

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

World Golf Village Renaissance
St. Augustine, Florida
November 3, 2015

Approved May 4, 2016

TABLE OF CONTENTS

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

Approval of Agenda 1

Approval of Proceedings, August 2015 1

Public Comment..... 1

Update on Draft Amendment 3 Development 3

 Revisiting Fishery Allocation 3

 Board Discussion of Fishery Allocation..... 7

 Update on Committee for Economic and Social Sciences Analysis Request for Menhaden Fishery 8

 Board Discussion on Update of CESS Analysis Request..... 9

 Ecosystem Management Objective Workshop 9

BERP Working Group Report 11

Board Discussion of BERP Working Group Report..... 14

Timeframes for Ecological-Based Reference Points 15

Discuss Draft Amendment 3 Timeline and Direction..... 22

Discussion of Allowance of Cast Nets under Bycatch Provision of Amendment 2 33

Other Business 34

Adjournment..... 34

INDEX OF MOTIONS

1. **Approval of Agenda by Consent** (Page 1).
2. **Approval of Proceedings of August, 2015 by Consent** (Page 1).
3. **Move to not move forward with BERP Working Group recommended ERP modeling and move forward with a biologically conservative reference point** (Page 15). Motion by Dr. Daniel; second by Mr. Goldsboro. Motion defeated (Page 22).
4. **Main Motion: Move to proceed under Option 2 which initiates a PID in 2017 and includes ERPs and allocation with the CESS Report to be implemented in 2018** (Page 25). Motion by Ms. Fegley; second by Ms. Cary. Motion carried (Page 33).
5. **Motion to Substitute: Substitute to proceed with an addendum to implement BRPs from the 2015 benchmark stock assessment for implementation in 2017** (Page 27). Motion by Mr. O'Reilly; second by Mr. Allen. Motion defeated (Page 31).
6. **Motion to amend the substitute to include after "2017", "to include an option to freeze the quota until 2020."** (Page 28) Motion by Mr. Grout; second by Mr. Gary. Motion defeated (Page 30).
7. **Move to continue the management of cast net fisheries under the bycatch allowance provision for 2016** (Page 33). Motion by Mr. Gilmore; second by Mr. Estes. Motion carried (Page 34).
8. **Motion to adjourn by Consent** (Page 34).

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

ATTENDANCE

Board Members

Terry Stockwell, ME, proxy for P. Keliher (AA)	David Blazer, MD (AA)
Sen. Brian Langley, ME (LA)	Lynn Fegley, MD, Administrative proxy
Doug Grout, NH (AA)	Bill Goldsborough, MD (GA)
G. Ritchie White, NH (GA)	Ed O'Brien, MD, proxy for Del. Stein (LA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)	John Bull, VA (AA)
Jocelyn Cary, MA, proxy for Rep. Peake (LA)	Rob O'Reilly, VA, Administrative proxy
Nicola Meserve, MA, proxy for D. Pierce (AA)	Kyle Schick, VA, proxy for Sen. Stuart (LA)
Bill Adler, MA (GA)	Rep. Bob Steinburg, NC (LA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)	Louis Daniel, NC (AA)
Robert Ballou, RI, proxy for J. Coit (AA)	W. Douglas Brady, NC (GA)
David Borden, RI (GA)	Sen. Ronnie Cromer, SC (LA)
Rep. Craig Miner, CT (LA)	Robert Boyles, Jr., SC (AA)
David Simpson, CT (AA)	Malcolm Rhodes, SC (GA)
James Gilmore, NY (AA)	Nancy Addison, GA (GA)
Emerson Hasbrouck, NY (GA)	Patrick Geer, GA, proxy for Rep. Burns (LA)
Pat Augustine, NY, proxy for Sen. Boyle (LA)	Spud Woodward, GA (AA)
Tom Fote, NJ (GA)	Sen. Thad Altman, FL (LA)
Russ Allen, NJ, proxy for D. Chanda (AA)	Jim Estes, FL, proxy for J. McCawley (AA)
Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)	Martin Gary, PRFC
Loren Lustig, PA, (GA)	Derek Orner, NMFS
John Clark, DE, proxy for D. Saveikis (AA)	Mike Millard, USFWS
Roy Miller, DE (GA)	

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

Ex-Officio Members

Jason McNamee, Technical Committee Chair	Matt Cieri, BERP
Jeff Kaelin, Advisory Panel Chair	Robert Kersey, Law Enforcement Representative

Staff

Bob Beal	Shanna Madsen
Toni Kerns	Max Appelman
Mike Waine	

Guests

John Bullard, NMFS/GARFO	Brandon Muffley, NJ DFW
Kelly Denit, NMFS	Jason Snellbaker, NJ LEC
Ray Mroc, NMFS	Peter Himchak, Omega Protein
Amy Schueller, NMFS	Patrick Paquette, MSBA
Rick Robins, MAFMC	Aaron Kornbluth, Pew Trust
Steve Vanderkooy, GSMFC	Chad Henson, Pew Trust
Jay Jacobs, House of Delegates, MD	Holly Binns, Pew Trust
Jason Rock, NC DMF	Carmen, Jagger, Pew Trust

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

Marin Hawk, MSC
Arnold Leo, E. Hampton, NY
Benson Chiles, Chiles Consulting
Chris Moore, CBF
Robert Brown, MD Watermen Assn.
Victoria Brown, MD Watermen Assn
Tom Kiernan, Saltwater Flytyers, FL
Kelly Ralston, American Sportfishing Assn.

Rodney Smith, Coastal Angler Magazine
Terry Gibson, NorthSwell Media, FL
Dalton Berry, Daybrook Fisheries, LA
Chris Lindte, Daybrook Fisheries, LA
Jeffrey Short, Daybrook Fisheries, LA
W. Borden Wallace, Daybrook Fisheries, LA
Scott Herbert, Daybrook Fisheries, LA

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

The Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the St. Augustine Ballroom of the World Golf Village Renaissance, St. Augustine, Florida, November 3, 2015, and was called to order at 3:15 o'clock p.m. by Chairman Robert H. Boyles, Jr.

CALL TO ORDER

CHAIRMAN ROBERT H. BOYLES, JR.: Good afternoon, everyone. Welcome to the annual meeting and the Atlantic Menhaden Management Board. My name is Robert Boyles. I'm from South Carolina, and I have the privilege of serving as Chair of this group. I would like to call this meeting to order.

APPROVAL OF AGENDA

CHAIRMAN BOYLES: The first item on the agenda, of course, is seeking your consent on the approval of the agenda, which was sent out in the briefing materials. Are there any suggested changes to the agenda? I see none; the agenda will stand approved as submitted.

APPROVAL OF PROCEEDINGS

CHAIRMAN BOYLES: We met last in August 2015 in Alexandria, the proceedings of which were mailed in the briefing materials. Any suggested changes to the proceedings from August 2015? I see none; then those minutes stand approved as submitted.

PUBLIC COMMENT

CHAIRMAN BOYLES: Now is the time on the agenda where we have an opportunity for the public to comment for items that are not on the agenda. I've got four names of folks who have indicated their interest in submitting comments to the Menhaden Board. With that, if we could keep in mind we've got a rather ambitious agenda, we will first call Mr. Robert Brown to the public microphone.

MR. ROBERT T. BROWN: Thank you, Mr. Chairman. My name is Robert T. Brown. I'm

President of the Maryland Watermen's Association. Based on the results of the 2015 benchmark assessment, the Atlantic Menhaden Stock has not been overfished and overfishing has not occurred.

The bait fishery in Maryland is 1.3 percent of the total quota and primarily caught in pound nets, which is a stationary fixed device. The economic effect in menhaden reduction to our fishery plus the 20.5 percent reduction in the striped bass fishery has tremendously impacted our economy and we're being regulated out of business. We asked for some type of relief, if possible. Thank you, sir.

CHAIRMAN BOYLES: Thank you, Mr. Brown. Next is have Terry Gibson.

MR. TERRY GIBSON: Mr. Chair and Commissioners, thank you for this opportunity to talk about menhaden. Thanks to editorial positions at Saltwater Flyfishing Magazine, Shallow Water Angler and Outdoor Life, I've gotten to fish most of the Eastern Seaboard extensively. I've got a pretty good appreciation of where menhaden are and aren't. I'll tell you one place they are not in any real numbers and that's in the south, especially here in Florida.

I'll speak for some friends in South Carolina and Georgia as well. You have made some improvements in menhaden management and the populations do seem to be rebounding in the strongest parts of their range; namely, in the Mid-Atlantic. What you haven't done enough of yet is you haven't been aggressive enough about rebuilding the large adult females to sizes in numbers so that we actually get some fish in the south and New England.

Both are the farther parts of the ranges. These fish are critically important parts of our fisheries and the ecosystems not only in the Mid-Atlantic but in New England and in Florida. To get where we need to go, you need to image what those fish in the east look long time. It has been a long time since they've been towards

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

any sense of abundance especially in here Florida.

I'm 42 years old. I remember as a child my father and I bill fishing and tuna fishing off of Palm Beach around what I thought were huge shoals of menhaden. My dad thought they were pretty small. I like to imagine what my grandfather saw here in the fishing capital of the world. Anyway, as you move forward, I would encourage you to move forward with the ecological reference points in other ways to leave enough fish and enough menhaden in the ocean to make sure that the marine predators have what they need in the water.

In doing that, you need to imagine what healthy ecosystems look like. It has been a long time since there has been such a thing along the Eastern Seaboard of America, and that's too bad. You need to picture a big, fat, lesion-free striped along the Mid-Atlantic. You need to picture tunas and billfish in great abundance off of Florida instead of having to run to the Bahamas again. You need to picture spotted seatrout savaging peanut pogies in the estuaries of the Indian River Lagoon. That doesn't really happen much anymore, and we're on a dangerous course. Thank you very much.

CHAIRMAN BOYLES: Tom Kiernan.

MR. TOM KIERNAN: Mr. Chairman and Commissioners, I thank you very much for the time to testify concerning strategies for Atlantic menhaden. Briefly, my name is Tom Kiernan; and I'm the manager of Saltwater Flytyers, a fly-fishing shop here in St. Augustine, Florida. I welcome all of you to St. Augustine. I brought some flies that are examples of what we tie.

Down here we call them "pogies", another name for menhaden, but I brought some different flies that are all tied here locally in St. Augustine by local guides and fishermen. I've fished these waters for more than 20 years, which may not seem like a lot time given the

long history of menhaden exploitation along the Eastern Seaboard.

I've fished here plenty long enough to witness the schools shrink down to pitiful sizes. We need to rebuild the population through its historic range to include sufficient numbers of fully mature females and to ensure that the coastal businesses like mine and coastal communities like St. Augustine can prosper.

I want you to realize how incredibly consequential the historic management of Atlantic menhaden has been for this community. St. Augustine has a tourism-based economy and fishing tourism is a huge deal here. With over 30 charter captains in our small town, a lot of people come here expecting to go home with a great fish story. I want them to leave with memories of tarpon vaulting through the massive pogie schools or pulling a giant bull redfish along boatside while fishing the jetties and of speckled trout scaring up peanut pogies along the spartina grass in the estuaries.

In 2012 you started to turn this fishery around; but the actions you've taken haven't made enough progress to return the most important fish in the ocean to sufficient levels along the southern parts of its range. Our economy is powered in large part by menhaden and other forage fish. We need enough menhaden alive in the water to support our best attractions, our predator fish, our birds of prey and our marine mammals. Thank you very much.

CHAIRMAN BOYLES: Rodney Smith is next.

MR. RODNEY SMITH: Good afternoon, gentlemen. I'm Rodney Smith. I'm the founder and publisher and Coastal Angler Magazine. I've also spent some time on the South Atlantic Fishery Management Council's AP for snapper and grouper. I really appreciate this opportunity to be here and speak in front of you. I appreciate the work that you do individually and as a commission.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

During the past 20 years, I have written about menhaden and the importance of stronger menhaden management. I recognize and appreciate the work that you have done. We've come a little bit of a ways, but we haven't come far enough yet. In Florida and especially along the South Atlantic Coast the migration of menhaden is a critical component of our sportsfishing.

When menhaden arrived, tarpon, kingfish, cobia, triple-tail and at one time amberjack came with them. Well, the amberjack haven't showed up since the 1980's. When you would look out and you'd go out to Port Canaveral or Sebastian Inlet or Ponce Inlet, you could see menhaden as far as the eye would you let you see it, but you don't see that any longer.

I believe that a healthier menhaden stock will create a positive economical impact for businesses in our area. I could go into naming all the businesses that benefit from recreational fishing, but I don't need to do that here because we know how many businesses depend on sportsfishing along our coast. As a lifetime charter captain, I've got to tell you it is a little frustrating here.

Like I said, I started writing about menhaden 20 years ago. When I looked at the data 20 years ago, I saw that the size of menhaden had reduced about 50 percent over the last hundred years because there had been good records kept on menhaden catches and at one time menhaden grew to be almost five pounds and today a big one might be two pounds.

I was kind of frustrated that hadn't been enough work done about menhaden; but when I get here and see all of you and I hear about all the work that has been going on and what a struggle it has been, I think I understand a little bit better. I want to thank each and every one of you again for the service and dedication you've put this and securing a healthy fishery for future generations up and down the Atlantic Coast.

Please keep in mind that the value of keeping a large number of menhaden in the ocean far outreaches the value of them being dead on the dock. Knowing that 80 percent of the menhaden are going to one state while we could share that number of menhaden and it could benefit so many more people and so many more states and more coastal waters, like I said, that is frustrating. I think we're making steps here in the right direction. I also assure you that Coastal Angler Magazine will continue to monitor this issue and report on it in the future. I'm happy to answer any questions, also. Thank you.

CHAIRMAN BOYLES: Mr. Smith, I sure appreciate it; thank you for your comments. That's all we have signed up for public comment.

UPDATE ON DRAFT AMENDMENT 3 DEVELOPMENT

CHAIRMAN BOYLES: The next item on the agenda, we will roll straight into Mike giving us an update on Draft Amendment 3 Development.

REVISITING FISHERY ALLOCATION

MR. MICHAEL WAINE: This first part is going to be we're revisiting allocation in this portion of the amendment. In terms of background, Amendment 2 requires that the board revisit allocation after three years of implementation and that's 2016. We are currently using state-by-state allocation, and that allocation is based off of historical landings from 2009 through 2011.

There has been a subgroup of the board – we're calling the board working group – that has worked on this issue. It is the same working group that is working on the ERPs, which you'll hear about in the next section. They explored a full range of options. They considered old and new concepts, started broad and then focused in on the specifics.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

This is the presentation that will tell you a little bit more about the specific options that the working group moved through. The ultimate draft goal remains the same as I presented the last time. In terms of revisiting allocation, the working group looked at landings' history, the performance of state fisheries, and some of the challenges associated with the current management program.

Those challenges were listed in the report that was included in your briefing materials; but just to highlight a few: minimizing discard mortality; ensuring equitable access to quota among gear types and management units; basically striking a fair balance between current needs, interest and capacity and future growth opportunities.

Let's move into sort of the specifics that the working group really wrestled with during their consideration of all these allocation options for menhaden. The letters here indicate a specific allocation scenario that they considered as being applicable to the menhaden fishery. The first is coast-wide quota; so this would be one quota for the entire coast, pretty straightforward.

The second is a state-by-state quota; so that's what we currently have. We have a coast-wide TAC that gets allocated to each individual state. Essentially Option B is the status quo, the current option we use in the fishery. Option C would be regional quotas; so this is splitting up the TAC into regions. Some of the regions that were considered by the working group are listed here.

There is a two-region approach, which is a north/south split with the divide being in Virginia. Ultimately that's the same division that we've used in 2015 benchmark stock assessment. Basically that option would match the same division that we used to assess the resource. That was one of the regions considered.

Another region was coastwide or the Chesapeake Bay specifically; and then there was a three-region and four-region option, which split sort of geographically the Atlantic Coast into regions; i.e., New England, Mid-Atlantic, the Chesapeake and the South Atlantic. Ultimately these were just sort of the potential options that could be considered under a regional quota program. Those were some ideas that they came up with. Moving to Option D; that would be quotas by disposition.

As was stated, we have a bait and reduction fishery for menhaden; and so this would be dealing with quotas by disposition; i.e., allocating to the bait fishery and the reduction fishery separately. Option E is a fleet-capacity quota. This is one that the working group really spent the majority of time discussing.

As you can imagine, the options that I just presented are pretty straightforward. This one was a little bit new and required some sort of more critical thinking through the details. Ultimately the information that the working group reviewed to sort of think through what the potential fleet capacity quota were gear-specific landings, how gears and potential fleets were permitted within the states. Remember, we have all these states managing their current state quotas.

They all have different gear types that harvest under their state quotas; how are they managed within their states; what kind of licensing exists there; so that was considered. Now I'm going to sort of walk through the two different examples that came up under fleet-capacity quotas. The first is a three-fleet example.

We're starting with the small fleet. The types of gears that would be included in the small fleet, but aren't limited to them, are cast nets, trawls, trap and pot, haul seines, fyke nets, hook and line. Basically when you think about your small-capacity gears, these are likely the ones that

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

come to mind. These are also the ones that fell out in terms of landings.

If we look at these gear types in terms of landings, they have approximately 3.14 million pounds annually. If we combined all those gear types coastwide, that's about 0.7 percent of the total allowable catch that we have in this fishery; so a small harvest for all these gear types combined. Ultimately the idea would be to manage with a soft quota; so 1 percent of the coast-wide TAC, or 3.5 to 5 million pounds, approximately.

The idea would be to not have to be monitoring this as a hard quota but as a soft quota to evaluate sort of how that would work moving forward in terms of does that adequately account for harvest under that fleet. The medium fleet would be the next size fleet for this example. The types of gears are pound nets and gillnets. We've got approximately 19 million pounds annually or about 5 percent of the coast-wide TAC.

Ultimately the working group sort of struggled with whether to manage this as a soft quota or as a hard quota. Remember, I'm just reporting on where the group is at with all of this; and so they wanted to include this note that if the board wishes to consider this fleet capacity, they might also consider further allocation – as examples, regional or state by state – to provide equitable access to the quota.

Remember, if you have quotas for all these gear types, you have these gear types existing in multiple states. If you have one quota for all the gear types, you might want to consider allocating further to provide that equitable access for states that have these gear types in this allocation scenario.

The large fleet, as you probably suspected, what is left is purse seines and pair trawls. They have approximately 409 million pounds annually or 95 percent of the coast-wide TAC. They would be managed with a hard quota. Ultimately this

same note still exists; so you have multiple states with purse seine and pair-trawl fisheries; so the board may consider further allocation beyond the fleet quota to provide equitable access to the quota within all the states that have that gear type. That was one example of the potential fleet-capacity allocation.

Here is another example. This one only has two fleets instead of three. Essentially if I could summarize this without confusing you with all the words on the slide, it is basically combining the small and medium fleets of the previous example together into a small fleet and keeping the large fleet essentially the same. Let me get into a little bit more of the specifics.

There is still this discussion with the realignment here and their landing of approximately 22 million pounds. There is still the consideration of managing this with a soft quota. The idea behind how this example is different than the previous one is the possibility to allow basically the harvest to fluctuate above the quota in a year when fish are available.

I'll sort of explain that with a figure a little later, but keep in mind there is this ability for sort of harvest to fluctuate around what that TAC would be. The annual review would occur to evaluate how the harvest matches up to the quota for that group. The intent of the working group was to potentially set triggers for this small fleet if that harvest that is allowed to fluctuate grows to an unacceptable level.

Some examples of how they could limit that was through trip limits or returning to state-by-state quota allocation for the small gear type; so there are some mechanisms to control that fluctuation around what the quota would be. This figure simply just provides a graphical representation of what I just explained.

On your Y-axis you have percent of the quota and on the X-axis you have time moving forward. That would be a representation of year; and so the total harvest would actually

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

end up fluctuating above and below this 100 percent harvest line; and that's because of that small harvest fleet, noting that the board could consider further constraints to manage that fluctuating small-fleet quota if it grew to an unacceptable size.

The other part of this two-fleet example is obviously a large-capacity fleet; and the types of gears are the purse seine and pair trawls. Once again, they're harvesting 95 percent of the coast-wide TAC currently; and those would be managed with a hard quota. There is this same note in here that, as I stated previously, the board may want to consider regional or state-by-state allocation to further allocate from that large fleet.

The couple other allocation options the board and group discussed are a minimum fixed-quota allocation. Basically this actually was done in eels, I believe, as well if they end up going to state by state. Each state would receive a minimum fixed amount of quota. An example thrown out was 1 percent of the coast-wide TAC; and if the state's quota was not used, it could be transferred; so basically allowing for a minimum quota within all the states, which is also aimed at sort of addressing that some states have really small-capacity fleets but want to have potentially some room for growth as well.

G is seasonal quotas so the idea of having some portion of the quota set aside for a time certain within the year. This was thought about actually as it relates to being a better management option for another allocation that we've already discussed. The example was regional or state by state. For example, the way we currently do allocation right now is state by state; and there is nothing precluding a state from using some portion of their state quota in the fall, for example, so the states have the flexibility to use that.

In terms of a quota option, the working group felt that was a better option under potential

regional or state by state that we have now. In all of these options are timeframes that need to be considered. As I mentioned, we currently use 2009 through 2011 to allocate the state-by-state quotas, and so that was the timeframe that was considered for some of these allocation options.

There was also 2009 through 2012; so 2012 was the year just prior to the implementation of Amendment 2, which occurred in 2013. Basically extending that baseline timeframe to include that last year before implementation of Amendment 2 was one of the timeframes considered. Then a weighting allocation option where a half weight would be given to a long period and the other half weight would be given to a recent short period.

An example of half weight would be 2009 through 2012, the one I just talked about, and then half weight for harvest that occurred since 2012 through the fishing year. There were a few topics that obviously need further consideration in addition to further development of the options that I presented today.

Those are the bycatch allowance. We've have a lot of discussion about this and I don't feel like I need to go into a ton of detail on that. I think the board is pretty familiar with that. We have this episodic event set-aside program, which some of the New England states are taking advantage of. That allows some flexibility in harvest; so that program is important to consider moving forward.

Then the logical accountability measures and flexibility that the board likes to have with allocation, which is paybacks, rollovers, transfers, those types of things. There is also the consideration for evaluating location of harvest and the dynamics that exist with that and accommodating for ecosystem-based programs that establish harvest controls at local or regional levels.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

I think what I'll do, Mr. Chairman, is stop right there for a moment and take some questions. I do have some slides on a socioeconomic analysis that is planned, but I think just to sort of separate these topics might be the best approach for answering questions.

BOARD DISCUSSION OF FISHERY ALLOCATION

CHAIRMAN BOYLES: What I'd like to do is if we could limit our time at this point to questions for Mike on what the working group has developed thus far. There is going to be time on Agenda Item 6 to talk about steps moving forward. If we could take this pause and take questions about the development of allocation options and then we'll move back into socioeconomic analysis and then we'll go over to the ecosystem. Lynn.

MS. LYNN FEGLEY: Mr. Chairman, just quickly as a member of the working group, I wanted to just clarify for the board and for the public on the figure, which was a graphical representation of the small-capacity and large-capacity fleets' idea, there are numbers on that Y-axis that show percentages.

I just want to be abundantly clear that those numbers are not – they don't mean anything. They really could be X through Y. I just wanted to make that really clear that is something that the board is going to have to discuss as we go forward. I just wanted that clear for the public and the board. Thank you.

DR. LOUIS B. DANIEL, III: First off, I would just say kudos to the working group; an excellent presentation, Mike. You all did some good work there and there are some neat options in there that are intriguing. The only question or concern that I had was in the small-capacity fleet it included trawls. There is a lot of potential there for a larger capacity.

One of the reasons why, for example, we haven't landed a lot of menhaden in our trawl fishery, which would be our primary fishery, is

because of the closure of Oregon Inlet, and it is just not worth taking them south to land because of the price. I would just caution us about the trawl fishery and the potential for that to eat up that quota real fast if that happened.

CHAIRMAN BOYLES: Questions for Mike on where we are with allocation thus far? Dave.

MR. DAVID V.D. BORDEN: Mr. Chairman, I'd echo the compliments. I think the committee has done a fine job. I'm a little bit concerned, however, about the timelines that we used in the example, and I'd like a little bit of background on why a limited timeframe is being proposed at least at this stage. It seems to me it is kind of a fundamental decision that the commission has to make. Everyone around the table knows he who determines the timeline usually determines the allocation; so why the limited timeline?

MR. WAINE: I'll sort of echo what Lynn said that these were all options that the working group sort of talked through as preliminary examples of potentials that could be included. Remember that there would be a whole process to fully evaluate the implementation, public comment process, et cetera, to move this along, which we'll talk about later.

Ultimately this is what I would consider the working group's starting point for allocation timeframes. I will just take it one step further and say that this was relative to the eel discussion we had this morning. It is really the most recent history in a lot of these fisheries that are the best reported in terms of harvest; and so that's basically why I think the working group started with the more recent timeframe as potential allocation timeframes to be considered moving forward. Like I said, that's just a starting point, essentially.

MR. BORDEN: Just so everyone is clear; I have no problem with using this as a starting point,

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

but I think a broader range of timeframes have to be included. Thank you.

MR. ROB O'REILLY: Just a comment; there are still miles to go, but the example, Mike, that you showed with the small capacity and sort of variability in what the landings might be and consequently in regards to a hundred percent of the TAC, that it might be a little above, it might be a little bit below; as we go forward, I'm sure there are going to be some other states as well to where the TAC is a fixed value in law. We will have to think about that a little bit more, I would suspect. Thank you.

CHAIRMAN BOYLES: Let me take a moment again to thank Bob Ballou, Jim Gilmore, Russ Allen, Lynn Fegley and Rob O'Reilly for all their hard work on the working group. There was a lot of work, a lot of conference calls; and as, Rob, you pointed out there are miles to go yet. The purpose here is are we on the right trajectory in terms of the kinds of ideas for developing an allocation mechanism. Are there further questions for Mike on this? Seeing none; let's roll right into CESS.

UPDATE ON COMMITTEE FOR ECONOMIC AND SOCIAL SCIENCES ANALYSIS REQUEST FOR MENHADEN FISHERY

MR. WAINE: At our last meeting we brought this topic up that the Committee for Economic and Social Sciences is working on a request for proposals to do a social and economic analysis for the menhaden fishery. My intent with the following slides are just to give you an idea of where that is and where it is headed and how they plan to move forward with that.

The overarching goal for this is an analysis for the commercial fishery. CESS met in both September and October to discuss objectives and deliverables on this. Ultimately they formulated a primary objective, which is to explore the social equity and distributional consequences of management change on both

the Atlantic menhaden commercial bait and reduction fisheries.

Remember, the reason this CESS presentation is being tied in with revisiting allocation is because the plan is to try to have this information to help inform allocation decisions. In terms of deliverables, these are just some examples of the things that CESS is looking for in RFPs are trends in average and total revenues for menhaden, on total bait sales in proportion of menhaden sales and identifying clients or purchasers, both commercial and recreational.

Some additions are trend in landings and revenues ideally with operational costs; time series with capacity utilization of fixed costs; time series in quantity of quota allocation, quota landed and menhaden processed; and importance in the community in terms of how many direct and ancillary jobs are supported.

There is a lot of jargon in there, of course, but the point is that CESS has taken a really close look into some of the things that could be evaluated through the social and economic analysis. They want to reiterate that this characterization of the coast-wide menhaden fishery is a necessary first step before an actual economic analysis to explore allocation tradeoffs could be considered.

The idea here is that this information will help inform allocation discussions at this point, but evaluating the economic benefit of one allocation scenario after another is not quite where the CESS expects whoever is awarded this grant to end up at just because that is more involved, and this needs to happen first before that next step.

Ultimately when we received that feedback from the CESS, we sat down and thought, okay, if that is the case, if we can't quite get to the economic evaluation side of things, is there any way that we could sort of give a little bit more direction to this request for proposals to get as

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

close to that as possible, noting that some of this information needs to be gathered first.

The idea that staff and our board chair came up with was recommending the Board Allocation Subgroup meet with the Committee on Economic and Social Sciences Subgroup to sort of discuss exactly what it is the Allocation Working Group thinks will be the most useful to help evaluate those different allocation options that we just presented and went through.

That is the recommended path forward is to get those two groups matched up on this topic. Ultimately the goal there is to hope that guidance will lend itself in deliverables of information after the analysis has been completed and those deliverables will be as useful as possible to evaluate the allocation scenarios that the board will be grappling with moving forward.

Ultimately that is our recommendation for moving forward. The timeline for the whole process, which I haven't really talked about yet, is basically a year from when the funds are awarded. We do anticipate that work will be wrapped up in early 2017, potentially mid-February/early March. That will just give you an idea of how long this analysis will take and an idea of when it will become available for board review and consideration moving forward. With that, Mr. Chairman, I'd be happy to take any questions.

CHAIRMAN BOYLES: Questions for Mike on the Socioeconomic Analysis? Rob.

BOARD DISCUSSION ON UPDATE OF CESS ANALYSIS REQUEST

MR. O'REILLY: I'm just wondering how much of the Kirkley Report that I think was 2011 will lend to this process for the CESS.

MR. WAINE: It is absolutely going to be a driver. For those that don't remember, there is work that has been done sort of socially and

economically on the reduction fishery. That's the Kirkley Report that Rob O'Reilly is referring to. It is absolutely sort of the foundation of the CESS moving forward is to try to use that information to help guide exactly what occurs in the next step of this, which will be sort of a broader characterization of the fishery as a whole instead of just the reduction fleet.

MS. FEGLEY: I know the state of Maryland was very interested in this; and it is gratifying to see it come through. The menhaden fishery in Maryland is one of our most important in that it is supporting many of our communities. The economic information is difficult to obtain and we don't really have things like operational costs. My question is, is that information something that the contractors would collect or would they be expecting the states to produce those data? That's my question.

MR. WAINE: Lynn, I think that would be an amazing question for the discussion between the CESS Subgroup and the Board Working Group that has worked on allocation. It is difficult for staff – I'm not a socioeconomic scientist; and so I think it is important and that's why we highlighted that as an important step is so you could ask those types of questions and get answers to that so that you'd be comfortable sort of where we're at with this process.

ECOSYSTEM MANAGEMENT OBJECTIVE WORKSHOP

CHAIRMAN BOYLES: Further questions? Okay, Shanna, I think you're up to talk about the Ecosystem Management Objective Workshop.

MS. SHANNA L. MADSEN: What I'll be doing today is giving you guys an update on this Ecosystem Management Objectives Workshop, talking about the process and letting you know how everything went and talking about the outcome of that. Just to start off and provide you a little bit of background; as we all know, the Biological Ecological Reference Points

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

Workgroup has been tasked to develop ecological reference points that incorporate the predatory demands on Atlantic menhaden.

We produced an Ecological Reference Points Report that has a suite of preliminary ERP models and ecosystem monitoring approaches for feedback as part of the 2015 benchmark assessment. In this report the BERP Workgroup recommended the use of facilitated workshops to develop specific ecosystem and fisheries' objectives to help us drive the further development of these ERP modeling approaches.

This Ecosystem Management Objectives Workgroup contained a broad range of representation, including commissioners, stakeholder representatives and technical representatives. I have that listed up there. The workshop was facilitated by Dr. Michael Jones, who has a good deal of experience in this type of structured decision-making process. He was actually the Chair of the this year's menhaden peer review.

Prior to the workshop, the EMOW Workgroup met via webinar just to talk about some of the topics that we were going to be covering, to discuss expectations and to allow the workgroup any chance to make some different decisions on how we proceed with this process. The webinar actually also featured a case study from the Great Lakes Region just to provide an example of a structured decision-making framework.

Just some background on structured decision-making; a full structured decision-making process is designed to deliver any sort of insight to managers about how well their objectives may be satisfied by looking at potential alternative courses of action. It should help to find solutions across groups and clarify different tradeoffs that exist between potential courses of action and will communicate how people feel about these various options.

This EMOW Workshop was the first step of this process to actually sit down and define those management objectives for Atlantic menhaden and their associated performance measures. The workshop participants identified two different types of objectives, fundamental and means objectives.

Fundamental objectives are essentially the final product that a group would like to achieve and sort of serve as statements of true value. Means objectives are sort of the stepping stone. They define those steps necessary to achieve the fundamental objectives. The group from there identified performance measures that will help you determine how well you meet those fundamental objectives.

It is important to note that one thing that we discussed was that these performance measures should not only be measurable but predictable; so essentially any models that we're using should be able to predict the effects of any sort of management actions like a harvest control rule on the performance measure in order to determine if the management objective will receive that desired option.

I just pulled a couple examples from the introductory slides that actually Dr. Jones had presented to the workshop participants just to give you guys an idea of what these different objectives look like. An example fundamental objective that I think we'd all like to achieve is to ensure a full and enjoyable retirement; but in order to do that you would want to have sufficient retirement savings, so that would be your means objective or a stepping stone to get to that fundamental objective.

In order to measure how you're going to achieve that objective you could use a retirement risk calculator to make sure that you've set enough money aside. To start off with, the group just sat down and brainstormed a comprehensive list of fundamental objectives. We sat down with big notepads and wrote

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

down any suggestions that people had for objectives in managing Atlantic menhaden.

As you can imagine, there was a lot of overlap there; and so we kind of refined that list and combined it into the shortened list that I have up here on the screen. The list represents the overall objectives that the workgroup found to be important to the management of menhaden; and this is listed in no order of importance. If you'd like to see the full list of objectives, you can see that in the appendix of the report; and that is in your meeting materials.

After this point, the workgroup ran through the same brainstorming exercise; this time with the means objectives, trying to find those stepping stones to achieving our fundamental objectives. Again, we distilled this list down to the one that you see here, minimizing the overlap but still representing the full list.

As you can see, many of these means objectives are those stepping stones to the multiple fundamental objectives; but many of the means objectives kind of overlap then and help step for multiple fundamental objectives. For instance, many of our fundamental objectives require science in order to achieve them; so you would want to increase the knowledge base of your science as one way to ensure that your fundamental objectives of sustaining menhaden to provide for the fishery or predators or ecosystem as a whole.

Finally, the group went back to their refined list of fundamental objectives and discussed different ways that we would want to measure them. For example, in order to sustain menhaden for the fisheries, we would measure if we have met or positively exceeded our reference points. The same would apply to sustaining menhaden to provide for predators as long as the reference points that we're using are ecological reference points.

If we reach our yield objectives for both the menhaden fishery and the fisheries that rely on

menhaden as prey, so things such as striped bass, we again sustain menhaden to provide for fisheries and for their predators. The screen only has a few of these examples up here today, but again that full list of fundamental objectives and their associated performance measures can be found in your workshop report.

At the end of the workshop, the group then went back to their fundamental objectives and performance measures and started to discuss how we would preliminarily pair them with some of the models that the BERP Workgroup had suggested in that ERP Report. There is obviously a few of these fundamental objectives that cannot be met with ecosystem modeling, such as achieving broad public support for management.

The BERP Workgroup actually met in October to assess the ability of each of our ERP models to address these workshop-identified management objections. We also discussed the timelines for model development, and Matt is actually going to be presenting on that next. Overall I think that all of us believe that the workshop did exactly what we set out to do.

We definitely established potential goals and objectives for the ecosystem management for Atlantic menhaden. This is just sort of the first step in that structured decision-making process; but it is a very positive and valuable first step. With that, I'd be happy to take any questions on how we hashed all of these things out and discuss the process more.

CHAIRMAN BOYLES: Questions for Shanna? Okay, I appreciate it, Shanna, thank you. Dr. Cieri, welcome.

BERP WORKING GROUP REPORT

DR. MATT CIERI: By the way, my name is Matt Cieri from Maine DMR; and I'm the current chair of the BERP Working Group. As Shanna was talking about a little bit earlier, after that EMOW Working Group the BERP actually came

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

together in lovely Baltimore, Maryland, to basically go through that whole report and take a good hard look and compare some stuff and hopefully give you guys some recommendations. Just to give you some background, during that whole SEDAR process that we went through last year the BERP and the technical committee both came up with a number of different tools in the toolbox to help address this issue of the ecological reference points.

Using the feedback from that SEDAR and the peer review as well as that EMOW Report, what we did was we actually sat down in Baltimore and we tried to identify what fundamental objectives we could address and what models that we could potentially use and then to assess each one of those models that we had in those tools in our toolbox to address which performance measures and then to make a recommendation on how we think we want to move forward, what tools in that toolbox actually we think are the ones that are going to be best able to get the job done is how we approached all this.

We do recognize that there are some fundamental objectives that we're just not going to be able to address at least not without some outside expertise and some outside information, including some of the stuff that Mike was talking about earlier. For example, to sustain Atlantic menhaden to provide historical and cultural values or how to achieve broad public support; that's not something a model is going to tell you from the technical committee. We're just not, but what we can do is provide that information to the socioeconomic scientists who might be able to help inform you make those decisions. Some of those fundamental objectives are things that are going to need a little bit longer in the process, a little bit more data, a little bit more expertise.

One thing was we had this very long laundry list of potential tools in this toolbox that we brought to the SEDAR 40 that we could

consider. The difficulty is that they came in many different sizes, shapes and colors; and they all had different timelines and they all were very, very spaced out as far as data needs.

What we did is we started off with that list; and then we ran it through both the EMOW Working Group as well as the peer review report to try to see if we could whittle it down. We based what we chose on whether or not a particular thing or a tool in the toolbox could address multiple objectives, whether or not it could predict and monitor some of those performance measures.

I mean it is not enough just simply to monitor something that's kind of useless if you can't use it to predict what might happen if you change management. You guys don't need to know what happened back then. What you really to know is if you do X, Y or Z what is going to happen in the future and also on technical merits.

The other thing that we really wanted to try to do is make sure that it went along with what the SEDAR Peer Review was recommending; whether or not it met those particular technical ideas that they put forward that might help us. What we did was we ended up recommending moving forward with a surplus production modeling approach as well as a statistical catch-at-age approach.

We also recommended using some ecosystem indicators as monitoring tools. Now, as you guys might remember from previous presentations, we're talking things like predator/prey ratios, predator nutrition indices, those types of things that are outside the modeling realm. There were some of us that actually that you could base harvest control rules around just those environmental indicators and some others that did not; that you actually needed a model to go back and take a look, but you could use those ecological monitoring tools to help you make decisions and to point in the right direction, but that you

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

couldn't use them solely for doing harvest control rules.

That is an issue that we're going to revisit in our next meeting. We went from that very long laundry list down to a very, very short laundry list. We whittled that list down really, really quite dramatically. The important thing to notice on this graphic here is the first – the single-species model, starting over from there, the difficulties using the single-species models is that it can get at some of your objectives, most notably across the top, to do abundance of menhaden, menhaden yield, age composition, those types of performance measures with the fundamental objective of sustaining menhaden to provide for fisheries.

What that doesn't really accomplish, for example, is sustaining menhaden to provide for predators and that's the reason why we're all here, right? Multispecies models in the next one down does in fact – if you move across from left to right, the surplus production modeling does give you an idea of menhaden and providing enough menhaden for the fisheries, which was one of the fundamental objectives, and it can provide biomass, for example, and menhaden yield.

It can't do age composition because it is a biomass sort of an approach. As you read across this table, you can see that some of our methodologies can accomplish more than one fundamental objective and the performance measures that go along with them. The very last column is the timeline and how long some of these things will take to develop.

You'll notice that for the surplus production modeling approach, for example, the modeling takes six months and then six months to a year; and then it is two or three years actually when you start talking about peer review and then management strategy evaluation, moving it back and forth between the two committees, basically the stock assessment subcommittee or the stock committee and you guys to go back

and forth figuring out what it is you want to see and how to move forward.

That's an iterative process in management strategy evaluation – as well as actually peer review, which tends to take a little bit of time. Based on all that information, we've whittled down the objectives as defined in that EMOW Report. Getting into the timeline, the whole shooting match is probably going to cost about three or four years, but there is a lot that goes into that.

That includes things such as implementing the code and testing it. This is also gathering all of the data, examining some of the sensitivity analyses. As you may or may not be aware, there is actually some efforts going on outside this committee, including Ecopath and Ecosim and some other modeling approaches.

We're going to bring all those together and try to figure what is what, who is who and where is where and compare those external efforts to what is going on within the committee. Probably the longest is going to be to go back and forth between the modeling group and this very body to get update and feedback about how to go about and how to use the projections to most get at what you guys want to look at; some of these tradeoffs that we were talking during the EMOW Group; and then to develop terms of reference and send it through peer review, which can be quite a lengthy process. After all that, the BERP actually recommended to use the BAM single-species reference points as accepted during the last benchmark assessment. The board may consider the use of some of these ad hoc ecological approaches – there are many of them out there – or any other approach that you guys feel necessary within the interim. However, we didn't really recommend them, as outlined in the previous memo, for multiple reasons.

If you guys like the idea of us moving forward with a surplus production and a statistical catch-at-age approach, we'll get started

probably the beginning of this next year, probably sooner. We'll get to work right away; and in the process it will take on a life of its own, as you all know, and getting it through peer review and getting all the data. In general you're looking for something fairly – you know, before the next menhaden benchmark assessment, certainly, and in that three- to four-year time ratio. That's it.

CHAIRMAN BOYLES: Questions for Matt? Bob.

BOARD DISCUSSION OF BERP WORKING GROUP REPORT

MR. ROBERT BALLOU: Thank you, Matt. I guess I'm surprised to see that surplus production made the cut given that it only meets a very small number of performance measures relative to the statistical catch at age, which really seems to hit the mark across the board. I'm curious as to the technical committee's reasons for including surplus production as well given that it doesn't seem to hit the mark as well as the other.

DR. CIERI: And you're right, it doesn't, but there are certainly a lot of things that it does hit, and it does hit very well. For example, under some of those performance measures, the feedback between predator and prey, that is something that can be a little bit difficult to do in production modeling, but there is also the tradeoff of getting something done in a holistic fashion.

Remember the statistical catch-at-age approach has that confounding difficulty by year class; and that definitely increases the amount of data that you need to put into it, because you're not doing things just by menhaden and striped bass. Now you're doing things by menhaden age zero one, two, three; and then striped bass age one through fifteen. The lift is a little bit heavier when you start talking about statistical catch-at-age approaches. That is the reason why it is a little bit longer in the timeline as well.

MR. O'REILLY: I guess I have a little familiarity with those models that were mentioned; but then later on, Matt, you talked about Ecosim and Ecopath and trying to pull some of that in. I know Shanna mentioned that you can't capture the whole universe here with everything that was involved in that meeting that we had.

I'm wondering where exactly the predators are going to be brought in and the relationships there with menhaden, how flexible is really the statistical catch at age to bring any of that in, which I'm not aware of. Compared to what was laid out by Shanna and then you met on each term; I hope that I didn't miss something in your presentation; but what exactly will be done on the predator/prey relationship as far as the modeling. I wasn't sure whether you meant that as you go on with surplus production and statistical catch age also will be dovetailing with other models. If you could explain that; that would be great.

DR. CIERI: I don't want to confuse you. You guys have heard of production modeling and statistical catch-at-age approaches in single-species assessments. We're talking about do that in a multispecies assessment, so that includes bringing in all of your predators, bringing all of your prey trying to figure out spatial and habitat overlap and all the rest of it. We use this stuff as the short-term jargon type of stuff, production modeling, because that's not its foundation at its base, but it very, very different from the single-species approach because it has to incorporate predation.

To answer your question on where do the predators come in; they're built in from the beginning. It says that we this as short-term – it is because the math is actually very similar to a single-species model underlying it, but it is much more complicated. Does that answer your question?

MR. O'REILLY: Fully.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

DR. DANIEL: I don't really agree with any of it and I've got a real problem with the approach. I've said this before and I'm just going to say it again just so my conscience is clear. Three or four years, we need to take some action now. I just have absolutely no confidence that we're going to have a usable product at the end of this effort, none.

I mean have you got cormorants included? Have you got all the different whale species, all the different dolphin species, king mackerel, cobia, all the stuff from the South Atlantic? One of my colleagues said it would be like landing a man on Mars to accomplish this. I just don't see it happening.

I'm not exactly sure how many times we're going to have to meet and how much this is going to cost us. We're all in a budget situation coastwide and we can't afford four years of an academic exercise. The way I see it, it is an academic exercise that's never going to have management possibilities associated with it. I don't see it. **I'm going to make a motion that we not recommend moving forward with the Biological Ecosystem Reference Points Committee and that we use a conservative biological reference point** and move forward with this.

CHAIRMAN BOYLES: That's a motion by Dr. Daniel; is there a second? Second by Bill Goldsborough. Discussion on the motion? Roy.

TIMEFRAMES FOR ECOLOGICAL-BASED REFERENCE POINTS

MR. ROY MILLER: Mr. Chairman, would Louis explain – without seeing exactly what he said, would Louis explain the last part of his motion, please?

DR. DANIEL: Well, at the request of the chair, I was not going to bring this up, but the way I'm looking at this menhaden situation is we're there. Right now we've got an F of 0.22; and the Lenfest recommended 64 percent F, which

is extraordinary higher than any other reference point we've ever set before by probably 50 percent is 0.29.

Right now we're fishing at an F rate that is probably in the 65 to 75 percent SPR rate, which is extraordinary; and the stock is going to rebuild under that F rate if any of that stuff is right. We can go ahead without costing us a dime, use the Lenfest Model to set an interim reference point that is highly conservative and then work on an amendment to allocate.

We could do that today through an addendum and assess that. That's an option that we have; and then we're done with the arguments on reference points for the time being. Then we get the next benchmark assessment and see where we are; and if we need to adjust that reference point higher and have that 65 percent be the threshold as opposed to the target, then I'm all for that. I don't think we're going to get to a usable place with the ecosystem plan.

CHAIRMAN BOYLES: Louis, we may have gotten ahead of ourselves a little bit. We've got a timeline discussion on the next item on the agenda. Might I suggest that we go back to the question of do we want the BERP Working Group proceeding on developing models to address some of the issues that came out of the Ecosystem Management Objective Workshop? That's a yes/no question for the moment. We'll talk about timeframes and moving forward on Amendment 3 on the next agenda item.

DR. DANIEL: That's fine; that was the only way I could answer the question and I apologize for getting us off the timeline discussion; but I didn't know how else to answer that question without showing my hand. I don't think further activity on ecosystem reference points is an appropriate thing for the management board to consider at this particular time. That's why I made the motion that I did.

MR. WILLIAM A. GOLDSBOROUGH: Mr. Chairman, not to belabor this discussion now if

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

you want to get back on the timeline, but I just wanted to clarify that I saw the motion that I seconded slightly different than the elaboration that mover just gave us. I was seeing it as moving forward as part of the PID for Amendment 3; but that discussion can come later if you prefer.

MR. G. RITCHIE WHITE: Well, we do have a motion on the floor seconded, so we will have to deal with that. A question on going forward, the three or four year, I'm wondering about what would the cost be, what is the staff involvement and how does that interact with the next stock assessment or the work that those staff are doing.

DR. DANIEL: Robert, I've asked for that information from Laura, how many meetings, how much each meeting cost, how much they've met before, and we just haven't been able to get that information yet. Just to keep staff from having to scramble, I've already asked for that information.

MR. WAINE: I'll take a stab and Matt can add some details as he sees fit. We could go through that exercise. If we could tell you how many meetings it is going to take to give the end product of this process, we would have done that already. I'll just give you a little bit of perspective, which I think is probably what Matt will add, is that we just went through the 2015 benchmark stock assessment for Atlantic menhaden, and that was a single-species assessment.

A large chunk of the technical committee committed over two years of their time to that process. That doesn't answer your question, Ritchie, but it gives you some perspective that if it took that much effort and time for the single species you can imagine that is going to take that plus some for this three- to four-year process that involves multispecies and new modeling approaches that we haven't specifically worked with and with all the data-gathering that goes along with that.

MR. WHITE: And the next benchmark stock assessment would begin during this process; is that correct? If so, how is there staff time available – if the last stock assessment took two years and you're adding a three-year project; is that possible?

MR. WAINE: Before I give Matt a chance to add to my original answer, I'll just say that our next single-species Atlantic menhaden assessment is an update that is going to occur in 2017. That will bring the data through 2016. We will deliver the results of that assessment likely at the November meeting of 2017. That's the next assessment for menhaden on the books. This would be in addition to that working simultaneously. I'll turn it over to Matt because he wants to add more on the answer that I gave you prior to this one.

DR. CIERI: Other than to give you that whole thing; basically it is going to like almost three years before you even see another update. I mean you could walk out of here with reference points, but you're not going to get another idea of what the stock looks like until three years from now. By then we should be mostly through this process. Does that make things a little clearer?

MR. EMERSON C. HASBROUCK: I know that the motion specifically says or the second part of it specifically says "move forward with a biologically conservative reference point"; but then the maker of the motion further went on to explain that he meant to implement the Lenfest recommendation moving forward.

We've heard today and then also at our last meeting that the technical committee feels that the Lenfest approach is inappropriate here. That's in their formal memo from our last meeting; and I heard it mentioned today that it is inappropriate. I don't know how I can support a motion that goes against the technical committee's recommendation.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

MR. THOMAS FOTE: As I get older, my memory is not as good as it used to be; but I remember us going through an exercise a couple of years ago – it might be ten or fifteen years – when we started looking at ecosystem management. We used I think a Florida study to basically look at menhaden and what it would cost us to put all the data in to run that ecosystem model.

Does anybody remember when we did that years ago? I think the cost was somewhere about a million dollars that we looked at because it was very data-intensive. I'm trying to think who was the scientist that was doing it; but I think it was through the Habitat Committee when we were trying to look at ecosystem management. I'm trying to figure out if anybody else remembers that.

MR. DOUGLAS E. GROUT: Mr. Chair, do you want us to continue to debate this and dispense with this motion right now? You had mentioned that we might have gotten ahead of ourselves.

CHAIRMAN BOYLES: Well, we're ahead of ourselves, but we're down the road so let's keep going.

MR. GROUT: Okay. Well, I happen to disagree with my esteemed colleague from North Carolina on this. I look at again what our BERP Workgroup has said that they reviewed the Lenfest Forage Fish Report and did not feel that the management actions recommended in the report are appropriate for Atlantic menhaden.

Following that, I think there was some discussion from some of the Lenfest Report authors that felt that we were misinterpreting these. The follow-up here is that the workgroup met with the Lenfest Task Force in August and maintained its original position. I also am the Atlantic Herring Committee Chair on the New England Fishery Management Council.

We had again something similar recommended for Atlantic herring to use the Lenfest Report. I don't know how much similarity there is between the Menhaden Workgroup and our PDT, but they came to the same recommendations to us. I am very uncomfortable with moving forward with this kind of a management strategy for dealing with ecosystem-based reference points when our scientists saying that it is not appropriate.

I also look at the position we're at right now. The stock of menhaden is at a very high level of abundance. I think we do have the time now. Clearly, if we were overfished and overfishing, we would want to be moving forward quickly with something different; but I think we have the time to put into this right now.

As many of you remember, I have been the one that started this motion probably five or six years ago saying we need to get biologically based ecological reference points here; and they're saying we can do it. It is going to take time. Just like any development of ecosystem management, it is going to take some time. It is not easy; there is a lot of data that has to be put together.

You're developing something completely new and you want to make sure it is absolutely right before we move forward with it. We've got the time now to do it. We're in good shape; so let's move forward with this instead of trying to use some methods that our scientists say aren't appropriate for menhaden.

MS. FEGLEY: It might be helpful to clarify the motion a little bit. To say "move forward with a biologically conservative reference point", what this motion doesn't say is how we would move forward. I do agree with Louis that we are fishing at a conservative point right now. I guess I have some concerns that if the worse-case scenario would be that through taking additional time we let the fishery get itself back up to some level like F 30 or F 20 and then we figure out in five years that we want to be

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

fishing at F 70, which is where we are, and then we have to have to make a 30 percent reduction. I think we have to balance that.

To the point of how we would move forward, right now Amendment 3 has the allocation issue and the ERP issue together in the same document. I know from our perspective to wait three or four years to start an amendment that addresses both of those things, it is intractable for us to wait that long to address the allocation piece.

That would put us in '19 or '20 before we have any resolution on the allocation problem. If it is the will of the board to move forward with Amendment 3 as it is and take the three or four years, then I think that's the next thing we need to tackle is what we're going to do with the allocation.

MR. GOLDSBOROUGH: I'm getting a sense of deja vous all over again. I think it was the '99 benchmark where the peer review recommended that we try to account for menhaden's ecological role; and we subsequently developed Amendment 1 that was adopted in '01 that included for the first time ever a management objective to do exactly that, to account for menhaden's ecological role, and we're still trying to do it.

Now, what we did at the time or I believe in the year following was began the development of the MS-VPA. That took us seven years before we had outputs for three predators that we felt confident enough to include in the '09 benchmark. If I'm not mistaken, I think that's an accurate recounting of the history. Again, if I'm not mistaken, that peer review suggested ways to upgrade the MS-VPA, including another predator. I think they were going to put dogfish in there and then a feedback loop.

That's about as far as I understand all that, of course, but we were on the track to doing that and then we sped up this most recent benchmark as a result of all the deliberations

under Amendment 2; and that didn't get done. Subsequently, I believe the modelers among us want to abandon that framework altogether and move on to some more nimble ones, which I understand.

Now we're talking about the same sort of exercise over we don't know how many more years; and that's the sense of deja vous that I feel. It is kind of frustrating. We've working on this for quite a long time. It turns out that around the world lots of other people have been working on this, too. The Lenfest Approach, if you will, is not just done by one group of people.

There is a lot in the literature that has been made accessible to us of work all around the world that have coalesced around this principle of what is being called now the 75 percent solution, about maintaining that level of virgin biomass for important prey species. There is really a scientific consensus emerging worldwide on that kind of an approach. Lenfest is but one example of it.

I would refer any of us to the report that recently came out of the Wild Oceans called "Resource Sharing" that goes through all of that; and I think it has nearly a hundred references in it. Then with respect to Lenfest, it is true that our BERP Group has recommended against it today and they did in May in a memo to us at our May meeting.

Doug made part of this point, but I'll repeat it – that's why I raised my hand – reminding us that we got a letter from the co-chairs of the Lenfest Forage Fish Task Force at that time – it was distributed that day – that responded to a lot of the points that were made by the BERP Group in their memo to us and concluded that they felt that it was an appropriate approach for Atlantic menhaden. Just to complete the picture on that, scientific disagreement is what it is; but I would just make the point that there are a lot in the scientific community that feel

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

this is the approach to take for important forage species.

CHAIRMAN BOYLES: The question on the floor is the BERP Working Group going to move forward developing ecosystem reference points? Louis.

DR. DANIEL: I appreciate all the comments around the table. I'm sorry if I threw a monkey wrench into it by explaining my thoughts in the question from Ritchie; but it certainly doesn't bind the commission to do anything with Lenfest or anything in the timeline discussion coming up here in just a few minutes. This is not committing the commission to anything.

I'm trying to be as conservative as possible on menhaden; and I disagree with the technical committee and don't agree that it is not appropriate to manage menhaden at something as high as 65 percent. I find it hard to believe that a modeling exercise that is going to cost us thousands of dollars and take three or four years to get to is going to tell us that we need to be in any significant degree more conservative or less conservative.

What if they come back and say it is 65 percent; what did we get? Nothing, but yet we've been able to manage menhaden now for four years at a much more conservative level that I think everybody around the table is interested in doing. I apologize if I created confusion with the second half of my motion. It was not intended to. The main part of the motion is as you describe, Mr. Chairman, to not move forward with the modeling approaches by BERP.

MR. DENNIS ABBOTT: Mr. Chairman, I think that Louis just covered what I was going to ask. As I read the motion and I as I sat here while everyone spoke about the motion, I didn't see the word "Lenfest" up there. I guess we're all looking at this maybe in different ways; and I'm not even sure if Louis' intent is to throw the BERP Working Group and the modeling down in the trash barrel but maybe to put it someplace

else. Anyway, I don't see a problem with this motion; and I do not see anything in there recommending Lenfest as the path to take.

MR. STOCKWELL: Mr. Chairman, I can fully understand and support much of Louis' positions, but I have a little different point of view. My recollection, much like Doug's, is five or six years ago this board strongly supporting looking at an alternative management strategy and the development of this modeling.

There has been a significant amount of work and time invested in it. I think that concurrently and as financially responsible as possible we should finish the job. There are too many unknown things that are going on with many of our FMPs, especially in the New England area where one stock after another isn't recovering through the strictest of management measures. I'd like to see this move forward and decide three or four years from now whether or not it is a good idea I think it is an investment well worth our while.

MR. FOTE: I walked around the room and found out about the workshop I was talking about. I found out that Jack Travelstead was actually the chair of that three-day workshop where we looked at that information. It did happen a couple of years ago. It was also at that time the cost of it was a million dollars because we did not have the data on a lot of those species that we were looking at.

A lot of that money that we were talking about that would have cost a million dollars was gathering the data. Nowadays we have the data to put into those models that we were talking about. Somewhere – maybe Bob Beal knows – in the records when we did a workshop to look at – I think Florida was the place we looked at to basically do an ecosystem management on menhaden and see how it would affect it and what the cost would be and things like that.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

MR. O'REILLY: I can't support the motion, but I think the way I'm looking at this is we've had an interruption since about 2010, back then similar to what Terry recollects. The course of action was to go through with the biological and ecological reference point approach. Everyone got a little bit sidetracked by the way the assessments went. Now there has been a really replete sound assessment and so I share Doug's philosophy that there is some time here. I think the commitment by everyone back in 2010 shouldn't waiver today on how they wanted to follow through with this.

MR. KYLE SCHICK: I definitely see where we need to move forward with ecological/biological reference points; there is no doubt about it. The question is can we afford it? It sounds like people want to go ward with it. We don't know how much it is going to cost; but if we have the appetite to go forward with it, there is no sense in trying to do something different in the meantime.

The question is should we stay with single species as we've been doing for the last couple years until we can get to the point where we have a working model. I don't want to change something halfway, trying to do something. What does "conservative reference points" mean? Let's use the best science that we have today and figure out what the reference points should be based on the science we have today on single species.

In the meantime and in the background work forward to the ecological reference point system and then switch to it in a slow, steady way so we know we have something working correct; and we aren't caught in a situation where all of a sudden we're making decisions with bad science like we have in the past.

MR. RUSS ALLEN: Mr. Chairman, I echo Kyle's comments right there. You hit the points I was going to say. I'm not really sure what a biologically conservative reference point is in context to everything we've been doing right

now. I'm all for moving forward with the BERP Group and getting reference points that we think are going to work. It is what we've been committed to do.

In the meantime there is time to do other things. We've had the discussions about moving forward with ERPs and allocation; and I see that as the crossroads now going to split and move into different directions. I definitely cannot support this motion although I can support moving forward with a different management scheme.

Those are things we need to discuss as we move forward, but Kyle hit those points just right. I'm not sure what that new reference point is going to be. Is it something we just make up? Is it coming from some assessment? Is it coming from an assessment workgroup getting together and figuring things out and how much does that cost and things of that nature?

EXECUTIVE DIRECTOR ROBERT E. BEAL: Mr. Chairman, there has been a number of folks asking if can afford it and how much it costs and a number of other things. I think the short answer is, yes, we can afford it. This work really boils down to two or three meetings of the working group a year. That is fifteen to twenty thousand dollars per year for the next few years; so on the scale of things, it is not that much money and it is spread over a couple of years.

It is up to the group to set the budget priorities for the commission – not this group, technically the Policy Board, who is this group, wearing different hats. I think the biggest expense really is the staff time. This is going to take a lot of time for state biologists, federal biologists and ASMFC staff stock assessment scientists.

The actual just dollars to ASMFC is not nearly as expensive, for lack of a better term, as the staff time. I'm not saying it should or shouldn't be done. I think the board shouldn't get too worried coming out of ASMFC's budget to

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

afford this. We can do that. It is the other expenses in staff time. If staff are working on this for the next three years, what are they not working on, and there are obvious tradeoffs to all these things.

MS. FEGLEY: I hope I don't make things more complicated here, but I'm going to try a substitute motion maybe in the hopes of shaking us loose. I move to substitute this with a motion to move forward with developing a PID that includes all options for allocation and for ERPs that can be implemented in 2017, with a side note that the BERP Working Group should continue its work because science should grow; and they come back to us when they're ready.

CHAIRMAN BOYLES: Here me out. I think where we are – and check me on this, please – there is a motion on the floor, and the question is do we wish the working group to continue to develop models to answer some of the questions that came out of the Ecosystem Management Objective Workshop. As I understand the motion – and this is where I need some help – if the original motion passes, the board is saying no; and the workgroup will continue to move forward with the reference points – excuse me, if this motion passes, the workshop will not move forward with those reference points. If the motion does not pass, then the board is saying we wish the working group to continue to model these objectives that came out of the workshop. Dennis.

MR. ABBOTT: Mr. Chairman, we've had a long discussion about this motion and I think probably everyone has their mind made up. I think that the results of it will clearly tell you which direction the board wants to go. I don't see a second on the substitute motion, so I would ask the Chair to call a vote on the main motion that we're dealing with.

CHAIRMAN BOYLES: Dennis, thank you for pointing out we do not have a second on the substitute. I was attempting to clarify perhaps

maybe for my own benefit where we were. Ms. Fegley, you had a motion to substitute?

MS. FEGLEY: Mr. Chair, I can withdraw that motion if that makes it easier. I'd be willing to do that.

CHAIRMAN BOYLES: Okay, the motion is withdrawn. Are you ready for the vote? Do we need time to caucus? Take a moment to caucus.

(Whereupon, a caucus was held.)

CHAIRMAN BOYLES: Okay, a roll call vote has been requested and ordered. I just remind everyone where we are. **The motion on the floor is to not move forward with the Biological Ecological Reference Points Working Group recommended ecological reference point modeling and to – editorially, Louis – instead move forward with a biologically conservative reference point.**

The motion is by Dr. Daniel and seconded by Mr. Goldsborough. If this motion passes, BERP will cease their efforts on the ERP modeling. If the motion fails, BERP will continue their efforts on ecological reference point modeling. Is everybody clear on that? Mr. Waine, would you call the roll, please.

MR. WAINE: I would love to. Maine.

MAINE: Maine votes no.

MR. WAINE: New Hampshire.

NEW HAMPSHIRE: No.

MR. WAINE: Commonwealth of Massachusetts.

MASSACHUSETTS: No.

MR. WAINE: Rhode Island.

RHODE ISLAND: No.

MR. WAINE: Connecticut.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

CONNECTICUT: No.

MR. WAINE: New York.

NEW YORK: No.

MR. WAINE: New Jersey.

NEW JERSEY: No.

MR. WAINE: Delaware.

DELAWARE: No.

MR. WAINE: Maryland.

MARYLAND: No.

MR. WAINE: Potomac River Fisheries Commission.

POTOMAC RIVER FISHERIES COMMISSION: No.

MR. WAINE: Commonwealth of Virginia.

VIRGINIA: No.

MR. WAINE: North Carolina.

NORTH CAROLINA: Yes.

MR. WAINE: South Carolina.

SOUTH CAROLINA: No.

MR. WAINE: Georgia.

GEORGIA: No.

MR. WAINE: Florida.

FLORIDA: Yes.

MR. WAINE: National Marine Fisheries Service.

NATIONAL MARINE FISHERIES SERVICE: No.

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

U.S. FISH AND WILDLIFE SERVICE: No.

CHAIRMAN BOYLES: **The motion fails by a vote of two votes in the affirmative and fifteen votes in the negative. The motion fails.** As a result, the Biological Ecological Reference Point Working Group will continue to move forward. Item 6 on the agenda; Mr. Waine.

DISCUSS DRAFT AMENDMENT 3 TIMELINE AND DIRECTION

MR. WAINE: Believe it or not, here comes the tough part. We've got two issues that were initiated in this amendment. One is allocation. The other is what to do about the reference points; and really that is ecosystem reference points. I put together this slide some things to remember. We have already talked about this.

We've got right now a TAC in place for 2015 and 2016. This is just things to keep in mind. We've already talked about a stock assessment update in 2017. That's a single-species stock assessment update, which will give us information through 2016. With that in mind, I think the easiest way to move forward is to think about these two topics separately. Then once we decide the timeframes for the two of them, see if we can't match them back together after we make those decisions.

CHAIRMAN BOYLES: Let me clarify just to make sure. We've talked about the initiation of an amendment to take care of both actions. I promised you I would set this up and failed to. For the purposes of our discussion this afternoon, we will deal with them separately. It is not intended that we necessarily break out the items to be dealt with in separate management actions.

MR. WAINE: I think it will get a little clearer as we continue or at least that's what I hope. A little bit of reminding everybody where we are with allocation; the Board Working Group, as we started today, has put together a potential list of allocation options. They've got the list

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

together. Then we also talked about the social and economic analysis that is going to be conducted through most of '16 and will be delivered in early '17.

Now, as a reminder, that social and economic analysis is intended to help inform those allocation decisions to some extent. Ultimately the question that I see before the board is does the board want to wait for that socioeconomic analysis before it moves forward with revisiting allocation. Here are options based on that question.

If the board does not want to wait for the socioeconomic analysis that is being conducted, then we could move forward with a document that has – it would be an amendment that scopes this through two rounds. The PID would be developed for February of '16. We'd take it out to comment. We develop the amendment on that comment and move forward wrapping the document up in '16 and being able to implement a revisiting of allocation for implementation in '17.

That is if the board does not want to wait for the socioeconomic analysis. If the board does want to wait for the socioeconomic analysis, then the timeline gets adjusted by one year. Instead of implementing allocation changes in '17, it is not '18 if the board wants to wait for the socioeconomic analysis to make this decision. Okay, that's one topic. I'm tempted to stop here and see if the board wants to make this decision right now.

CHAIRMAN BOYLES: Discussion on proceeding in timeline with respect to the allocation question? Kyle.

MR. SCHICK: Well, I don't see why we would even have a socioeconomic analysis if we're not going to use it. If there is a question, of course, we have to go with number two. We need all the information to make the right decisions. Why would we want to go and make decisions without all the information? If we don't want

all the information, why are we spending the money to get it? It shouldn't be a hard question.

MR. DAVID SIMPSON: I'll just say I agree. I think there are valuable things we can learn from this and including, I'm hoping, some insight into alternatives to static state-by-state quota management. How do we maintain the flexibility and what are the socioeconomic implications of that if fish show up in Maine in greater quantities and beyond our episodic event clause can accommodate? Yes, I think it makes sense to wait.

CHAIRMAN BOYLES: Can we make that decision by consensus? Are there alternative points of view on moving ahead? By consent, we will do as Dave and Kyle have so adroitly suggested; that we will wait for the socioeconomic analysis. Okay, Mike.

MR. WAINE: I strategically put that one first because here comes the next one, which is going to be a tougher decision, I think. Everybody write down "allocation 2018". That is what the board just decided. Okay, now let's talk about reference points. Let me give a little bit of background on this in addition to what you've already heard.

From the 2015 benchmark stock assessment – that is the stock assessment that we just completed and was presented to the board back in February – we have current reference points that came out of that assessment. Those passed the SEDAR 40 peer review. They were approved for management use by the board, but they are not yet part of the management document.

The intent was to include those reference points that came out of the assessment in the next management document, whatever that ends up being. Now insert the ecosystem reference point discussion that we've had. As BERP mentioned and as the board just agreed

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

to, there are ERPs that they expect to be available in 2019 and 2020.

That's that three- to four-year timeframe that the board just said, yes, move forward, work on that, bring us those deliverables. The other thing that has been talked about is what does the board do in the meantime? It has been brought up there are conservative reference points that could be used that are different than the ones that came out of the single-species stock assessment.

There has been reference to Lenfest ERPs, which are ready to go right now. The working group, as we have all talked about and acknowledged, does not recommend using those reference points for management use. They recommend using the current ones that came out of the benchmark stock assessment until they can develop the other ERPs. That brings us to what the board options are for reference points. The first option would be an addendum document.

The reason that an addendum is for consideration here is because in Amendment 2 we already have scoped ecosystem reference points as a topic. There is language in Amendment 2 that says these are our reference points and they are interim reference points until we can develop ERPs. Because we have already scoped that through a complete amendment, the first option is an addendum to consider those reference points that came out of the benchmark stock assessment or the Lenfest reference points.

Remember, the board could ultimately choose one or the other here. They don't have to include them. I'm just trying to give the options as they have been discussed, basically. That's one option. The second option is to do essentially what Option 1 does but through an amendment document; so instead of doing it through an addendum, it would be done through an amendment.

That amendment takes two rounds of public comment; so there would be a PID scoping session and then there would be another follow-up, which is the actual amendment. That's how it differs from number one; the addendum is only one round of public comment and not two. That timeframe could be either implemented for '17 or implemented for 2018, so it really depends on whether the board wants to match this up back with allocation; but don't let that confuse you at this point.

The third option is an amendment to consider the current reference points and all other of the ERP options, which would be essentially an option that waits for the BERP Working Group's modeling to be conducted and brings back the whole suite of ERPs for the board to consider moving forward. That is going to take the three- to four-year timelines and that is going to be implemented at the quickest in 2020.

Ultimately the decision the board has before it is whether to consider implementing the current reference points, which it is already using for management purposes because it came right out of the 2015 stock assessment; whether it wants to implement an interim Lenfest ERP Approach either permanently or until the working group can develop other options; or whether it wants to wait completely for the ERP options that the working group is developing before moving forward. Are there any questions?

MR. WILLIAM A. ADLER: Okay, now I'm getting confused here. Tell me what the difference is between – I thought number one would have been that motion that failed a few minutes ago. We just agreed by consensus on having the socioeconomic report in and basically it would be implemented in 2018. That sounds somewhat like number two. What is the difference between number two up there and what we determined to wait for the socioeconomic report; what is the difference between those two?

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

MR. WAINE: Bill, they're on two totally separate topics. This decision right here is to decide basically the reference points that we're going to use to evaluate the health of the menhaden resource. We are currently using reference points that came directly out the 2015 benchmark stock assessment to do that.

The alternatives that have been presented that could be used – although if it is Lenfest, the working group does not recommend to use them and recommends waiting for ERPs, which is the decision that we just made the motion previously, which was for BERP to work on your ERPs and bring it back to us in three to four years.

The decision to wait for the CESS is completely separate than this decision about the reference points. I just included in Option 2 that if the board decided to go with Option 2, it could potentially match up with the allocation part. Ultimately this decision is what to move forward with for reference points.

MS. FEGLEY: Well, once again, **I was going to try to put a motion on the floor maybe to shake it loose, which would be to move to proceed under Choice Number 2, which would be to go forward with a PID that would incorporate ecological reference points and allocation options, which include results in the CESS Study for implementation in 2018.**

CHAIRMAN BOYLES: And that's a motion?

MS. FEGLEY: It was a try, yes.

CHAIRMAN BOYLES: Okay, there is a motion; is there a second? Seconded by Jocelyn. Further discussion? Rob.

MR. O'REILLY: I guess we're going to hash this out again later, but I'm hearing left and right that the technical committee has endorsed the Lenfest; so I don't know why we have those as part of number two or even number one. In my mind Mike's information about we're already

managing essentially with the current reference points, well, I think we ought just do an addendum and use those current reference points.

We know they're interim, but they're best available reference points we have. We probably should have done that back in February, really. It is not that I'm totally disagreeing with that approach to get it with the CESS, but I think that we already have those reference points. We ought to use them practically by endorsing them in an addendum; but I'll wait and hear what others have to say.

MR. WAINE: I just want to clarify sort of in response to Rob's comment. The only reason that the Lenfest is a part of these options is because it is the only ERP available as of now. I'll reiterate the caveats that we've already talked about. I don't feel like I need to do that again. My point is that to keep it simple I included that in there. Whether the board wants to move forward with having that in the document or not is the board's decision. It does not need to be in there. That is up to the board to decide. These options are just to help the board understand what could potentially be included at this point.

DR. DANIEL: I was actually looking at Option 1. The reason that I had was, number one, I don't necessarily believe that the reference points require the socioeconomic analysis. That's really more in the allocation scheme. I really would hope that we would make our decisions on reference points based on that need to put a resource. I have one real quick question before I can continue, and that is what is the F for the current references in the stock assessment? I think it is 0.38, but I'm not certain.

MR. WAINE: Sorry, I was sidebarring with Bob; but I think the question was what is the current F target; is that correct?

DR. DANIEL: Yes, please.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

MR. WAINE: The current F target is –

DR. DANIEL: From the assessment.

MR. WAINE: Yes, sir. The current F target is 0.38. You already outlined where we are currently. We're currently at an F of 0.22.

DR. DANIEL: Correct.

MR. WAINE: So our current F target from the benchmark assessment; our F is current below that F target.

DR. DANIEL: Correct; and so really the option is really how conservative do we want to be and how quickly. Regardless of the name "Lenfest", 64 percent SPR at 0.29 is far more conservative than the current reference point of 0.38. The question is how conservative do we want to be; and that was the reason why I keep bringing up the Lenfest Report is because it is more conservative.

That is the reason why the option is there. I can't explain or understand why 0.29 is not more conservative than 0.38; but I guess there is a concern from the technical committee that I don't quite understand. It was my thought and hope that we would move something immediately through an addendum; and we could have that done and knocked out in February if we went with Option 1 and we had those two options that we could debate about again in February. I'm not going to make another motion in menhaden today, but that was my thought.

MR. GROUT: Yes, we have these 0.38 target reference points that are out of the peer-reviewed stock assessment. We were fishing in the terminal year at 0.22. We've also increased the quota by 10 percent, so we're going to be fishing it at a slightly higher. With a 10 percent increase, we're going to be still fishing below either of these points as long as we maintain the quota at that level. The danger clearly is if we maintain the F target at 0.38 and we decide

to use that as an excuse to increase the quota again.

The board at least last year felt that we needed to remain more conservative, which is leaving more fish in the water for forage at this point. I think if we just froze the quota during this period we'd be accomplishing more than what we really need to do and accomplishing it without having to go to Lenfest or anything like that. We could adopt the peer-reviewed reference point and then agree to freeze the quota at that level until we get ecological reference points from our BERP Group.

MR. HASBROUCK: My question is do we need to do anything? Do we need to implement an addendum or an amendment to formalize our current reference points? We accepted the reference points already, didn't we, so do we need to initiate anything else in order to maintain those reference points? Secondly, the next benchmark assessment is, when, in 2017? It is two questions.

MR. WAINE: I'll start with the second one. The next update is in 2017; so that will give us information through 2016. The stock assessment subcommittee can also run projections on TACs just like you saw back in May that helped the board determine what the TAC should be. That process can occur; and the next time that will happen is at the very end of '17.

Your first question is do we need a management document to formally adopt the reference points that came out of the benchmark assessment? The cleanest way to do that is to basically create a management document that formally accepts those reference points for management use even though the board has already accepted them for management use through successful passing of the peer review and board action on those assessment results.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

Ultimately the intent was for us to do that in whatever a management document came next. I think that the intent of this motion would be consider formally adopting those reference points that came out of the benchmark assessment and also consider an alternative of the Lenfest reference points in addition to all the allocation stuff that we already decided.

Ultimately there is no – if your question is, is there a need to do it prior to that point, technically no. We were planning to do the current reference points in the next management document anyways; and that is ultimately what the board is deciding right now is that next management document this one that is part of this motion or another one that the board hasn't brought up yet.

MR. HASBROUCK: Follow-up, Mr. Chairman. This is like *deja vous*, all over again. We had this similar discussion whenever it was that we accepted these reference points. We had a similar discussion about where we were going to go with these reference points. Are we going to develop ecological-based reference points, which is kind of what we're discussing right now. The result of that discussion was, well, we're going to have another amendment to address that. I feel like we're replowing ground that we already went over when we accepted the biological reference points and decided to initiate another amendment.

MR. O'REILLY: I think that's part of what is sort of unusual here is after the February meeting I wasn't sure what we did with the reference points. I think we should do something with the reference points. **I would like to offer a substitute motion that we establish the current reference points through the addendum process with a PID for implementation in 2017.** I am excluding the Lenfest part of Option 1 only because there is a lot to do. Are we really going to hash and rehash everything again? I just think that is the best available science we have from the most

recent stock assessment. I'll just see if I get a second to that.

CHAIRMAN BOYLES: There is a substitute motion by Mr. O'Reilly; is there a second? Russ, is that second? Seconded. Kyle.

MR. SCHICK: That is basically what I was saying; let's make it simple. We've decided it seemed like to me just the last discussion that the Lenfest doesn't do what we want to do. If we want to become more conservative, let's become more conservative on the reference points that we already have and say this is what we want to do. We don't need to bring another study in that has got a bunch of baggage with it to do that. I like the substitute motion and I definitely would support my colleague here.

MR. BALLOU: This is a challenging issue, to be sure. I'm inclined to support Option 1 and that was before the substitute motion was offered. My reasoning is that as I see the difference between Option 1 and Option 2, it is addendum versus amendment. An amendment process really swings at public input and comment; and I'm not sure that we really need that for this issue.

Option 2 would extend the timeframe out two years. I don't think we need two years to do this; and it would sync with the CESS study, which I don't think is relevant. For all those reasons, I'm inclined to support Option 1, an addendum that moves forward quickly and considers exactly what the substitute motion is seeking to consider as well as an alternative ad hoc reference point.

Call it Lenfest or something other than that, but at least gives the public and the board a chance to consider the two approaches. Again, recognizing what we just did about half an hour ago is task the BERP Working Group with continuing forward with their efforts to develop a multispecies model which is not going to come to fruition for three or four years; so we're talking about what to do in the interim. I

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

think Option 1 was the way to go; but now I see we've got a substitute, so I need to now think about how to vote on the substitute.

CHAIRMAN BOYLES: I'm going to ask Mike to clarify where we are.

MR. WAINE: Okay, I'm going to start with the substitute, because I think that's the easiest. The substitute motion is an addendum that would implement the reference points that came right out of the 2015 benchmark stock assessment. That addendum process would be we would develop the addendum for February. The board would review that addendum.

We'd take it likely out to public comment between February and May. In May I'd deliver the public comment on whether the public wants these reference points implemented. In May the board could make a final decision on implementing the reference points that came directly out of the 2015 assessment for implementation in '17 because we've already got a TAC for '15 and '16.

The original motion is an amendment. An amendment means we have two rounds of public comment. There is a PID that gets developed that scopes the issues; and then there is a follow-up amendment that delivers the individual options that the public can comment on. The original motion also includes the Lenfest ERPs because those are the only ones that are available right now.

It syncs up with the allocation decision that the board made on the first topic. Ultimately that's the process that would occur – that's the difference between the two motions. If the board proceeds with the substitute, there is still the allocation topic that would come with an amendment based on the CESS analysis that occurred. It is basically sort of dividing those out and moving forward with one versus the other. Are there any questions on that clarification?

MR. GOLDSBOROUGH: Mr. Chairman, to elaborate on what Louis was saying earlier, basically the reference points that came out of the assessment are single-species reference points. That's why they are more liberal than what we might get out of a Lenfest-type approach.

Now we're saying in this substitute motion that we would implement single-species reference points in 2017; and that's in contrast to the point Emerson made that in May we voted near unanimously to develop ecological reference points for implementation in 2017. It looks like a giant step backwards to me.

DR. DANIEL: I'll agree with Bill and just indicate that I think if we only go out to the public with a single-species 0.38, we're going to get crucified by the public. I don't know of anybody that is going to support – from the public that we've heard from that is going to support that. I think not having something in there that allows us to be more conservative and take into consideration the ecological reference points is going to be a tough sell to the public, I believe.

MR. GROUT: May I provide something to that substitute motion that would give us to be more conservative? I just want to make sure we're on the same page and we're able to amend either one of those, both the substitute and the underlying motion under our Roberts Rules of Order. We can amend them and then we debate both of them and then we can make an initial vote on the substitute. If the substitute passes, then that becomes the main motion. If the substitute fails, then the main motion would be the main motion; correct?

CHAIRMAN BOYLES: From a parliamentary procedure, yes, correct. We're going to have to stay with you so –

MR. GROUT: I'm going to make a motion on the substitute motion to amend it that would include after "2017"; that would include an option in that addendum to freeze quotas at

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

current levels until 2020. If I can get a second to that, I would like to speak to my rationale behind that.

CHAIRMAN BOYLES: Okay, there is a motion to amend the substitute motion by Mr. Grout. Is there a second? Second by Mr. Gary. Discussion.

MR. GROUT: Could I have first crack at this? This is basically the conservative – this will be our ecosystem-based reference point that essentially we established when we raised the quota by 10 percent and did not raise it up to the target. We already did that last year because we wanted to be more conservative.

From my standpoint, it was to try and leave more fish in the ocean at this particular point. I think we have a very good peer-reviewed stock assessment. This is an interim measure to stay in place until we can get our ecologically based model reference points, which is what I've been striving for this commission to get for a long time.

If I may, while I still have the microphone, when Louis made his motion originally, I had another question for Matt Cieri concerning it. Could I possibly bring up that question right now? Dr. Cieri, do you think that once the model-based ecological reference points are developed for menhaden, will it be a framework that could be used with other species that the commission manages?

DR. CIERI: It is kind of like *deja vous*, all over again, between this and Atlantic herring. Yes, that is kind of the point. It is not just about menhaden, right? This whole discussion on ecological reference points and the models that we use and the methods that we go about doing this are applicable for most species managed by the commission and the councils.

CHAIRMAN BOYLES: Discussion on the motion to amend? John.

MR. JOHN CLARK: Mr. Chair, I just wanted to ask Doug whether his amendment would include the CESS Report and the other part about the implementation in 2018 of the allocation and the socioeconomics.

MR. GROUT: No, not at this point because we're going to be putting forward another addendum to deal with the actual allocations. This is just dealing with specifically adopting the peer-reviewed reference points; but during the next four years while ecological-based reference points are being developed for our consideration, we would freeze the menhaden quota until 2020.

MR. CLARK: Would this go to an addendum?

MR. GROUT: Addendum, yes.

CHAIRMAN BOYLES: Further discussion? I'll read the motion. **The motion is to amend the substitute to include after the word "2017", "to include an option to freeze the quota until 2020". That motion to amend the substitute was made by Mr. Grout and seconded by Mr. Gary.** All those in favor of the motion to amend, please signify by raising your right hand – would you like to caucus; take a minute to caucus.

(Whereupon, a caucus was held.)

CHAIRMAN BOYLES: We've got a motion to amend the substitute. Tom, the question has been called. Yes, point of clarification, Mr. Fote.

MR. FOTE: Yes, we've made a couple of motions and we actually passed a couple and we haven't had any public comment. I'm just wondering when we're going to get the public comment on any of this.

CHAIRMAN BOYLES: Thank you, Tom, that's a good question. It is my intention to have a public comment after the board has had sufficient discussion on a perfected amendment. As perfected, we've got a motion

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

to amend and a motion to substitute. My intention would be to dispense with the bottom motion; and depending on what that vote does, roll up the screen and when we get to the top of the screen, after the board has had comment, to invite the public. Is everybody clear?

The motion before us is to amend the substitute to include after "2017", "to include an option to freeze the quota until 2020". Motion by Mr. Grout and seconded by Mr. Gary. **All those in favor of the motion please signify by raising your right hand; all those opposed please signify by raising your right hand; null votes; abstentions. The motion to amend the substitute fails.**

That takes us **back now to the substitute motion**, which is to proceed with an addendum to implement biological reference points from the 2015 benchmark stock assessment for implementation in 2017. That substitute motion is by Mr. O'Reilly and seconded by Mr. Allen. Is there further discussion on the substitute? Derek.

MR. DEREK ORNER: A question of clarification. The process now is we have an addendum to implement the reference points from the '15 assessment; potentially then an amendment to include the socioeconomic analysis; and then another amendment a year or two down the road from there to incorporate the ecological reference points.

CHAIRMAN BOYLES: That is correct. If this motion to substitute does pass and that main motion does pass, that is correct. I'll look to staff to clarify.

MR. WAINE: I'm a little bit confused about the substitute. If the substitute passes, does it completely take – okay, if the substitute passes, that is basically saying the ERPs that came out of the benchmark assessment are the ones we're going to move forward with in an addendum document.

We've already made the decision on allocation to wait for the social and economic analysis to move forward with that topic; and that is going to happen through the amendment process. Noting that, I think that if this passes, it just deals with the reference points for now. If the board wants to consider ERPs again down the road, they could initiate another document when those ERPs become available. Does that clarify, Derek?

MR. ORNER: That was exactly my thinking; I just wanted to make sure that I was following right.

CHAIRMAN BOYLES: Further questions or discussion? I will read the substitute motion. **It is a motion to substitute to proceed with an addendum to implement biological reference points from the 2015 benchmark stock assessment for implementation in 2017. Motion by Mr. O'Reilly and seconded by Mr. Allen.** Is there a need to caucus? Bob.

MR. BALLOU: I guess I just need to better understand what we would be asking – what is the alternative? If we're seeking to proceed with an addendum to implement BRPs from 2015 benchmark stock assessment, if we don't agree to move forward in that way, what is the fallback; what is the alternative? I don't understand what the decision would be if we move forward in this way.

MR. WAINE: It would simply formalize the reference points that came out of the 2015 benchmark stock assessment, which we're already using for management use, into the management plan.

MS. NICHOLA MESERVE: So the substitute motion also removed the inclusion of the Lenfest approaches or similar approaches from the Amendment 3, which we are looking at and we've already initiated?

MR. WAINE: I believe when the maker of the motion made the motion he specifically

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

requested that Lenfest be removed; is that correct, Rob?

MR. O'REILLY: That is correct and that was the advice of the technical committee on multiple times. We've heard that multiple times today; and so that was my reason.

CHAIRMAN BOYLES: Further questions or clarification? Does everybody know what we're voting on? There has been no request to caucus. **All those in favor of the substitute motion please signify by raising your right hand; all those opposed to the motion please signify by raising your right hand; null votes; abstentions. The motion fails by a vote of eight yes to nine no.**

We're back to the original motion. Is there further discussion from the board on the original motion? Further comment? I would like to offer some limited opportunity for public comment, recognizing we're past schedule now. I see Mr. Himchak. Pete, could you come up and identify yourself.

MR. PETER HIMCHAK: Peter Himchak, Omega Protein. I've a new kid on the block so cut me a little slack here. I just wanted to bring up to the board's edification or whatever that there are other options besides Lenfest. Okay, there is a significant forage fish initiative going on in the west coast; and it has recently – it has already completed one year.

It will have a product at the end of 2016 specifically dealing with the models and the assumptions and the recommendations of Lenfest. Call it an anti-Lenfest Campaign, but that is what it is. It includes SSC members from the New England Council, the Mid-Atlantic Council, the National Science Foundation and the Northeast Fisheries Science Center. These are both international and national scientists; and there is another option in town besides just the current Fs and Lenfest recommendations. Thank you.

MR. PATRICK PAQUETTE: Patrick Paquette. I'm a recreational fishing advocate from Massachusetts. If I could start the comment with a question, Mr. Chair, I just want to understand this vote, if it passes – if this motion passes, it will be then automatically hitched to the consensus agreement earlier regarding allocation?

CHAIRMAN BOYLES: The timing would work, correct.

MR. PAQUETTE: Beautiful! As a New England charter captain, tackle company owner and advocate who works with recreational organizations from Maine to North Carolina, I support this motion. I want to thank you for what I believe is a very courageous commitment that you're keeping to the public in moving down this road. The way I think that some people will see it to 2018 I think is reasonable based on the discussion today.

Keeping these two aspects of the amendment together is important. I believe that you have set yourself up for a vote in the future to vote for a corrected – because I don't believe it is reallocation because I was there in Baltimore when we all said that the 80/20 was not necessarily accurate; that our friends in New York and Rhode Island and up and down this coast have now with full accounting recognized that we have to correct that.

But to be able to vote for conservation along with a corrected allocation I think is going to be a beautiful move in the future; and we're going to get it right if we continue to go down this road; to have that kind of robust discussion that Mr. Himchak just said about actually to see over the next year.

To see the best available science going down the road to real ecosystem management; that's something you should all be proud of. I hope that you pass this motion. I hope that the building – this is one of the few stocks – I heard three times this week about how stocks are not

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

responding to your actions. This is one of the few stocks that is clearly responding to your actions.

We had a wall of menhaden biomass that went right up to the mouth of Buzzards Bay; and those of us on the south side of Cape Cod are licking our chops for the next two seasons. I run a fishing lodge for fishers and where we rent houses and guide people who come to fish in the Martha's Vineyard Striped Bass and Bluefish Derby. We saw the most amount of peanut bunker that we've seen since the early 2000's.

This is a direct result of your recent management decisions. We had better fishing on the south side of Massachusetts because of what you're doing. My friends in Boston and my former business partners in Gloucester are looking forward to this stock coming back into the range that it was always in and for us taking advantage of that opportunity.

CHAIRMAN BOYLES: Thank you, Mr. Paquette. Further discussion or comment? Emerson.

MR. HASBROUCK: This discussion has gone on for quite some time. I'm looking at the motion and I don't know what I'm voting on, to be honest with you. It references an Option 2. I'm looking at the documentation that we have provided to us for this meeting; and there isn't a staff memo or any other document that outlines Options 1 or 2 or 3 or 4 or 5.

CHAIRMAN BOYLES: Emerson, thank you for that. Let me clarify. As I understand the motion, this is a motion to proceed with the development of a public information document that would be in support of the development of an amendment using ecological reference points and allocation as consistent with what we talked about earlier. With a PID in 2017, we've got the time to consider a number of reference point options, correct, Mike?

MR. WAINE: I think what you're getting at is the flexibility of this timeline would allow for

the board to consider adding other ERPs as were brought up that potentially would become available between now and then; but noting that this does not hit the timeframe that the BERP Working Group will be working on, which is that three to four years. Does that clarify it at all, Emerson?

MR. HASBROUCK: No; I'm not questioning the timeline. I'm questioning that we're going to vote on something called Option 2 and we have no description or background on what Option 2 is. We don't have a staff memo that outlines several different options here; so what am I voting on here? Even this, reference point options are not included in a staff document that I'm aware of anyhow.

MR. WAINE: Yes, you're correct, this was not in a staff document. This came directly from this slide. The one that the motion refers to is the option to sync up ecosystem reference points that are available right now with revisiting of allocation. That timeframe is to develop a PID in 2017 and the amendment throughout that year, so there are two rounds of public comment on both of these topics, allocation and ERPs, and to implement that management document for 2018.

The motion specifically refers to this Option 2 on the slide, which is a timeline option that matches up with the previous decision that the board made, which was to wait for the CESS Socioeconomic Analysis before moving forward with allocation. When the board goes through the amendment document to revisit allocation, after waiting for CESS, it will also include these reference points, which is the Lenfest and the current ones that we have out of the benchmark assessment for moving forward. Does that clarify?

MR. HASBROUCK: Yes, that clarifies; so then if one wanted to change the wording in Option 2, then would we have to amend the motion? If so, then I have an amendment to offer.

Proceedings of the Atlantic Menhaden Management Board Meeting November 2015

MR. WAINE: I think that if you're trying to change the timeline, then the motion needs to be amended. If you're trying to change the contents, then remember that this is an amendment process. There are two rounds of scoping. There is a public information document that scopes broadly the issues; and then there is also an amendment that follows that public information document.

The board can include things in both the public information document and the amendment that have to do with these issues through the process of going through the PID and the amendment. If you're trying to basically add another component, what I'm trying to say is that the board has the ability to do that through the actual amendment process.

CHAIRMAN BOYLES: Approval of this motion simply directs staff to begin the development of a public information document that will include the range of options as described in the motion. Does everybody know where we are? Questions on clarification of the motion? No discussion, questions on clarification of the motion? Kyle.

MR. SCHICK: The motion talks about an allocation. We already discussed that. I don't understand what this is different –

CHAIRMAN BOYLES: It is just to tie the fact that this public information document would also include options for the public to consider in terms of allocations. It is simply to reference back –

MR. SCHICK: What options, though, are we considering for allocation?

CHAIRMAN BOYLES: The options that were presented in Mike's presentation earlier today.

MR. SCHICK: We already had made the decision about allocation; so I didn't know there were any other options.

CHAIRMAN BOYLES: This simply says we're putting ecosystem reference points and allocations in one public information document. Further questions from the board? Is everybody ready to vote? Rob.

MR. O'REILLY: We're using the same lingo a little bit today, but we're talking about two types of reference points here, in other words; so to be clear, eventually we will have the BERP Report coming at us down the line and then we'll have those reference points. I hope that we'll get a chance to talk about this a little bit the next time around as far as the messaging as to what ecological reference points are compared to what the board has already committed to for the approach from the BERP. Thank you.

CHAIRMAN BOYLES: Absolutely; we'll talk about it a lot. Lynn.

MS. FEGLEY: Mr. Chairman, this is not a question but a clarification. The intent of the motion for the ERPs; that this amendment could include ERP options of any ilk that are available to be implemented in 2018.

CHAIRMAN BOYLES: Does everybody know what we're voting on? All those in favor of the motion please signify by raising your right hand; all those opposed to the motion please raise your right hand; opposed raise your hand; null votes; abstentions. **That motion carries.**

DISCUSSION OF ALLOWANCE OF CAST NETS UNDER BYCATCH PROVISION OF AMENDMENT 2

We have one more agenda item regarding cast nets. We need to take a hard stop pretty quickly. Jim Gilmore.

MR. JAMES J. GILMORE, JR.: Taking a leap of faith and trusting in my fellow commissioners that we're going to dispense of this in record time, I have a motion if you're ready, Mr. Chairman. **Move to continue the management**

of cast net fisheries under the bycatch allowance provision for 2016.

CHAIRMAN BOYLES: Motion by Mr. Gilmore; there is a second by Mr. Estes. **Is there discussion on the motion? Is there any opposition to the motion? Seeing none; that motion carries.**

OTHER BUSINESS

Is there any more business to come before the Menhaden Board? Mr. Reid.

MR. ERIC REID: I apologize to my fellow commissioners. Do we have to add a discussion about TAC to our winter meeting on menhaden? If we do, I have a motion and I can give it to you right now?

CHAIRMAN BOYLES: No, we've specified the fishery for 2015 and 2016.

MR. REID: Correct; and do we need to initiate a discussion about TAC for 2017 at our next meeting or not? I'll give you a motion right now if you want it. Honestly, in all the confusion, I kind of got a little confused; but if we don't need a motion, that's fine.

CHAIRMAN BOYLES: I think we can deal with that in February. I apologize for your being confused. That's poor meeting management on my part.

ADJOURNMENT

Any further business to come before the Menhaden Board? Thank you for your patience with me as we navigate this. We're adjourned.

(Whereupon, the meeting was adjourned at 6:05 o'clock p.m., November 3, 2015.)