed in 2014 towards the quota. It also shows any overages that occurred. We had two states that had overages, Rhode Island and New York.

There were no quota transfers that have existed up until this point to cover those overages. The way that the Menhaden Amendment 2 is written, states are responsible to pay back those overages if they don't receive transfers to cover them pound for pound the following year. In terms of reporting, New York has monthly reporting, but has the capability of requiring weekly reporting if needed.

They had a quota overage in 2014; so the PRT is making a recommendation that the board

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

consider more timely reporting in New York. Rhode Island had an overage but it occurred because basically as they were going to close their fishery, a lot of pounds got landed at the very last minute, and that was the reason for their overage. It wasn't a reporting issue, per se.

All other states implemented timely reporting to track their quotas. Amendment 2 also required bio-sampling to occur based on the amount of pounds that are landed by state. This was so that we could provide length-and-age information so that we could have a more robust stock assessment. This information proved very useful for the 2015 assessment and will also prove useful moving forward. The good news here is that all states were able to meet those bio-sampling requirement.

I will also update the board that we had a Menhaden Aging Workshop recently in which a lot of the states sent members of their agency to the Beaufort Lab so that we could learn the best aging practices for menhaden. As we pick up this bio-sampling coastwide, we want more people to be able to age these fish so that we can get these samples in a timely manner and not rely specifically on the Beaufort Lab for that sampling.

We did have a CPUE Index requirement. This is another requirement we put in Amendment 2. The intent behind this was to get more information into the stock assessment. If you remember, the last iteration of this stock assessment relied solely on a fishery-dependent index coming out of the Potomac River.

The idea here was if we're using that index, can we use other indices from other areas? The stock assessment subcommittee did a huge vetting of all data sets available to them in this 2015 assessment. They decided not to go with fishery-dependent indices and have said go with fishery-independent. This is survey data specifically.

Our fishery is moving so quick, Amendment 2 had this requirement, but the stock assessment didn't end up using those specifics in 2015. In terms of the reduction fishery harvest cap in the Chesapeake Bay, this was also reduced when we reduced harvest through Amendment 2. In 2014 they harvested approximately 45,000 metric tons. That was well underneath their cap of 98,000 metric tons, approximately; and so for 2015 the harvest cap gets that rollover again for that 98,000 metric ton cap.

De minimis for menhaden; the states of Maine, New Hampshire, South Carolina, Georgia and Florida have requested that for the 2015 fishing season. All states have met that because their bait landings in 2014 did not exceed 1 percent of the total coast-wide bait landings. As a result, the PRT recommends that those states be granted de minimis status. J

Just to remind the board, de minimis exempts those states from collecting biological samples of age-and-length samples I was talking about earlier. Even though it exempts a lot of these states, a lot of them are still collecting those samples. They don't have a lot of landings to really require them to collect them, anyways, so that is really the only exemption that occurs through de minimis status.

In terms of wrapping this up, the PRT recommendations are to accept the 2015 fishery management plan review for menhaden and to consider a reporting time frame for New York; consider the 60 percent increase in the bycatch landings – this bycatch allowance is obviously becoming more popular – and then also consider the de minimis requests as just stated. Thank you, Mr. Chairman; I'd be happy to answer any questions.

CHAIRMAN BOYLES: Thank you, Mike. Questions from the board for Mike? Mr. White.  
MR. G. RITCHIE WHITE: Excellent report as usual, Mike. The report starts out using metric tons; and then when we get into the tables, it

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

switched to pounds. I understand the reasoning for that, but it would be helpful for me if you could also show metric tons next to the pounds to kind of keep those numbers in perspective to the overall total.

MS. FEGLEY: Thank you, Mike. I feel compelled to put two things on the record for the state of Maryland. One is I just want to say again that the only gear in our state that is allowed the 6,000 pounds is pound nets. The gillnets operate on a 1,500 pound bycatch. I also wanted to say that when we submitted our bycatch report, pound nets are a stationary fixed gear.

It is an opportunistic gear that collects whatever passes through at the time. When a school of menhaden passes by a pound net, the percentage of menhaden in that gear will be very high. The fishermen cannot necessarily anticipate when schools of menhaden are going to pass through; and they can't take down and deploy their nets to avoid that.

The only thing they could do is roll those menhaden out. In some cases that will result in high mortality. My point is that from a pound net perspective, to consider the percentage of bycatch only on the days when menhaden are landed is a little bit – we need to be careful how we interpret that.

We would argue that the bycatch is a function of the season in which the net is there; because the fishermen are making money off of other fish like striped bass and catfish, perch, bluefish. Those are the money fish. I just want to put on the record that if you were to look at the percentage of menhaden in our pound net landings during the time those pound nets are under the bycatch allowance; that number drops to 63 percent.

MR. ROBERT BALLOU: One comment and one question. My comment is just that with regard to the episodic-event set-aside, I think you

characterized the landings at about 300,000 pounds as not a lot. That's true relative to the overall size of the set-aside.

However, for a state like Rhode Island, which did opt in and did take advantage and did in fact land those pounds; that is four times the amount of our quota. It remains a very important program for the states in New England and certainly for Rhode Island. I just want to note that for the record.

The second question I have is with regard to transfers, Rhode Island is one of two states that did have an overage. Ours was very slight, and thank you for your characterization as to how it occurred. We have a well-managed program, and the overage occurred in the one day prior to the actual closure of the fishery that had already been enacted.

I know discussions are in place as we speak with regard to states that had underages to try and rectify that for 2015. I just read Amendment 2 and I don't see any indication in Amendment 2 about deadlines or time frames for working through the transfer provision. My question to you, Mike, as FMP coordinator, is this something that needs to happen at this moment or at this meeting or perhaps later today in terms of state discussions to try to resolve the overage issue?

MR. WAINE: Yes; there is no specified time frame for the transfers. I think it is up to the board if it is acceptable to them to allow for a transfer to occur at this point. There is nothing in the plan that prevents that. I think the sooner the better just because we're quickly wrapping those 2014 fishery performance and proceeding through this agenda into 2015. That is all I'll say about that.

MR. DAVID SIMPSON: I think in everything we, do the bycatch and how we manage it is going to be important going forward. I wanted to understand better the Table 1 results, which is

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

the state-by-state performance with their quota. I'm not clear how much consistency there is among states and what is counted toward the quota and what is not.

We in Connecticut simply count everything, even though all of our fisheries are very small, toward the quota; and then if we reached the limit, we would continue to implement our 6,000 pound trip limit, which is what we have. I heard Lynn mention that they have a smaller bycatch limit for certain gears.

I guess the example for me would be New York to help understand how they had an overage and what constituted an overage. It probably didn't happen late in December. They probably saw it coming, but I'm also suspicious or suspect that not much of that catch came at quantities greater than 6,000 pounds; so in a sense a lot of it would not be an overage but could be considered bycatch. Can you help me with that and maybe Jim can help after.

MR. WAINE: The way Amendment 2 treats bycatch, it defines it as any trip that captures menhaden after the directed fishery has been closed. Up until the point in which a state closes its menhaden fishery, all those pounds count towards the quota; and then pounds landed after the fishery is closed count towards bycatch.

Now, one step further is that addition that the board made back in 2014 to treat cast nets under the bycatch allowance. The change there was everything that I just told you except cast nets, anything landed by that gear counts towards the bycatch allowance regardless of whether the season is open or closed.

CHAIRMAN BOYLES: Jim, do you want to add to that?

MR. JAMES J. GILMORE, JR.: Am I next, Mr. Chairman, on the list?

CHAIRMAN BOYLES: Actually you are.

MR. GILMORE: Okay, good, and I will take advantage of both. Instead of adding to that because it really goes right into my theme about what we're spending too much effort on maybe is I'll start with Ritchie's comment. We clearly need to have the same set of units. Just so you know, Ritchie, there is a great app you can download; the metric ton converter.

If you take the 171,000 metric tons and you convert that to pounds, it is 377 million pounds. There is our TAC. Now I have a 200,000 pound overage, which I think is a 20<sup>th</sup> of a percent. Getting to the real point of we can consider weekly reporting, whatever, so I'll quickly get to shutting my fishery down on this pittance of an amount; I think we can get into the detail about how we're tracking this, but I think we really need to stay a little bit higher up on should we even be tracking this.

MR. SIMPSON: I'm still trying to understand how big New York's problem is. If that 200,000 pounds came in after the quota was filled, as Mike described it, did all of that come in at over 6,000 pound blocks or were they two and three and 4,000 pound blocks, which to me would be bycatch and not count as an overage.

MR. WAINE: Melissa is putting up a bycatch trip analysis just to show you that there were very few bycatch trips that landed in excess of 6,000 pounds. This is all states combined. I do have this analysis by state; but because of confidentiality issues, I wasn't able to show that. Essentially this captures the trend by state for the bycatch.

MR. SIMPSON: So this table for New York would be very enlightening. In other words, were any of their trips among the 103 that landed over 6,000 pounds? My understanding of the amendment would be that unless they were, they would not count as an overage. Does New York have an overage or not? I suspect if they do, it is very, very small. They have some trap nets that might catch more

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

than 6,000, but I don't think their gillnets or cast nets are doing that.

MR. WAINE: Jim, please correct me if I'm wrong, but I think the issue here was the directed fishery for menhaden was not closed early enough; and so there were pounds landed before that fishery closed that resulted in the overage as defined in Amendment 2.

Even though likely these fisheries were the same fisheries that were occurring while the fishery was open and after the fishery closed as well; I think this was a logistics' issue in terms of tracking the quota and closing the fishery in enough time to stay within the quota as defined in Amendment 2 before those pounds started counting towards the bycatch allowance. Does that make sense, Dave?

MR. SIMPSON: Yes; I think so; it is beginning to sound like if New York had a rule and implemented if it said it looks like we caught our quota, we're at 6,000 pound trip limit; if they did that, then none of this would have counted as an overage.

MR. GILMORE: Yes; and recall what we did and why we're in this pickle was that we didn't have mandatory reporting in 2011; so this thing evolved and we were not having good compliance. That has been ramping up so we're sort of basing what we're doing on harvest on the previous year.

Every year it has gotten better, so, yes, suddenly we're seeing that the directed fishery is higher than what we thought; and it looks like it is going to be higher again this year. We're probably harvesting somewhere in the vicinity of one to two millions pounds in that fishery, and now we're getting the data to verify that; but unfortunately we have a moving target trying to manage this.

DR. PIERCE: Massachusetts has been very careful with regard to how we manage our state

share of the menhaden quota. As a consequence, the way we have proceeded we have had an underage, not a grand-scale underage but enough in amounts that we can consider reallocating to some other states – transferring to some other states.

This is just a point of information especially in light of Bob Ballou's point about transfers. By the end of Thursday we will have continued our discussions and concluded our discussions certainly with Rhode Island and other states that may not have approached us yet to work out some transfer provision that will account for all or maybe some of those other states' overages.

CHAIRMAN BOYLES: Dr. Pierce, thank you for that. That actually got to a question I had for staff if we could handle that through letters and still will be available to help you with that. I think, Bob, that will help Rhode Island with their situation. Mr. Grout.

MR. DOUGLAS E. GROUT: A question and a comment. Jim, have you been seeking transfers to account for the overage?

MR. GILMORE: We just found out about the overage from Mike last week; so, yes, we were going to take Dr. Pierce up on his offer. In his new role, I'm sure he will be very gracious.

MR. GROUT: The follow-up comment about overages and when the payback should occur; clearly, I think we should have the accounting done before the next fishing season so that we know what your quota is going to be for the following fishing season. That may be something that we have – I realize there is nothing in the plan right now that says that, but it may be something we want to think about for a follow-up management action to try and put some boundaries on this.

MR. DAVID V.D. BORDEN: Mr. Chairman, I'd like to thank Dr. Pierce for assisting us with the

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

overage in Rhode Island. I think it is totally appropriate that as his first official act as the acting director he bail out his good friends to the south. A couple of points on bycatch – and this goes back to Jim Gilmore’s comment.

We have what a view as a fundamental problem and it goes back to the original allocations that were made in the state quota system. I realize this is a point for a question, so I’ll just make this very brief; it is just a statement. We’re not going to solve this problem until we go back and readjust the original quotas.

If you have states like Rhode Island and New York that have very small allocations and they have gear types that literally catch the quota in one day, it is almost impossible to manage that – for a state agency to manage that. I think the resolution of not only Rhode Island’s problem but New York and a number of the states is we have to go back and do some adjustments on the state allocation formula. The second point I would make is that the bycatch allowance, if I understood Mike during his presentation, he said it does not count towards the quota; is that correct?

MR. WAINE: Correct.

MR. BORDEN: Okay, so I’ve pointed this out before; to me it is just like a disconnect in the logic here. All landings, as far as I’m concerned, should count towards the quota. That is just something that we have to fix in the plan. Thank you.

MR. O’REILLY: I have a different question; but first I want to ask is there a possibility that we can move forward with some type of structure or some type of workgroup at some time to look at bycatch. It has been a mess since we talked about it in December of 2012. We know how that went; 6,000 pounds was after many other ideas were formed. We’ve had problems since then; Florida, New York reporting, Florida dipnet.

The history is there. It says we should really talk about it. Lynn Fegley’s comment about the pound net is a real good comment. As concerning monitoring, unless you have daily monitoring, which I don’t think anyone has daily monitoring very well, you can really get in trouble fast. I know that in Virginia, even though we can project, without daily monitoring you can only project so much. We went over; it does get subtracted from the 2015 quota about 190,000 pounds. Things happen quickly and we really need to talk about this as a complete part of the plan rather than a side part.

My question, if I may, though, is on aging. Mike, I guess I appreciate your report, but I’m not sure where things. I know there are collections made. I know there was a workshop. We talked to Dr. Jones and Dr. Liao at Old Dominion University about ten days ago. They are wondering what the schedule is going to be for as we go forward with aging. I think they’re just archiving samples that had been collected by VMRC at this time. Is there a plan to move forward with some type of aging protocols as far as numbers of scales to aged, number of otoliths to be aged, whatever the currency is going to be?

MR. WAINE: We’re currently finishing up that aging workshop report. The workshop report will detail the procedure for handling the fish, collecting the scales, aging those scales, walking through the whole procedure. It also is going to identify like the agencies that were in attendance. We plan to work with those agencies to determine their comfort level with aging the samples on their own based off of this protocol that was established at the aging workshop.

As part of that discussion we will also identify the time frame in which they think they can fit this into all the other age samples that they have to look through for the other species. The

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

short answer is there will be a follow-up for the aging workshop report.

MR. STOCKWELL: Mr. Chairman, as Mike's presentation indicated, Maine had very low landings last year. I would be happy to contribute the balance of our extraordinarily large quota to Rhode Island and New York. We can talk after the board concludes.

CHAIRMAN BOYLES: Further questions from Mike on the fishery review for 2014? All right, this is an action item and we're looking for a motion. Dr. Daniel.

DR. LOUIS B. DANIEL, III: **Move we approve the compliance review, and my intent would be to include those de minimis requests, Mr. Chairman.**

CHAIRMAN BOYLES: All right, motion by Dr. Daniel. Second by Mr. Adler. Discussion on the motion? Any objection to the motion? **Seeing none; that motion carries.** Let me read it for the record. Dr. Daniel moved to accept the 2015 FMP Review Report and approve the states of Maine, New Hampshire, South Carolina, Georgia, and Florida for *de minimis* status for the 2015 fishing season. Dr. Daniel made that motion; Mr. Adler seconded. The motion passed with no objection.

### TECHNICAL COMMITTEE REPORT

Let me just give the board a time check. It is 9:30 by watch. We are a little behind; and we have a number of guests here who I know are very interested in our discussions. I just ask you to help me keep us on board and on time, please. We will go back to Jay for the technical committee report.

MR. McNAMEE: This is another presentation. This one focuses now on the BAM Model and projections that we ran in relation to the biological reference points. Just by way of outline, I will hit on two things in this

presentation. I'll try to move along relatively quickly here as well. We're going to go over the recommended biological reference points.

### REVIEW OF BIOLOGICAL REFERENCE POINTS

MR. McNAMEE: You've seen these already a couple of times, so we'll try and tick through those pretty quick, but keep in mind that what we're talking about with menhaden is fishing mortality and fecundity. The fecundity is what we used instead of a biomass reference point. Then the second half of the presentation, we will go over the projections. We looked into some risk analysis with these projections, the risk of exceeding the F target and threshold under various scenarios.

Just by way of background, the current reference points – so these are the currently established reference points for the menhaden fishery – are not applicable with the results of the most recent assessment information. What the technical committee did was we proposed new reference points in the stock assessment report.

At your February meeting you tasked the technical committee to go back and review the peer review report. At the time we had recommended – and this was keeping aligned with what we had recommended previously, but we said at that age two is what we should use for our fishing mortality reference point.

The reason for age two is the bulk of the harvest is coming out of that age class, so we thought that was a logical way to develop the fishing mortality reference point. However, the review panel recommended grabbing a few more ages; and their recommendation was based on the fact that your fishery can change; so to account for the fact that selectivity may change through time, they suggested we use a geometric mean fishing mortality for ages through four.

We thought this was a good idea so we agreed with that recommendation. Given the recommendation from the review panel, what we using is a maximum spawning potential based reference point; and it is determined using the years from 1960 to 2012. Within that time frame, we are looking at the minimum and the median value of MSP.

The fishing mortality rate, as just mentioned, is going to be the geometric mean of ages two through four; and then the associated fecundity reference points goes along with these F's here; so that is F 26 percent of MSP, F 57 percent of MSP and then the analogous fecundity reference points with those fishing mortality reference points.

The bottom line of the determination is that the stock is not overfished and overfishing is not occurring relative to these recommended reference points. Here is another look at the information in a table. You have the threshold amount, which is the 26 percent of MSP. That is 1.26. You then have your target, which is 0.38.

You can see that F in 2013 is below both of those, 0.22. It equates to roughly an F of 70 percent of maximum spawning potential. To along with that, your fecundity threshold is roughly 87,000 eggs. The fecundity target is almost 190,000 eggs. The fecundity in 2013 is – I'm sorry, billions I think, actually. In any case the level in 2013 was 170,000.

Here is a graphical look at the same information. Mean F at ages two to four is on the Y-axis; near across the bottom. Your target is the orange line; the threshold is the blue line. You can see we are below both. The same with fecundity; the blue line is again your threshold; the orange line is your target; and we are just below the target but above the threshold.

## REVIEW STOCK PROJECTIONS

MR. McNAMEE: This is going to talk about now the setup for the projections. I'm moving from the reference points into the projection discussion. In 2014 the TAC was roughly 171,000 metric tons. The duration of the projections were short term. We went from 2015 to 2017. The reason for this is it maintains at least one age class that we have information on in the assessment through the projection.

Once you get beyond 2017, you're relying on the projection-estimated recruitment so things tend to stabilize after that and adds some uncertainty into the analysis; a lot of uncertainty. We did six runs using a constant harvest approach; and then we did one run using a constant F approach in the projections, so seven projection scenarios were done altogether.

Just to run through these; I'll go through these real quick. This is sort of a tough slide. The average catch from 2009 to 2011, prior to the implementation of Amendment 2, would have been roughly 213,000 metric tons. Then what each projection beyond that does up to number five is it scales it back by some proportion.

First, if it was 5 percent lower than that, average catch is roughly 203,000 metric tons; 10 percent is run number three; 15 percent is run number four; and then number five is sort of your status quo approach, and that is at 20 percent reduction; and that is what we did with our last management action.

Number six is a little bit different; and what that does is it looks at what your total allowable catch would need to be in each year up to 2017; so that in 2017 you're achieving a 50 percent probability of hitting your F target. That is a constant catch approach, and it is looking out at the 2017 year to gauge what your catch needs to be. Number seven is developing a TAC in



## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

each year that has a 50 percent probability of achieving your F target.

The difference between six and seven is Run 6 is going to have a single catch that gets you to some level in 2017. Number 7 is going to have different catches in each year, because what you're trying to achieve is a static F through time and not a static catch. Here is a table that is looking at some of the risk associated with the runs one through five, so these are your constant catch strategies, scaling your catch back from your average catch during that reference period of time.

I won't go through the whole table, but what you can see is in all cases you have at least a 50 percent chance of exceeding the F target in your first year, but then it scales back after that; and that has to do with the dynamics of how the projections are run. The very top one, which would be status quo, puts you right at about 50 percent in 2015 but then drops back to only a 23 percent in 2016 and only a 3 percent chance of exceeding the F target.

You can see how all of the different scenarios interact with the reference points. The table down below is the interaction with the threshold; and the takeaway from that table is all of them have only a very small chance of hitting the threshold. A little more detail on the projections. That was projections one through five.

Here is projection six. This is a TAC that has a 50 percent probability of achieving the F target in 2017. That was roughly 247,000 metric tons; and so that TAC would be held constant for a three-year time period. Then down below is your risk associated with that so; so a pretty high risk of exceeding your target in 2015 with that. Then it scales back to 50 percent in 2017. The percent risk of exceeding your F threshold is lower.

The final projection; this is the one where you're going to have a variable quota through

time. The TAC has a 50 percent probability of achieving the F target in each year. What you can see in Year 1 you'd have a TAC of 173,000 metric tons, so just a little bit above what we had in 2014 for a TAC. Then it goes up from there, 224 and then 266,000 metric tons in each subsequent year.

The risks associated with that are in the two bottom rows. All right, a couple of caveats here; the projections are highly uncertain. If you looked through the report on this, you can see the wide bounds around these projections because there is a lot of uncertainty. One of the main sources of uncertainty that we have are that we didn't include any structural uncertainty into these projections; so this would be the process error associated with the stock assessment model.

We did not account for that in the projections. The projections are also conditional on a set of functional forms; so for selectivity and recruitment we make a choice and then move those choices forward in time. Of those choices that we made for our projections don't end up being correct, that adds uncertainty into those estimates.

In addition, the fisheries were assumed to continue at the current proportions of total effort using the current selectivity. What that means is if the proportions – if more gets harvested by the bait fishery in the north relative to the reduction fishery in the south proportionally, that is going to change the outcome of these projections because the projections that we did held those as they are now static through time.

A few more projection caveats; if future recruitment is characterized by runs of large or small year classes possibly due to environmental or ecological conditions, these will affect the stock trajectories that we have outline here in our projections. Our assumptions about recruitment and what

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

happens in reality have a strong influence on what your projection information would be.

In addition, the projections apply to the Baranov Catch Equation; and so this assumes that fishing – the time step in the Baranov Equation is a year, so it assumes that fishing mortality is occurring throughout the year; so if management gets more complex with seasonal closures and things like that, this will impact the outcome of the projections.

I think this also showed up in Mike's presentation, but here is a look at the current allocations per Amendment 2. I'm sure you're all fairly familiar with those, but you can see a small proportion of the harvest is allocated New York north. Most of it is happening in New Jersey south. There will be a quiz on this table at the end so be sure to memorize all those numbers.

All kidding aside, this just breaks out into a question asked earlier. Because we manage in pounds, the body of the information in this table is in pounds, just to make everyone aware. Metric tons is across the top; and the reason that is across the top is so you can see which scenario you're looking at here. I'll wait another minute to let you take a peek at your state and where you end up under these different scenarios, and then I will bounce to what is the final slide which shows the final projections, the same information.

Here is Projection 7 – and we can flip back at any point during your questions and deliberations. But here is your Projection 7. This is the one where the quota changes in each year; and here is how that breaks out for the different states. That is my final slide and I am happy, Mr. Chair, to take any questions.

### **BOARD DISCUSSION OF TECHNICAL COMMITTEE REPORT**

CHAIRMAN BOYLES: Jay, again, thank you for a yeoman's job with this. Again, I remind the board where we are schedule-wise. We're a little behind time so I will ask for questions on Jay's presentation. Dr. Daniel.

DR. DANIEL: Can you give some direction of the uncertainty or is it just all over the place?

MR. McNAMEE: Yes; it goes in both directions, because it depends – for instance, recruitment, if you have a run of low recruitment, your projection will be less conservative. If you have a run of high recruitment, it will be more conservative. It goes in both directions. There is no easy answer to figure out which way the risk is.

MR. O'REILLY: I have a few questions, but I'll be polite and try and do one now and maybe you can call on me later. Jay, you already answered one of my questions. We had a brief discussion about the Lenfest situation and the projections from that fishing mortality rate. You noted that it is about 70 percent is where we are now if we look at an MSP value.

That is even higher than Lenfest or the 57 percent that is promoted through the peer review process. I would guess that if we looked at exploitation, it might even be a wider gap between Lenfest and the 70 percent because this is fishing mortality. I didn't see the exploitations, but that is fine. I do want to ask you, though, from the analysis there is such a buffer between the threshold and the target. It has always been there. I've never understood this. I've always been kind of amazed.

I've looked at a number of species of somewhat similar life histories, different life histories for the MSP. But even going back to Amendment 1, that buffer has always been large for menhaden. You have to look really hard, and I haven't found a species that has that type of strategy.

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

Put that aside; do you think the analyses that have been done, if there is a constant catch situation – and you've promoted a few of them in constant F – would you think we would be varying around the target, and that is about it given the constant catch, given the experience that everyone has been through with the assessment and through the peer review.

Is that a safe assumption to think that with the constant catch we would be varying around a certain F, a little bit above maybe the target, a little bit below? I think that is pretty classic is the way it has been described to us before about having a target.

MR. McNAMEE: I agree with your statement. I think based on the selections we made for the projections, the outcome is that – you know, by design – that based on the scenarios that we presented you're going to vary around your target in a distributional way. The central tendency of the projection is that 50 percent value, and that's what we kind of used to gauge and produce those constant catch scenarios. I think what you said is correct.

MR. ADLER: Two tables you have here; Table 6 and Table 7 – I think you've got 7 up there now – and I'm trying to understand that on Table 6 it looks like if the metric ton numbers were increased from 170 or 171 to 181 to 192, whatever; that the various state allocations would go up based on what the total TAC goes up to; and yet on Table 7, are we assuming that if you stay at 171,000, that the – it looks like the allocations in 2015, '16, and '17 will go up as well.

I just wanted to know on Table 7; is that given the TAC that we have now and that it would go up in 2016 and '17; and what is different in Table 6 is that this one requires us to raise the total allowable catch up to some number above 170. Could you explain which is different here; what is going on?

MR. McNAMEE: A good question and I should have maybe approached it in this way. In Table 6, what you're looking at are your individual runs from projection number one. The first column there with 170,800; that is your status quo projection, so that was a single projected run. Each of these only get a single column because we are holding the catch constant throughout the three years of projection; so 170,800, that is the status quo. 181,475; that was I think your 15 percent reduction. Each column represents a single run.

The difference with Table 7 is this is a single run; and the reason why we had the single run in a stand-alone table is because the catch increases in each year to go after that 50 percent of the F target. It depends on the metrics. The table in the previous slide is you're going to pick a catch number and run that forward in time for three years. In the second table you're trying to achieve an F target in each year; so it goes up in each year. I don't know if that was helpful at all, but I hope so.

MR. BALLOU: Jason, I'm looking at Table 2 in your report. I understand that the probability of exceeding the F target decreases over time because of the recruitment assumptions within the projections. I know that because that's exactly what the report says. My question is as you look at the probabilities, they're relatively high in 2015 and then they decrease in '16 and '17.

Does it therefore follow that if any potential increases in the TAC were delayed a year; that the risk would decrease or would it just simply push the three-year analysis or the two-year analysis that may be out. Do you understand my question? I'm trying to see how we might avoid high-risk decisions and perhaps settle on lower risk. It almost looks like that if we just waited a year, the '16 and '17 percentages risk levels are much lower. Am I misreading this and is this just about simple model exercises and not reality?

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

MR. McNAMEE: It is a good question, Bob, and I understand kind of the notion that you've proposed. However, the most reasonable way to accomplish what you're talking about, say we waited a year, what we would do is try to look at the most recent information and rerun the projection, and it may just produce the same table over again. This is the risk according to the selections we made for the projections' static. If we wait a year, the environment changes, the projections will also change; so it is more complex than that. Simply waiting a year won't necessarily decrease your risk.

DR. PIERCE: You were very careful with regard to the listing of why the projections are highly uncertain; so I appreciate that. It is always good to know how uncertain the projections are. Regarding the uncertainty, I've got a question that relates to Table 2 and Table 3, Projections 1 through 5.

You make a very important point; you and your group make a very important point about recouplement. You highlight that you used median recruitment with the variability based on historical recruitment; but then you make a very important statement after that.

You say that this means that using median recruitment with historical variability ultimately results in higher levels of recruitment in the projections than recently observed. My question is what have we recently observed and to what extent do those recent observations perhaps counter or diminish the accuracy of the projections that we have been given?

MR. McNAMEE: Yes; very good observation and it was very much why we added those comments explicitly in the report. The most recent period of time, towards the terminal end of the stock assessment time series, there has been lower than average recruitment. That is why we presented it in this way.

It is a judgment of risk as to whether you think that will propagate forward at a low recruitment level or whether you think you're bound to have some more median level or perhaps high level of recruitment sometime within the next three or four years. It is a judgment of risk, and we have no empirical way to judge that.

As I mentioned, the reason we're using median with deviations around that median for the projections is because we don't have a stock-recruit relationship like I talked about in my first presentation today. That is sort of the idea. I think I'm just reiterating what you were asking, but it is a judgment of risk and it depends on what you believe the new current state will be in the next couple of years will determine what you feel the actual risk is in these projections.

DR. PIERCE: Just one quick follow-up; what years, then, have the lower recruitment, 2013, '14; can you give us the recent years when we've had this lower levels of recruitment?

MR. McNAMEE: I'm a little hesitant but I'll give it a shot. I wish I had Joe Smith sitting to my right, who could come up with the dates immediately. I feel comfortable saying the most recent two to three years going backwards in time had the lower than median recruitment; but then prior to that there were a couple of years in the last five to ten years where we had a higher degree of recruitment; again, according to the stock assessment model.

It is not that we're relying on recruitment events that we haven't seen since the sixties. There have been some more contemporary larger recruitment events. However, in the most contemporary period of time, the last couple of years, recruitment has been lower.

SENATOR WATTERS: Jay, this kind of follows up and getting at another way what Bob was asking a few moments ago about Projection 6 and 7 and the probability of risk assessment

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

there. Can you offer any further guidance on selecting this 50 percent number of risk?

I mean, can you offer some guidance as to how accurate selecting that number may have been when you're making calculations for other fisheries or could you in some ways even project backwards into this fishery if you made that 50 percent risk assessment, whether it would have been good guidance for us. I'm just wondering how much confidence we can place in that 50 percent, if there is any other way we would know from other times that has been used in other fisheries.

MR. McNAMEE: That is a good question. I hesitate to offer a specific example because I'm afraid I'm going to pick the wrong one. This was a big discussion in striped bass recently; and they used it for striped bass. There was a lot of discussion – I may get far afield from your actual question so I'll –

CHAIRMAN BOYLES: Senator Watters, allow me, if I could, I had some conversations with staff. Recall our conversations in February where we talked about this do-loop between our technical advisors and this board that sets policy. I would submit to the board and to your question; that this question of risk is a question of policy. Jay, I don't want to put words in the technical committee's mouth, but I think this is one of those things that we have to set and have a very vibrant and full discussion about what is the appropriate level of risk, what are our management objectives and how do we want to get to it. Just grant me the chair's prerogative to just take us back to this room in February; I think it is one of the things that we have before us as we talk about where we go in menhaden in 2015. Yes, sir.

SENATOR WATTERS: If I may follow up on that; I guess my takeaway from that would be that I remain kind of skeptical about Projection 6 or 7 in lieu of not having had that discussion.

MR. SIMPSON: I'm going to continue on the same vein as the last three folks. The concern is the understandable use of median recruitment. Am I right; that was the only projection that was done? It wasn't the last three to four years of recruitment and projecting that forward; is that right? Then I want to follow up.

MR. McNAMEE: That's correct; we made a single choice on how we were going to treat recruitment.

MR. SIMPSON: Okay, and I'm not sure what years were used to calculate median recruitment. It looks like it might be 1960 to 2012; is that right? Again, I'm looking at the stock assessment and I'm not sure I have the right tables; but there is a Young-of-Year Index. When I look through that, there is periods in the seventies where that value is in the ones, twos, threes; I think even fours. Then you get to the last three years and it is 0.23, 0.23, 0.28.

My concern is with these projections that we're putting an awful lot of faith and hope that recruitment will get forwarded ten times better is my sense; at least four time better; and then when we project that forward, we can all have higher stocks and higher yield. I'm very concerned about that. Of course, that is integral to this calculation of risk and 50 percent probability. You really do have to buy into going forward we're going to get much, much recruitment than we've seen in the last few years.

MR. NOWALSKY: Projection 7 that contemplates a constant F includes the note the TAC would change each year. Was that note specific to the values included in the table and suggestive that we would set hard values potentially today for each of the next three years or is the suggestion that the TAC would change based on updated information that the technical committee would provide us each year in order to keep a constant F; and if so,

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

when would that information be available to the board and the states for usage?

MR. McNAMEE: The projections that we ran were – I think in the scenario you're talking about; that was based on what is the TAC that gets us to a probability of having – the highest probability of having F at the target; 50 percent probability. That is how those numbers were developed. I think that is a board decision as to the frequency of when we'd be updating and things of that nature. This is a static projection scenario offered to the board to consider to make their determinations.

MR. NOWALSKY: And if the board went in a direction of something more dynamic on an annual basis; what time of year could we expect that information?

MR. McNAMEE: I think you're thinking about we let harvest occur – the way that this would – we wouldn't necessarily – the only thing we could change just in the projection would be what the harvest actually was; and we could rerun that. I don't know how valuable that would be because everything else would be static from 2013.

I think the root of your question is when would you do an assessment update or benchmark or something like that. I certainly don't think we could pull that off this year. The benchmark for this took a couple of years, so I think you can judge the ability for us to kind of crank on this model again based on that.

### SET ATLANTIC MENHADEN SPECIFICATIONS

CHAIRMAN BOYLES: Jay, again, thank you for a very comprehensive presentation. We are going to move now in – we are still behind time and we're going to go right to Mike for reviewing and setting menhaden specifications for final action.

### PROCESS OVERVIEW

MR. WAINE: I just want to take a quick minute to clarify to the board what is at stake here in terms of working with Amendment 2 to set specifications. Amendment 2 allows the flexibility for the board to set a total allowable catch only in 2015 or over multiple years. It could go both ways. It is for the board's decision in one year or have the same TAC for multiple years.

Then the other thing that I wanted to mention is that the board can use the best available scientific information that was presented to them to base that specification decision on, so basically all the information that Jay has presented to the board this morning. Thank you, Mr. Chairman.

### ADVISORY PANEL REPORT

CHAIRMAN BOYLES: Jeff, the AP Report.

MR. KAELIN: The AP met via conference call on April 10, 2015, to review the results of the benchmark stock assessment and peer review as well as formulate recommendations for the fishery specification-setting process. The list of panel members in attendance is in the report dated April 22<sup>nd</sup>. There were two members of the AP who were not on the call, Ken Hinman from Wild Oceans and Dave Sikorski from CCA-Maryland, both of whom provided written comments to you.

Relative to the assessment, the AP members reviewed the results of the benchmark stock assessment and independent peer review. They applauded the stock assessment subcommittee for its hard work and completing a stock assessment that is more comprehensive and passed favorably with the peer review.

Generally, the AP commented that the results of the assessment matched what they're seeing on the water. An AP member asked what reference points are used to manage other

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

small pelagic fisheries around the world and stated that it appears that the single-species reference points as recommended by the peer review are very conservative.

Additionally, it was mentioned that stock-recruitment conditions seemed to be driven by environmental factors as indicated on the fecundity plots. There was some concern expressed that managing to the reference points may not yield the expected results. If, however, environmental conditions are right, the menhaden spawning stock biomass should aid in recruitment.

It was also discussed by the AP that the new peer-reviewed reference points of F 26 MSP threshold and F 57 MSP target already equate to ecosystem reference points since the projections are conservative and should ensure that adequate forage remains in the water as estimated by the new assessment through two natural mortality estimates that produced age-varying time-constant values scaled to estimates from the tagging data. This came from one of the graphs that we looked at from the assessment overview that Mike provided.

Some AP members stated that the implementation of Amendment 2 and the quota is likely not the cause for the increase in the improved stock status. The change in the assessment data inputs in the models were larger drivers of change in the stock status than management since the quota was put in place a couple of years ago.

An AP member that submitted comments indicated that although the stock is not overfished and overfishing is not occurring based on the new assessment, the role of menhaden as prey is vitally important and the abundance of younger fish is currently low from recent years of poor recruitment. Further, the need for ecosystem reference points still exists.

Relative to the development of the ecosystem reference points, AP members agree that stakeholders, managers and scientists need to also agree upon the multispecies management approach; and there was some concern that the management process is not currently set up to handle that type of an ecosystem approach.

One AP member referenced the Mid-Atlantic Council's Ecosystem Management Guidance Document and commented that it suggests keeping it simple by making sure the single-species approaches are robust before adding ecosystem complexity. That document was distributed to the AP and the technical committee.

An AP member who also submitted comments highlighted the need for an addendum to institute ERPs. Generally, the AP concluded it is interested in being involved in the continued development of ERPs. Relative to the specification recommendations, attending AP members were in favor of multiyear fishery specifications to avoid large swings in the TAC.

The AP recommended a three-year specification so choosing a TAC that would remain in place through 2017. The AP commented that it is easier to make business plans with a stable TAC for a three-year time period. The 2015 fishing year is nearly underway and the industry is awaiting these specifications.

AP members commented that this poses significant business challenges when they don't find out about the specifications until May within the fishing year. AP members further commented that the industry would be underfishing relative to the new single-species target reference point of F target 0.38. Also based on projection results, there is less than 5 percent chance of overfishing with all of the TAC levels that range from 170,800 metric tons to 213,500 metric tons.

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

As a result, AP members on the call recommended at least a 213,500 metric ton TAC, which is the 20 percent denouement plus-up. As a result, AP members on the call would also prefer a TAC level that maintains fishing mortality at the new F target or approaching it as preliminarily estimated the result in a higher TAC than 213,500 metric tons.

AP members commented that they wanted to see the projections at the target, and they were disappointed that the projections from the new assessment had not yet been made available to the public, making it difficult for the industry to coalesce around a scientifically derived yield from the fishery during the next three years. One AP member that submitted comments recommended that keeping the existing catch limits in place and supported keeping the existing catch limits in place; and instead of adjusting the quota, focus on long-term ecosystem goals. That ends my report. Thank you.

### BOARD DISCUSSION OF ATLANTIC MENHADEN SPECIFICATIONS

CHAIRMAN BOYLES: Thank you, Jeff, chairman of the AP. Questions for Jeff about the AP report? I see none. Here we are on the agenda item review and set specifications for the fishery. What I'd like to do is take a motion. Dr. Daniel.

DR. DANIEL: I have given this a lot of thought. I have given staff a copy of this; and, Mr. Chairman, if I get a second to this motion, I would like to comment on it further. **My motion would be move that the commission maintain the coastwide TAC at 170,800 metric tons for 2015 to promote conservation; and initiate Amendment 3 to the Atlantic Menhaden FMP to establish ecological reference points to provide for predators; set a new coastwide TAC based on these new ecological reference points for implementation**

**in the 2016 fishing season; and review state allocations as required by Amendment 2.**

CHAIRMAN BOYLES: Motion by Dr. Daniel; second by Representative Peake. Louis, let me ask you a question; and maybe this is a question for Mike; Amendment 3 or addendum? Mike, can you clarify the difference or, Louis, do you –

DR. DANIEL: I intend with an allocation discussion it to be an amendment. It would be Amendment 3.

CHAIRMAN BOYLES: Okay, that is the motion and it is seconded. What I would like to do, if it pleases the board, is I know there are a number of people in the audience who have come here for this discussion and for this presentation. What I would like to ask our members of the audience is I'd like to take at this point two comments in favor of the motion and two comments in opposition. I would like to have them alternate, so what I would like to do is have someone to speak from the public on behalf of the motion to be followed by someone who is not in favor of the motion. The first person I have on the list, Mr. Travelstead, are you in favor or opposed to the motion?

MR. JACK TRAVELSTEAD: In favor.

CHAIRMAN BOYLES: Would you come to the public microphone, please? Actually, Jack, as you're coming up, let me go to Bob Beal, please.

EXECUTIVE DIRECTOR BEAL: Mr. Chairman, just quickly, I think a point that may need to be talked about after the public comment is this amendment versus addendum issue. It is going to be, frankly, impossible to get an amendment done to affect allocation in 2016. Through the amendment process, we have to have scoping, a round of public hearings on scoping and then draft the document and then a second round of public hearings.

Given that we're almost halfway through this calendar year, we won't be able to pull that off



## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

for 2016. Not to speak in favor or against the motion, it is something that the board is going to have to talk about a little bit is should these issues be separated or kept in one document through an addendum or – you know, as Dr. Daniel said, allocation is a big deal so you may want to take the time to through the amendment process. It is up to the pleasure of the board, but just of controlling expectations that 2016 is going to be tough if not impossible to pull off through an amendment.

CHAIRMAN BOYLES: Thank you, Bob. Mr. Travelstead, a brief comment in favor of the motion.

MR. TRAVELSTEAD: Thank you, Mr. Chairman, for the opportunity to comment on the motion. I am Jack Travelstead speaking on behalf of the Coastal Conservation Association. The association fully supports the motion. For as long as I can remember, this management board and its various management plans for menhaden have acknowledged the ecological importance that menhaden play up and down the Atlantic Coast.

There have been a number of discussions over the last 30 years about doing something to protect that ecological role; but something has always gotten in the way. Perhaps in the early years it was the lack of science that prevented the board from doing something. More recently there seems to be concerns about the status of the stock, and that became a distraction.

Today you have a new benchmark stock assessment before you that while it doesn't present a stock in perfect health, it presents the best picture that you have seen on menhaden in decades. I'm hoping that you will view today as a unique opportunity to once and for all finally move forward in addressing the ecological side of the equation that menhaden presents.

Your own peer reviewers who looked at that benchmark stock assessment encouraged you to proceed immediately with the development of ecological reference points. I hope that you do that, but please don't get wrapped around the axle in thinking that in some short period of time you have to come up with a very sophisticated model to address ecological reference points.

There is now a lot of science out there like the Lenfest Report that this board can use to make an informed decision on how to address the ecological side of the equation for menhaden. Based on a little bit of past experience, I know that this board is capable of doing that over the next year. We certainly hope that you will pass the motion to finally move forward with ecological reference points. Now, the motion also speaks to maintaining the current coast-wide cap and we support that as well.

You've heard the report of the technical committee and the risks associated with changing that cap. You've heard members around the table express concerns about the level of risk based on the levels of recruitment that were used to come up with those projections. We share those concerns, but we also think you should maintain the current TAC this year for a very simple, logical reason; and that is changing the harvest level now could ultimately affect the outcome once you have ecological reference points established.

It seems you would be putting the cart before the horse if you change harvest this year. We would prefer that you establish the ecological side of the equation first and then let the appropriate harvest levels flow from those ecological reference points. We think that is very logical. We have no objection in the future if harvest goes up as long as the setting of those harvest levels is tied back to the ecological reference points that you will ultimately and hopefully set by this time next year. Thank you.

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

CHAIRMAN BOYLES: Thank you, Mr. Travelstead. I look to a member of the public who would wish to speak in opposition to this motion. Ken Pinkard, please come to the microphone and identify yourself for the board.

MR. KEN PINKARD: Good morning, Mr. Chair. First of all, I would like to thank you for allowing the opportunity to address this board and express our concerns. My name is Ken Pinkard with Omega Protein in Reedville, Virginia. My father's father and my mother's father both were commercial fishermen.

I'm also a member of the United Food and Commercial Worker's Union, Local 400, headquartered in Landover, Maryland, which represents the employees and the fishermen down in Reedville, Virginia. The commission has had a lot of data before you in the last year. I have looked at a lot of it and I applaud you being able to be able to get through it and understand it comprehensively; but I need to add the human element to it.

I'd like to ask – first of all the yellow shirts, I brought them for a reason; I would like for you to stand. The reason I'm asking them to stand is because two years ago, in 2012 – this number is here by design – in 2012 I had two busloads come before this room and I am sure some of you remember. The number that is standing is how many were laid off after the decision of this board in 2012.

We accepted that decision because we had to; but we also accepted it with the understanding that this commission would take the best available science and revisit this issue. When the best available science came out in February, it was encouraging to know that the science is there that would allocate us 20 percent back; to put that equal amount of people back to work in 2015 and not 2016.

What my ask is is that in consideration we have a gentleman out there, 25 years old, Michael Newton, this is his second year of fishing. This

is my 31<sup>st</sup> year of fishing. I want his generation to have the opportunity to earn a decent living and have benefits. If the science was not there that I couldn't justify – I know your decision is not based on human factors; but I also know on how this board is consisted of every state of being represented either through the legislators, through governor appointees and through agencies.

There are groups like the Chesapeake Bay Foundation and CCA and I respect what they do and how they do it; but there is no one that has more concern about the Chesapeake Bay and this Atlantic Coast than these commercial fishermen. That is our livelihood; that is our bread and butter. We're not going to do anything or overdo anything that we think would hurt us down the road. I think the science has come in. I applaud the technical committee for taking the time and really doing their research; but I also think it is time for us to have our 20 percent back to put these folks back to work. Thank you.

CHAIRMAN BOYLES: Thank you, Mr. Pinkard. I'm looking for someone to speak from the public in favor of the motion. Mr. Sikorski.

MR. DAVID SIKORSKI: Mr. Chairman, thank you. Members of the Board; my name is David Sikorski. I am the Chairman of the Government Relations Committee for CCC Maryland; also a member of the Sport Fish Advisory Commission in Maryland. Every time I stand still and raise my hand, I get another little title or a volunteer position. I'm here as a volunteer on behalf of CCA recreational fishermen. The guys from CCA Virginia have also asked me to speak on behalf of them.

I can gladly say me too to Mr. Travelstead's comments and then follow up with some of my own to give you a little bit more of a regional perspective. I'd also like to supply a little bit of the human element of the recreational fishermen; because this system that is built

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

around these fisheries' management and especially for menhaden is managed – we're here trying to manage commercial catch for the most part, how much harvest we can take and we leave behind.

A lot of times what gets caught in the mix and what is really hard for a lot of our recreational fishermen to even wrap their heads around or even commercial fishermen, you know, folks that sit behind me here, is all these numbers and we kind of get overwhelmed. I always gravitate towards that big-picture approach because I think it is where most of our fishermen lie.

It is where a lot of the frustration lies in the recreational fishing community. You watch the arguments online and wherever else and the frustration lies in we're big-picture people. We don't understand the details; but with my involvement in fisheries' management I respect the amount and the level of detail, the science, and the task in front of this board and then the managers.

It really falls to the managers at this point. We have some science and we have some needs. Here in the Chesapeake Bay, in this region, the issues with recruitment and abundance are the biggest issues that I think connect directly to our fisheries. This board, the members here, the ASMFC has made the decision to decrease harvest of – or decrease mortality of striped bass for I hope to bring back their abundance.

We know that striped bass rely on menhaden for a large part of their diet. But it is not just simply a striped bass versus menhaden relationship. That two-species relationship would be no better than a single-species model. It speaks to the difficulty of even finding the model that can explain the ecosystem.

In general, I think what would solve some of our problem is a big-picture approach towards ecosystem-based management, and that is why

it is important that I see it in this motion. As I said, menhaden are an important food for striped bass; but they're not the only species. There are species coastwide that rely on them; and because we do have a large abundance or large biomass, it is important. It is good that there is more fish out there, but there is not enough yet.

We have more fish in the water and we need to keep those fish. Public comment on this issue was nearly 100 percent in favor of conservation, of not increasing the limits. That is what this motion does 100 percent. If you attach it back to striped bass, 85 percent of the coast-wide public comment was in support of the measures you took on striped bass.

How can you support the striped bass without support leaving those menhaden in the water? It is tough to analyze jobs and figure out where the impact is; and I know nobody around this table wants to ever put a single person out of work and it is never the intent of anybody from CCA or any recreational community to try and pick a winner or loser. I fall under the mentality that a rising tide can raise all ships, and I think that is important, especially with this forage species; and we should look at that and think about that as we manage here.

It is again why we support conservation and leaving the cap where it is. There is a lot of folks behind me, recreational fishermen, charter fishermen, where an abundance of menhaden in certain areas really supports their jobs.

I did some recent lobbying efforts on the Hill with folks and I was lucky enough to join somebody who was a marine trades' representative; and she told me something that really stands out every time I'm on the water. It is seven recreational boats equals a job; and so with an abundance of menhaden comes an abundance of predator species and everything

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

else that relates to jobs. It is just one more piece of that puzzle; seven boats equals a job.

As we deal with the whole complexity of trying to build a model, you know, we know menhaden are important and we know they're important different times of the year; can their natural mortality number in the stock assessment take care of that issue? No, we can't analyze this stuff with a level of certainty.

There is always the unintended consequence; and what species are taking up the slack? The questions that have been in front of this commission for a long time with regard to weakfish is something that must stand out in our heads. I mean, why do we have such issues? Maybe it has something to do with the lack of menhaden abundance.

Ultimately, status quo, which is what this motion recommends, is the most reasonable solution right now. We have an opportunity to take care of everybody's problems, dig into the allocation issues, make it right for the states and provide for that beneficial economic impact that all local communities throughout this coast really need and that menhaden have been a major driver of over the years. Again, we have more fish now and we need to keep those fish there because they can support all. Again, a rising tide can raise all ships. Thank you very much.

CHAIRMAN BOYLES: Thank you, Mr. Sikorski. I'm looking for a member of the public who wishes to speak in opposition to this motion. The next person I have on the list is Greg DiDomenico. Greg, do you wish to speak in favor? You wish to designate Mr. Landry. Mr. Landry, come forward and identify yourself for the board, please.

MR. BEN LANDRY: Good morning, Mr. Chairman and Commissioners. Today you have a big decision to make. Before I get into the prepared comments, I would simply just add

that I think this particular motion is perhaps best split. My name is Ben Landry with Omega Protein. I would suggest that this motion is perhaps better split into two; one that addresses 2015 harvest levels and a second motion that would discuss the opportunity that you guys seem to be moving toward, which is initiating an amendment to discuss ecological reference points and future state allocations.

The current stock assessment that you guys have at your disposal is perhaps the most comprehensive and well-developed stock assessment that menhaden has ever seen. I think it provided a snapshot at the population that you certainly did not have in 2012 when uncertainty was not a barrier to enacting regulations.

Now that you have that certainty, it seems like the pumping of the brakes is the course that you guys may be moving towards. I would suggest that's perhaps not the best course for fisheries' management. According to the Menhaden Technical Committee as putting the new target fishing mortality rate at 0.38, which equates to that 57 percent MSP, this is a target that Omega Protein supports and it was actually quite higher than what you guys did just two years ago. If you look at the fishing mortality rate in the terminal year of 0.22, which is even far lower than the new target F and has been at a fishing mortality level for quite some time, I don't think you see especially on Omega Protein's part an expansion of this fishery.

Fishing mortality rates have been relatively low and there is virtually no fear of getting back up to previous levels from the 1970s and 1980s that I think a lot of you guys fear. With the realized fishing mortality rate in 2013 at 70 percent, that is even lower than this Pew/Lenfest suggested F that seems to be discussed quite a bit.

These are the things that we're talking about of this fishing to a target and current target levels.

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

They're extraordinarily conservative; perhaps more conservative than any fishery in the United States as it relates to the science at hand. These are the decisions that you have to make. In some ways this word may seem a little harsh, but do you want to ignore the technical committee's hard work over the last 18 months?

Do you want to ignore the peer-reviewed stock assessment and say that we know best of what to do with ecological reference points? Those are the things that we wanted to bring out. We would support material increases in harvest quota. We think that the science at hand has proven that the stock can support.

Ecological reference points are the goal, goals that we support, but we also don't want to see menhaden be the guiana pig for ecological reference points where it is rushed and incomplete and apply it to this fishery. Let's do it right, but let's not do something because of a public cry or a philosophy that we need these ecological reference points. Let's get it done.

You'll have Omega Protein at all those meetings standing shoulder to shoulder with you to develop the best ecological reference points. I can go through Jason's report, that it doesn't identify the spawner stock-recruit relationship. Essentially at that point how many eggs do you truly need in the population in order to be successful?

It may not be the best public comment you have heard at any of these management meetings, but it is from the heart. Omega Protein is a responsible and sustainable harvester of menhaden; and to be zeroed out in any quota increase after this assessment is a slap in the face to the hundred years of responsible fishing practices that we have engaged in. I thank you for your time and wish you the best of luck.

CHAIRMAN BOYLES: Thank you, Mr. Landry. I had indicated to the public an opportunity for

two individuals to speak on either side of the motion. My question to the public, now going back to the favorable side, we have heard from two folks; are there any comments from the public that would differ substantially from what you've heard that would like to address the board?

MR. PATRICK PAQUETTE: Patrick Paquette, government affairs officer of the Massachusetts Striped Bass Association. I'm also a recreational advocate that works with groups from Maine to North Carolina. Speaking very specifically as a charterboat owner and tackle manufacturer and fisherman from Massachusetts, I just want to point out that although I agree this assessment shows a lot of fish in the water, this assessment also shows a significant lack of abundance in New England waters.

North of Rhode Island, the assessment scientists actually left out the two trawl surveys, the one from Massachusetts and the one from Maine, because of – and I'm going to quote the assessment now – because of lack of interaction with menhaden. Your actions have helped menhaden begin to recover, but we don't have them yet where I live.

I want what they're seeing in New York. I want what New Jersey has because I've had it in the past in my lifetime. I'm not talking about ancient times. In my lifetime we had robust amounts of menhaden in Gloucester Harbor and in Boston Harbor, and it drove unbelievable fisheries. We want our striped bass to come in from Stellwagen Bank in federal waters and to be in nearshore.

That message I want you to hear. This motion will let you use your fish wisely. It will let you raise a quota responsibly and based on data that considers the whole coast and not just one rush being pushed by one company out of one state that has shown record profits for each of the last five years. Thank you.

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

CHAIRMAN BOYLES: Thank you, Mr. Paquette. Again, another alternative perspective in those wishing to speak in opposition to the motion that differs substantially from the comments that you have heard before; anyone? Would you please come forward and identify yourself for the board, please.

MR. JAMES STANSELL: My name is James Stansell, and I'm a union representative for the commercial fishermen that you see. Basically I have a few questions. Number 1 is we're observing egg counts, but how are we studying the egg counts? Are we sending divers down to study the eggs? I mean, how are we determining the numbers when we say egg count?

I think this plays a big role in this question. I think everybody is looking at we're saying, okay, we see so many fish, but nobody is – how are we determining our egg count? No answers; okay. All right, let me move forward. Because we've had a reduction – if you look at the charts that have been presented, because we've had a reduction in the number of fishermen, period, we've lost a lot of your bait fishermen over the years.

You only have one reduction plant left on the east coast now; whereas, I think 30 years ago, according to the charts, you almost ten to fifteen reduction plants. You were fishing millions of more pounds of fish. That doesn't even look at the bait fishermen that might have closed last year due to the reductions that you put in.

Then you also have to look at some states are fishing less fish; so why don't we increase the proportions that the reductions can fish or others can fish since others are not fishing as much? I think if we observe this realistically and look at our charts, the years have shown that we have had fluctuations where the fish are up or down.

Now, has anyone pointed out whether this is ecological or is it from pollution or is it from overfishing? It can't be from overfishing because you've had a reduction in the number of fishermen over the 30-year period. You are taking less fish out of the water. Now, how many bait fishermen closed this year?

We know we only have one reduction plant. Yes, bycatch is a big problem. How do we measure bycatch with so many fishermen out here fishing such a variety of fish? We want to say 6,000 pounds of bycatch, but is there any way we can improve the nets so that the menhaden can swim out of the nets; has anyone studied that? I mean, there are a lot of questions I have. I've been left with a lot of questions this morning.

My number one question is how are we studying the egg count? Do you know what I mean? I'm not saying that you don't have an accurate measurement system; but are we sending divers down? Other than that, I don't see how you're going to measure the eggs. Do you know what I mean; being realistic? I close with those points.

CHAIRMAN BOYLES: We have a motion on the floor. Discussion? Dr. Daniel.

Dr. DANIEL: I wanted to just provide some of the justification for this. This goes back to the 2012 meeting, Mr. Chairman, and my role as the chair of the board at that time. This continues to bring out more people than any other issue that we're dealing with. It is an important issue to this commission.

It is probably the backbone of our coastal fisheries along the east coast of the United States; and there is uncertainty in where we are right now. We heard it from the technical committee report. We've numerous occasions where we have had a stock assessment. We were very concerned about the status of the

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

stock and we got a new stock assessment that says everything is great.

How confident are we in that? I'm pretty confident, but I think we need to take the time to do this right. Based on discussions that I've had as the chairman with staff and with other commissioners around the table, there is a lot of concerns; New York being able to account for their fish; the overages that occur on a tenth of a percent of the allocation.

Those types of things need to be corrected. We don't need to be spending this much time managing this fishery as we are if we do it right. I think this takes us in that direction. I think we've got a good harvest opportunity. I know it is critically important to the recreational fishery, the for-hire sector; certainly Omega Protein, but also to our bait fisheries.

Menhaden is the backbone of many of our biggest fisheries in the Mid-Atlantic, the crab fishery, and not to mention what is going on in New England with the lobsters. Now that New England is competing with us for bait, it is creating an issue. We have to look at this thing from a parity standpoint and do our best to make sure that we have adequate forage out there for the fish that we're trying to manage.

Everybody says striped bass; I say cobia; I say king mackerel; I say bluefin tuna. I say a lot of the fisheries from the South Atlantic's perspective that really aren't even mentioned in the mix. As far as biological reference points, I go for the most parsimonious option that we can come up with. I think that is something that we can direct the technical committee to do.

I think we can have a workgroup put together to help work on these issues; but I don't necessarily disagree 57 percent SPR is a pretty lofty goal. That's a pretty defensible reference point from my perspective. Is that the appropriate biological reference point for menhaden? That will be something for the

board to decide as we move forward. I think something this big; we need to take the time. I feel like we're continuing to go down a rabbit hole. We need to turn around and come out of it and head in this direction. Thank you, Mr. Chairman.

CHAIRMAN BOYLES: Further discussion? Mr. Nowalsky,

MR. NOWALSKY: I appreciate the turnout from the public here today on both sides of the issue. I also want to express my gratitude to the assemblyman that I represent here today. He has taken great opportunity to interact with both sides of the issue, recreational and commercial fishing interests in my home state, and I can speak here today confidently on his behalf.

To that end, Mr. Chairman, I'm prepared to offer a substitute motion. That substitute motion I think has to incorporate the results of the stock assessment that we have here before us. I think that if that stock assessment had come back and was painting a picture of Atlantic menhaden in a more discouraging manner than what we've seen, I don't think there would be any opposition from this table today.

To that end, **I move that the commission set the 2015 TAC at 187,880 metric tons and initiate Amendment 3 to the Atlantic Menhaden FMP to establish ecological reference points and review state allocations as required by Amendment 2. The TAC would increase by 10 percent in 2016 and 2017 or until a new coast-wide TAC could be set based on the ecological reference points developed in Amendment 3.**

CHAIRMAN BOYLES: Thank you, Mr. Nowalsky. Is there a second; second from Mr. Train. We have a substitute motion. Give us just a moment to get that on the board. Dave, you had a question?

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

MR. SIMPSON: Yes, while it is being typed up, to be clear on the motion; so it is 187,000 tons in '15 and it goes up 10 percent from there in '16 and up again in '17 by another 10 percent? I just want to be clear.

MR. NOWALSKY: Correct; or until a new TAC could be set based on biological reference points. That 187,880 represents 10 percent for 2015.

CHAIRMAN BOYLES: Adam, is that your motion on the board? Can you read that into the record, please, for us to make sure we've got it?

MR. NOWALSKY: I believe so. Ms. Kerns has what I had typed up originally, but that looks correct. I will read it again: move to substitute the TAC at 187,880 metric tons for 2015 and initiate Amendment 3 to the Atlantic Menhaden FMP to establish ecological reference points and to review state allocations as required by Amendment 2. The TAC would increase by 10 percent in 2016 and 2017, or until a new coast-wide TAC could be set based on ecological reference points developed by Amendment 3.

CHAIRMAN BOYLES: That motion was by Mr. Nowalsky and seconded by Mr. Train.

DR. PIERCE: Mr. Chairman, point of order, if I may.

CHAIRMAN BOYLES: Yes; Dr. Pierce.

DR. PIERCE: I believe Mike said at the beginning of this meeting that we were, because of the amendment that is in place right now, obliged to keep the TAC constant. This is a clarification because I thought that is what Mike said; just to make sure we're not going down a rabbit hole here if the motion is out of order.

MR. WAINE: Yes; I just specified that the board could set a TAC for 2015 or a TAC over multiple years. The TAC does not need to be the same if

it is set over multiple years. There is nothing in the plan that specifies that restriction.

CHAIRMAN BOYLES: The substitute motion is in order. Discussion on the substitute motion? I had Mr. Gilmore.

MR. GILMORE: This is a question really for Mike. Neither one of these motions does anything actually for this year on the bait fishery issue or the allocation into that. The question is we would then have to live on transfers for this year under the bait fishery; and assuming that, do you have numbers on what the overage was coastwide? The bottom line of the question is are we going to have enough fish to cover the overages while we sort all this out?

MR. WAINE: The answer to the first part is it takes a management document to address allocation, either an addendum or an amendment. Amendment 2 specifies we will revisit allocation in '16. The answer to your second part of the question is it depends on how states scale up their fisheries to meet this new TAC. If you scale up proportionally, then you will likely have similar overages if states keep their fisheries similar to what we've been harvesting. Then this increase would cover that, but I would suspect that the states will increase their harvest relative to the increase in the TAC.

SENATOR WATTERS: Obviously, I speak from a state which doesn't have a large interest in this fishery, so I think it is important to step back and see what kind of interests we are trying to accommodate here. I think we do have technical reports to justify some increase in the TAC. I think also, as I noted earlier, we have uncertainty about risks and probabilities as well.

I also think that whatever we do, we may want to think about how much of any increase we're going to give to industry and how much might



## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

be allocated to the states that might be given back for conservation purposes. To the point of this particular amendment, I think it does make sense to initiate an increase to 187,000.

I was personally thinking of 192,000 because it is going back to that projection four of the earlier report; but I have concerns about building in the increases in the second two years without having had the discussion of allocation or having some better figures on the risks involved. I think for my fellow commissioners perhaps the first part of this amendment makes the most sense in terms of what we know, but the second part would perhaps get us into territory that is more uncertain.

MR. O'REILLY: Mr. Chairman, I'll keep comments to the substitute motion. I can support the substitute motion. I, too, was looking to see someone talk about 192,150 metric tons, which corresponds to a 10 percent change from where we were in 2012. I do have a couple of comments about this. I like the approach from a conservation benefit.

I was an ecology major so I have great appreciation for ecosystem-based reference points, ecosystem-assisted management, all the things that we've talked about over the years. I do think we can move in that direction. There has been a lot of work lately both at the council level and at the ASMFC on forage fish and ecological reference points. It is not the impossibility that it may have been several years ago.

However, it won't happen overnight; and when it happens, there is going to be modifications. Let's realize that as we go forward that it can be done, but there will always be modifications. I did want to mention that up until 2012, one of the benefits of Amendment 2 was it shows us just which states have a situation with bait that we didn't know about before, whether it be

reporting, unknown harvesters, whatever the situation was.

I contend that can be taken care of no matter what our management framework looks like going forward. The idea is that we now know there is more interest in bait than before. Virginia does have three different sectors and not just one. It has a vibrant non-purse seine fishery as well as a snapper rig fishery as well as Omega. There are three different sectors.

I think as we go forward, this is in keeping with conservation. Conservation includes man so let's really vouch for conservation. Let's also vouch for the ASMFC, which prides itself on sustainable fisheries and prides itself on sound science. All of that has been demonstrated through this benchmark assessment and peer review process.

If you go back just a little bit – and this will be the last part of my thoughts – to 2011, we started on this process with an idea that we really need to get the menhaden stock below the threshold. It was as simple as that; let's get it below the threshold. That took wings and we flew towards the target. We debated what that meant to go towards the target or to the target for a while.

We did that; we took the best science possible that we had at the time, which was through 2009. Once we had that, we did go together through a process. Some didn't agree with that process, but we had a process. We then went through an update. The update didn't fare so well. There were problems with the update.

Nonetheless, the ASMFC did say we need to pay attention to what we learned from the last assessment. Now we have this assessment. This assessment is something that really I agree with those who commented is strong and is sound. I think that we need to pay attention to where we are on the reference points. They are formidable, I think, as far as a threshold and

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

target value, both for fishing mortality rate and for the eggs. Those are my comments. I appreciate it and I will support the motion.

CHAIRMAN BOYLES: Thank you, Rob. Just for the board's understanding, the new base, I think – and check me on this, Mr. Nowalsky – the 2015 TAC under these calculations, 187,880 metric tons, which is a 10 percent increase over where we are now, a 10 percent increase as you contemplate in 2016 would be 206,670 metric tons, which is 10 percent over the 10 percent in 2015; and subsequent to that, the 2017 TAC would be 227,335 metric tons. So just to be sure that the board is clear on what those numbers look like. From there, we will go to Mike Mallard.

DR. MIKE MALLARD: The U.S. Fish and Wildlife Service cannot support this substitute amendment for a couple of reasons. I was struck by several statements during the technical committee report mostly having to do with the variability in the analysis. I heard the statement that the reference points would vary around the target in a distributional way and it seemed to be fairly innocuous. Of course, the question is what does that distribution look like?

Then I listened to some very insightful questions from David Pierce and David Simpson poking at that uncertainty. When you start to add these things together and you realize that these uncertainties compound in an exponential way and not even in an additive way, I start to feel less good about some of the projections that I see in the technical committee report.

For risk management alone, the Service can't support an increased TAC. Secondly, I think Jack Travelstead had it just right saying we should let the ERPs come to the table first and then let the new TACs flow from the ERPs. Thank you.

REPRESENTATIVE SARAH K. PEAKE: I speak in opposition to the substitute motion and I hope that it is defeated for several reasons. One, I think that it fails to account for the fact that we're not seeing any of these fish north of Rhode Island, as one of the members of the public spoke to earlier today.

Secondly, I think we worked very hard to get at the target; and by increasing the TAC as it is proposed in the substitute motion, for lack of a better characterization, I think we're throwing caution to the wind. We have a very, I think, startling table in the materials that were presented to us today; and by increasing the TAC to 187,880, while that number isn't specifically in there, I think that the percent chance of missing the target would be somewhere in excess of 60 percent, which in my mind is unacceptably high.

Lastly, in closing, because I'm losing my voice, as you can hear, I will associate myself with the comments of Dr. Daniel that I thought were spot-on with the underlying motion. It is for those reasons I hope this is defeated and we can get on to talking about the underlying motion. Thank you.

MR. ADLER: It is funny how we take away and we have trouble trying to give anything back. It is not overfished, overfishing is not occurring. I do support the ecological reference point part of either one of these motions. I also wonder, as I've questioned before, how many fish – not the eggs – how many fish are out there versus how many are harvested; and it seems that there is plenty left for forage.

One of my questions had to do with – and I think the chairman brought this up – if this new number is put in and does pass; that the following year there will be another increase and another increase. This falls back to what I had said in a previous discussion on Page 5 of the technical committee; I asked if the current TAC that we have now and has been proposed

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

for this coming year, it stays where it is, this Table 7 showed that in the following year there would be an automatic increase; and then in 2017 there would another increase.

Is that a correct assessment; because you said if you put a new number in, then it goes up every year by a certain percentage? On Page 5, Table 7, of the previous document; is it true that if it stays at the current level, which is like 170,800 metric tons, that the following year it will go up and then the following year it would automatically go up again; is that what I'm reading here?

CHAIRMAN BOYLES: Yes, sir, that is my take on the substitute motion on the floor; yes.

MR. ADLER: I mean, yes, that would happen with that number; but on this Table 7 it says if the – it basically says that the number we have now in existence, which is 170,800, which has also been proposed in the regular motion; does that mean that the following year it will in 2016 automatically go up and then in 2017 go up again? Just like you just said it would happen with this one; would it happen with the other one, too?

MR. WAINE: With that specific approach, that is the constant F approach; so to maintain a 50 percent probability of achieving F target, in each of the three years the TAC is going to change; and as a result, it does go up in each of the three years for Projection Run Number 7, the one you're referencing. I think what Mr. Nowalsky has done is a little bit of a combination of the two; used the TACs that were referenced in the other projection runs to combine a changing TAC through time as oppose to Projection Run 7 that was presented by the technical committee.

MR. ADLER: If I may, Mr. Chairman, basically what I'm trying to say is it looks like if you keep the 170,800, which has been proposed in one of the motions, it gives you a number. Then with

using the same level, it does go up the next two years. In this motion, whatever that number is, 187, whatever, that would go up automatically, as you said, the following year. It looks like there will be an increase in the TAC even if you stay the same – at the 170 there would still be an increase in 2016 and 2017. At least that is the way I'm reading it.

MS. FEGLEY: Mr. Chairman, I will have comments on the main motion as well; but I cannot support this motion as written. First of all, I think the board would be wise to consider considering the TAC separately from the other two issues of the ERPs and the allocation. I believe we can set the TAC without an amendment process.

The other issues are bigger; and as Dr. Daniel said require some time to get them right. The bottom line on this motion, which I hope will be defeated, is that while I could support a number of 187,880, the subsequent increases of 10 percent each year seem counter to everything that we have accomplished over the last few years, especially given the risk in those projections and the idea that we're banking on that median recruitment. The bottom line, like I said, I'll have comments. I hope we get back to the main motion, but I cannot support this one.

MR. STOCKWELL: Given the updated status of stock and for most of the rationale that Adam offered during his move to the motion to substitute, I can support the motion to substitute with the exception of the hard-wired in addition of the 10 percent in the TAC increase in 2016 and 2017. I'm going to make a motion to amend.

CHAIRMAN BOYLES: Mr. Stockwell, would you hold that? You can certainly overrule me, but I would call that out of order. I think we're going to get ourselves wrapped around the axle. You all can certainly vote to overrule me, but I would have that motion out of order.

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

MR. GROUT: Point of order; why is it out of order? You're allowed to make up to two amendments on the substitute motion. You also should be going back and talking about the underlying motion, too, in this debate under Roberts' Rules of Order. It certainly is within Roberts' Rules of Order to make an amendment to a substitute.

CHAIRMAN BOYLES: Okay, did I hear an amendment or did I hear a substitute?

MR. STOCKWELL: You heard an amendment. **If I'm allowed to make the motion to amend –**  
CHAIRMAN BOYLES: Proceed.

MR. STOCKWELL: **If you could put the motion back up on the board, what I want to do is delete the last sentence that the TAC would increase by 10 percent through ecological reference points; so that we would only be substituting the 187,880 for 2015 and initiating the amendment.**

CHAIRMAN BOYLES: Motion to amend by Mr. Stockwell; seconded by Senator Watters. Does everybody know where we are? Now the motion to amend is the motion on the floor. That motion is to move to amend the substitute motion by removing "The TAC at 187,880 metric tons for 2015" – one moment. Mr. Goldsborough.

MR. GOLDSBOROUGH: Mr. Chairman, I was prepared to comment on the earlier motion, but the sentiment is still the same. I prefer the original motion from Dr. Daniel. I have to say that I heard shortly ago the comment that with respect to quota; that it is often taken but rarely returned, something to that respect.

I think that is actually a sentiment that we can say about the ecosystem pretty consistently over time that forage, menhaden specifically which I think is essentially the fuel of the food web, is taken but not returned through our management actions. Reference has been

made to how good the picture is painted by this assessment, overfishing is not occurring; the stock is not overfished; and that's true.

I would say that particularly with respect to biomass things are better than the last benchmark; but I do think it is important for us all to be cognizant of the fact that with respect to abundance, which is most important for forage, we actually have a more dire picture than the last benchmark. The abundance level is lower than the last benchmark.

Let's temper our comments about the good news and therefore let's cash in on it; and let's think more in terms of allowing whatever improvement we might have in the stock to fuel the food web that has been waiting a long time. We also last year had a benchmark assessment for striped bass that the result was there is no overfishing and the stock is not overfished; but we proceeded to cut back on the catch by 25 percent.

There is a lot more to an assessment than just those 30,000 foot conclusions. We do have a lot of very obvious ecological imbalances still in the food web on this coast. We know that striped bass in the Chesapeake Bay are suffering a higher mortality rate due to a disease that has been linked to poor nutrition. We've heard that, well, they can shift to other prey.

Well, they have shifted to other prey; they have eaten juvenile blue crabs, which is a very valuable fishery in the Chesapeake Bay. I understand they're doing the same with juvenile lobster further north, another valuable fishery. They also have shifted to bay anchovies. Some might say, well, they're very abundant; a much smaller piece of nutrition for something as big as a striped bass; a lot more work to obtain it, too.

But that puts them in competition with other predators that depend on bay anchovies; for example, the weakfish that we know is at such a

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

low level, we pretty much have thrown up our hands about what we can do about it. Striped bass outcompete weakfish for their primary forage. Not only that, we now are told that striped bass are feeding on juvenile weakfish for lack of their preferred prey. When we talk about giving back and we talk about that from a responsible management standpoint, I think at this juncture to what extent we might have a positive turn in menhaden stock, we would do well to give back to the ecosystem and implement the sentiment of the initial motion and move forward with more responsible management. Thank you.

CHAIRMAN BOYLES: All right, just to remind the board where we are; we have now at the top of the screen a substitute motion which is offered by Mr. Nowalsky and seconded by Mr. Train; and **now a motion on the floor to amend that substitute motion. The motion would be to move to amend the substitute motion by removing "The TAC would increase by 10 percent in 2016 and 2017, or until a new coast-wide TAC could be set based on ecological reference points developed by Amendment 3"**. That motion to amend was made by Mr. Stockwell and seconded by Senator Watters. Further discussion on the floor. Mr. Grout.

MR. GROUT: I support the amendment to the substitute. When we were addressing Amendment 2, we were basing it on an updated stock assessment that was very uncertain compared to previous stock assessments. In fact, I remember asking – they said that we were overfishing; and I said, well, what do we need to reduce our harvest bar to get to a non-overfishing status; and the technical committee could not give us that number.

They said that 20 percent would get us in the right direction. We now move forward to an assessment that we recently had that is a new assessment, a new benchmark assessment that was peer reviewed and showed a very different picture than what we had from the last update

and also more similar to what we'd had in the past.

As I look at this, we set that 20 percent based on – I won't call it a guess; we were doing our best; but we were trying to reduce mortality because we thought we were overfishing. We clearly now see that we haven't been overfishing for the past ten years and for the past thirty years. In fact, we've been below the target for the ten years.

I feel comfortable with allowing this modest increase and that even with this modest increase we will still be leaving fish in the water for our prey species that we have been trying to – that we are managing right now.

Because the fishing mortality rate is less than two-thirds of the target, not two-thirds of the threshold, but two-thirds of our target – a target is typically something you want to be fishing – trying to attain or being close to it and not something like a threshold where you don't want to be anywhere near; you want to stay away from that line.

I think this gets at giving a modest increase based on the newest stock assessment; and it also moves us down the road of one of my favorite issues that I've been trying to get this board to work on for five or six years; and that is trying to establish ecological-based reference points as well as look at potentially reallocation in an amendment. I think this is the right way for the board to go. On a personal note, New Hampshire will appreciate the 11 pound increase in quota that this will give us.

MR. HASBROUCK: I had my hand up before because I was prepared to offer an amendment; so I don't want to complicate things right now. It is probably out of order; but if you could come back to me once we've had the vote on this amendment, I have an amendment to offer as well.

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

DR. PIERCE: I could support the motion to amend the substitute because it gets rid of the 10 percent increase in 2016 and '17. Those increases to me don't make much sense in light of all the discussion that we've heard so far. However, if it does pass and I would support it; I would not then support it as a substitute motion because the substitute motion then is 187,880 metric tons.

Although it is a relatively modest increase from where we are right now, I'll just restate what I said before and that is we do have a new assessment, an updated assessment. It was peer reviewed and we're very thankful for it. Nevertheless, as stated this morning, there are highly uncertain projections. Recruitment in recent years really hasn't been accounted for; that is that lower recruitment.

I look at the percent risk of exceeding the F target. We're at the F target, that is where we need to be, that is where I would like to stay, so I reiterate the point made by Representative Peake. If we go with 187,880 metric tons, the percent risk of exceeding the F target would be around 60 percent or so. Frankly, I'm uncomfortable with 50 percent, which is the coin toss. At 60 percent, it is hard to live with that and hard to defend that. So, again, a modest increase but I'm influenced by other factors, those I've just mentioned.

MR THOMAS. FOTE: It is always interesting when we get into a discussion about menhaden. I've been doing it for a long time as we go through the years. It always kind of concerned me that we always look at saying this is a great stock assessment; but when we look at that, it is not fully within the range.

If we talked about any other species and we talk about how it expands to the range, like black sea bass is now up in New Hampshire and Maine and other species like that; we don't usually have a species where we say, well, it is sustainable at one of the lowest levels in

historical times and missing from whole areas where historically it has been.

That has always been my concern with the way we manage menhaden, so that hasn't changed. I also look at one entity shouldn't have 85.7 percent of the resource. That is one entity, one company. We don't allow that to happen in any other species that I know. That only time that happened is when we did IFQs on surf clams and caused the disaster that I've seen over the years.

It really disturbs me when we look at this and also puts me perplexed of what I'm supposed to do here and look at what I'm aiming at. I think that is a decision that a lot of us are having around the table; what are we supposed to do? My motion, if I had made one, was to basically that any increase would come as a reallocation and basically put it from the one end over to the rest of the states and basically handle it that way and not by a general increase. That is what I had supported.

The original motion that Adam made I could not support going forward. I'm still having problems with this motion, and I'll have to make that decision when we come to a vote. It really concerns me that we set the premise that we hear all those things and how great the resource is. When I first got here, some of you remember Tony Vega was the governor's appointee.

He was a purse seiner from Massachusetts. Then he became a legislator and then he sent Vito Calomo. Vito's job was a purse seiner from Massachusetts who basically harvested menhaden. Well, there ain't on purse seiners in Massachusetts harvesting menhaden that I know of like they were back then. There is none down in – you know, up in Maine they basically do it like they did when the reduction boats or reduction plants were up there. That is my concern and that is when I have to come to it. I would as soon in some ways go to the first

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

motion because basically we've done the ecological concerns and we basically would have done the reallocation, and I think we need to do that first.

MR. JOHN CLARK: I support the amendment to the substitute motion. I think we need to be consistent. When it came to striped bass, we were falling all over ourselves to accept the new reference points and reduce the harvest there. We've had a very good assessment just completed for menhaden. I think based on what we've seen there, we're not overfishing and it is not overfished. I think we can withstand this small increase in the TAC.

I would also like to emphasize the socio-economics of this. I've seen in our state the lack of availability of bait in our blue crab fishery and the subsequent increase in price has hurt a lot of our crabbers. I know that is a problem up and down the coast. For those reasons, I do support this amendment.

MR. BORDEN: Conceptually I can support a 10 percent increase. I think it makes sense at this stage; but I have reservations. My reservations get to some of the points that I raised the first time I spoke. I've put together a list of what I would characterize eight major flaws in the Menhaden Plan; and these aren't just Rhode Island issues. They're issues that kind of permeate the FMP.

I'm extremely troubled by the prospect that we would do an amendment. If we get into any of those problems that I have on my list, it is going to take at least two years if not longer to do this. What troubles me the most is we have these inequities that are built into the system, and those are going to continue for two years.

To me, if we're going to increase the quota by whatever the number is of 37 million pounds, I think we need to do something else and have basically some kind of bridging strategy, for lack of a better word, that allows the states together

to kind of collaborate and work together to try to solve some of these issues and maybe redistribute through voluntary actions some of the quota to try to get away from the situation where the state of New Hampshire has to manage a 117 pound quota.

MR. BALLOU: First I just want to note my appreciation for the significant public input that was provided on this issue both before this meeting and at this meeting; very much appreciated and very compelling on both sides.

Secondly, I want to note that I would support the amendment to the substitute but not the substitute itself because of my concern that the increase is higher than that which can be supported based on our risk tolerance.

My sense is that – and I should say my understanding is that a 187,000 pound quota would have – it would be more than a 50 percent probability of exceeding the target F in 2015. My comfort level would be perhaps a modest increase – and I think 173,000 is what I see from the technical committee report – such that it would maintain that 50 percent probability in 2015. The essence of my comments are very similar to the sentiments expressed by Representative Peake and Dr. Pierce, so I won't reiterate those. That is all I have to say at this point. Thank you.

CHAIRMAN BOYLES: Thank you, Mr. Ballou; yes, that is reflected in Table 2 of the memo from staff to the board on recommended ERPs and projection runs. What Mike just pointed out is you're somewhere between the second and third row in 2015, 2016 and 2017. Mr. Reid.

MR. ERIC REID: Thank you, Mr. Chairman, for letting the entire state of Rhode Island weigh in on our 66,000 pounds that were allowed; so I appreciate that a lot. I can't support the first motion, the original motion, because management is now driven by science. I have

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

been killed by science on a lot of other fisheries besides menhaden.

I would be much more willing to support the second motion with the addendum because then perhaps maybe I am only wounded by science. Certainly, one year would be a nice, easy step back into this fishery. Also, I would prefer to have a mechanism as David alluded to that a state like Rhode Island and some other states could get access to this fishery in a much more expedited fashion than an amendment.

Whatever that bridge motion is or whatever that bridge mechanism is I would appreciate it; but at this point I can't accept the first motion. I would accept the second motion if it could be amended to accommodate a much more expedited access to that resource for menhaden for states like Rhode Island.

MR. O'REILLY: Mr. Chairman, we have a question first, which is the motion doesn't say anything about 2016 and '17 now with the amendment. Is it implied that the 187,880 metric tons would be a continuum through 2016 and '17 unless changed? I think that needs to be clarified; and then I'll have some comments if I can get an answer to that.

MR. STOCKWELL: I had not intended it to be anything more than the 2015 TAC pending the work of the board.

CHAIRMAN BOYLES: Okay, just for the board's understanding – and Toni, Bob, Mike, I'm going to look to you – an amendment will likely be back here not ready for final action. It is probably going to be a two-year deal; is that correct, Bob?

EXECUTIVE DIRECTOR BEAL: Well, as with all addendums or amendments, it depends on how many issues you guys want to tackle in that and how complicated they get. The reality is an amendment will not affect 2016. The best you

can do would be to have an amendment in place that will affect 2017 and beyond.

CHAIRMAN BOYLES: So, Rob, that is the working assumption, to answer that question; and now back to your discussion.

MR. O'REILLY: Tell me the assumption on the number of years that it would be 187,800 metric tons, please; is it just 2015? There were two different thoughts there.

MR. STOCKWELL: Given Bob's advice about the length of time it will take this board to work through an amendment should this motion or the underlying motion pass, I would like to wordsmith by adding in "2016" as well, so it would be a two-year time period.

CHAIRMAN BOYLES: Terry, that is an amendment.

MR. STOCKWELL: I won't do it. I won't amend the amendment, so we'll just let it lie.

MR. O'REILLY: I think given the timing involved; that we really should ask the motioner and the seconder if they could have a friendly amendment because the practicality is seen it is going to be more than 2015. To get back on track for 2016 might be a real challenge, so I don't that this disrupts Robert's Rules to do a friendly amendment.

CHAIRMAN BOYLES: Thank you, Rob; I appreciate what you're trying to do. The amendment on the floor belongs to the body. I would rule the motion out of order.

MR. STOCKWELL: I'm feeling friendly, though. (Laughter)

CHAIRMAN BOYLES: I wore my happy fish tie today, Terry; I'm not real happy right now.

MR. O'REILLY: Well, we could support the motion, but it would be making sure that we



## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

can come back for 2016, which I guess will be a challenge. The original substitute was our preference, but I do take the other comments that were made to be some indication of resistance there. I think there will be an update in three years is what I understand; so we really will get a test on the true strength of this last assessment. We could support the motion but may come back with something else in just a minute.

CHAIRMAN BOYLES: Let me ask the Body; is the Body willing to entertain a friendly motion? Is there an objection to a friendly amendment that would apply Mr. Stockwell's motion to 2016 as well? Is there any objection from the board? I see none; so we will make that note. Can we put that on the board, please? Bob.

EXECUTIVE DIRECTOR BEAL: Just so we know as staff what you want us to include here; it will say "and by adding the 2016 quota will be set at 187,880"; is that right, Terry? All right, we'll get that in there and then you guys can make sure it is what you have in mind.

MR. HASBROUCK: Mr. Chairman, before we vote on this amendment and to help address one of the issues that Dave Borden and Tom Fote and Eric Reid brought up; as I mentioned to you before, I was prepared to make an amendment. Without yet making that amendment, the intent would be to start to address the state-by-state allocation through an addendum, but I'll hold off on making that amendment until the time is appropriate.

CHAIRMAN BOYLES: Thank you, Dr. Hasbrouck. Is there anyone who has not spoken, anybody who has not spoken and I have not called on about this motion? Ms. Fegley.

MS. FEGLEY: I guess I would at this point beseech us to think carefully about where we're going with this. I think that the modest increase by the science is supportable. It would lock us into a coast-wide TAC that is among the lower

levels of harvest in the time series. We know we're fishing below a target level of F 57 percent; so that seems reasonable.

However, we also have – and we can do that without an amendment. As I understand, we could make that decision just as a specification; but we have included it with an amendment that is going to tackle two very complicated issues, ERPs and allocation. Amendment 2 is probably one of the most important things that has happened in fisheries' management in many years.

That being said, Amendment 2 left us with a tangled mess. We have really big problems. I am not convinced that an amendment process is going to allow us to logically address and fix the problems we have when we're dealing with these very complicated issues. I think we need to take a step back, set our TAC, lock us in.

Then I think it would be really smart to put managers together, board members, where the rubber hits the road, and come up with viable options for ERPs and the state-by-state allocation mess and bring it back to the board in August or at the annual meeting. We lose five months. If we can't get it done, we'll start an amendment; but I have grave concerns that by starting the amendment process, we all know how the amendment works. We're in it right now.

We have substitutes, amendments, we wind up with unintended consequences. These are problems too complicated to get sorted out in parliamentary procedure. I guess the bottom line is while I would support the level of TAC, the amendment process worries me. If there is any way we could split the motion, that would be great. Thank you.

CHAIRMAN BOYLES: Who is ready to vote? We'll call the question and take a moment to caucus.

**Proceedings of the Atlantic Menhaden Management Board Meeting May 2015**

(Whereupon, a caucus was held.)

CHAIRMAN BOYLES: Let me read the motion so it is clear what the board is voting on. This is the motion to amend the substitute motion, and that motion is move to amend the substitute motion by removing "The TAC would increase by 10 person in 2016 and 2017, or until a new coast-wide TAC could be set based on ecological reference points developed by Amendment 3" and adding "and 2016" to set TAC at 187,880 metric tons. That motion is by Mr. Stockwell and seconded by Mr. Watters. A roll call has been requested and so ordered.

MR. WAINE: Maine.

MAINE: Yes.

MR. WAINE: New Hampshire.

NEW HAMPSHIRE: Yes.

MR. WAINE: Commonwealth of Massachusetts.

MASSACHUSETTS: No.

MR. WAINE: Rhode Island.\

RHODE ISLAND: No.

MR. WAINE: Connecticut.

CONNECTICUT: Yes.

MR. WAINE: New York.

NEW YORK: Yes.

MR. WAINE: New Jersey.

NEW JERSEY: Yes.

MR. WAINE: Delaware.

DELAWARE: Yes.

MR. WAINE: Maryland.

MARYLAND: Yes.

MR. WAINE: Potomac River Fisheries Commission.

POTOMAC RIVER FISHERIES COMMISSION: Yes.

MR. WAINE: Commonwealth of Virginia.

VIRGINIA: Yes.

MR. WAINE: North Carolina.

NORTH CAROLINA: Yes.

MR. WAINE: South Carolina.

SOUTH CAROLINA: Yes.

MR. WAINE: Georgia.

GEORGIA: Yes.

MR. WAINE: Florida.

FLORIDA: Yes.

MR. WAINE: National Marine Fisheries Service.

NATIONAL MARINE FISHERIES SERVICE: Yes.

MR. WAINE: U.S. Fish and Wildlife Service.

U.S. FISH AND WILDLIFE SERVICE: Yes.

CHAIRMAN BOYLES: **That motion carries by a vote of 15 in favor and 2 in opposition.** The amended motion on the floor, give us just a moment. Can staff get us that? Professor Hasbrouck, you said you wanted to come back and comment. Do you have comments?

MR. HASBROUCK: Mr. Chairman, as I said, I was prepared to offer an amendment which I guess now is to the amended substitute motion. Is

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

what is on the board where we are with this right now; is that the correct wording?

CHAIRMAN BOYLES: Yes; the motion on the floor, which is an amended substitute – **for discussion purposes, let’s call this a substitute motion to the original made by Dr. Daniel. The motion before the board now is move to substitute the TAC at 187,880 metric tons for 2015 and 2016; and initiate Amendment 3 to the Atlantic Menhaden Fishery Management Plan to establish ecological reference points and to review state allocation as required by Amendment 2.** This amended motion was made by Mr. Nowalsky and seconded by Mr. Train.

MR. HASBROUCK: I was prepared to make an amendment, and I just wanted clarification on what the substitute motion is.

CHAIRMAN BOYLES: Proceed.

MR. HASBROUCK: My amendment would be to pull out where it says “and to review state allocation as required by Amendment 2”. I guess I would just put a period after “reference points”; and then say “to initiate an addendum to review state allocation to include a possible coastal bait small vessel allocation”.

CHAIRMAN BOYLES: Is that a motion?

MR. HASBROUCK: Yes.

CHAIRMAN BOYLES: Motion by Dr. Hasbrouck. Is there a second? Emerson, would repeat that, please?

MR. HASBROUCK: Yes; where it says “to establish ecological reference points”, period; and then add “to review state allocation to include a possible coastal bait small vessel allocation”. I don’t know that we need “as required by Amendment 2” in there.

CHAIRMAN BOYLES: We have a motion; did I see a second? I don’t see a second; the motion dies for lack of a section. Ms. Fegley.

MS. FEGLEY: Well, I was going to move to divide this question, but I think we have to get back to the main motion first; correct?

CHAIRMAN BOYLES: Time out. Dr. Daniel.

DR. DANIEL: Just a real quick point on this motion; and I want to make sure it is clear that the assessment does have some positive trends. There are uncertainties, but I do believe there is room to increase harvest. What the motion does here is it really doesn’t address our problem. We need to get the allocation right; otherwise, what is it, 83 or 85 percent of this increase goes to one group.

It doesn’t do anything to address my bait issues and probably anyone else’s. That is my main concern is it is not increasing the quota, if that’s justified. It is getting the allocation scheme right before we start increasing again.

CHAIRMAN BOYLES: Ms. Fegley, I think we’re okay in dividing the motion with the quota in one motion and allocation and ecosystem in a second motion. I would rule such a motion in order.

MS. FEGLEY: Do I need to say something?

CHAIRMAN BOYLES: I really do, yes, ma’am, please.

MS. FEGLEY: **Okay, I move to divide the question so that the TAC specifications are in one motion and the second motion deals with ecological reference points and allocation.**

CHAIRMAN BOYLES: Seconded many times; I see Marty seconds. Motion to divide; discussion on the motion to divide? I see none; do we need time to caucus? Our executive director just reminded me remember this is a substitute motion; and so the motion to divide

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

the substitute motion, we've got to figure out how this cross-walks with the main motion. The motion is to divide so that the TAC of 187,880 metric tons for 2015 and 2016 is in one motion; and a second motion, initiate the management action for development of ecological reference points and an allocation plan. Ms. Fegley, was that your motion?

MS. FEGLEY: Yes.

CHAIRMAN BOYLES: And that was a management action and not an addendum or an amendment? I think there is going to be some discussion about this. I'm going to designate the New Hampshire delegation as the parliamentarian through the Menhaden Board. Ms. Fegley, would you read that into the record, please, if it is to your liking.

MS. FEGLEY: **Okay, move to divide the motion so the TAC of 187,880 metric tons for 2015 and 2016 is one motion; and the second motion would be to initiate an amendment for the development of ERPs and allocation.**

CHAIRMAN BOYLES: Motion by Ms. Fegley; seconded by Mr. Gary. Discussion on that motion? Mr. Nowalsky.

MR. NOWALSKY: Mr. Chairman, while I don't claim to have the parliamentary experience of New Hampshire, I would certainly believe that this motion would be best addressed after we voted on the motion to substitute and this then became the main motion or we went back to the original. The parliamentary decision tree that we would have to go through of dividing this and dealing with it, I think would really set us back at this point.

MR. BORDEN: I share some of the parliamentary concerns; but withstanding that point, I support what the intent is here. These are two separate issues. I think we should take the two separate issues and divide them basically and then vote them up or down. Now, whether we do that now or we go back and

change the ruling that was previously made and change the order of the decision doesn't make any difference; but the advantage of this strategy is it gets exactly to some of the points that were raised before is it is a question of whether or not we want to pursue an amendment on the state quota issues or an addendum. One is a lot faster than the other.

CHAIRMAN BOYLES: Thank you, and I apologize for my parliamentary inartfulness. I think where we are here is we have a motion to divide. In essence what the board is considering are really two issues here. One is the TAC and there are on the floor two numbers for TAC. I also see and hear the board indicating some interest in moving down the development of a management action amendment/addenda to develop ecological reference points and allocation.

It would be my intent at this point, should this motion carry, to take a vote immediately on initiating an amendment to develop ecological reference points. Should that motion carry – actually regardless of whether that motion carries, we will then move to the second half of the divided question, which will in essence be a question of do you believe it appropriate to have a TAC in 2015 and 2016 of 187,880 metric tons; or, do you believe it to be more appropriate to stay status quo.

Adam, I agree with you, I'm not sure we're here – and Mr. Borden – in the most expeditious parliamentary procedure, but that would be my intention in proceeding should this vote prevail. Any questions or discussion? Seeing none; time to caucus. Seeing none; all those in favor of the motion to divide signify by raising your right hand. **That motion carries.**

Now, a division of the question is to initiate – I would take a motion, rather, to initiate the development of Amendment 3 to the Atlantic Menhaden Fishery Management Plan for the development of ecological reference points and

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

allocation. I would look for a motion along those lines.

SENATOR WATTERS: A point of order.

CHAIRMAN BOYLES: Yes, sir, Senator Watters.

SENATOR WATTERS: Mr. Chairman, I'm not a parliamentarian but I do believe that the effect of passing the substitute motion is to put these two motions on the floor. I think we have to act on these before you can make another motion.

CHAIRMAN BOYLES: Thank you, Senator Watters. The motion on the floor is to initiate Amendment 3 to the Atlantic Menhaden Fishery Management Plan for the development of ecological reference points and allocation. Discussion on that motion? Mr. Adler.

MR. ADLER: Just a question here; is an amendment – I think this was brought up before – is it an amendment we'd have to have or an addendum? I don't know the answer to that. I didn't know if maybe the wording could be to the point where it could be either that we decide or somebody decides it has to be an amendment or it has to be an addendum. I know an addendum would be a lot quicker.

CHAIRMAN BOYLES: I'll turn to Mike.

MR. WAINE: It is really up to the board whether they'd like to act through an addendum or an amendment. Amendment 2 allows both of these topics to be changed through the adaptive management process, which would allow them to be changed through an addendum. However, as Dr. Daniel pointed out earlier, there is possibly some drive to do this through an amendment process because of how big the topics are.

MR. ADLER: Well, then, should the motion say "amendment" or "addendum"?

CHAIRMAN BOYLES: Actually, Mr. Adler, I was corrected about that when I suggested a

management action; but recall this origin is in the form of a substitute; so you go back to the original motion that was offered by Dr. Daniel, which references an amendment. Does everybody know where we are? Further discussion?

**The motion on the floor is move to initiate Amendment 3 to the Atlantic Menhaden Fishery Management Plan for the development of ecological reference points and allocation.** All those in favor of that motion please signify by raising your right hand. **That motion carries unanimously.**

Now, if it pleases the board, we are back to a substitute motion to Dr. Daniel's original motion; and that substitute motion is in the form of a different number in terms of the TAC. I ask staff to put the original motion from Dr. Daniel as well as the move to substitute as well. I will beg your forbearance if I have misinterpreted that, please your hand. Bob.

EXECUTIVE DIRECTOR BEAL: I think your advice is correct. You vote this motion, which is move to substitute the TAC at 187,880 for '15 and '16. The board votes that up or down; and then those move forward, the portion that the board just approved as well as the outcome of this. Both those move forward as the substitute for the original motion by Dr. Daniel.

CHAIRMAN BOYLES: Thank you, Bob; does everybody know where we are? Now the motion on the floor is move to substitute the TAC at 187,880 metric tons for 2015 and 2016. This is a motion to substitute. Discussion on the motion? Do we need time to caucus? Yes, time to caucus.

(Whereupon, a caucus was held.)

CHAIRMAN BOYLES: Okay, I direct your attention to the screen. **The motion on the floor is a move to substitute the TAC at 187,880 metric tons for 2015 and 2016.** All those in favor of that motion please signify by

## Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

raising your right hand; all those opposed same sign, raise your right hand; abstentions; null votes. **That motion carries by a count of twelve in favor, four in opposition, and one null vote.**

Now, we're back to the main motion. We will ask staff to get the main motion as amended back up on the screen. While staff is getting the motion on the screen, I appreciate your forbearance with me in terms of traffic management. This has been a very good discussion. Certainly, the members of the public, our constituents, thank you for the time that you've invested to come here.

Thank you for your commitment to the resource and for your patience with me as chairman trying to work us through a very difficult and complicated discussion. It would be my suggestion that should this motion carry, which is now the main motion, that I as the board chair would work with the commission leadership to develop a working group to put a framework around what certainly, as evidenced today, will be a very difficult and complicated conversation. It is obvious, I believe, to everyone in the room a very difficult conversation and very difficult decision.

I appreciate the respect and the regard that was exhibited by all; certainly the board members as well as our guests. I think this is something that if we – at least if I'm involved in the conversation, we may get wrapped around the parliamentary axle; so my suggestion would be I work with commission leadership to establish a working group to put a structure on this amendment and bring that back to the board at a future meeting date; if not August, then the annual meeting, so that the board can approve the elements of what would be in this amendment. Is there any objection to that approach? I'm seeing heads nodding around the table. Ms. Fegley.

MS. FEGLEY: I don't have an objection to that approach, but I just wanted to place on the record I think it is a wonderful idea; and that as we're working through that framework – and I think it reflects the thoughts of other states around the table – that that framework also include this idea that we look at these small-capacity fleets and look at options for how to manage those on a different playing field. I just wanted to put that on the record.

MR. BORDEN: Mr. Chairman, I totally agree with that comment; but I just voice the continuing concern here – and it goes back to the comment that Bob Beal made early on the meeting – if the second portion of this is an amendment, then the staff has to go through scoping and do all of the things that are clearly called for under an amendment.

We have the option of making that an addendum; and we do that, we can address some of these concerns faster. At least in my own perspective, I completely agree with your suggestion to form a working group; and if you're going to do that, I think the working group should have the ability to look at that specific question of whether or not we proceed with an amendment or an addendum, consult with staff, and then bring a recommendation back. Thank you.

CHAIRMAN BOYLES: Thank you, Mr. Borden, for pointing that out. I think there is general agreement around the table – I'm seeing heads nod – that we will task the working group with asking what the appropriate management measure may be, whether it is an addendum or an amendment. I'm getting concurrence and heads nodding around the table.

**The motion before us now on the floor – back to the very main motion – move that the commission establish a coast-wide TAC at 187,880 metric tons for 2015 and 2016 to promote conservation; and to initiate Amendment 3 to the Atlantic Menhaden**

Proceedings of the Atlantic Menhaden Management Board Meeting May 2015

**Fishery Management Plan for the development of ecological reference points and allocation.**

Dr. Daniel made the original motion, which has been flogged, and I'm not sure I remember who made the second. There is no maker now; it belongs to the Body. The motion is on the floor; do we need time to caucus? Yes, a moment to caucus, please.

(Whereupon, a caucus was held.)

CHAIRMAN BOYLES: All right, this is a final action so we will take a roll call vote. Mike.

MR. WAINE: Maine.

MAINE: Yes.

MR. WAINE: New Hampshire.

NEW HAMPSHIRE: Yes.

MR. WAINE: Commonwealth of Massachusetts.

MASSACHUSETTS: Yes.

MR. WAINE: Rhode Island.

RHODE ISLAND: Yes.

MR. WAINE: Connecticut.

CONNECTICUT: Yes.

MR. WAINE: New York.

NEW YORK: Yes.

MR. WAINE: New Jersey.

NEW JERSEY: Yes.

MR. WAINE: Delaware.

DELAWARE: Yes.

MR. WAINE: Maryland.

MARYLAND: Yes.

MR. WAINE: Potomac River Fisheries Commission.

POTOMAC RIVER FISHERIES COMMISSION: Yes.

MR. WAINE: Commonwealth of Virginia.

VIRGINIA: Yes.

MR. WAINE: North Carolina.

NORTH CAROLINA: Yes.

MR. WAINE: South Carolina.

SOUTH CAROLINA: Yes.

MR. WAINE: Georgia.

GEORGIA: Yes.

MR. WAINE: Florida.

FLORIDA: Yes.

MR. WAINE: National Marine Fisheries Service.

NATIONAL MARINE FISHERIES SERVICE: Yes.

MR. WAINE: U.S. Fish and Wildlife Service.

U.S. FISH AND WILDLIFE SERVICE: No.

CHAIRMAN BOYLES: **That motion carries sixteen votes in favor, one vote against.** That takes us down to our – well, we kind of rolled in Agenda Item 8. Jeff, since this is a question about research direction, I would ask that you would work with us on the working group and talk about that.

**ADJOURNMENT**

CHAIRMAN BOYLES: At this point is there any other business to come before the Menhaden Management Board? Our business is over; the meeting is adjourned.

(Whereupon, the meeting was adjourned at 12:05 o'clock p.m., May 5, 2015.)