

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

**Crowne Plaza Hotel - Old Town**  
**Alexandria, Virginia**  
February 8, 2012

Approved May 2, 2012

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## INDEX OF MOTIONS

1. **Approval of agenda by consent** (Page 1).
2. **Approval of proceedings of November, 2011 by consent** (Page 1).
3. **Move to approve the PID to Amendment 2 for public comment with the following Modifications** (Page 22):
  1. **Addition of the 10-year rebuilding timeline option to achieve the target;**
  2. **Clarification of *de minimis* provisions;**
  3. **Clarification of timeframe to achieve the target and threshold fishing mortality reference point (discussion of level risk, including 50 and 75%);**
  4. **Addition of state reporting requirements to Appendix 1;**
  5. **Addition of previous F threshold to fishing mortality figure on Page17;**
  6. **Addition of detailed landings tables;**
  7. **Discussion on changing bait demands through management changes in other fisheries;**
  8. **Request for social and economic data;**
  9. **Discussion on the movement towards ecological reference points;**
  10. **Addition of PDT language in response to the AP recommendations;**
  11. **Addition of a description of the reductions needed to achieve the threshold and target, including the caveats that the projections will change with the new assessment;**
  12. **Addition of a bycatch allowance.**

Motion by Adam Nowalsky; second by Robert Boyles. Motion carried (Page 22).
4. **Move to postpone action until the May 2012 board meeting and task the MSTC with development of a clear problem statement, provide a detailed budget and potential funding options** (Page 27). Motion by John Duren; second by Pat Augustine. Motion carried (Page 29).
5. **Move to approve Jason McNamee, Harry Rickabaugh, Derek Orner and Joe Grist to the Plan Development Team** (Page 30). Motion by Bill Adler; second by Pat Augustine. Motion carried Page 30).
6. **Move to appoint Dr. Peter Schumann to the Plan Development Team and the technical committee** (Page 30). Motion by Pat Augustine; second by Bill Adler. Motion carried (Page 30).
7. **Motion to adjourn by consent** (Page 31).

## ATTENDANCE

### Board Members

Terry Stockwell, ME, proxy for P. Keliher (AA)  
Steven Train, ME (GA)  
Sen. Brian Langley, ME (LA)  
Dennis Abbott, NH, Legislative Proxy  
Doug Grout, NH (AA)  
G. Ritchie White, NH (GA)  
Rep. David Watters, NH (LA)  
David Pierce, MA, proxy for P. Diodati (AA)  
Bill Adler, MA (GA)  
Rep. Sarah Peake, MA (LA)  
Jocelyn Cary, MA, proxy for Rep. Peake (LA)  
Mark Gibson, RI, Administrative proxy  
Robert Ballou, RI (AA)  
Bill McElroy, RI (GA)  
Rick Bellavance, RI, Proxy for Rep. Martin (LA)  
David Simpson, CT (AA)  
Dr. Lance Stewart, CT (GA)  
Rep. Craig Miner, CT (LA)  
James Gilmore, NY (AA)  
Pat Augustine, NY (GA)  
Brian Culhane, NY, proxy for Sen. Johnson (LA)  
Peter Himchak, NJ, proxy for D. Chanda (AA)  
Adam Nowalsky, NJ, proxy for Asm. Albano (LA)  
Tom Fote, NJ, (GA)  
David Saveikis, DE (AA)  
Jeff Tinsman, DE, Administrative Proxy  
Roy Miller, DE (GA)  
Bernie Pankowski, DE, proxy for Sen. Venables (LA)  
Tom O'Connell, MD (AA)  
Lynn Fegley, MD, Administrative proxy  
Bill Goldsborough, MD (GA)  
Russell Dize, MD, proxy for Sen. Colburn (LA)  
Jack Travelstead, VA, Administrative Proxy  
Catherine Davenport, VA (GA)  
Louis Daniel, NC (AA)  
Michelle Duval, NC, Administrative proxy  
Mike Johnson, NC, proxy for Sen. Wainwright (LA)  
John Frampton, SC (AA)  
Robert Boyles, Jr., SC (LA)  
Patrick Geer, GA, proxy for S. Woodward (AA)  
John Duren, GA (GA)  
Aaron Podey, FL (AA)  
Steve Meyers, NMFS  
Jaime Geiger, USFWS  
A.C. Carpenter, PRFC

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

### Ex-Officio Members

Jeff Brust, Technical Committee Chair

### Staff

Vince O'Shea  
Robert Beal

Mike Waine  
Mark Robson

### Guests

Tom McCloy, NJ DFW  
Carrie Kennedy, MD DNR  
Tommie O'Connell, MD DNR  
John Clark, DE DFW  
Charles Lynch, NOAA  
Alexei Sharov, MD DNR  
Derek Orner, NMFS  
John Clark, DE DFW  
Jason McNamee, RI DFW  
Wilson Laney, USFWS  
Ellen Cosby, PRFC  
Mike Armstrong, MA DMF  
Dave Ellenton, Cape Seafoods  
Raymond Kane, CHOIR

Rob O'Reilly, VA MRC  
Skip Feller, VA Beach, VA  
Jeff Kaelin, Lund's Fisheries  
Ken Himman, NCWC  
Dick Brame, CCA  
Chris Moore, CBF  
Roger Fleming, Earthjustice, DC  
A.J. Erskine, Bevans Oyster VA  
Jimmy Kellum, Weems, VA  
Benson Chiles, Chiles  
Consulting, NJ  
Steve Rucheman, MD DAG  
Steve Weiner, CHOIR  
Dave Wallace, Wallace & Assoc., Cambridge, MD

## Guests (cont'd)

Pete Jensen, Wallace & Assoc.,  
Cambridge, MD  
Matt Roney, Johns Hopkins Univ.  
Thomas Miller, FORVA  
Jerry Benson, Menhaden Coalition  
Ken Hastings Mason Springs  
Jeff Reichle, Lund's Fisheries  
Theresa Labriola, Pew Env. Grp.  
Kristen Cevoli, Pew Env. Grp.

Greg Wells, Pew Env. Grp.  
Peter Baker, Herring Alliance  
Ben Landry, Omega Protein  
Monty Diehl, Omega Protein  
Ron Lukens, Omega Protein  
Janice Plante, Commercial Fisheries News  
Patrick Paquette, MSBA  
Shaun Gehen, KellyDrye Warren, DC  
Joseph Hickemeyer, MA

The Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the Presidential Ballroom of the Crowne Plaza Hotel, Alexandria, Virginia, February 8, 2012, and was called to order at 9:00 o'clock a.m. by Chairman Louis Daniel.

### **CALL TO ORDER**

CHAIRMAN LOUIS DANIEL: Welcome to the Atlantic Menhaden Board. We don't have quite the crowd at this meeting as we had in Boston and maybe we'll get some things done. Just to sort of set the stage, the commission at its Boston meeting set our new reference points and targets at 15 and 30. I think we've got ourselves on the road to taking the necessary action to protect the stock.

Now what we need to try to do is come up with a plan of attack here through this amendment to implement those new reference points and to protect the fishery and the fishermen and be able to allow continued access for this resource at a perhaps more responsible level. With that, I am Louis Daniel. It's my first meeting as vice-chairman and I appreciate all the kind words I've received around the table and congratulations to our Chairman Paul Diodati. His first meeting seems to be going well.

### **APPROVAL OF AGENDA AND PROCEEDINGS**

CHAIRMAN LOUIS DANIEL: You've got your agenda and our minutes from our November meeting. Is there anyone that needs to discuss that agenda or those minutes; any corrections; anything necessary to do there? If not, by consent we will approve the agenda and the proceedings.

### **PUBLIC COMMENT**

CHAIRMAN LOUIS DANIEL: I don't have anyone signed to speak from the public, but would allow, if somebody has something they would like to say that is not on the agenda, opportunity for that this time. Is there anyone in the audience that would like to speak? Yes, sir.

MR. JAMES KELLUM: Mr. Chairman, I am Jimmy Kellum from Virginia. I am a purse seiner from Virginia. I would like to comment that before the board takes action to release a public information document that they consider coming up with a plan to have a unified data collection system from each state.

It seems apparent to me that those of us who for 20 or 25 years have been keeping daily records of our

menhaden catch and landings are going to be the first and most penalized under our new quota system, whatever these management measures are. I think it's important for us to come up with a unified system.

There is a bait fishery in Florida that has no numbers. There is a pound net fishery in Maryland. At the Boston meeting none of the information from New Jersey was read to the group. The board doesn't even know how many menhaden is being landed or how many different gear types are being used. Before we fast track this thing through – and I have seen the list for the fast track – I implore you to consider unifying all the states into one data collection. Thank you.

CHAIRMAN DANIEL: Thank you, Mr. Kellum. Seeing no other hands in the audience and none from the board, we will move into our first report, which is our technical committee report.

### **TECHNICAL COMMITTEE REPORT**

MR. JEFF BRUST: My name is Jeff Brust from New Jersey Marine Fisheries. I'm the chair of the Menhaden Technical Committee. I will go through some results of a task that the board has put forward to us. We were asked to develop a methodology for calculating allowable harvest levels to meet our new fishing mortality reference points.

Again, the threshold is 15 percent maximum spawning potential, which is about an F of 1.32, and the target of 30 percent maximum spawning potential of about 0.62. The board requested that we look at these harvest levels that would achieve these reference points; the threshold in one year and the target in a range of one to five years to allow some phase in to reach the target.

Inherent in this task was we had to come up with a method to incorporate terminal year uncertainty from the stock assessment. At this point we have a prototype methodology developed. We have some fine tuning that we want to do to try and improve the methodology. Even if we didn't have those things in mind, these numbers cannot be final because we need input from the board to help direct where we're going with this.

Also, we will be doing a stock assessment update in 2012, and we will use the terminal year

estimates from that stock assessment to develop the final numbers that the board will have to work from. The methodology is projection based. It's very similar to all the other projections that we have presented to the board in the last couple of years.

The assumptions that we've made are consistent with the assumptions that we've made for all those other projection exercises. We have got the same input data decisions; and as I said, we have some ideas for modifying the process slightly, but everything is consistent at this point with what you have seen in the past.

The results are probability based; and some of the input that we need from the board, the board at some point will need to make a decision on an acceptable risk level. I don't think we need that to move forward with our analysis, but at some point the board will need to make a decision so that they can move forward.

A little bit more specifics on the methodology; we have taken the terminal numbers at age from the 2009 stock assessment. We have made some assumptions about natural mortality, about recruitment and about allocation among the sectors and a couple other different things. The biggest assumption at this point is the recruitment. That seems to have the biggest effect on the results. Right now we are assuming that there is no spawner-recruit relationship.

One of the things that we want to do is look into that. You might recall that one of the benefits of going with the maximum spawning potential reference points is that hopefully that we will increase the spawning stock biomass, which should lead to an increase in recruitment in good years. Using no spawner-recruit relationship is very conservative.

We want to look at possibly identifying some spawner-recruit relationship to show some feedback between increasing spawning stock and the recruitment levels. Those are the inputs and the assumptions that we've made, and then to run the analysis we looked at a number of different constant landing levels to see how the stock would respond. We project the population through 2017, 2,000 iterations each time. For each year we evaluate the probability that that harvest level achieves either the target level or the threshold level.

Again, the results are conditional on assumptions of the recruitment level. One point of information that we need from the board is the allocation among the sectors. Right now we're assuming it's 75 percent

reduction and 25 percent bait. That's the average over the last couple of years. If the board wants to reallocate harvest among the fisheries, we will need to know that because it will impact the results because they do have different patterns.

Just a quick example of the results that you get out of this; the blue line is the probability of achieving the threshold fishing mortality rate and the red line is the probability of achieving the target fishing mortality rate. This example uses a harvest level of 175,000 metric tons per year as I said allocated 75 percent to the reduction and 25 percent to bait.

What this is showing is that if we set the harvest level at 175,000 metric tons, in 2013 we'd have about a 12 percent probability of achieving the threshold fishing mortality rate and a very, very slim chance of reaching the target level. If we kept 175,000 metric tons harvest through 2017, we'd have about a 55 or 60 percent chance of being at the threshold fishing mortality level and about a 10 or 15 percent chance of being at the target fishing mortality level.

This is just one example. Hopefully, you guys can all see this. As I said, we looked at a range of harvest levels. Up in the top left corner it starts at 75,000 metric tons, 100, 125, 150, 175, 200 and 225,000 metric tons per year. You can see from the top left towards the bottom the higher the harvest level is the lower the chance that you're going to meet these reference point levels.

At 75,000 metric tons between now and 2017, by the end we have a very good chance, almost a hundred percent chance that we will be at our reference points, but in the lower left-hand corner you see if we keep harvest at about where we are now, 225,000 metric tons, we will have a very low chance of meeting either of those reference point levels.

Again, I want to stress these are very preliminary numbers. We have some ideas that we want to look at to try and improve this. We need some input from the board and we need the results from the 2012 stock assessment update, so these are just preliminary numbers. This is just an example of what you might be looking at during the August or November meeting in terms of harvest levels that you need to implement to get to your reference points.

Okay, so moving forward, yes, we need a couple of decisions by the board. We don't need it for our work, but as I said at some point the board will need to define an acceptable level of risk, the probability of achieving the reference point. This one we do need; we need some input from you guys on the allocation among the sectors. Should it stay at what it has been for the last five or ten years? Do you want to shift the allocation to the bait or to the reduction fishery because that will influence the results.

And then, as I said, the technical committee had some things that we need to do before we can give you the final numbers. We're going to investigate some fine-tuning ideas. We need to complete the 2012 stock assessment update. We'll need to incorporate the decisions from the board and then we can run the final calculations.

And just in case anyone is interested in what the fine tuning is, the method I presented assumes a constant level of harvest so a constant harvest level every year for the duration of the projection. We also want to look at implementing a constant fishing mortality rate and getting a distribution of a harvest level that reaches the reference points; so if we plug in  $F$  of 0.62 it will give us a range of harvest levels that reach that fishing target.

We want to link the juvenile index and the recruitment numbers. As I said before, we want to investigate the spawner-recruit function, and we want to try and incorporate the bootstrap results from the terminal year of the stock assessment and use those as starting points for each of our projection numbers. That concludes my report.

CHAIRMAN DANIEL: Nicely done! Any questions for the technical committee? Jack.

MR. JACK TRAVELSTEAD: Jeff, you have suggested that there are two things you need advice on from the board, the level of risk relative to the probability of achieving the reference points and then this allocation issue between I guess bait and reduction. I guess my question is how quickly do you need that?

It seems to me those would be two questions that we should submit to the public as part of the PID that we're getting ready to look at here today and get feedback from the public and the industry on those and then at that point consider that and then provide that advice back to the TC unless you need it more quickly.

MR. BRUST: In terms of the acceptable risk level, I don't think we need that to move forward. I just wanted to give the board a warning that at some point that decision is going to need to be made. It probably wouldn't be a bad idea to put that in the PID and request input from the public.

As far as the allocation among the sectors, we will need that to do our final calculations. I don't know the timeline for implementing the regulations, probably at the November meeting of this year. To run the calculations and provide ample time for the technical committee to review them and all that, I would those decisions would have to be made by the August meeting so that we can take back to the technical committee and do the final calculations in preparation for the November meeting.

MR. A.C. CARPENTER: Can you remind me of what the schedule for the completion of the stock assessment is, when that will be completed and peer reviewed?

MR. MICHAEL WAINE: This is actually in the PID presentation but we'll hit it now. Right now the board is considering approval of the Draft PID, and in March we will take the document out to public comment. In April the stock assessment update will begin by compiling data for that update.

In May the board will review – I'm presenting the simultaneous schedule with the amendment and the stock assessment update. The stock assessment update steps are highlighted in yellow on this presentation. In May the board would review the public comment and give direction on Draft Amendment 2, and also in May the stock assessment modeling would occur. In June Draft Amendment 2 would be prepared alongside the assessment workshop. Everything would be finalized in July and ready for the August meeting. Essentially the stock assessment update will coincide with the draft amendment and be presented to the board essentially at the same time at the August meeting.

MS. LYNN FEGLEY: Compliments, Jeff, to you and the TC for a nice job. I agree with Jack that these two questions would be well suited for public input. I'm wondering about the allocation question, though. If you can give us some idea



of how sensitive the results are to the allocation and what happens; in other words, if you shift the allocation which way, how does that impact your probabilities over time of achieving the targets and thresholds?

MR. BRUST: Unfortunately, I personally cannot at this time answer that. What I can say, though, is they do have the different selectivities. The bait fishery tends to harvest the larger fish and the reduction fishery the smaller fish. I do not know what specifically providing more allocation to one or the other would do to the results. I can find that out probably and get back to you.

MS. FEGLEY: I think that would be interesting for the board to know.

MR. PETER HIMCHAK: Mr. Chairman, I believe compliance reports are due April 1<sup>st</sup> or May 1<sup>st</sup> – April 1<sup>st</sup>, maybe. Okay, what I would ask the technical committee is to particularly focus on the accuracy of the bait landings on each state. As Mr. Kellum pointed out in the public comment period, there are segments of the bait industry that are well monitored and landings are accounted for quite accurately, and it would appear to me that they could likely be the most vulnerable in a reduction-setting process.

Our purse seine landings, again, we can account very accurately for who, when and where, but if there are bait landings that are not accounted for, then essentially they won't be factored into the allocation and then they may not even be addressed in any kind of subsequent board action. I would just ask states to be very careful in looking at potential sources of underreporting for Atlantic menhaden for bait.

MR. DOUGLAS GROUT: As far as providing input on allocation between the different gear types, first of all what I would suggest is that maybe we bound it, you know, have a status quo and maybe having 10 percent increase in the reduction fishery scenario and then a scenario where 10 percent more goes to the bait, only because I think this allocation really should be something that is market driven – what is the market – and not a management-driven scenario, so we just would need to know the information as to what the effect is by having those changes occurring.

Obviously, I think we wouldn't want to have any drastic changes occur between the two. As far as the risk, I would state that, yes, public comment should be taken on this, but I think we should give them

some ideas about what we think would be acceptable risk to our board and have a couple of options.

I know from my experience on the council I think we need to have a minimum of a 50 percent chance of attaining it. Oftentimes at least in the New England Council we go up to 75 percent chance of attaining those things. I think those would be a good start for putting together some acceptable risk. I would also might light to charge the plan development team with looking at other management entities to see if they have any other acceptable levels of risk that they've used in their fisheries management scenarios; you know, look at the different councils, look at the other commissions and see if they've implemented any kind of risk policies and to see if there is anything different between that 50 to 75 percent bound. Thank you.

CHAIRMAN DANIEL: Very good points. Bill Adler.

MR. WILLIAM A. ADLER: What A.C. had brought up about the particular schedules got me going here on this. On Page 4 where you have the schedule of the process, is this correct that in October of 2012 we review the public comment draft, we prepare a final amendment and we approve the final amendment all in one meeting; is that normally what we are doing there?

MR. WAINE: The schedule would be the draft amendment would go before the board for review at the August meeting; and if approved, that would go out for public comment and we would bring public comment back on that document for what is our annual meeting, which is scheduled for October this year, and that's when the board would consider final approval of Amendment 2.

MR. ADLER: All right, so you do have all three X's in the same spot. Okay, thank you.

CHAIRMAN DANIEL: I think the intent of the board at our Boston meeting was to have management measures in place by 2013. Some very good points made around the table; just a couple of I guess maybe questions or comments from me. I think Doug's point on the allocations and economics looking at the impacts of a reduction in the bait fishery, knowing how important that fishery is to our blue crab fishery and our lobster fishery particularly – and there

may be others – that may be an important caveat for us to look at.

Acceptable risk is what it is; it's how much do we want to hit and how fast do we want to get there. I thought of Mark Gibson in days of weakfish past when we looked at the spawner-recruit relationship and the recommendation or the reminder that we were way over to the far left-hand side of the spawner-recruit curve and it's hard to discern any kind of relationship if you're at such a low level of biomass.

That may be the circumstance that we're facing here, so one thing I would ask for the board to keep in mind is that as we do ease into this reduction scenario we should be able to get some sense as to whether or not we're having a positive impact on the spawning stock biomass and any subsequent recruitment circumstances. Hopefully, within a couple of years we'll see it.

I don't think we'll have to wait until five or six years to start seeing an improved recruitment with the number of sampling programs that we have throughout the coast. I am concerned about the public comment that we received in terms of I don't know what the magnitude of those efforts that we're not capturing are. My understanding is they would be a very, very small component of the catch.

If we were to include that catch, would that result in a more optimistic or a more pessimistic stock assessment? That I'm not quite sure on, but we may be thinking here along the lines of state by state as we move forward with this. If there are concerns as indicated by the public, if states have failed to properly account for their bait harvest, then perhaps those states that have been able to account for that bait harvest, those fishermen in those states maybe should not be penalized. Is my characterization, Jeff, of the spawner-recruit relationship, is that reasonable and do you expect – my understanding when we kind of moved into this was that we should be able to see some successes even at the 15 percent early on which would allow for more harvest. Is that still the thinking of the technical committee?

MR. BRUST: Well, as we've said in the past, I think you all know the spawner-recruit relationship is very hard to discern in menhaden. It seems to be very highly environmentally driven, but the theory is, yes, by increasing the spawning stock biomass in those years when we have good environmental conditions, yes, we should see good increases in the recruitment as well.

CHAIRMAN DANIEL: Thank you. Any other questions? Jaime.

DR. JAIME GEIGER: Mr. Chairman, I think your comments were very appropriate and right on. Given the importance of the public comments we heard today, is the technical committee well aware of the implications and magnitude of some of the other bait fisheries in advance of doing the stock assessment? Could I ask you to give another review of the process and the timeline for the stock assessment, please? Thank you.

MR. BRUST: Dr. Geiger, I believe the question was are we aware of the magnitude of the bait fisheries for menhaden? Yes, we collected the bait landings by state and by gear every year and they are incorporated into the stock assessment. Perhaps I'm missing the underlying intent of the question or does that answer your question?

DR. GEIGER: No, sir, I just want to make sure that we're using all the available state information, but I also heard that there is information that also the industry and other folks have that may not necessarily be available or being utilized by the technical committee in advance of the stock assessment. I'm just curious to know is that a correct statement and are the processes in place to get that kind of information. Thank you.

MR. BRUST: To my knowledge we are using all of the available information whenever we do a benchmark assessment. This is a stock assessment update so any new available information, under the ASMFC process for updates we generally just use the same information used in the last benchmark and run the same model.

Any new available information would not be incorporated until the benchmark assessment. That is my understanding right now that we are working under an update process rather than a benchmark process. Whenever we do a benchmark, we get all the information that we can find. We beat the bushes and try to get all the information we can. Mike, you might go over the process again.

MR. WAINE: Dr. Geiger, I'm going to go through the process again and timeline in my

PID presentation and that is the next agenda item, so I'll defer to that. Thanks.

CHAIRMAN DANIEL: And if the board is not confused a little bit, I am, so I'm going to clarify one thing, that I think is what the public comment was is not that we might not be using information that we have. It's that we're not collecting information in some of the states where there is a bait fishery. I believe that was the comment from the public and what was the intent there was there may be some fisheries that we're just not capturing because they're either at such a low level or it's not considered important or whatever the case may be.

I think that might be the concern that when you start to look at allocation, by not including those in the allocation scheme, the bait fishery will be compromised by that failure of some states to account for those landings. Is that a fair characterization of the public comment? Yes, thank you. Anything else for the technical committee report? If not, Jeff, thank you very much, very well done.

We'll move on now into Mike's presentation on the PID. If we have our advisory panel chairman here, we will get his comments as well on that. If not, Mike will take care of that. And then just for your information, I will need a motion to approve this for public comment and public meetings at the conclusion.

## **DRAFT PUBLIC INFORMATION DOCUMENT TO AMENDMENT 2**

### **REVIEW OPTIONS**

MR. WAINE: I'll move through the draft public information document for Amendment 2 for Atlantic menhaden. This was on the briefing CD. I'm going to start with the timeline. This is the timeline specifically for Amendment 2, and then later I'll talk about the timeline of Amendment 2 and how that coincides with the stock assessment update.

The timeline for the PID is this meeting now the board is reviewing this document for public comment. In the spring the staff will take the document out for public hearings and bring back public comment at the May meeting. At that point the board will task the PDT to develop Draft Amendment 2, narrowing the focus of the document. In the summer the PDT will develop the Draft Amendment 2. At the August board meeting the

board will review the draft and send that out for public comment at that point. We'll take Draft Amendment 2 out for public comment in the fall and then at the annual meeting bring back any public comment and the board will consider finalizing the document at the annual meeting.

The purpose of the PID, as was mentioned, the board selected new fishing mortality reference points at their November 2011 meeting. Those were based on maximum spawning potential and were intended to provide an increased protection for spawning adults. The threshold is an F 15 percent MSP, which is equal to 1.32; and the new target is an F 30 percent MSP, which is equal to 0.62.

Based on the terminal estimate fishing mortality rate, which is currently 2008, is equal to 2.28 so overfishing is occurring and the board must take steps to reduce fishing mortality to the new target level. The purpose of the PID is to scope a suite of potential tools to manage the fishery towards the target.

Just as a reminder, staff took out Addendum V, which was approved at the last meeting, and that contained a lot of the same information that this public information document contains as we scoped a series of management options in that document as well. An overview of the PID contains four major issues.

The first is a timeline to achieve the new fishing mortality target. It deals with timely and comprehensive catch reporting, recreational fishery management tools, commercial fishery management tools. The overarching question for this is how would the public like the Atlantic menhaden fisheries to look in the future, so I'll go through each issue now.

The timeline to achieve the target, as mentioned the board must take steps to end overfishing immediately to meet the threshold. Reducing F to the target will require a longer timeframe, so the board is considering a one- to five-year timeframe to achieve the target level. The overarching question is if reducing F occurs over a longer time period, should the reductions and landings be equal across years?

The next issue is timely catch reporting. As was discussed earlier this morning, current catch reporting does not provide complete data particularly in the bait fishery and better

reporting would allow managers to monitor landings throughout the season. It would also allow to more easily evaluate the effectiveness of a particular management tool such as a quota. The question to the public here is how should the landings reporting systems be improved?

The next issue is recreational fishery management measures. Menhaden is an important bait in many recreational fisheries, as was discussed in detail in the last addendum. Currently no recreational fishery management measures have been implemented; and so to reduce fishing mortality there is a need to explore other management options that could be used to control the recreational fishery.

As the technical committee presented this morning, they presented harvest level scenarios and with the assessment update those will change; and so when we bring the amendment document forward for the August meeting, we'll update the harvest level scenarios and include that information in the amendment. The estimates will come from the 2012 stock assessment update.

The methodology that the technical committee developed along with some of the advances that they're still working on will be the same methodology used to re-estimate the harvest level scenarios when the stock assessment update occurs. I'm going to go through the timeline again for how those two will pair up.

At this meeting, like I mentioned, the board is considering approval of the draft PID. In March we'll take the document out for public comment. In April the stock assessment subcommittee will begin compiling the data for the update. At the May meeting the board will review public comment on the PID and give direction for Amendment 2. Also in May the stock assessment modeling work will occur.

In June the PDT will prepare a Draft Amendment 2 and there will be an assessment workshop for the stock assessment update. In July the PDT will finalize Draft Amendment 2 and simultaneously the stock assessment subcommittee and technical committee will finalize the stock assessment update. At the August meeting the board would review Draft Amendment 2 and the 2012 stock assessment update at the same time.

The recreational management options were detailed in Addendum V and carried over into this public information document. Those are status quo, which are no current recreational measures. Option 2 is size

limits, bag limits, seasons and area closures. Moving on to the fourth issue in the PID is the commercial fishery management measures. Menhaden supports a reduction and bait fishery.

The commercial harvest in 2010, the reduction fishery accounted for roughly 80 percent of total landings and the bait fishery accounted for roughly 20 percent of total landings. Several fisheries rely on menhaden for bait. Management changes are proposed for both the commercial bait and reduction fisheries.

As I mentioned before for the recreational harvest, the harvest level scenarios to achieve the new threshold and target F rates will come from the 2012 stock assessment update. The information that Jeff presented will be updated with the fishing mortality estimates that come out of that assessment update.

Moving to the commercial management options, there is status quo, which is the Chesapeake Bay harvest cap; trip limits, gear restrictions, season closures, area closures, quotas which would need additional monitoring requirements as it's dealt with in the PID; effort controls and limited entry program. All of these management options have details associated with them in the public information document.

The PID ends with the background section that discusses the status of the fisheries management and the amendment and the five addendums that have occurred since, and then it also details the current status of the stock, which is based on the 2009 update, and that is that overfishing is occurring but the stock is not overfished.

It also details the social and economic impacts and discusses that those impacts would be proportional to the harvest level reductions that would occur. As I mentioned, those harvest levels would be updated with that 2012 stock assessment, so at this time specific information on impacts was unavailable. Thank you, Mr. Chairman, that concludes my summary.

CHAIRMAN DANIEL: Thanks, Mike; questions for Mike on the PID? Lynn.

MS. FEGLEY: Mr. Chairman, just one clarifying question; the terminal year for this assessment is going to be 2011; is that correct?

MR. BRUST: Yes.

MR. ROY MILLER: Thank you, Mike. Did the TC give any consideration to delaying harvest until the fish are somewhat older? That gets at the point that Lynn raised about potential differences due to the reduction fishery versus the bait fishery and the age at which the fish are harvested in those fisheries. Thank you.

MR. BRUST: At this point for this assessment, no, we have not discussed those, but I expect they'll come up during the deliberations.

CHAIRMAN DANIEL: I also think – and we might hear more later – there are spatial considerations for selectivity as well. Maybe in the more southern range they're smaller fish and in the northern range they're larger fish so the selectivities actually do change in the reduction fishery. Doug Grout.

MR. GROUT: First of all, Lynn and I made a comment that we might need to have something in this plan information document about acceptable risk by the board. I think if the board is so inclined, it might be good to put in a section on that with a couple of options. I proposed 50 and 75 percent based on some of the experience I've had at least as starting points to get comments. The second point that I'd like to make involves Page 17 of the document. There is a figure here that outlines the historical fishing mortality and presents our current threshold and target, which I think is very appropriate.

However, when I look at this after we have set this new threshold, I began to get a little concerned because it looks like we've been over the threshold the entire period that we have landings except of a couple of years back in the eighties. I don't think that adequately takes into consideration where we've been with management.

I don't think we've been irresponsible all these years. First of all, we didn't even start managing until 1981, which is clearly shown on there. What I would like to suggest is that we add in a line that shows where the old threshold was beginning with Amendment 1, which is when we implemented it, which would show that at least under our past management scenarios we were not over the threshold except for the final year, and at that point we took action, even though it couple of years to take action.

I think leaving this graph as is may provide a bad impression of the public looking at this that we've been irresponsible over these years and I don't think

we have. I think most of the times that we've been below our previous threshold have been since we started managing this fishery, so if we could add that line in from 2001 on saying the old threshold level was this.

CHAIRMAN DANIEL: That's an important point. Dave Simpson.

MR. DAVID SIMPSON: It occurs to me that this is a good opportunity and maybe a challenge to the commission to begin to think about practicing multispecies management. We're facing a reduction in the available harvest of menhaden and at the same time we manage fisheries that use quite a bit of menhaden perhaps not in the most efficient fashion.

In Southern New England we're looking at reducing traps to scale the fishery to the size of the available resource. There is quite a bit of evidence throughout the range of that fishery that there are far more traps being utilized than are necessary to catch the available harvest or to land the current level of landings, so we could reduce the demand for menhaden substantially without impacting other fisheries if we just took a little bit closer look.

There are hundreds of thousands of lobster traps fished all up and down the east coast from Maine to New Jersey, anyway. I think we need to practice a little across-board discipline to lighten the load on this fishery where I don't think there are many alternatives or an efficient way to reduce demand.

I think this is something for perhaps this board to consider and maybe include in any public information documents, but it may also be a challenge for the Lobster Technical Committee and the Lobster Board to take a look at that fishery and say how much can you cut menhaden use without impacting that fishery in terms of their landings.

CHAIRMAN DANIEL: I don't think we want to lose that point, especially like the socio-economic section of this document. I hadn't thought that way, but I'm looking around the table and I'm thinking about the blue crab fishery and the overcapacity there at least in certain states where there is a way that you could reduce the impacts on the potential for an increase in the price of bait for a reduction in those fisheries as well.

That may be something the industry has to take on their own in a fishery that's not managed by the ASMFC, but I think that's a good point that I would support being in the draft for public comment. Is there any objection to that by the board? I think that's an important component. Thank you, Dave. Bill Adler.

MR. ADLER: Mr. Chairman, a couple of things. First of all, on that last point one of the issues regarding bait, also is that with the herring, which is another serious bait, they keep getting squeezed on that front as well, which, of course, the balloon pops to menhaden, so you're trying to squeeze the menhaden but you're not helping out by allowing more herring.

Of course, we all know about groundfish issues, which is another source of bait, which, of course, has been skipped down as well, so menhaden becomes a very important bait fishery; and regardless of whether you're to cut traps or whatever you're trying to do, the other sources are getting squeezed as well, so it turns into a nightmare.

My question originally had to do with Page 11 of the PID, and is more of just a question. On 2010 the Mid-Atlantic, New York, Maryland catches, according to this, were higher than the Chesapeake and Virginia and on down; whereas in all the other years it seems Virginia and Chesapeake Bay numbers were always higher, and I didn't know what happened in 2010 on Page 11 to have the Mid-Atlantic catches exceed the Virginia, Chesapeake, PRFC landings. All the other years it was the other way around and I just didn't know if anybody knew why that was that way this year or 2010.

CHAIRMAN DANIEL: I have no idea.

MR. BRUST: I don't know specifically. I don't think we looked at it in enough detail at the technical committee level. From a personal standpoint, I know that landings went up substantially in New Jersey, which may have tipped the balance. As a technical committee we haven't looked at it specifically, but I'm sure we will when the assessment starts running.

MR. TRAVELSTEAD: Mr. Chairman, a couple of suggestions for some additions in addition to the two requests we heard from the technical committee, and it sounded like everyone was in agreement with including those; the one discussing the level of risk and the other the allocation information that the TC needs, reduction versus bait.

In addition to those, on Page 5, on Issue 1, the timeline to achieve the fishing mortality target, I'd like to specifically get the public's comments on a ten-year schedule to reduce F to the target and would ask that be included. I think the PID is all about prompting the public sufficiently that we get good comments back that we can use. If you don't ask them to comment on certain things, you may not get any comments.

Particularly given the distance between the threshold and target, which is quite large, and where the current fishing mortality rate is, I think it's reasonable to include a ten-year option in there. That would be one suggestion. Another is the board is on record as supporting eventually moving to some form of ecosystem-based reference points, and I don't want the public to lose sight of that.

I realize this document is mostly about the target and thresholds we chose at the last meeting; but if the board is consistent with the motion they passed about a year ago, I think we need to inform the public that ultimately that is the direction we want to head in. Those reference points could supplant what we're talking about here today, so I would ask that some discussion along those lines be added in as well.

Over on Page 14, under Option 6, quotas, we're prompting the public to talk about allocation and we lay out a number of options there, but I would suggest we add some tables in that are a little bit more detailed on landings and harvest, more detailed than the Table 1 that is on Page 11. I think it would be helpful if we could have that by state and by gear type rather than the regional approach that is shown on Table 1. I think that would help the public comment on those issues. I think that's it. Thank you.

MR. WAINE: Jack, just to clarify, we've approved the data for the bait landings by region because of confidentiality issues. The PDT could present landings by state but I think we'd have to average over a series of years to avoid confidentiality issues. Is there any direction on how many years the board would want to use or could that be up to the discretion of the PDT?

MR. TRAVELSTEAD: If you're asking me, I'd leave that to your discretion.

DR. DAVID PIERCE: The public information document has a very brief treatment of the social

and economic impacts of whatever is being proposed in part because we're not proposing anything specific so how can we analyze the impacts of something that has yet to be defined, the specific management strategies and how those strategies would impact the different users?

I understand that, but I suspect the public will be left wondering what exactly is the economic importance of these fisheries for menhaden. I don't believe there is enough information in the document for the public to get that appreciation. There is information about catch by sector, which is, of course, important, but there is nothing really in this document that provides a flavor for the importance of this particular menhaden fishery, bait as well as the reduction.

I'm sure we have quite a bit of information regarding the importance of this particular fishery that would be needed I think for the public to consider in light of the nature of the issues that we are raising as to the extent of the catch reduction that we might be considering or that we are considering.

I would strongly encourage some additional information in the public information document that would provide a better economic perspective for the public. I think by doing that we also demonstrate to the industry itself that we do indeed recognize its importance. Yes, mortality needs to be cut, but we need to be very reflective and considerate of the economic impact and social impact as well. That is my suggestion there.

On one other point, I wrestled with this and I'm not sure how it could be addressed, but what are the options that we want the public to address? Are ITQs or catch shares a possible management approach for us to pursue to achieve these specific fishing mortality reduction objectives? I find it a bit – well, if I was a member of the public I would wonder why are those options in this document for consideration when it's made very clear in the document that we have a big problem with catch information and landings information. There are many holes.

If we feel comfortable as a board going out to public hearing saying, okay, we're considering ITQs or catch share management for this fishery, but, oh, by the way, we don't have a sound catch data base to use to make those important catch share decisions, then fine. I feel uncomfortable offering that up as a possible management strategy when one of our major problems is inadequate information and we need to improve the way in which we get our catch

information or landings information for important management decisions.

I just raise it as an issue. I don't like those two elements being in this document unless this document would have some explanation as to why it is appropriate and why we feel it is appropriate to address to catch share management in the menhaden fishery when we have such an inadequate data base regarding catch. If some information can be included in the document to kind of bring it together, that would be useful. Otherwise, I'd like it struck from the document.

CHAIRMAN DANIEL: Yes, I think we can strike it now or we can strike it later. I can't imagine because of those – and I was going to bring that point up in my summary of perhaps taking that out unless somebody feels real strongly about it. I think the points you raise are valid and we could save some time by taking that out of the document. I would like to get through the first round of comments first before we start. Vince.

EXECUTIVE DIRECTOR JOHN V. O'SHEA: Well, actually I think you have very good data on 80 percent of the catch, so it may be worthwhile leaving that in for a while.

CHAIRMAN DANIEL: I think the concern is the other 20 percent from what I heard from the public and what I've heard at home. One of the issues that we have – and I don't know about the other states – and I'm sure it happens in Virginia and other states is that folks go out and actually catch their menhaden during their gill net fishing season and pack those fish themselves to use as bait, so they're not captured on any kind of trip ticket program or anything because they're not selling the fish.

They're going out there catching their own bait, using it in their crab fishery; and if you disallow that or say you're going to be allowed to continue that as long as you don't report it, that's not going to help us out. I see it as a very complicated issue that I'm not exactly sure either how it would work. Pete Himchak.

MR. HIMCHAK: Mr. Chairman, I just wanted to address Mr. Adler's question earlier and maybe elaborate on Jeff's response. What happened in 2010 is I can say with pretty good confidence is the reflection of setting such a low

sub-ACL on Atlantic herring in Areas 1A and 1B. We knew this redirection would occur.

In purse seine landings in New Jersey alone they went up to 50 million pounds, about 10 or 15 million pounds more than on average. Consequently, the industry in New Jersey asked the legislature to put in a limited entry system for purse seine fishing for bait in 2011 and it was put in. Of course, there is no cap on the allowable harvest. We should look forward to a favorable Atlantic herring stock assessment report.

MR. G. RITCHIE WHITE: I guess by eliminating those two options, I guess my only concern would be should they be in the toolbox, though, so that we would not have to go through the amendment process. I throw that out as a question. I'm not sure whether that should be –

CHAIRMAN DANIEL: I think under adaptive management we could include any list of potential items. It may be something would be desired by one sector. I could see it with the reduction fishery, perhaps, and some of the big bait fisheries obviously have good landings, but it's the smaller folks that it could create a problem for.

Yes, I believe we could that but that will be up to the board. Before we make any of those specific decisions – I think I have them written down – I do want to hear from the advisory panel before we take any specific actions here. Are there any other questions for staff on the PID before we go to the advisory panel? Vince.

EXECUTIVE DIRECTOR O'SHEA: Going back to what I think was a suggestion from Dr. Pierce about more economic data in the PID, I think one way to look at that is the purpose of a PID is to go out to the public and say what do you think needs to be considered to go into the addendum; so rather than put economic data in the PID, maybe the tasking ought to be to sort of pose that question to the public, what sort of economic data would the public want to see in the PID. If we have an issue about availability of it, try to solicit the public to suggest where we might find that data. Thank you.

CHAIRMAN DANIEL: That's a good option. Terry and then Roy and then I'd like to go on to the advisory panel and then we'll have this discussion again.

MR. TERRY STOCKWELL: Mr. Chairman, I am uncomfortable about taking quotas out of the document at this time. We do have a small bait

fishery in the state of Maine and we do have landings and we do have some support towards at least considering the options, but I think it would be helpful, assuming it's retained, to beef up the bullet on monitoring requirements that reflect the cost necessary in order to move this option forward.

MR. MILLER: Mr. Chairman, I just wanted to quickly reiterate something I mentioned at the fall meeting, and that is a definition of de minimis for purposes of this plan. It can either be in the PID or it can be in the draft amendment, but one way or another I would like to have some consideration of that. Thank you.

CHAIRMAN DANIEL: I agree; that one was on my list. All right, let me go now to Mr. Windley and let him give us a brief advisory panel review. He has had good success, I think.

#### ADVISORY PANEL REPORT

MR. WINDLEY: The advisory panel met via conference call on January 26, 2012, to make recommendations to the board on the Draft Public Information Document for Amendment 2 of the ISFMP for Atlantic menhaden. Panel members in attendance represented the conservation community, commercial harvesters for bait and reduction, bait dealers, and recreational fishermen. The following is a summary of the comments.

On Issue 1, some members suggested that information about the timeframe for achieving the threshold is missing and was not well defined by the board. Other members thought that Addendum V clearly stated that the threshold would be achieved immediately to end overfishing. Some AP members requested a detailed description of the status of other ASMFC species and the way they are being managed. More specifically, they are interested in which species are managed at the threshold F or at the target F.

On catch reporting, some members requested more information regarding the reduction fishery and the use of the Captain's Daily Fishing Report with open port sampling. The addition of this text would help the public understand what the current reporting is in the reduction fishery. It was also suggested that more information be included on the bait fishery reporting. Most specifically, the AP requested information on the



frequency and method of reporting in each state within the management unit.

The AP recommended on the recreational fishery management tools; the AP recommended also discussing the timeline for the assessment update and amendment at the beginning of the document, at the end of Issue 1. We looked at moving that in the document and it did seem to flow better.

The AP recommended clarifying the intent of reporting in the recreational fishery; adding that reporting under the recreational fishery will only apply to fish that are immediately caught and not menhaden that were purchased for bait. Thank you.

CHAIRMAN DANIEL: Thank you, Mr. Windley. Questions for Mr. Windley and the advisory panel? Go ahead and then I'll do a review.

### DISCUSSION AND ACTION

MR. WAINE: In response to the AP recommendations, the plan development team did draft some text which is included in that report. If the board wanted to consider adding any of their recommendations, that text has been drafted for your review.

CHAIRMAN DANIEL: Okay, I think we have to be careful – and I'll take comments from the public if anybody has any comments on the PID before it's approved. Let me summarize where I think we are and trying to be careful not to get too much into the amendment, recognizing we have a PID to approve. We've got a lot of flexibility there compared to an amendment.

We've want to make sure that we've got everything. I've heard the following changes – and if I missed something, I apologize, it wasn't intentional, so be sure and raise your hand at the end of this. The timeline, I heard a request to add a ten-year provision, so we've got one, three, five and ten years to meet the target.

Now I asked staff to put up this slide from the technical committee report to make sure that everyone recognizes that the example that was used in most of these in there show a 50 percent probability with the types of reductions that we were talking about in Boston, 20 percent and 30 percent, we get to the threshold in around five years for most of these options.

It's not until we get to extraordinarily harsh reductions that we start seeing a 50 percent probability of achieving the target. There is a problem here that we need to be aware of. We're not doing what we're saying – I don't think we're doing what we're saying we're going to do in this document. It looks to me like if we want to achieve the harvest reduction that takes us down to 175 metric tons from the current 225, that's a pretty substantive reduction, and that's a reduction that is pretty consistent with what we thought the 15/30 would require in order to achieve that.

That doesn't get us anywhere close to our target in five years. It gets us 50 percent probability of achieving the threshold in five years or around five years but not the target. We need to clarify that and have some discussion on that. Do we want to try to achieve the threshold in one, three, five, ten years or the target? If you're talking about the target, it's going to be far more onerous.

I believe I'm reading this properly. That's something that I think we need to consider. I also think we need to at least consider – and this may require more technical committee input than we currently have had on this difference between overfished and overfishing. We're not overfished, but yet we're looking at the potential of 50 percent reductions almost to the fishery to end overfishing.

I struggle with that, that we're not overfished and we've only been overfishing. We need to be able to explain that in this PID why we're going out with these reductions when we're not overfished, and I don't think we address that very well in the document. A lot of states will fall under a de minimis criteria if we define one; what should that level be or should we just not have a de minimis requirement? One percent is going to probably take care of 90 percent of the states from my quick glance.

I didn't hear a suggestion to remove the quotas. Now that may be what Dr. Pierce intended. I was thinking primarily of limited entry and not quotas. We need to have some discussion on whether or not we want to retain limited entry and quotas just for public comment; and then if we want to take it out and not advance that any further in the amendment, that's cool.

We can leave it in the toolbox, leave it in the framework, whatever we decide to do, but I tend

to agree with Terry on quotas and I tend to agree with Dr. Pierce on limited entry, if that matters. And then the economic information; I think it is very important even in this document that we explain the potential economic consequences of this, but I'm personally struggling with not taking the appropriate management measures to restore or rebuild a particular stock because of the collateral economic consequences that may require in some other fishery or some other realm.

I may be in the minority here, but I don't think we can fail to take action on this fish because the price of bait might go up ten cents a pound. We've never talked about that kind of collateral impacts before in any management approach that I'm aware of, so I think we need to be careful going down that trail.

That's kind of what I've got listed down from the discussions around the table of potential modifications or changes to the PID. You can accept or reject any or all of those. Let's try to go around the table. Don't assume because I said it that it's going in the document, because I want board agreement on all of these items.

I think to me the most important one is some discussion on this threshold/target issue and the timing there. I'm confused there and I know the public is going to be confused there. I've already got three or four hands up so I'm going to start with Dr. Pierce, go to David Simpson and then Lynn Fegley, and then you'll need to raise your hand after that.

DR. PIERCE: I appreciate your struggle, Mr. Chairman. This information that's on the screen right now is summary, it's preliminary, so I understand these numbers could change rather dramatically. However, they can be used as guidance for these discussions now. You mentioned I believe, Mr. Chairman, 175,000, that's the middle or so shot that, yes, indeed, it takes a while for the 50 percent probability of getting to the threshold – that's in 2016 – and regarding the target, forget it, we're not going to get there.

However, I would say and I would argue that we should not be only focused on what this amendment will do relative to 2010. When we met in Boston, I noted that there was a rather significant marked increase in the landings of the bait fishery and reduction fishery and somewhat of an increase in the bait fishery; not as much as for the reduction fishery that went up from 143,000 to about 183,000 from one year to the next.

If we're talking about being concerned about reducing harvest of 2010 down to some lower level or are we talking about reducing harvest down to a level – how should I put this? In other words, we seem to very, very high with our landings right now; and if we used only 2010 as our base, I think we deceive ourselves.

I look at this figure and I look at 150,000 tons and I see that, okay, we get a 50 percent probability of hitting the threshold in 2015 or thereabouts and the red line is approaching at 50 percent probability of hitting the target in 2017; so for me I look at the 150,000 metric tons and I say is that a reasonable amount of catch to limit the fishery to overall.

Well, I think it would be if we're looking at 2009, 2008, 2007 levels. If we're only looking at 2010, then probably not, so I have no problem with the 150,000 at this time because I continue to focus on the way it has been recently, meaning past years and not just 2010.

I'm not struggling as much as you are; because as I move forward with discussions of what will come out of this point about this public information document and what eventually we will be prescribing for the industry and the management measures associated with that prescription, I'm looking more at the 150,000 metric tons as a possible target as opposed to being concerned about the 175.

CHAIRMAN DANIEL: Fair comments. Dave Simpson.

MR. SIMPSON: Some of the things you pointed out, I think Jack's suggestion that we also include a ten-year timeline makes a whole lot of sense to me to include for public comment. It is consistent with Magnuson's kind of guidance. Certainly comments about what it might do to the price of bait in other fisheries I think are looking at the wrong way because we're the commission and we also manage fisheries that will be affected by this.

We talk about 50 and 75 percent reductions directly in fisheries and seem to have no trouble doing that, but it just seems to me to be very curious that we're going to worry about the price of bait in another fishery when in fact if we address that problem that we have control over, that demand for that much bait, which is far beyond what is really needed to land that

available resource, we can address that issue and affect the price of bait because there will be less demand for it for the same number of lobsters and for individual state's crabs. That should not be an impediment to progress here. That should be the last thing on our list of concerns.

MS. FEGLEY: Just to go back to the timeline to clarify that, I think that it would be fair to say that the timeline should start from when we implement, which is 2013. The graphs up there, I can't really see them very well, but I think they start at 2010. At least they do in the document.

CHAIRMAN DANIEL: 2012.

MS. FEGLEY: 2012, okay, so I just wanted to say, one, that if we look at the technical committee's document, the table that they have on I believe it's Page 4, 2017, which would be five years after implementation, if you look at a harvest level of 150, we're at that point at an 80 percent chance of hitting the threshold and a 40 percent chance of the target. In 2017 at landings of 125, you're at a 76 percent chance of hitting the target, recognizing that those numbers are going to change.

The other thing I think everybody has to remember here – and Jeff said it – was that this analysis right now includes no feedback. What a constant landings analysis does or approach does is in a way eliminates our ability to be adaptive in case we do get that feedback. I'm not sure quite how we get there, but I think that we also have to consider that we should take action and understand that what we could get is feedback that could mitigate some of the effects down the road sooner than later. Thanks.

MR. WILLIAM GOLDSBOROUGH: Mr. Chairman, a couple of quick comments. With respect to economic impacts, I'm happy to provide whatever information we can to the public in this document, but I think what we've discussed so far are simply the short-term economic impacts that might be felt by some of these cutbacks.

I think we also have to note for the public's interest that the stock is at the lowest point on record and we have suffered substantial socio-economic impacts over recent decades as that decline has occurred and that in reality one of the most compelling reasons for taking action is that and to avoid further declines and further impacts and in fact to turn this stock around so that we can have an improved and not only higher in terms of the socio-economic value but also in terms of increased stability in those benefits to the public.

That's really the motivation here and I think as we add in any other suggested information about socio-economic impacts that we also put in that context as well, that this is a responsible action that we're attempting to take on behalf of those values. The other thing I wanted to point out is with respect to timelines we first heard the benchmark assessment report in the spring of 2010 and at this point we're not going to be implementing the first of whatever phase-in timeline we adopt actions until the spring of 2013, so that will be three years.

I just remind everybody, as we often do, try to remind ourselves that the vision of the commission is healthy and self-sustaining populations for all Atlantic coast fish species or successful restoration well in progress by the year 2015. That only gives us two years after the beginning of implementation so I think we need to continue to be cognizant of that as well.

MR. CARPENTER: I have two things I'd like to mention here. The talk about catch shares and allocations and the rest of that, I think all of that should be left in. If we go to a quota system, I see catch shares as a subset of the quota. Once the quota is established, how you divide up within your region and your state is going to be based on what information you have and the public will at that point. If you have a limited entry system in New Jersey, that's going to boil down to an ITQ system in practical matters. I'd like to see that left in.

With regard to de minimis, yes, a lot of us would be 1 percent if you consider the total thing, but I think you may need to look at de minimis for the bait fishery as a subset. We know we have very good data on the reduction fishery; and if you can treat the bait fishery with its own separate de minimis level for those states that aren't involved in the reduction fishery, I think there are some advantages to looking at that as an option.

CHAIRMAN DANIEL: That's a good idea. All right, what I've heard so far is that we will include the ten years. It's up to you, but we could do a de minimis with two options; one be a coast-wide de minimis and one be a bait de minimis or just do bait de minimis, but maybe for public comment we could do them both.

I think the idea of doing a bait de minimis is probably a pretty novel and interesting idea. A

lot more states will be involved in the plan at least formally with that. Is that acceptable to everyone to have those two options for de minimis and include the ten-year time span? I just want to make sure that we're on record, and I think we are, expressing our concerns over the economic information that needs to be included in this at some point.

It may not need to be fleshed out completely in the PID but it certainly does for the amendment. And then finally just that recognition on what Lynn and I think Dave Pierce talked about and Dave Simpson a little bit, the reductions that we're looking at and where are we trying to go in this first order plan. Are we trying to get to the threshold first in a certain timeframe or do we really mean the target in that one, three, five and ten-year period?

Again, I look at these graphics and see that even at the 150 metric tons we haven't got a 50 percent chance of achieving the target. It's about 40 percent, it looks to me, within the five-year timeframe. I think we need to be very cognizant of that and be prepared to make some decision and it may be appropriate to go to the threshold first, achieve the threshold.

I mean that doubled the spawning stock biomass that we have right now, and it would be my hope that we would start to see some improved recruitment indexes if the environmental conditions are favorable there. At this particular point in time I think there will be a lot of comment on the potential reductions that are necessary in a stock that is not overfished. I just think those are things we need to keep in mind. Right now I've got a ten-year rebuilding option in there and the two de minimis options. Is there anything else that anyone would like to add to the plan or any comments before we go to the public. Pat.

MR. PATRICK AUGUSTINE: Mr. Chairman, I've been very quiet on this one and gathering all the information offered around the table. Is there any reason why it wouldn't be considered to go at a seven-year rebuild? When you think about it, one, three, five and then a five-year jump, I'm not sure what the difference would mean if we put that in as a seven year. We're new at it. We haven't decided which way to go. Would the technical committee have to do work to support a seven-year rebuild or is it just too long?

CHAIRMAN DANIEL: Well, that was Jack's idea and he has got his hand up so I'm going to let Jack –

MR. AUGUSTINE: I have no problem with it, but I just wondered.

MR. TRAVELSTEAD: I thought you sort of laid it out fairly well, Mr. Chairman. The questions you're asking of us seem to me to be the questions we should be asking of the public in the document. It sounds like you have a good handle on the issue if we could get those kinds of questions put in the PID relative to both the threshold and the target.

I'm sort of reluctant to include this information in the document because the TC is telling it's so preliminary. If we can describe these as some type of example as to what it's indicating to us at this point, I think that might help the public comment on that issue.

CHAIRMAN DANIEL: Yes, I think you're right. It does scare me to be relying on 2010, which were high years, or information that is not altogether correct. It may cause more doom and gloom than we want to pass out. A.C.

MR. CARPENTER: With regard to the information on Appendix 1 where you have the listed and then you have met the requirements of the current plan, I think there is an opportunity to add a column here for the frequency and availability of the data. I think that was one of the things the AP asked for was information about who is reporting and how often. I think we can stick that in here as a very simple column that says weekly, monthly, annually to that table and it would satisfy that request of the AP.

MR. ADAM NOWALSKY: Mr. Chairman, as I hear the many items we've discussed and I hear you suggesting we're about to take some comment, I'm wondering if it might not be appropriate to have a motion at this point for approval of this document and outline on the screen some of the things that we have talked about and you've summarized here at this point to help all of us as well as the public direct comment.

CHAIRMAN DANIEL: That would be nice.

MR. NOWALSKY: Well, if you'd like, Mr. Chairman, I'll go ahead and make a motion to approve the Draft Public Information Document to Amendment 2 for public comment with the items we've discussed here and have those itemized and shown on the screen.

CHAIRMAN DANIEL: I have got a motion; do I have a second? Second by Mr. Boyles. All right, let's get it up there. What I have so far, Adam, is the ten-year approach and the two options for de minimis. Tom.

MR. THOMAS FOTE: I've been pretty quiet. When I'm looking at the dates here, I'm looking at 2023 or 2024 as the rebuilding period of time. I mean, there have been a lot of people discussing that we should have started this ten years ago. I'm afraid to go out that far. I know I won't be here in 2024 to make any of those decisions, hopefully, but I'm just looking at most of you will be retired by that point.

I'm just trying to figure out if we're going to do options, there should be a couple of options there, whether it's a five year or a ten year to start rebuilding and what point we're going to rebuild it because the public has been adamant. We've heard a lot of discussion over the years on this. It started not five years ago; it started about ten years ago, and we've been fifty here years. Maybe waiting to go out to 2024 is a little long. I think we need to put a couple of options in there and not just the ten year but put a five year or something like that or the seven year that Pat was talking about, so at least we get there by 2020.

CHAIRMAN DANIEL: For clarification, I think the intent is to have four options. It would be one year, three years, five years, ten years is what we've got right now, and that's what the motion should reflect. There was also some I guess agreement that we need to clarify with some text the overfishing thresholds, the targets and the potential reductions that may ensue but with folks realizing in the PID that the actual numbers may change as we get the stock assessment.

MS FEGLEY: I have a question that I'm not sure I understand, so there is language somewhere that says that because of the reference points we're overfishing and the board has to take action to end overfishing immediately. According to this preliminary table, again on Page 4 of the TC document, if we reduce landings to 75,000 metric tons, the chance of meeting the threshold in 2013 is just over 50 percent, so we wouldn't even at that level of reduction be ending overfishing immediately. I'm just trying to understand if we're contradicting ourselves. Thank you.

CHAIRMAN DANIEL: Well, if we're saying we have to end it immediately and we're not ending it immediately, then, yes, we are contradicting

ourselves. Does it say in the PID that we have to end overfishing immediately or is that in the subsequent plan? Where is that language, Lynn?

MS. FEGLEY: I believe, Mr. Chairman, it was somewhere in the presentation that was given earlier.

CHAIRMAN DANIEL: In Addendum V?

MS. FEGLEY: Yes, sir.

CHAIRMAN DANIEL: Okay. All right, if you've got an addendum that says if you determine that you're overfishing you will end it immediately and we're not doing that in this proposed amendment, that's a problem. You all figure that out and help me. Doug.

MR. GROUT: This is a question for Jeff. I have been struggling with this since I saw the tables up there. If you were to reduce to 75 metric tons, which is well less 50 percent of the current harvest, in one year and our difference between our current mortality – the terminal year of the assessment and our new threshold and target is less than a 50 percent reduction, why is it that we're not – if you reduce harvest by more than 50 percent, that you're not getting that credit immediately – why aren't we immediately, with a one-year reduction, getting to our target?

MR. BRUST: The confounding factor here is that the assessment ended with 2008 data and now we're looking at 2012. Things have happened since 2008, since the assessment ended, that are not fully incorporated into the assessment. We did our best to incorporate them into the projections. That is playing in and then there is the uncertainty with the recruitment level.

That is the biggest assumption that affects these projections. If we could tighten up the spawner-recruit – excuse me, there is no specific spawner-recruit relationship in here. If the variability around the recruitment pattern was tighter, if there wasn't as much variability, there wouldn't be nearly as much variability around the results as presented here.

MR. GROUT: So to summarize that, the reason that we are not getting there immediately is because there is a tremendous amount of uncertainty as to what the actual stock size is right now because there has been four years

since we've had a benchmark stock assessment and so that is what is going into these. You're saying, well, we have a very uncertain idea of where the stock size is; so even if you reduce landings by well over 50 percent, there is only a 20 percent probability you're getting to the target.

MR. BRUST: That's a good summarization and that's why the technical committee wants to stress these are preliminary numbers. As several of the board members mentioned, the TC had the same concerns about putting these results into the PID because they're very preliminary. It's the second set of numbers and there then there is going to be a third set of numbers after the stock assessment is complete and the amendment goes forward.

MR. GROUT: And so to follow up on that, when we have the new stock assessment, that uncertainty will be reduced dramatically and so we may not have to be taking that severe a cut to get to the target or threshold?

MR. BRUST: If I could, Mr. Chairman, the uncertainty should be reduced in that first year of implementation; but when we project forward, again it's all dependent on the recruitment levels which we are modeling, and there is quite a bit of uncertainty. Hopefully, that first year there should be a whole lot less uncertainty because it will have gone through the full assessment process.

CHAIRMAN DANIEL: Yes, and to get back, I think, Lynn, looking back at Addendum V and looking at where we are, it says that the board must take action to reduce F, so we don't have to do it immediately. I think we've done that and I think as we develop amendments, if we want to change things, or in addendums, we can do that. We just have to explain that we're doing that. I think we're okay in terms of the direction that we're headed there. You spooked me there for a minute. I saw a bunch of hands up that hopefully were resolved. Roy.

MR. MILLER: Mr. Chairman, one point, in the document that we reviewed in the fall that got us to where we are today, the ecological benefits of a restored resource was stressed very much in that document. I didn't see much to do about that particular issue in the PID. Presumably we're going to fold in the ecological benefits of a restored resource into the amendment?

CHAIRMAN DANIEL: Yes, that will be done. Pat, did you have your hand up?

MR. AUGUSTINE: I did and I was thinking whether I wanted to follow up after Mr. Miller got through speaking. I'll ask I think a simple question because I'm feeling simple today. What will be the reaction to the public, do we think, by putting this document out with their finding out and knowing that we will have a full-blown stock assessment in 2012; and again that swing-end opinion, if you will, and what is it we're trying to accomplish?

Ms. Fegley asked the question do we really meet the tenant of what we said we were going to do. I guess I'm looking for a communication tool, something in this document that will alert the public as to here is what is going on and here is what we're going to accomplish. It's a big step for everybody and I think we've all waited for it to come along. Without further clarification, I think that question hangs out there.

I don't know if you have any ideas, Mr. Chairman, as to how we could approach that with maybe a couple of sentences to describe and clarify for the public. You know, we had 9,000 responses saying you've got to do something and all the things we've accomplished today say we haven't. That's where we are.

CHAIRMAN DANIEL: Yes, I think it was 90,000.

MR. AUGUSTINE: Well, it was a tremendous number, but the point is if you could come up with some language, one or two sentences, that would help that, and you're good at it, Mr. Chairman, so it would be appreciated.

CHAIRMAN DANIEL: Well, I appreciate that, Mr. Augustine, but it is going to be difficult to explain, but we can explain to the public that these are preliminary numbers and that we do anticipate numbers to change with the updated stock assessment. Things may be a lot better than we anticipated and we may no longer be overfishing.

I think we've had a history, though, of continuing to put off items until we get an updated stock assessment and get ourselves behind. I think this is an opportunity right now with our mission statement saying that we've got to on the way, the more we delay – starting right now, this meeting, the more we delay the less we're going to meet that. I think it's important that we move forward. My hope is that we'll

find that when the assessment comes out, that we don't have to take the reductions that are appearing so onerous at the time. Bill Adler.

MR. ADLER: Mr. Chairman, did I hear you say that you have the rebuilding schedule – you've added ten – did I hear you had one year? And if you had the question of should we do it in one year, is that practical, really, in everything that we've been going through to suggest we'll do it in one year? Is that really practical if that is in the document?

CHAIRMAN DANIEL: I don't think so, but it's up for the board's decision. One year, that means basically shut the fishery down. We all know – I mean, I'll get e-mails from the same form letter that I got before the Boston meeting. I don't know if you all are getting them but I'm still getting them. You know that they are going to be a lot of comments recommending the one year based on all the 90-some thousand comments we received. I would certainly not be in any opposition to modify this to remove the one year, but that is your call. Mr. Adler.

MR. ADLER: Well, since I think it's not practical to do it in one year for a number of reasons, I would just suggest that you take that particular one out of the picture and leave the rest in. I just don't see that we're going to do that even if you do get 90,000. The way we have to work here and what we have to do and put in place and stuff, it wouldn't happen so why put it in.

CHAIRMAN DANIEL: Well, if Adam would accept that as a friendly amendment to his motion to remove the one-year requirement and we would go with three, five and ten, then I think we would be okay. Adam.

MR. NOWALSKY: Well, Mr. Chairman, referring back to Mr. Travelstead's reason for including the ten year to solicit comment, I think I'd be inclined to leave the one year in. Regardless of what action we might actually take, if we're going to put the ten in for that reason, I'd leave the one in with the original motion.

CHAIRMAN DANIEL: Okay. Is there any other board discussion on how we're planning to move forward? Adam.

MR. NOWALSKY: One point to clarify, I'd heard Mr. Augustine use the comments "full-blown assessment". I believe Mr. Brust had indicated it would be an update in 2012; so just to clarify we're getting an update and not a full-blown assessment.

With regard to some of the other things we've talked about today, I do think providing information in the document with regards to allocation is presently spelled out here enough with some of the additions that we've made here today, so I think we've adequately addressed that.

Two other items that we had discussed earlier that we don't have up here right now; one was discussion for inclusion on the probability of achieving the thresholds and/or the targets. Some ideas have been thrown around, 50, 75 percent. I would like to see an item, going back to that discussion, with regards to including another item in here for discussion of the probabilities of achieving the target F.

And then the second item I think would be good to have here is the PDT had done work in response to the AP's comments. They had provided a number of textual additions to provide some clarification to help the public in their response. In particular one of the questions that we struggled with here recently was this concept of how the board is acting immediately, and specifically the PDT had drafted some language through Amendment 2 the board will take actions to end overfishing immediately.

However, because the reductions in F are substantial, the board is considering a schedule to reduce F. I think the PDT text that they've outlined leaves open the idea the board is taking actions immediately. We're not necessarily ending overfishing immediately, but we are taking actions immediately. I do think the text that the PDT drafted in response to the AP was helpful in that issue and in regards I think a number of the other textual items that they've added that are included in the meeting materials here would be relevant to include and helpful to the public and would like to see those added.

CHAIRMAN DANIEL: Without objection, I think those are good points. All right, anything else from the board on this? Mark.

MR. MARK GIBSON: Mr. Chairman, it's still not clear to me how this preliminary projection information is going to be included or not in this public hearing draft to inform the public. I see Item 3 up there, but it seems to me that there is additional work to be done here. That's my question; how is this to be incorporated in the amendment to inform the public or not and what

happens when it changes and we've already done a series of hearings and so on?

I'm still not clear on that. This is preliminary information based on some assumptions that they made and they want to do some additional work. Where is this particular document heading relative to the draft amendment?

CHAIRMAN DANIEL: The graphics that show the reductions that are necessary to achieve the targets based on – well, the way I understand we're moving forward right now is to include those graphics with the caveat that the updated assessment will modify and change those numbers to reflect the new information.

The other option would be not to have those graphics and those numbers in there and just indicate that we will have specific harvest reduction necessary that maybe have a range. I think providing them with the most recent assessment information; do we expect it to change that dramatically; probably not. Will we need some reduction; probably.

Exactly the percentage reductions we're going to need, we just won't know until after, and so it does water down a little bit the public comment on the specific reductions because they don't know exactly what they are. I think the other alternative is to wait until we get the assessment and move forward, and I think that just delays us another year. Jack.

MR. TRAVELSTEAD: Yes, just along those same lines, whether you include the graphs or not I think is less important as a very specific discussion of the levels of reductions and what it means to the harvest, both to achieve the threshold and the targets, and with the caveat up front that all of this could change in August when we get the updated assessment.

CHAIRMAN DANIEL: Yes, I think we can still lay the groundwork for the amendment with the PID going out with that information forthcoming. Vince.

EXECUTIVE DIRECTOR O'SHEA: Mr. Chairman, there was a comment about including some language from the PDT. Staff has tried to capture that in Item 10, and I just want to verify that we got it right. Some folks are saying there was – I thought I heard somebody say the PDT recommendation. It wasn't from the PDT. It was language recommended by the AP and that is before the board members now. The idea would be the PDT responded to what the AP said.

CHAIRMAN DANIEL: That was my understanding. Adam, if you could get with Toni just make sure that the information that you want included is included; if you could do that, that would be helpful.

MR. NOWALSKY: Yes, that's fine. I think that as Toni put it up there, "addition of PDT language in response to the AP recommendations" actually captures that. Again, it's all spelled out here so I think that is reflected perfectly here and would support the original motion.

CHAIRMAN DANIEL: Thank you. Doug, final word.

MR. GROUT: Mr. Chairman, I just wanted to express my strong concurrence with Jack Travelstead's suggestion that we not actually put these graphs in the document. I think they will confuse the public. I know they have confused me. Just putting some percentage reductions that could be potential and the explanation – and this is very important – we indicated in the last addendum that if we went to this target, it would result in a need for a very specific percentage reduction in the catch and why the reductions that are being proposed here are much larger than that percentage reduction, why that is occurring. From what I understand, it's because the farther we get out from our terminal year of our assessment, the more uncertain we are with our projections here – just some something as simple as that and that once we get the new assessment we'll be more certain in that first year and so we won't have as much variability there.

CHAIRMAN DANIEL: Is there any objection to that suggestion from Jack and Doug? I think it's a good approach. Anything we can do to reduce confusion I think is a good thing, especially when we're confused. All right, good discussion and I thank you. Members of the couple, maybe just a couple of comments, and I'm going to take them for and against the motion; so would those that are in favor of the motion please raise your hand. Okay, those in opposition to the motion; yes, sir, come to the mike and state your name and any affiliation you may have.

MR. PATRICK PAQUETTE: Patrick Paquette, recreational fishing advocate from Massachusetts. I work with rivers from North



Carolina to Maine. I'm actually in favor of the bulk of the motion though I think some of the edits and subjects you've discussed bring up some concerns.

My understanding of the norm in a document to have sort of some – and I'm referring to the number of years to achieve the target. You know, we should have outer boundaries and I think it's normal to have status quo and then something way out in the outside. I can tell you that I don't have to talk to not one of the boards of any of the organizations I work with that will think that a ten-year rebuilding is absolutely bizarre to take a decade to get to a target.

It just seems like it's outside of reality, and I think it's going to inspire a lot of anger and rage instead of educated true comments. If you're looking for that, you're going to get that from this, but I just caution you that it's almost like antagonistic. It's going to be taken really ugly where I come from, because where I come from – and I understand we're not overfished by way of science, but where I come from menhaden aren't anywhere close to where they were historically.

I'm talking about Boston and I'm not even talking about some of these other remote places. I mean, even south of the Cape – if there were people from Martha's Vineyard here, they'd tell you that menhaden and river herring have killed what was world class sportfishing on Martha's Vineyard is dead.

The Martha's Vineyard Derby last year was down 50 percent in attendees because the forage is gone from the shores of the island. Those two were the two main staples of forage on the shores of the island. It's just understand it's the reason that we're here for every single data issue. I just think ten years is way on the outside.

I understand that the commission thinks that one year may be too aggressive, but ten years is going to inspire a lot of angry comment. The consideration of de minimis is absolutely one of our big concerns especially over the last couple of years is that the influx of the industrial lobster bait harvesters, especially in federal waters off New Jersey, has changed the bait fishery.

I don't anybody believes that spikes in the fishery and that the small local harvesters of menhaden are a part of what got really anywhere to the bulk of what it got to. Any kind of protection for those small what we refer to as watermen is a good thing, and I think it's really important that de minimis at some level

that can protect these very small operators that together probably aren't going to get 1 percent I think coastwide – I don't even think it's going to be statewide.

One last is you guys came up with the subject of lobster bait and herring came up in this discussion. This continues to come up, this subject, and I'm going to suggest through this board maybe that maybe the policy board or maybe this management board recommend to the policy board it's pretty clear that the ASMFC needs to have a better understanding and possibly even have staff at some sort of time in the near future develop a white paper on the actual use of lobster bait.

You guys manage lobster bait, you manage Atlantic herring, you manage river herring and you manage menhaden. All of those species that are managed out of this room continue to get thrown up into this lobster bait discussion, and I just don't think any of us understand; I know that I don't.

I read in the Maine Lobstermen's Association Newsletter a couple of months ago a gentleman from a company called O'Hara said that there are herring in frozen storage containers throughout Maine from 2009. It's not my words. That is from the Maine Lobstermen's Association. I don't understand it, but I think that you guys have to. I would suggest that maybe some sort of a good understanding of that industry is in order for the – it may help with these decisions. Thank you.

MR. JEFF KAELIN: Mr. Chairman, I'm Jeff Kaelin with Lund's Fisheries and we are active in several bait fisheries. I guess I'm here to agree with the motion that's on the table, but there are a couple of things I wanted to just mention. One is I really appreciate, Mr. Chairman, your response to some of our concern as AP members about having this PID better describe what the board's intention is in meeting the threshold.

We've had an excellent discussion about that today because we've got to get there first. We've got to end overfishing. We don't have to rebuild the stock because it's not overfished, and I think that's why we'd ask for some additional information about how other species are managed here where overfishing may be occurring but we're not rebuilding.

I think getting to this target represents the intention to rebuild the stock that is not overfished, so I thought your comments today were very helpful in trying to help us understand how this is going to be architected in the future. I think since we've had those discussions as an AP, there are a couple of additional things that we might want to add to the list of commercial management options that I'm not sure – I've got, for example, an incidental catch allowance for fisheries that may be taking place after the quota might close, where they might need two or three hundred pounds of fresh menhaden.

In the flounder fishery, for example, I think we should consider an incidental catch allowance so those fish aren't discarded. They have great value as fresh menhaden to the striped bass fishermen at that time of year. There is no incidental catch allowance option in the quota list, so I don't know if we should make those changes today or whether we should come to you with suggestions like that when the PID goes out to public hearing and better flesh out some of those quota options.

Another one that we've thinking about is the potential to establish a research set-aside where there is quota. I don't think ASMFC has a history of doing RSAs, but certainly science is important to managing this fishery in the future. The aerial survey work that we cooperated with Omega Protein and some of the other bait dealers also cooperated this summer I think can bring some good information to the table, and that could be a good use of an RSA, a 3 percent RSA set aside or something where that fish could be auctioned off once the quota was reached. Those are just a couple of ideas, Mr. Chairman.

I guess my question was is this the appropriate time to install all this in this list or should we wait until after the public hearing process and make some of these more specific recommendations as we kind of further consider how managing this stock might go forward. The last thing I'll say is we're not opposed to that.

You've heard me say for many years here that our industry is vulnerable because we don't have a hard cap and because we're in a world of hard caps. I'm not opposed to getting there. I think you've helped us understand today how we're going to get there and what the proper timeframes might be to reduce overfishing keeping in mind the fact that we don't have to rebuild because we're not overfished. Thank you for opportunity to make those comments.

DR. KEN HINMAN: Mr. Chairman, Ken Hinman, National Coalition for Marine Conservation. This will be very brief. I just wanted to assure everybody, because we had this discussion I think at the TC meeting, the AP meeting, the PDT calls, that this is a public information document and its purpose is to get from the public actions that should be taken or should not be taken in terms of management measures, enforcement, monitoring regulations and all of those kind of things.

We can all sit here and after this meeting we will continue to come up with ideas of things that can be done or should be thought of or should be considered in the amendment, and that's the whole purpose of the PID. We don't need to delay any further; we need to move ahead with the PID. I think you will hear a lot of things and a lot of these ideas from the industry and from the public, and we will probably hear things that we haven't thought of and I'm hoping we will. I just wanted to urge you to move forward. Thank you.

CHAIRMAN DANIEL: I guess to answer Jeff's specific question, that would be up to the board, Jeff, but I think that certainly your point on a bycatch allowance is an important one that we can discuss I think after public comment. I would urge you to make those comments as public comment.

I'm not real familiar much; I haven't worked a lot with research set-aside so I would feel uncomfortable moving forward with that right now, but I don't think it's a bad idea at least for some further consideration through the PID process and amendment process. All right, anything else from the board after hearing the public comment? Adam.

MR. NOWALSKY: Mr. Chairman, after hearing the comments I do think I'd like to see added under the commercial issue questions the specific item of bycatch allowance as an item specific to get the public talking about it.

CHAIRMAN DANIEL: Without objection? Jaime.

DR. GEIGER: Mr. Chairman, I certainly understand Doug's concern about removing those graphs, but again I still share some concern that even though the data is preliminary I think those graphs would be valuable. Many folks are

indeed visual and I think they can relate to those even though it's preliminary information. Again, I think even in that current state they will help inform the public and get information and get suggestions on the table. With all due respect, I am concerned about our decision to eliminate those from this document. Thank you.

CHAIRMAN DANIEL: Thank you, Jaime. Any other comments on the document. We have a motion. I guess with all the additions you probably need me to read that motion. Here is our motion:

**Move to approve the PID to Amendment 2 for public comment with the following modifications:**

- 1. Addition of the 10-year rebuilding timeline option to achieve the target;**
- 2. Clarification of *de minimis* provisions;**
- 3. Clarification of timeframe to achieve the target and threshold fishing mortality reference point (discussion of level risk, including 50 and 75%);**
- 4. Addition of state reporting requirements to Appendix 1;**
- 5. Addition of previous F threshold to fishing mortality figure on Page 17;**
- 6. Addition of detailed landings tables;**
- 7. Discussion on changing bait demands through management changes in other fisheries;**
- 8. Request for social and economic data;**
- 9. Discussion on the movement towards ecological reference points;**
- 10. Addition of PDT language in response to the AP recommendations;**
- 11. Addition of a description of the reductions needed to achieve the threshold and target, including the caveats that the projections will change with the new assessment;**
- 12. Addition of a bycatch allowance.**

Motion made by Mr. Nowalsky and seconded by Mr. Boyles. Is there a need to caucus? All those in favor of the motion signify by raising your right hand, 17 in favor; opposed, same sign; abstentions; null votes. **The motion passes unanimously; 17-0.** Good job, Board. Yes, Bob.

MR. BEAL: Just a point of clarification; since that motion was so specific, I just wanted to make sure that everyone is in agreement on the process to incorporate those changes and get this document ready to out for public hearings. It's somewhat up to you, Mr. Chairman, but what seems logical is the plan development team can weave all these changes into the document.

We can have the Board Chair review that and then we can send it out to public hearing or is there another full board review type step before this goes out to hearing? I think the motion is pretty specific and the record is very clear today on what folks are interested in. I just wanted to make sure everyone has the same expectation moving forward.

CHAIRMAN DANIEL: This one is a little squirrely. What I'd like to do is ask for the – I will take full responsibility for the document, but my thinking would be to send the document to the maker and the seconder of the motion to make sure that we're all three in agreement. If that satisfies the board, I would ask for Adam and Robert to just take a quick look over those as well to make sure that we've got comfort, we've got good geographic distribution and handle it that way if that is satisfactory to you and the board. Is everybody comfortable with that approach? I don't think we all need to review it again.

## **MSTC OVERVIEW OF MANAGEMENT DECISION ANALYSIS**

CHAIRMAN DANIEL: Anything else on the addendum? If not we will move into the overview of management decision analysis, which is a discussion on recommendations to begin looking at ecological-based reference points. Note there is an action that needs to be taken for this.

MR. HOWARD TOWNSEND: Good morning; I'd like to thank you for this opportunity to talk to the board. My name is Howard Townsend. I work for the NOAA Chesapeake Office, and I am the chairman of the Multispecies Technical Committee. We wanted to basically go over this idea of a proposal for moving forward with developing some ecological reference points.

This notion of the MODA or the multi-management option decision analysis is somewhat like the ARM stakeholder-driven process that had been used for horseshoe crab. It was adaptive resource management so it's a very similar process, but we wanted to go through this suggestion. I was glad to hear there was some interest in moving forward with ecological reference points from earlier discussions.

Just to give a little recap, a few years ago the board had asked the Menhaden and Multispecies Technical Committees to develop ecological reference points for menhaden that account for predation, and so there was a joint subcommittee of the Menhaden and Multispecies Technical Committees that have worked on the tools and different reference points or indicators.

But before we could really evaluate the performance of these tools and these reference points, we would need clarification of some of the ecosystem management objectives for menhaden and the key predators sort of explicitly stated and spelled out. We thought a good process for coming up with those explicit objectives was to use this process of the multiple objective decision analysis.

So, again, the goal there with MODA is to explicitly state each management objective and identify potential ecosystem reference points that best address these objectives. The sort of humorous wave that we've been thinking about this is we've kind of been going back forth with the reference points being the hot potato and kind of going back and forth between the management board and the technical committees.

We want to come up with a process to get to everybody's perspective and a more productive way of getting as some real implementable reference points. So just to break down specifically what we would do with this multiple objective decision analysis or multiple option decision analysis, first we would ensure that we involve all stakeholders. Second, we would utilize facilitated structured decision-making to come to a consensus on objectives and reference points.

We would want to explicitly define the ecosystem management objectives and explicitly define the reference points' performance measures to see if they were actually achieving the objectives we had hoped. We would use collaborative model development with the stakeholders to transparently evaluate and review the potential consequences of various ERPs.

This would result in a recommended set of ecological reference points for Atlantic menhaden that would be acceptable to key stakeholders and the board. That's the intent here. I wanted to go into a little more detail on what that working group would look like. We're suggesting we have representatives from the Menhaden Board itself, from the reduction and bait industries, from recreational fishery interest groups as well as environmental groups. Also, we've have a modeling team that would be a contracted modeler

from outside the area who has no stake in the game here, someone from a different coast, and then representatives from the Atlantic Menhaden and Multispecies Technical Committees that could help advise the primary modeler.

Sort of a breakdown in kind of a step by step on how this would work and how this could expedite us moving towards ecological reference points, we'd first, after today, get together to develop the working group membership and have that approved by the management board; the working group and the modeling team membership.

Then that would kick-start the working group to get together off site, a small group to specify management objectives and performance measures for the reference points. That's the first step, get those objectives lined up, bring that to the board and make sure the board was okay with those objectives and measures for assessing the performance of those objectives.

The next step then, once approved by the management board, move back to the working group where they begin to identify the options for various reference points to consider and identify any critical uncertainties in implementing these reference points. That working group would then pass the potato over to the modeling team that would assemble data and build the necessary models to simulate how reference points would act in a real-life situation.

We want to test out the reference points in a model before we try to implement them in the real world. Once the modeling team did that, they would bring those back to the working group and let them evaluate the performance. There might be some back and forth for a day or two on that. The working group, once they've seen the reference points and sort of seen how they perform, could consider the tradeoffs and work amongst themselves in a facilitated group to recommend the ecological reference points to the board.

Finally, those recommended reference points could be passed back to the management board for decision on whether or not to approve these, to review and make that decision. The outcomes and deliverables we're planning for this, we would have an explicit list of management objectives for menhaden stock that stakeholders

would be satisfied with; an explicit statement on the acceptable levels of risk for the stock.

We'd define our ecological reference points based on the explicit management objectives. Then we'd have a short list of ecological reference points that would be options for the technical committees to incorporate in the menhaden stock assessment or the benchmark assessment in 2015. We'd also have a quantitative evaluation of how those ecological reference points performed or if they actually helped us achieve the goals stated in the objectives.

Then once new data were collected, the Multispecies Technical Committee could continue to update the models that were built during this MODA process and monitor performance of the ERPs. The timeline and estimated budget for this; as soon as we sort of get approval, we'd like to begin. Once we can also procure the funding, we would want to have the management objectives ready for board approval by the next winter meeting in 2013 and then the deliverables ready by the spring 2014 meeting.

We would want to have those ecological reference point options incorporated into the 2015 benchmark assessment and peer review. The estimated cost for this close to 300K but could get up to 500K depending on negotiated consulting fees and overhead rates and those sorts of things that we can negotiate. We also are thinking of doing this in a step-wise process and not in one big ball of wax but sort of following a step-wise process with those funds.

Just for a little clarification because I did mention that this was similar to the adaptive resource management model used for horseshoe crab, they both are looking at explicitly stated multiple management objectives for a particular resource. The ARM was used for horseshoe crab and red knots. The ARM was then used to evaluate management options; i.e., different harvest levels. That was then used as part of a harvest program implementation strategy.

The MODA, on the other hand, would not be used for management options but for reference points relative to management objectives and would be used for then evaluating the utility of those reference points and meeting those objectives. The action needed from the board on this is to task staff with the development of the MODA process for Atlantic menhaden if funds are available.

We need to initiate this soon because we want to meet that timeline for the 2015 stock assessment, and so the first step would then be to populate that working group. Nominations could be sent to Bob Beal or Mike Waine. That's all I have to say, and I'll be glad to take any questions.

CHAIRMAN DANIEL: Thank you. Are there any questions? Lynn.

MS. FEGLEY: Just out of curiosity, in the material distributed to the board the estimated cost was 150 to \$250,000, so I'm just wondering why that doubled.

MR. TOWNSEND: What was distributed was for the first year estimated cost, and so then this will be second year estimated cost.

MR. TRAVELSTEAD: Where is the money coming from or where are you looking for money?

MR. TOWNSEND: I knew somebody was going to ask that. There are some special project funds from NMFS within ASMFC as one option. There are other options, external funding sources as well that we would look into. It's just depending on the special project funds.

MR. TRAVELSTEAD: How optimistic are you that you're going to find the funding you need I guess is the question?

MR. TOWNSEND: I'm fairly optimistic but I'm realistic and do realize that we are in a tight budget year within the federal government and several state governments, so that's why we have sort of multiple strategies. We'll look within that special projects but there are also external groups that could potentially fund it.

MR. GROUT: I have to admit when we were talking a number of meetings ago about developing ecologically based reference points I was thinking more that they would be something that would be more of a scientific outcome. We developed biologically based reference points and I thought more based on an ecosystem basis as to what the biology of the animals involved and the habitat could handle.

I see this process as more of a sociological reference point because I see some facilitated sessions in here. I know when we've had in our department facilitated sessions with user groups,

it's usually trying to get at social issues. Are these ecosystem reference points going to be driven by social issues or by the ecosystem and the biology and what the ecosystem can handle?

MR. TOWNSEND: I think that's good question. I think when we've talked within the Multispecies Technical Committee we've come up with a wide range of various reference points, and so we really want to make sure the reference points meet a management objective. You get a room full of biologists and ecologists together, there is a broad array of aspects of the ecosystem that we could start to consider, and so we thought this more facilitated and directed input would help us narrow down that set to where there would be a useful set and a set that would be mutually agreeable and more likely they'd be taken up by the board because all stakeholders opinions are voiced in this.

The other thing we were thinking is that as we were developing the set, we said these are actually more indicators. The actual reference points, targets, thresholds for those would definitely need consideration by more than just the technical committees. That was the direction we were thinking with this.

MR. GROUT: Just a quick followup; so wouldn't it be best to have those facilitated sessions at the front end with the constituents in developing the goals and objectives that the board would have and then the board, based on those goals and objectives that we would set for ecosystem-based management of this, then the science would kick in with determining how we're going to meet those; is that a fair assessment of how this process should work?

MR. TOWNSEND: Yes, maybe I didn't make that clear but that was sort of the first step of all of this is just to have that group where it would be the stakeholder group but also the modeling team so that the stakeholder group – the working group would help define those objectives and then the modeling team would be there just to sort of say, well, this is what we can realistically measure; those are good objectives but given the data that we're familiar with in the modeling approach is this is, you know, to help refine those objectives a bit, but that would be primarily the working group – the stakeholder part of the working group developing those management objectives.

DR. GEIGER: Mr. Chairman, I think this approach is very, very valuable. As obviously the board knows, structured decision-making has been used

very extensively in dealing with a bunch of complex and controversial issues; namely, the ARM Model is the latest example of how successful it was. I have however a little concerned about the cost, as most everyone.

Again, without seeing a more detailed estimate of how you guys got to that cost estimate, I would suggest that there may be cost savings that can be factored into this. Certainly, I think you all know our National Conservation Training Center at Shepherdstown does structured decision-making frequently and often, and there may be some cost savings doing that operation there or elsewhere; I'm not sure.

I do believe, again, just having us to see a more detailed estimate of what the projected cost will be I think will be beneficial for all the board members to see. In addition, again, I would caution the board that obviously the success at SDM, as you all know, depends upon clearly stating what the problem statement is and making sure that problem statement is agreed to and vetted out by all the management board members.

I would urge us regardless of how we want to proceed on this, at least once we got that good problem statement, what specifically are we trying to address with structured decision-making, if the board concurs with that, then I think we're off to a good chance of good success when we proceed. Thank you, Mr. Chairman.

CHAIRMAN DANIEL: Thank you, Jaime. I guess from a menhaden standpoint, I trying to figure out how this is any different than what we're doing right now. We're going out to public hearings, we're talking to the reduction fishery and the bait fishery. We're looking at divvying up things. We've got to deal with the recreational fishery.

What would we get from this exercise that's not just academic and that would really be boots-on-the-ground management options? I don't understand that or can't really get that in my head. All I can see from a state director's perspective is we had public comments about the fact that we don't have a good handle on the bait catches in certain states, and we've got 300 Grand.

I bet those states could come up with a way to get those bait estimates with that 300 Grand.

That's my comments on that, and I guess it partly is a question; what would get from this that would facilitate our decision-making approaches that we don't already have and would it really change the way we make decisions?

MR. TOWNSEND: I would like to respond to that and I would also like to respond to Mr. Geiger's comments. We actually have been discussing the National Conservation Training Center and so we appreciate that recommendation. As far as what we would get, I think certainly the public comment period will certainly help inform some of the MODA, but I think you're getting a lot of input from a large group of people.

It will be a lot of comments and it's going to be hard to turn those comments into ecosystem-based reference points. What we're talking about at the end of this is we would have those lists of explicit ecosystem-based reference points; that if approved, could be taken into the management process. Often working with a smaller representative group, it's easier to come to a consensus. When you have a large group of comments, it's sort of harder to come to consensus with that sort of thing, but I certainly think the public comment period would be useful for this process.

CHAIRMAN DANIEL: Well, let me follow up because I want to make sure that I understand and I'm on board with this whole process. We've got a threshold rate of 15 percent and a target of 30 percent with the idea that if we achieve 30 percent, that menhaden will be providing their ecosystem function. I mean that's why we made the decision we made in Boston, and so we are now going to be looking at the various measures that we need in order to get there.

In contrast to the biological reference points that we have selected and we're moving forward with, what is an ecological reference point and give me a specific example of an ecological reference point and how that would affect our management and how that would affect our decision-making after 2014.

MR. TOWNSEND: That's a good question. I think the process we use now, it's a single-species focused process with overfishing and overfished limits. It really is based on single-species model, but with a precautionary approach, of course, that should account for some of the ecosystem concerns.

In this approach we more explicitly with multispecies and ecosystem models estimate those multispecies management concerns as ecological concerns and

have perhaps reduced some of the uncertainty in some of the reference points that were going forward and also helped clarify how the menhaden fishery and its reference points impacts or is impacted by other fisheries, which seems to have been expressed as a concern today. This was again a request that was put forth to the Multispecies and Menhaden Technical Committees a few years ago.

MR. GIBSON: Mr. Chairman, I think I'm getting some of the same willies that Doug Grout had here. I'm looking at this two-page handout and it said the board's task is to develop ecological reference points that recognize the role of Atlantic menhaden as a forage for other managed species.

That seems to me to be a fairly narrow and understandable task and an appropriate task for the commission, but then we work down into the problem statement it starts to morph into explicit sets of ecosystem management objectives, ecosystem reference points and a stakeholder process that to me will start to be an attractor for many things beyond menhaden as a forage for other managed species such as their role in water quality through their predator/prey relationships with zooplankton and phytoplankton and so on.

I thought what we were talking about early on was the first task there, menhaden as a forage for other managed species, building that kind of stock assessment model for menhaden which incorporates predator fields from the other key species that the commission is responsible for. It looks to me like this MODA is going to potentially draw in a lot bigger suite of objectives than just in that first task. I think the board needs to be clear as to what it is they want to come out of this and how narrow it should be or broad a net they're going to cast.

MR. WHITE: I agree with Mark. I guess to fully understand this we're going to use the striped bass stock assessment and the bluefish stock assessment and the weakfish stock assessment, et cetera, in this model?

MR. TOWNSEND: Well, we would probably use some of the multispecies sorts of stock assessment models that we have or are developing like the MS-VPA. We're also developing a multispecies statistical catch-at-age model and a few other models that could potentially be used for this. It would again be

dictated by what the management objectives were. Those are sort of the core ones we have available, but modification of those or whatnot would depend on the management objectives that came out in the first stage. We would try to use the appropriate tool for the objectives listed here.

DR. GEIGER: Mr. Chairman, I think Mark's point made my point very important that the problem statement – the magnitude or the duration or the extent of the problem statement is something that this board really needs to look hard at. I would hope that nobody has concerns or angst about the process that the folks have laid out to do this. I think it's very complete, very well laid out, and I think it's very appropriate and has been proven to be successful again in a variety of controversial resource management issues.

Again, I think for this board's purpose I think more thought and more discussion on the problem statement will be very, very beneficial. I think you've sort of seen the beginnings of that right now. I think Mark raises a good point and I think just having some more discussion on that or maybe even some more thought and time to think about that would be very beneficial for this process. Thank you, Mr. Chairman.

MR. STEPHEN R. TRAIN: Mr. Chairman, I won't get to play this new-guy card very often so I'll try it now. I wasn't here when you authorized this type of thing, and I think multispecies ecosystem management is a great concept but if you're – well, you're talking about menhaden. If you're dealing with a forage fish, can you manage that on an ecosystem base without managing the fish involved on the same ecosystem base? I mean, how far down are you going to go with one? Don't you have to do them all at the same time? If you start with one, it seems like the last one on the bus there is no room.

MR. TOWNSEND: That's a very good question. This is a new approach for a lot us here. We're getting into the whole long history of ecosystem-based management; but you're right, ultimately we would think that this sort of ecosystem-based reference points in menhaden would mean something for other species.

For example; and I'm not saying that we're going to use this reference point, but one of the indicators we discussed in the technical committee was sort of a predator to menhaden ratio or something like that that we would calculate every year with stock assessments. That has implications.

You can change the ratio but you're changing the top or the bottom of the ratio, right, so that would then open up that sort of discussion for other species and other technical committees. It would open up the door for that sort of thing but ultimately we're just responding to the task for now that we were asked to develop ecological reference points for menhaden.

CHAIRMAN DANIEL: What exactly does this board need to do here today? We need to make our recommendation as to whether to continue with the MODA process or not is the question that we're asked. I assume by endorsing this we are endorsing the funding?

MR. TOWNSEND: I'm unclear on how the funding – who would actually disburse the funding or that sort of thing. By endorsing this, it would also enable us to seek outside funding as well. Just to Mr. Geiger's earlier point, I think part of the MODA process in the initial part could be to develop that problem statement.

MS. FEGLEY: Mr. Chairman, I might be redundant. I just want to remind everyone that the reference points that we adopted in Boston, they were stated to be interim reference points until we develop ecosystem reference points. I'm a big proponent of this sort of process. I think we have these reference points we put in, if you will, as a proxy to increase abundance for ecosystem, but at a certain point we still asked for this ecosystem reference points to happen. We're going to get back into that issue of how much is enough; and it's fair to say that with menhaden, it's a polarizing issue.

We have a constituency that would say you need all the menhaden in the world. We have a constituency that would say we don't need all the menhaden in the world. We have valuable commercial fisheries. We may want a striped bass fishery that's populated with the maximum number of 40-inch-plus trophy fish or maybe we want – you know, what do we want?

Until those goals are established and until we start to look at that question, how much is enough? That is actually a societal question. There are scientific boundaries to that, but it's a societal question. I think this is what will help us answer that question; although the point that we need to very finely define that problem statement, that's a key issue. Thank you.



MR. JOHN DUREN: There is not a motion on the floor now is there, Mr. Chairman? I'm going to make one, but I'll do a little preamble. It seems that we're not all hearing the same music and so we're having trouble dancing on this issue, and we're having a little trouble deciding what guidance to give the Multispecies Technical Committee. **I'm going to move that we postpone action on this until our next meeting and we ask the multispecies committee to come back with a clearly defined problem statement with the parameters and the limits that would be included and also to give us a clear notion of how it would be funded.**

CHAIRMAN DANIEL: I have a motion from John Duren; second from Pat Augustine. Pat.

MR. AUGUSTINE: Mr. Chairman, on the motion, no question what Dr. Geiger and Mark Gibson said with the concerns that they had. Jaime in particular highlighted a couple of things that should be included – and I was going to call it a white paper – if the group would report to us at our next meeting, it would be extremely helpful.

I think the process is where we want to go. Again, when we talk about funding, I think we need absolute knowledge of where the money is coming from so we don't end up having to fund this once the ball gets rolling and find ourselves taking from Peter to pay Paul again. In the long run there is no question that this is going to be a very valuable tool. Thank you, Mr. Chairman.

MR. HIMCHAK: Mr. Chairman, I think what would help the board is if the Multispecies Technical Committee, recognizing that ecosystem-based management reference points are beyond multispecies management, if they would identify within you said 300 to \$500,000 for cost and consultants, what other disciplines would be required to augment the Multispecies Technical Committee to essentially encompass the entire trophic structure to come up with a reference point.

Because whenever the technical committee – when I was on the technical committee for menhaden and we were asked, our recommendation to the board was that we would have to drag in other disciplines dealing with primary and secondary productivity because it was beyond our grasp; and how to incorporate reference points, I couldn't begin to imagine.

MR. WHITE: I guess I have some concern that isn't defining the problem the board's task and not the technical committee?

CHAIRMAN DANIEL: I don't see any other hands up so I'm going to call on me. I think it is, Ritchie, but I'm going back in some history here and looking at the issues involved in multispecies management. Recognizing the work that has been done in the Chesapeake Bay, for example, to try to model that small ecosystem in comparison to the east coast of the United States, the best and the brightest can't do it. They're looking at anchovies, they're looking at anchovy spawning cycles, they're looking copepod abundance, chlodosterone abundance.

They're looking at the impacts of gelatinous zooplankton predators, for hydromedusae and ctenophores and all these things on eggs and larvae, all of which have a direct impact on menhaden abundance. Not to even mention the bluefish, the striped bass or the dogfish, you've got to add the bluefin tunas and king mackerels and the Spanish mackerels and the fish in the inside waters, the estuarine waters where the juvenile recruit.

I can't get my head wrapped around ecosystems management as a management tool. It's a wonderful academic exercise. It's cool, it's fun to look at, but we don't have any diet information for most of these species. We don't have any of this egg and larval abundance information that I'm aware of, any of these mortalities that are in the 0.99 range.

I guess my question early on was what is a multispecies reference point – I still haven't gotten an answer to that question – and how would that impact our management approach? It all sounds good. It's certainly important, but I think this white paper needs to describe how the rubber meets the road for the Menhaden Management Board; not just that it's cool and it's neat and it's going to give us some information.

We've got a lot of information, but I think there are going to be a lot more holes and a lot more questions from the results than there will be answers. That may be a minority opinion but I did feel like I needed to express that opinion as the chair. I had Mr. Abbott.

MR. DENNIS ABBOTT: Mr. Chairman, being a lot dumber than you, I've surely had a lot of trouble wrapping myself around this. I support the motion, I think, but the issues that I have is just looking we're operating under our 2012 budget. I don't see that we could possibly take money out of that budget to support this at any level.

As we manufacture the 2013 budget, with the tight finances that we're dealing with and difficulties and maintaining our funding from the feds, I see this as a big problem. If we funded this, we would be looking at where are we going to cut back in other areas to do this. I see that as a great difficulty so the funding issues are concerning to me even beyond understanding this. I do believe it might be a good thing to do. The more we know the more we can do, but I'm very concerned about moving forward with this.

DR. GEIGER: Mr. Chairman, I appreciate your comments and again I certainly understand everybody's concern around this board. However, I want to again reemphasize that the ASMFC has engaged in this process before. The Horseshoe Crab and Migratory Shorebird ARM Model is a prime example. Where else do you get such a diverse problem, birds and horseshoe crabs together, and come out with a model that is going to help us manage at least one of those species and add to the knowledge base of the other.

I do think there is precedent for this board to do these activities and I think we have demonstrated success in achieving some of these activities. I think John's suggested motion is very appropriate given the level of questions and concerns. I think the key issue that we need to resolve in this white paper is clearly identifying the problem statement.

I think the cost – it's too premature to look at the costs and be concerned with those. I think we need to define the problem statement and the benefits of achieving those stated goals and objectives. Once that is clear and laid out, I think this board will have at least more comfort level to get there.

Mr. Chairman, again, I share some of your concerns, and you rightly raised the right concerns, and I think we all agree with that, but again this board has an obligation. We have identified to go along this path and I think this is a good first step to get us along that path. Thank you, Mr. Chairman.

CHAIRMAN DANIEL: Thank you. Howard, you wanted to respond?

MR. TOWNSEND: Yes, just a few comments. About the funding, if this is a process that is approved by the board, that would certainly go a long ways towards us being able to find external funding if we can say we have this proposal and this would really improve or help ecosystem-based fisheries management. I think that would draw the attention of a lot of potential external funds so that we would alleviate some of the concerns about internal funding.

Another thing to keep in mind is we can certainly more narrowly define this to be maybe more of a multispecies management. I can certainly speak to your concerns about coming up with estimates of primary productivity and copepods and those sorts of things. I think part of that is what we had envisioned happening in that first sort of objectives' session in this.

Perhaps there is a wide array of interest among the stakeholders on what the objectives should be, and the technical committee who is familiar with the models and the data could say those are great objectives but given the data and models we have available and the tools we have available today we would have to limit some of the objectives that we consider. I think some of these sorts of concerns would be cleared up in that first phase of this proposal. Thanks very much.

MR. MEYERS: Mr. Chairman, I support the proposed motion and want to sort of confirm Dr. Geiger's points on this. Frankly, Mr. Chairman, I want to call the question.

CHAIRMAN DANIEL: The question has been called and the motion is on the floor. The motion is move to postpone action until the May 2012 board meeting and task the MSTC with development of a clear problem statement, provide a detailed budget and potential funding options.

The motion was made by Mr. Duren; second by Mr. Augustine. Is there any further discussion on the motion? Do we need to caucus? Seeing none, all those in favor raise your right hand; negative, the same sign; null votes; abstentions. **The motion passes unanimously; 17 to nothing.** I think that was a good discussion. Do you want to take us home, Mike, with the request on the development teams and the economic stuff?

## **PLAN DEVELOPMENT TEAM MEMBERSHIP**

MR. WAINE: Mr. Chairman, this action item is to populate the plan development team. **Jason McNamee from Rhode Island, Harry Rickabaugh from Maryland and Joe Grist from Virginia have been nominated to be appointed to the plan development for Atlantic menhaden.**

CHAIRMAN DANIEL: Motion by Mr. Adler; second by Mr. Augustine to add those individuals to the plan development team. The motion is to approve Jason McNamee, Harry Rickabaugh and Joe Grist to the plan development team. Steve.

MR. MEYERS: Mr. Chairman, as a friendly amendment, given the fact that our actions with menhaden would also potentially include actions within the EEZ and a secretarial action, I would like to suggest that Mr. Derek Orner of our staff be included on this list.

CHAIRMAN DANIEL: Without objection? Seeing none, so ordered. I'll read it again: move to approve Jason McNamee, Harry Rickabaugh, Derek Orner and Joe Grist to the PDT. Is there any objection to that motion? **Seeing none, the motion carries.** Next.

## **COMMITTEE ON ECONOMIC AND SOCIAL SCIENCES MEMBERSHIP**

MR. WAINE: **The Committee on Economic and Social Sciences has recommended Dr. Peter Schumann be appointed as an economist representative to the plan development team and technical committee for Atlantic menhaden.**

CHAIRMAN DANIEL: Can you give the board just a brief one sentence or two sentence review of Dr. Schumann.

MR. WAINE: Yes, Dr. Schumann is at UNC-Wilmington and his research interests are in fishery policy, analysis, recreation demand, discrete choice models for non-market valuation of environment amenities and natural resources.

CHAIRMAN DANIEL: Motion by Mr. Augustine to accept that nomination; second by Mr. Adler. The motion is move to approve Dr. Peter Schumann to the PDT and the technical committee. Is there any further discussion on the motion? Jack.

MR. TRAVELSTEAD: I guess I have a concern to some degree. Let me just note that Dr. Kirkley at VIMS, before his passing last year, prepared a fairly detailed economic impact analysis of various quotas on the reduction fishery in the Chesapeake Bay that is probably one of the best impact analyses that we have for that fishery.

It's my understanding that Dr. Winnie Ryan assisted him in those analyses, so she has some background and understanding of the menhaden fishery, so I'm just kind of curious why the committee didn't recommend her. I don't know anything about Dr. Schumann and I don't have anything against him, but given Dr. Ryan's background it seemed like she might be more appropriate.

CHAIRMAN DANIEL: Jack, from understanding, this is a volunteer committee and we could add her if she has time to do it. She is also serving on the Shad and River Herring.

MR. TRAVELSTEAD: I'll be glad to talk to her about that.

CHAIRMAN DANIEL: I wouldn't have any objection if we had two. Owing with what we've got to deal with over the next year with menhaden, the more the merrier. I don't know Dr. Schumann either and that's why I asked Mike to read his brief bio. I don't think anybody would object to having a second if she is willing to do it. Until we talk to her, I think we can go ahead and populate it with Dr. Schumann and then maybe at the May meeting add your request; is that okay?

MR. TRAVELSTEAD: That's fine by me and that will give me a chance to speak to her.

CHAIRMAN DANIEL: Okay, that's good. All right, the motion is move to approve Dr. Peter Schumann to the PDT and TC. Is there any further discussion on this motion? Is there any objection to the motion? **Seeing none, that motion carries.**

## **ADJOURNMENT**

CHAIRMAN DANIEL: That brings us to other business. Is there any other business to come before the Atlantic Menhaden Board? Seeing none, we are adjourned.

(Whereupon, the meeting was adjourned at 11:55  
o'clock a.m., February 8, 2012.)