

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

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

Approved December 14, 2012

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## INDEX OF MOTIONS

1. **Approval of Agenda** by consent (Page 1).
2. **Approval of Proceedings of May 2, 2012** by consent (Page 1).
3. **Move to accept the stock assessment update and technical committee report as presented** (Page 31). Motion by Pat Augustine; second by Lynn Fegley. Motion carried (Page 31)
4. **Move to eliminate Tables 4, 5, 6 and 7 based on the advice of the technical committee. I think there were a number of comments in support of that. Then we use Table 10 as sort of the guiding document for public comment, but I would ask that the board add two additional options there under that multiplier and that they be 0.95 and 0.85; just expand that table out with a few more options** (Page 49). Motion by Jack Travelstead; second by Terry Stockwell. Motion substituted.
5. **Move to amend the motion to include 0.7 as a multiplier** (Page 52). Motion by Lynn Fegley; second by Dave Simpson. Motion fails.
6. **Move to amend the amendment to eliminate 0.25 and 0.5 as multipliers in Table 10** (Page 52). Motion by Jack travelstead; second by Bill McElroy. Motion was defeated (Page 52).
7. **Motion to substitute to eliminate Options A, B and D under Section 4.2.1.2, TAC-setting method; use the options developed by the PDT in the AP Report for the ad hoc approach** (Page 52). Motion by D. Nowalsky; second by Pat Augustine (Motion to eliminate from the table the 0.25 option accepted as a friendly amendment on Page 54). Motion reworded on Page 55; **Motion to substitute to eliminate Options A and B under Section 4.2.1.2; TAC-Setting Method, to use the options developed by the PDT in the AP Report for the ad hoc approach with the elimination of the 0.25 multiplier.** Motion carried as the main motion (Page 55).
8. **Move to add suboptions for A-2, B-2, C-2 the following reduction and allocation scenarios of 70/30, 60/40 and 50/50** (Page 60). Motion by Lynn Fegley; second by Pete Himchak. Motion carried (Page 62).
9. **Under Section 4.2.1.3, motion to add an option that any TAC allocation by fishery, state or reason adopted will be revisited and may modified by the Menhaden Board, with suboptions for three to five years from FMP implementation** (Page 62). Motion by Doug Grout; second by Lynn Fegley). Motion carried (Page 62).
10. **Move to add a 10,000 pound option and a 20 percent option to the bycatch allowance issue** (Page 66) Motion by Jack Travelstead; second by Bill McElroy. Motion carried (Page 66).
11. **Move to approve the amendment as modified subject to the approval of the subcommittee** (Page 72). Motion by Ritchie White; second by Pat Augustine. Motion carried Page 75).
12. **Move to vote on Amendment 2 at the October meeting for public hearing and the final vote at the February meeting** (Page 75). Motion by Kyle Schick; second by A.C. Carpenter. Motion was defeated (Page 77).
13. **Motion to adjourn by consent** (Page 78).

## ATTENDANCE

### Board Members

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

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

### Ex-Officio Members

Jeff Brust, Technical Committee Chair	Bill Windley, Advisory Panel Chair
Mark Robson, Law Enforcement Representative	

### Staff

Robert Beal	Mike Waine
Toni Kerns	

### Guests

Loren Lustig, PA Gov. Appointee	Sean McKeon, NCFA	Clint Waters, MSSA
Erik Williams, NOAA	Bob Vanasse, Saving Seafood	Robert Geisler, MSSA
Emily Menashes, NOAA	Taz Jons, Saving Seafood	Raymond Kane, CHOIR
James Price, CBEF	Ken Hastings, Mechanicsville, MD	Rob O'Reilly, VA MRC
David Wallace, Wallace & Assoc.	Theresa Labriola, Pew Trust	Jeff Kaelin, Lund's Fisheries
Pete Jensen, Wallace & Assoc.	Jud Crawford, Pew Charitable Trust	Benson Chiles, Chiles Consulting
Dick Brame, CCA	Julie Arrer, Pew Charitable Trust	Kristin Cevoli, Pew Environ. Group
Larry Jennings, CCA MD	Fred Akers, Gr. Egg Harbor River	Mitch Feigenbaum, PA, Leg. Proxy
Ed Liccione, CCA MD	Joe Grist, VA MRC	Janice Plante, Comm. Fisheries.....
Patrick Paquette, MSBA/RFA	Derek Orner, NMFS	Thomas Miller, FORVA
Chris Moore, CBF	Ben Landry, Omega Protein	Ron Lukens, Omega Protein
Ken Himman, NCMC	Amy Roe, Sierra Club	Shaun Gehen, KellyDrye Warren
Paul Eidman, Menhaden Defenders	Jessica Marlies, NC DENR	Tim Wheeler, Baltimore Sun
Thomas Miller, FORVA	Brad Stevens, UMD	Joe Fessenden, ME DMR
Matt Cieri, ME DMR	Jimmy Kellum, Kellum Maritime	Monty Deihl, Omega Protein
Roger Fleming, Earthjustice	Karl Blanketship, Bay Journal	AJ Erskine, Bevans Oyster
Jay Odell, Nature Conservancy	Beau Beasley, Warrenton, VA	David Knight, NC DENR
Alison Fairbrother, Public Tr Project	John Clark, DE DFW	

The Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the Presidential Ballroom of the Crowne Plaza Hotel, Alexandria, Virginia, Wednesday morning, August 8, 2012, and was called to order at 9:45 o'clock a.m. by Chairman Louis Daniel.

### **CALL TO ORDER**

**CHAIRMAN LOUIS DANIEL:** Good morning! Welcome to the Atlantic Menhaden Management Board Meeting. I am Chairman Louis Daniel, and I am going to try to usher through this as painlessly as possible. We will try to keep us on schedule. If we don't finish by 12:45, we will break precisely at 12:45 and then come back because there are some other issues that need to be taken care of during our lunch break.

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

**CHAIRMAN DANIEL:** With that, you should have all your meeting materials either on your laptop or all the materials were handed out in the back of the room. We have our agenda that everyone should have had a chance to look over. Unless there are comments on the agenda or our proceedings from our May 2<sup>nd</sup> meeting, if there is no objection, they would stand approved. Seeing no objection, then our agenda and our proceedings stand approved.

### **PUBLIC COMMENT**

**CHAIRMAN DANIEL:** There is one little piece of other business that I'll call on Mike to handle for us for at the end of our meeting. With that, we'll move into our public comment period. I do have two folks that have requested to speak. I will remind you that this public comment period is for items that are not on our agenda. We do have a very busy morning so I would ask you to limit your comments to three minutes. With that, first on my list is Ron Lukens, and if you could state any affiliation you may have or who you might represent before you speak.

**MR. RON LUKENS:** Thank you, Mr. Chairman, and good morning. Good morning, members of the board. My name is Ron Lukens and I am the senior fisheries biologist with Omega Protein Corporation. I have a prepared statement I'd like to provide this morning concerning cooperative research.

Mr. Chairman and members of the board, you will hear this morning that there are significant issues with the latest stock assessment that the board had hoped would be used to establish Amendment 2.

These issues are not new having been identified by the last assessment's peer reviewers, the 2010 benchmark. They will need to be addressed going forward.

As have participants in other fisheries facing new management regimes, the prominent participants in the reduction and bait fisheries decided to invest in cooperative research to help address these known issues. They also worked with internationally recognized fishery scientists to ensure that the cooperative research was well grounded and that their contribution to the technical and management discussions was appropriate and constructive. These scientists were Dr. Doug Butterworth and Dr. Mike Prager who, with the assent of the ASMFC and the Stock Assessment Subcommittee Chair, participated in the update assessment.

Dr. Butterworth is a globally recognized assessment scientist who consults with governments, international organizations and industries on a wide array of fisheries. He has been praised by NOAA Fisheries scientists for his contributions to the New England GARM Process and has most recently been involved in the Atlantic Pollock and Yellowtail Flounder Assessments. Dr. Prager worked at the National Marine Fisheries Service Beaufort Laboratory for decades and has been deeply involved in prior menhaden assessments and research.

The issues they raised particularly with respect to the issue of selectivities were first noted in the 2010 benchmark assessment's peer review report. The peer reviewers highlighted the need to use dome-shaped selectivity to account for the fishery's geographic contraction over time. We will hear more about this today.

Indeed, based on their recommendation and Dr. Butterworth's advice, Omega and others invested significant funds and in-kind resources to enable Dr. James Sulikowski to conduct an aerial survey. Its purpose was to provide some basis for estimating the extent of doming for use in the next benchmark. The information provides an objective indication of the amount of biomass outside the range of the fishery.

Working with the results of that survey and contemporaneous spotter pilot data in the Chesapeake and the Mid-Atlantic, Drs. Butterworth, Sulikowski and others were able to estimate, albeit very roughly, that there is very

likely at least an equal amount of biomass and perhaps as much as 2.5 times as much biomass of menhaden in the northern part of the range not being picked up by the assessment.

This report was well received by the technical committee and recognized as useful information for the next benchmark. No one, not even Omega contends that these data are definitive, but this information and investment helped point the way to a constructive way forward for both the next benchmark and for management.

These important efforts are being denigrated in some quarters, however, and we fail to understand what people fear from an improved assessment model and an open merit-based discussion. Mr. Chairman, thank you very much for the opportunity to provide these remarks and we look forward to continuing to work with you.

CHAIRMAN DANIEL: Good timing, Ron, thank you. The other person I have on the list is James Price.

MR. JAMES PRICE: Thank you, Mr. Chairman. My name is James Price, President of the Chesapeake Bay Ecological Foundation. I feel obligated to inform the commission about an important discovery concerning how the decline of Atlantic menhaden has affected striped bass mortality in the Maryland section of the Chesapeake Bay. I was unable to distribute the final copies of my summary and charts before the meeting. However, you've been given copies today that have been passed out.

For years no one has been able to explain within a certainty why striped bass appear to be dying from increased natural mortality in the Chesapeake Bay. Over the past several weeks a number of events have taken place that have helped answer the question. Ongoing research by the Chesapeake Bay Ecological Foundation has determined that the male-to-female sex ratio of striped bass in the 18- to 28-inch range has dramatically declined in the Maryland section of the Chesapeake Bay since 2010, indicating that male striped bass are experiencing a much higher natural mortality rate than female striped bass of similar age.

This disparity results from divergent ages of sexual maturity, ages two to three males and five to eight for females. Visceral fat accumulated by striped bass when feeding primarily on fish, predominantly menhaden, during the late fall and winter is utilized for gonadal development prior to spawning in the spring.

Therefore, to sustain normal physiological functions, including growth, post-spawning males must replenish visceral fat during late spring before summer water temperatures limits success in capturing prey fish. During summer prey fish consumption is minimal and bottom-dwelling prey dominates their diet.

Striped bass could be described as starvation sensitive based on their visceral fat reserves in early summer. With the current depletion of prey fish in the Upper Bay, particularly sub-adult menhaden less than ten inches and adult bay anchovy, post-spawning males cannot adequately replenish their fat reserves and therefore are vulnerable to malnutrition, disease and increased mortality.

Since immature female striped bass don't spawn, accumulated winter fat is not depleted. Consequently, these fat reserves help sustain their nutritional state until consumption of menhaden resumes in the late fall. Maryland DNR tagging studies also indicate adult male striped bass natural mortality rates have risen.

The Chesapeake Bay provides the principal spawning and nursery areas for striped bass. Historically the Upper Bay provided an ideal ecosystem for reproduction, survival and growth for high numbers of healthy striped bass. This natural productivity has deteriorated due to severe declines and fluctuations in populations of forage fish, primarily Atlantic menhaden, bay anchovy, river herring and spot.

During the early summer of 2006 through 2009, the average ratio of adult male to immature female striped bass 18 to 28 inches was approximately 17 to 1 in the Upper Bay. In the late spring of 2010, 30 percent of the adult male striped bass had no visceral fat, the highest percentage during the study, which was followed in the fall by the largest decline in sex ratios of adult males to immature females.

CHAIRMAN DANIEL: Mr. Price, I need to get you to wrap it up, please.

MR. PRICE: Yes, I would just like one more minute. From late spring through early summer of 2010 to 2012, the adult male to immature female ratio average had decreased to approximately three to one, providing evidence that a disproportionate number of adult male striped bass are experiencing an increased rate of

natural mortality. From 2009 to 2011, ages zero and one menhaden less than ten inches accounted for approximately 43 percent of the total numbers of menhaden landed within Virginia's portion of the Chesapeake Bay and nearby coastal waters by the menhaden purse seine reduction fishery.

These sub-adult menhaden are crucial to the diet of the bay's striped bass and should be protected according to the ecological objectives in ASMFC's Interstate Fishery Management Plan for Atlantic Menhaden. Thank you.

CHAIRMAN DANIEL: Thank you. That is all I had signed up to speak. Are there any other folks that would like to address the board before we move into our business? I see three hands in the audience. All right, if you would start from my left to right, come up and state your name and anyone you are representing. Please try to hold to the three minutes or I will stop you.

MR. PATRICK PAQUETTE: Thank you, Mr. Chairman. My name is Patrick Paquette. I'm a recreational fishing advocate from Massachusetts. I work with over 30 groups. I wanted to address two things. One is that there has been a lot talk about this aerial survey on northern menhaden.

From a fisherman's perspective, I own one charterboat that operates out of Chatham, Massachusetts, that I recently sold after 15 years and interest in another charterboat. I professionally tournament fish. I actually claim both of those activities on my taxes and contribute to the economy in my state.

I fish on a regular basis between Boston, Cape Cod and the Hague Line. We catch tuna fish in the Hague Line in the fall where some of those boats that make these incredible runs. I can tell for sure that if the amount of menhaden that we are hearing should be off our waters would be, one, we would know because the predators would find them; and, two, our very capable commercial fleets in the northeast that are stressed would be going after some of those fish.

That resource is not in northern waters. I don't understand the science that is being proposed or suggested, but those fish are not in our waters. Once you leave inshore Rhode Island, we are very thin. One of my clients is the Martha's Vineyard Surf Casters Association. That group lives and dies and that island lives and dies by an event called the Martha's Vineyard Striped Bass and Bluefish Derby.

The success of that event can go from a thousand members to seven thousand participants in that tournament that lasts over thirty days. It is the bulk of the shoulder season for fishing on the island of Martha's Vineyard. The true popularity of that event is the availability of false albacore, bonito and Spanish mackerel tight to the shoreline.

Fishing for those funny fish, as we call them in the recreational fishing industry, is extremely important and people fly in from all over the country and actually all over the world to participate in that fishery. That fishery doesn't occur these days or in very, very little amounts because of the lack of juvenile menhaden in our waters.

All of the activities that would and should be based on the presence of menhaden in New England waters are down or not happening. That is factual evidence that can be seen across the board, that can be seen by tackle sales, by lack of rentals on the island. You can rent a house this fall – I rent a house and run an actual lodge for fishermen to fly in and out.

One, we can't fill it when we don't have that bait present and we don't have that incredible shore fishing. The lack of menhaden costs us money; it costs us jobs; and is an actual thing that we see. One of the reasons you're not hearing outrage about the scientists is people just don't believe that this can even – it doesn't pass common sense to us who live in the northeast. Please consider that fishermen don't see this alleged body of fish that just doesn't exist. Thank you.

CHAIRMAN DANIEL: Thank you. There was one other hand on that side of the room and then there was one hand on the other side and that's it.

MR. PAUL EIDMAN: My name is Captain Paul Eidman. I'm a light tackle fishing guide in northern New Jersey. I'd like to say thank you for the opportunity to make these comments. We are encouraged by all the commissioners who are continuing to hold the course on sustainability. As the leader of Menhaden Defenders, I represent thousands of fishermen, and all these guys reach out to me all the time. They are sincerely concerned and worried.

Unfortunately, New Jersey, New York and Delaware Bay anglers are the only ones that I

hear good news from as they still have plentiful bunker still in the water. I personally see really encouraging things going on in my home waters, and it really helps my business as a charter captain.

The southern fishermen are seeing the exact same thing as the New England fishermen. The bait fish that they have all relied upon for good, consistent fishing are all gone. The fish that they used to have acres of have simply vanished. In my opinion, the ASMFC has the opportunity to be on the right side of history. We thank you for leaving as many options as possible on the table.

This year you can alter what we have to know as the normal historical cycle of this fishery, which we all know is abundance, overfishing, crash, stop fishing, and then resurgence. It's up to all the commissioners to continue to move forward and protect the remaining menhaden population. This fish is clearly the life blood of our waters and we are all depending on you to continue to make the right decisions and vote with Mother Nature and not big business.

All of us hope that the ASMFC will consider the ecosystem first as the primary concern, protecting it so that the striped bass, weakfish, bluefish and other species like whales and dolphins that need menhaden to survive and thrive get their share of menhaden first. History has proven that if we don't have enough menhaden for the ecosystem, the system will fail. Thanks again.

MR. JUD CRAWFORD: My name is Jud Crawford. I'm a biologist with the Pew Environment Group, and I will be extremely brief. I had the opportunity to listen to the presentations made by Dr. Sulikowski and Butterworth at the Stock Assessment Subcommittee Meeting. As I read, for example, the letter that has been circulated and signed by a number of congressmen talking about the new science that they did, I find a disconnect between what I heard the scientists say about their work and the way it is being interpreted outside of the scientific arena.

I think it's wonderful that industry has put money into developing new methods for data collection. Everyone knows that our fisheries and the science behind them will improve with better data collection. The fact is that the work that was done, the aerial survey was presented and is preliminary. It is a pilot study and it was presented that way and it was discussed that way by Dr. Butterworth at the meeting in Raleigh. It was presented as sort of a proof of concept that this is a method that could be used and that the ASMFC should take up and move forward.

It was also told by the scientists that it is something that would need to be developed over a number of years in order to become useful in a stock assessment setting. I think there is a bit of a disconnect between where the scientist is doing this work, see the work and the way it is being discussed outside of the scientific arena. At least that was my impression based on what I heard them say. Thank you.

## **2012 ATLANTIC MENHADEN STOCK ASSESSMENT UPDATE**

### **PRESENTATION OF STOCK ASSESSMENT REPORT**

CHAIRMAN DANIEL: Thank you, Jud. All right, that you all for your comments and holding to our time. At this point we're going to move on into the assessment update and reports that we will be receiving. I have just a couple of comments before we get started there. If you recall at the last meeting I put together a small subcommittee of board members – those were David Pierce, Pete Himchak, Lynn Fegley, Jack Travelstead and Robert Boyles – in the event that we needed to get together to review and discuss issues with the updated assessment.

We actually had to meet twice. It's the first time I've ever had to do anything like this. We've spent a lot of time deliberating over options that we have based on the assessment report. I wanted you to be aware that we have had the – you may see some things in here and you say where in the world did that come from?

It came from those deliberations from that subcommittee; so if you have any questions or concerns about that, that's my responsibility. With that, I would like to introduce Dr. Erik Williams. He is here to present the stock assessment update. We are very fortunate to have him here because of the travel constraints and we appreciate NMFS allowing him to come. It was a strong sense of our subcommittee that Dr. Williams be here to present this assessment report. With that, I will turn it over to Erik and appreciate you being here, Erik.

DR. ERIK WILLIAMS: Thank you, Chairman Daniel, and thank you to the board for allowing me to come here today, and I hope you find this informative. It's a rather lengthy presentation, probably a little longer, but I think it's important to go over some of the nitty-gritty details of this assessment.



By way of introduction, as Louis said, I'm the Chair of the stock assessment subcommittee. I'm with the National Marine Fisheries Service at the Beaufort Lab, and we've been working on menhaden out of our lab since the dawn of menhaden, I guess, almost, well over sixty years. We have a long history of working on menhaden on our lab.

What I plan to go over is the updated data that we used in the assessment because this was an update stock assessment. The last benchmark stock assessment used data through 2008, and we updated those time series through 2011, and I'll go through that first. And then if you can see sort of the rest of the outline here below, those are the topics I'll be going through right after that, so let me go ahead and dive right into the updated data inputs.

There was a lot of data that was actually updated for this assessment, including weight at spawning, weight at start of the fishing year, fecundity, natural mortality, landings information both from commercial as well as the recreational, and our two abundance indices, the Juvenile Abundance Index and an Adult Index. I won't go into detail on every one of these. I'll highlight some of the important things from these updated data.

Here are the natural mortality estimates that we get from a Multispecies VPA Analysis that we use as input into the menhaden stock assessment. This is showing the natural mortality at age two. What you'll see in a lot of these figures is that what is shown in red is the data that was used in the benchmark assessment that was finished in 2010, which had data only through 2008. Then in black is the 2012 update data.

You can see historically some of the estimates got changed as well, and that's the nature of rerunning the Multispecies VPA Model. It changes not just the terminal estimates but it can change the entire time series. In this case you'll see it didn't change too much for age two, but in the case of natural mortality at age six there were some pretty dramatic changes.

Although this looks dramatic, keep in mind that age six menhaden are a very small portion of the population, so in the end this really doesn't have too much effect. I just highlight that this is one of the bigger changes in the data sources that we saw with this update, but you'll see through the rest of my presentation that most of the data that was updated, there was very little change; just the addition of three years.

Here are the commercial reduction landings. Again, the red is the benchmark assessment, which you can't see because it matches exactly with the update time series. You can see the three additional data points here at the end, 2009 through 2011, and landings from the commercial reduction have not changed much basically over the last ten years or more.

Here is the bait fishery and here you can see the landings; again, the blue being the update. Here we have seen over the last five years a little bit of an increase in the bait landings. In fact, the 2011 data point for the bait landings was the historic high for that fishery. A very small fraction, pretty much negligible is the recreational estimates, and I show that just for completeness. They're very inconsequential to the model.

You'll note that the difference between the update and benchmark goes back to 2004, and that is because of the change from MRFSS to the MRIP Program. We used the most recent MRIP data for estimates of menhaden. This is a very, very small fraction compared to the reduction and bait fisheries.

The Juvenile Abundance Index is one of our two indices that go into the assessment, and here you can see slight differences historically between what was used in the benchmark and the update assessment. That is a function of the fact that this index is derived from a general linear model, which is a model unto itself.

Just like the MS-VPA natural mortality estimates, these are model-derived estimates that then get used in the stock assessment, and so they can change historically by adding just a few data points, and you can see that here. But the general addition of these last three years of data is very low juvenile abundance index values, and there is this general trend of pretty much flat recruitment, which is what this index is meant to represent shown in the last twenty years almost for this index.

The adult index we use as the Potomac River Fisheries Commission Index that is based on pound nets, pound net days fished. It's a catch-per-unit effort measure. When we asked for the new data through 2011, there was the realization that 2004 through 2008, the data points that were used in the original benchmark assessment were

not quite correct, so there was a minor correction to that, and you can see that here.

What you see in red, this is what was used in the last benchmark and then in blue is the corrected data with the addition of the three extra points. What we see from this index is generally an increase in the last five to ten years, maybe mostly less, eight years or so with this index. This adult index is meant to represent primarily age two fish with some age one and age three fish. That was the data, a quick thumbnail sketch of that.

Next I was going to run through the actual base run model of the update assessment. A little explanation on these figures so that you can wrap your heads around them; this is the model fit to the Juvenile Abundance Index and what is shown in the circles is the observed data, which is what I just showed, and then the lines are the model fits.

And what I've shown in red is the benchmark assessment fit to that data and then in blue is the update assessment fit to that data, so you can see the difference in how the model is treating the data from the benchmark to the update. What you see is the fit is pretty much the same. All we've done is add these additional three points.

The model is tending to predict a slight trend in lower recruitment in the last four years. One thing to keep in mind, when we interpret these – not necessarily for you to interpret, but that's why I'm here to help interpret this – is we look at these residual patterns, and that is what is shown below, is the difference between the observed data that we collected and the model prediction.

We look for patterns in this data, and what you'll notice with this index – and it didn't go unnoticed by the technical committee – is that in the early part of this time series the model is not estimating – it's not fitting that observed data very well, so that was one issue that came up with this index.

The other index is this adult index that we have from the Potomac River pound nets, and that is shown – again, the circles are the observed data and the line is the predicted points with the blue being the update assessment. The problem here; again if you look at this residual pattern, this caught the TC's eye almost immediately, this big trend in residuals.

Basically the model prediction is showing a downward trend in this index while the observed data is showing an upward trend. That causes some

concern when you're looking at model fits. Here is more output from the update assessment. This is showing the different selectivity patterns that are being estimated in the update assessment.

This model has been constrained to use a logistic function, which means it is a flattop selectivity function, which is shown here. As you can see from age four on, this is a constant full selection that is implied here in this model. Here is the difference between what is estimated for the reduction fishery selectivity and the bait fishery, so essentially the suggestion here is the bait fishery takes a slightly older fish compared to the reduction fishery.

The implication from this selectivity pattern is that all age four-plus fish are fully available to the fishery. These are the fishing mortality rate estimates as they come out of the update assessment; again, the red showing the benchmark and the blue or dark line is the update. This is for the reduction fishery only, and you can see this increase in fishing mortality that has occurred with the addition of new data since the last assessment; pretty much a straight increase upward.

The bait fishery shows a tremendous increase in the fishing mortality rate, to a historic high, essentially, for the time series. If we look at the total fishing mortality rate, which is usually what we gauge as sort of for the stock status for the stock, again you see this increase. This increase is driven by both the reduction and bait but probably more so by the bait, at least the rate of increase.

Recruitment is another important estimate we get out of the stock assessment model, and that is shown here. The pattern is pretty much very similar to what we got from the last benchmark assessment; again with just the addition of three more data points. Those three more data points are suggesting relatively flat recruitment as that Juvenile abundance Index was indicating as well that there hasn't been any big increase in recruitment in essentially the last twenty years.

Fecundity, which is our measure of sort of spawning stock biomass, if you would – we consider it a slightly better measure rather than just biomass to actually use an egg count, and that is what is shown here. Again, the red is the benchmark assessment and the dark line is the update assessment. What you see here is that the

fecundity has gone down with the addition of new data; a slight downward trend.

That is the estimates from the base. Of course, there are more things that come out of this model, but I kind of chose the few highlighted points to show. Next we try to capture the uncertainty in this assessment. Admittedly, the uncertainty analysis we do for this stock is kind of limited. It doesn't encompass all the potential uncertainty, and you will see that. It will probably be quite evident by the confidence intervals that I'm about to present.

What do add uncertainty to is sort of most of the input data, which is really just the indices, the landings and the age composition data that we get from the fisheries. That is the only source of uncertainty we add to this model. The current thinking is we probably should be adding other sources of uncertainty as well, but this is sort of considered as like a first order approximation of sorts for uncertainty.

What you'll see with these series of figures is this gray area and the black line – the black line is the base run estimate and then the gray area is meant to represent a 90 percent confidence interval from this uncertainty analysis. We can see that there is still a fair amount of uncertainty in that terminal year F.

Here is recruitment and here you can see this model is suggesting very little uncertainty in recruitment, and that is probably being caused by the setup of the model, which we could discuss later, and I may get into that or not. Basically, this to me would suggest that uncertainty is a little underestimated here, and almost certainly the uncertainty around these recruitment estimates has got to be a little larger than that. Fecundity, so again low uncertainty there. Next we did a few sensitivity runs of the base model. We limited the number of sensitivity runs because this was just an update assessment.

Normally when we do a benchmark assessment, there may be as many as twenty. Actually I've seen as many as fifty sensitivity runs in a benchmark assessment. In this case we only limited it to five runs that the technical committee chose. Those five runs are shown here or listed here. One was we basically reran the model without that Juvenile Abundance Index. Then we ran the model without the Potomac River Pound Net Index.

Then we ran the model allowing for dome-shaped selectivity in the last time period for the reduction fishery only, and then we allowed dome-shaped

selectivity for both the reduction and bait fishery. When we did that, we only did it from 1994 on. And 1994, I don't remember exactly, but I remember we looked at a lot of data patterns, we looked at – it was our understanding of how the nature of the fisheries had changed, and that is why 1994 kind of stood out as a potential break year for which to use as a shift in selectivity, so that is why that 1994 was chosen.

And then the last one was we used a median effective sample size for the catch age compositions. What that means is we basically down-weighted the age compositions a little bit. One of the criticisms that came out of the benchmark assessment was that we were applying too much of a weight to the age composition data, and so this was our attempt to address that concern from the original benchmark assessment review panel.

Here are some of the results of those sensitivity runs. This is showing the selectivity that was estimated when we allow the function to be a dome-shaped function rather than a flat-top function. This is the selectivity we get for – what is shown on the left is the commercial reduction fishery and on the right is the bait fishery.

What you can see – if you remember before, I showed that it was age four on – age four-plus was selected here and it is suggesting age four-plus is very – well, at age four they're minimally selected and then by age six and above they're not selected at all. The technical committee commented that these are likely very unrealistic selectivity estimates.

One of the problems is you cannot just free up a selectivity in these models in this way because there is little information for the model to distinguish the degree to which this doming occurs and the actual fishing mortality rate. There is a confounding there. If this gets revisited at the next benchmark assessment, we will have to get some other data to sort of hang our hat on what the selectivity might be.

We can't willy-nilly kind of estimate this in the model because the model doesn't have a lot of information to base what a good estimate would be. The point of this was just to look at a sensitivity and what happens to the model estimates when you allow for a type of dome-shaped selectivity and not necessarily the correct

dome-shaped selectivity; even if dome-shaped selectivity is correct.

I'm going to run through a few series of slides highlighting the major estimates and how they were affected by these sensitivity runs. This is the full fishing mortality rate. I don't know if you can read that, probably not, but these are the sensitivity runs. The red is having the dome-shaped selectivity just for the reduction only. The green, which you can't even see, is omitting the Juvenile Abundance Index. Then we omit the Potomac River, yada, yada, yada.

Essentially the one that stands out here, of course, is this pink line or this line here at the bottom, and that is the line that you get when you use those dome-shaped selectivity functions. The take-home message here is dome-shaped selectivity has potentially profound impacts on the model estimates.

Here is that same set of sensitivity runs with the recruitment estimate output. What you notice here is that dome-shaped selectivity doesn't necessarily affect recruitment as much. You can see a slight increase here relative to the base run for recruitment, but otherwise very similar estimates across the board regardless of the sensitivity run.

Fecundity is one where the changes are rather dramatic as well, and so shown here are those fecundity estimates. This pink line up here, the rather different line is again the dome-shaped selectivity, and so that creates a rather dramatic effect. Again, the point of these sensitivity runs is not that these are in any way, shape or form equally plausible runs. They're just to look at the behavior of the model in response to certain changes that we might consider at the next benchmark assessment.

The other part of the sensitivity run is to run a retrospective analysis. This is commonly done in the northeast and us in the southeast are just getting used to doing these sort of things. What we did is we basically take the model and re-estimated by chopping off a year of data, and we do that one year at a time and basically rerun the model back ten years, so we run it ten different runs and we look at the estimates as they come out of that and compare it to the base run.

This is going back one year at a time, as evidenced by the terminal year is a filled-in dot here, and what you see is that there is an overestimation – there is a suggestion of an overestimation of the data in the terminal year. So if we go back – if you look at the updated assessment with all the data, that terminal F

ends up coming down compared to what we had originally estimated when that was the terminal year of the data.

This is what we call a retrospective pattern. This is a common thing they see in the northeast with a lot of their stocks. One thing that is unique about this pattern compared to the patterns they typically see in the northeast is that this pattern seems to switch, so in other words it is all positive residuals, if you would, or overestimation, and then it switches about five years back and then it is consistent underestimation.

This is a little different from what they've seen in the northeast, and we're not sure what is going on here, but this is a troubling issue because it is suggesting – at least if you looked at the most recent five years of retrospective, it is suggesting we're overestimating the fishing mortality by as much as 50 percent if that pattern continues into the future.

That's the problem with these things is you don't know whether this pattern would continue or not, and then you're left with the decision of should you adjust for it or not, and so we're in a quandary with that. It is something the technical committee may have to continue to wrestle with if this retrospective continues to show up in a new benchmark assessment.

My hope is that by addressing some of the other issues in the assessment that were brought up in the original benchmark assessment, this may diminish or maybe even disappear, but that might be being too hopeful. Here is that retrospective pattern for recruitment. Basically here the suggestion is that the terminal year tends to be underestimated; again a little bit of a switching behavior; fecundity, not quite as bad, a retrospective pattern but nonetheless present.

Next on the overview is to look at the stock status. With the F 15 percent threshold that was established, which is shown in the thin red line, basically the indication is that the stock is overfishing and basically overfishing has been occurring for the majority of the entire time series. Only a few points have ever been below the F 15 percent line.

Now if we look at that stock status with respect to the sensitivity runs that are shown here; so even this dome-shaped selectivity, the suggestion

is that terminal year is above the threshold so overfishing is occurring essentially with all of our sensitivity runs. But again I caution these sensitivity runs are not meant to be equally plausible runs. They're just looking at the effects on the model.

Here is the retrospective pattern, so the suggestion is that we might not have seen overfishing in these years if we had done the assessment, say, in 2001 or 2002, but adding more data then suggested, yes, overfishing was actually still occurring in these early years. As for the biomass threshold or the overfished condition, the current threshold is this SSB<sub>med</sub>, which is actually as I said fecundity is our measure of spawning stock biomass, so this is the SSB<sub>med</sub> benchmark or reference point, and basically the suggestion here is we're not overfished and that we have not been overfished for most of the time series except for maybe back in this period of the late sixties and maybe in 1992.

Here is showing the sensitivity of that with our sensitivity runs. Again, this big outlier is the dome-shaped selectivity run. Here is showing the retrospective analysis on the spawning stock biomass or in this case fecundity. The last section I was going over is the projections we did for this update stock assessment.

Essentially the projection methodology was agreed upon by a meeting that was conducted by the technical committee back in January, so we kind of had the methodology already laid for us when we went into this update assessment. We included a constant landing scenario; so in other words we projected out with a constant catch of 75, 100, 125, 150 and so on, all the way to 225,000 metric tons.

We apportioned those catches along the lines of 75 percent to the commercial and 25 percent to the bait, so it's 75 to reduction and 25 to bait. Just as a reference, the 2012 landings for reduction were 167,000 metric tons and for the bait were 46,400 metric tons. Now, I'm not going to go through – we did every one of these scenarios, but I'm not going to go through all of those here. They're in the report.

I'll go through just a quick subset so that you get a flavor for what the projections are telling us. Here is a projection with a constant catch of 125,000 metric tons. Here are the landings. This would be the landings as they were in 2012 and then they get reduced to 125,000 for all the years all the way out to – I think this projection is going out to 2030.

You can see the response by the population would be to increase – recruitment is relatively flat because we're not incorporating any feedback mechanism in recruitment in relation to spawning stock size, which is one of the criticisms of this projection methodology; but that's a problem with many stocks sometimes, that there is a poor relationship between spawning stock size and recruitment.

You can see the concomitant reduction in fishing mortality that would occur with a constant catch of 125,000 metric tons. If we go to 175,000 metric ton constant catch, then you can see that increase is just dampened a little. It is not quite as dramatic. The reduction in landings is not quite as much, but the fishing mortality rate still continues to decline.

It actually has a little tick upward and then goes down, and that's probably just based on the most recent age structure estimation. If you recall, that last recruitment estimate in our base run was one of the lowest values; and so if that's true, that poor year class is just sort of passing through the population and would cause a potential increase in F.

Here is the same projection at 225,000 metric tons. Again, in this case 225,000 would actually be an increase from what was occurring in 2012, but even with that you still see a slight increase in fishing mortality, but it is a very high level. You see an immediate decrease in fecundity, but then a slight increase over time.

You'll see these tables in the stock assessment report. These are probably pretty useful tables. For each of these constant landing scenarios, this is the probability that the fishing mortality would be less than the threshold, so the probability that you're achieving or ending overfishing might be the way to look at this. Of course, with the low constant landings, you achieve a probability of near 100 percent and 100 percent by 2015 and beyond as far as ending overfishing.

As you increase the landings, that probability goes down. And to the point where if you increase landings from what they are now, based on this base run update assessment your probability is very low that you would end overfishing at all. I think that is the last slide I have, so I will take questions at this point.

CHAIRMAN DANIEL: Thank you, Erik, very good, detailed report. Are there questions for Dr. Williams? Jack.

### **DISCUSSION OF STOCK ASSESSMENT REPORT**

MR. JACK TRAVELSTEAD: It is a good report, Erik, I appreciate it. It seems that the JAI indices are lower in recent years, but the Potomac River Pound Net Index shows increases in the last eight years. Those two indices seem to be at odds, so how do we fix that? Is the model just ignoring the pound net index?

DR. WILLIAMS: Yes, I think Jeff will speak to this. I think it's one of the things in his report that he'll be giving from the technical committee. Yes, this was one of several issues that came up when we were looking at the stock assessment was the lack of fit to – that pound net index was one of the issues that came up.

MR. TRAVELSTEAD: And just one more question; you talked about the doming of the selectivity curve and that apparently affects the outputs of the model pretty significantly and yet we don't have a lot of data at this point to determine the exact shape of that.

You mentioned that we would need other data between now and when the next benchmark is done to get a better understanding of the shape of that dome. I guess my question is what types of data do we need? Do we need more than the Sulikowski data that everyone has referred to; do we just need more years of that? Would one more year of the Sulikowski-type data be beneficial to those who will do the next benchmark or do you need eight to ten years of that kind of data?

DR. WILLIAMS: That's a very good question and a difficult one to answer. I think what we do need is data like the Sulikowski Study; but I think as the Sulikowski Study stands now, it is definitely not going to help us answer that. Even just adding a couple of more years of data probably isn't going to help us out, at least the way it was conducted.

One of the issues with that study was it was not conducted synoptically, so we needed sampling going on both in the south and the north region at the same time. They did it at separate times. That would be ideal. The other thing is we would want it throughout the year instead of just a small window of the year.

We would want it both before the fishery occurred, during the fishery and after the fishery occurred.

Ideally, we would want it over many years. Of course, that is the cry of every scientist; we need more data. The one thing we don't know is how the difference in the biomass in the northern area versus the southern are changes from year to year, so that is something where we would need multiple years of data to determine if that is a highly variable thing or not.

I guess the end result is when we go to the next benchmark assessment we will have to – I just think what is going to happen is this dome-shaped selectivity or the potential for dome-shaped selectivity is going to be a new source of uncertainty for this assessment, and the technical committee will just have to figure out a way to incorporate that into the assessment model and look at the range of possible options that make some sense.

MR. TRAVELSTEAD: So if we could redesign the Sulikowski-type Survey to collect data from both the north and south at the same time but we only have a year or two to do that before the next benchmark, would that be valuable to those who will do the next assessment? In other words, if a state or states were able to come up with funding to do that; is that something that should be done or are we just wasting our money?

DR. WILLIAMS: Of course, I'm a scientist so I want more data all the time, so, of course, I'm going to say, yes, that would be good data. How useful it would be in the immediate future, I don't know. It depends on how it was collected. We would want to look at the error around it, how well it was sampled; those kinds of things would come into play.

Certainly, as we go beyond – you know, if you kept it up for four or five years; once you get past three or four years, data starts to become very valuable because then you can almost start to infer time trends as well, which is one of the things we would be concerned about with this type of data.

MR. JEFF BRUST: Just to respond to that a little bit more, there has been a subcommittee of the technical committee that has looked at developing a coast-wide aerial survey for menhaden. I believe they're even at the point where a contract has gone out to someone on the west coast to develop a survey design. I believe a draft of that survey design should be ready by the end of the year. Of course, as with

everything, the big holdup is going to be able to get money to fund the survey.

Once we have a survey design, it doesn't mean we're done. We still need to find money to actually implement the survey. Something to the effect of what you're looking for is in the works right now, and I believe we should have a draft of the survey design by the end of the year.

MR. PETER HIMCHAK: Mr. Chairman, I had a question for Dr. Williams. This is highlighted in the technical committee report, and they're concerned about the modeling. They refer to it as overweighting of the age composition data. When I read that on face value, I get the impression that, well, the reduction fishery, they're taking 80 percent of the landings and they're providing age samples for the reduction fishery, and the bait fishery has a certain number of samples.

I'm under the impression that the catch-at-age matrix is deficient because of the lack of the disproportionate number of ages being taken from the different fisheries. Then in 2011 I see actually the proportionate of bait samples aged and reduction, they're pretty close, so what exactly is the overweighting of the age composition data; what does that mean in the model?

DR. WILLIAMS: That's an excellent question, Pete. It's kind of a statistical thing. It actually has not much to do with the actual data collection. It is slightly related to that, but it's really the fact that the model – we have to basically adjust the amount of influence we're going to allow each input data to provide to the overall assessment model.

In this case what the peer reviewers for the original benchmark said is it looks like, based on some diagnostics we did, that we were overweighting. We were putting too much emphasis on the age composition data. It is not to say the age composition data is poor or bad or anything is wrong with it.

It is just that we were giving it too much emphasis and not necessarily enough emphasis on the juvenile abundance index, the pound net index, the other data sources. Part of the evidence for that is the fact the pound net index basically in those last twenty years is being largely ignored in the stock assessment model right now.

DR. DAVID PIERCE: Dr. Williams, yesterday the Sea Herring Section received some information regarding the recent assessment done for sea herring,

and that assessment previously showed a very strong retrospective pattern, which, of course, was of great concern to us. Now with this new assessment, because of the work of the assessment scientists involved and the effort, the retrospective pattern is gone because of the fact that they modified natural mortality by age.

It did more than that relative to natural mortality, but they really focused on it. In this updated assessment was there any effort made to look at natural mortality by age and change it in ways that might remove the retrospective pattern and do away with the problem that you've identified; that is, the flipping of the retrospective pattern?

DR. WILLIAMS: The short answer to that is no. Because of the procedures for an update assessment, we had very little leeway in what we could address and what we couldn't. Essentially the update assessment was limited to just adding the new data and rerunning the model as it was structured from the last benchmark assessment.

DR. PIERCE: Okay, thank you, and one other question. In the updated assessment on Page 205 there is a Figure 75 and on Page 210 there is a similar figure, Figure 81. If you could reference those figures, it is a plot of population fecundity against total full fishing mortality rate. It is a very useful figure in terms of showing where we are or where we think we were in 2011 with mortality plotted against, again, population fecundity.

To me they're both very telling figures regarding where we stand in 2011. My question is these figures and the information it contains; are they figures and is it information that we should continue to use or we should use now to help us get a better understanding as to where we were in 2011? Your update did not in any way cast doubt on that information?

DR. WILLIAMS: I will defer actually answering that question to Jeff because really the technical committee, which I am not a member of actually, it is their job and their report was to interpret those assignment results, and I think Jeff will maybe answer that question for you in his presentation.

## **TECHNICAL COMMITTEE REPORTS ON STOCK ASSESSMENT UPDATE**

CHAIRMAN DANIEL: Yes, and that is an important point because Jeff will be reviewing the technical committee's recommendations on the assessment. Dr. Geiger.

DR. JAIME GEIGER: Erik, an excellent report. I'm still trying to wrap my brain around some of the stuff that you presented. I am sort of intrigued by the question that Jack asked, and I would sort of follow up. Obviously, every scientist is looking for the best available information. Based upon your best professional judgment, in the short term – I would say within a year – what would be the three most valuable pieces of additional information you would like to see, funded or otherwise, determined based upon very comprehensive assessment that you just presented?

DR. WILLIAMS: I am a little hesitant. I don't want to offer my personal opinion so I won't do that, but I think in the report –

DR. GEIGER: Erik, I requested your best professional judgment; I'll put it in that context, sir.

DR. WILLIAMS: Okay, let me make a statement then about I don't think it's my role actually to provide my personal best scientific judgment to this board. You have a technical committee that spent a lot of time and effort – and I was part of some of their deliberations – to come up with their consensus interpretation of this assessment and they extensively reviewed the stock assessment report.

I think the answer to your question is in that report, and I would defer to that and let that be your guide, as it should be, because I don't think it's my place to offer too much influence on this board as one person coming to this board. I'm just here to present the assessment results and interpret those for you but not necessarily go that next step, which is to provide management guidance based on them. That is more or less where the technical committee starts to come into play. They really did spend a lot of time and effort on that, so I really would prefer you use their report; ask Jeff Brust those questions, maybe, but I'm going to defer answering that.

MS. LYNN FEGLEY: Mr. Chairman, this is again a followup to the adult index. There is an option within the draft amendment to require that all states with pound net fisheries provide catch-per-unit effort indices as a mechanism to expand the information on adult abundance. I guess my question

is would that data be as useful as an aerial survey given some of the uncertainties that were stated in the Sulikowski Report on aerial surveys? Would a more comprehensive coast-wide pound net survey be what we need?

DR. WILLIAMS: Well, I think the number one recommendation from the stock assessment report is for a coast-wide index of some shape or form. I think in the report we mention an aerial survey, but it seems like any coast-wide index is going to prove invaluable to the stock assessment.

MS. FEGLEY: If I'm order, let me know. Also, I just wanted to follow up on the disconnect between the PRFC pound net and the recruitment. I believe it was the last benchmark there was a lot of effort placed in aggregating juvenile indices for the entire coast. I wondered if disaggregating those indices would lend some clarification to what is going on there if there is a disproportionate amount of recruitment in one region versus another. I was curious about your thoughts on that.

DR. WILLIAMS: Again, I think Jeff can talk about this, but from my presence at the technical committee meetings they discussed that extensively. One of the things that they think needs to be revisited is looking at the way that juvenile abundance index was computed by combining the state-specific indices.

MR. DAVID SIMPSON: This was a very helpful report. This assessment is very different from the ones I'm used to looking at coming out of the northeast center. It takes me back a couple of steps in understanding. One of the questions I had was with respect to the residual pattern that you saw in the fishing mortality rate, you know, overestimating the last five years and then basically underestimating in the five years previous. Was there anything in terms of the commercial landings data flow, the quality of data from the bait fishery? I know the reduction fishery is pretty constant and high quality. Was there anything there, and then I have a follow-up question about the total estimate of F.

DR. WILLIAMS: As I mentioned earlier, we were kind of constrained trying to explore causes of the retrospective pattern because this was a strict update assessment. We didn't really explore anything. I would add that these retrospective patterns are notorious for just



coming out of nowhere and being very difficult to explain why it is occurring. Yes, it would be pure conjecture on my part.

MR. SIMPSON: And then the followup; the terminal year estimate for 2011 I think was a full F of 4.5, which would calculate to over 99 percent mortality rate. Was there a discussion on the plausibility of that?

DR. WILLIAMS: Again, I think Jeff might comment on this or might not, but that was one of the things the technical committee had mentioned during their deliberations is that's an awfully high F. One way that would be reduced is through a dome-shaped selectivity would bring that into a more reasonable range. I don't know if that is evidence for dome-shaped selectivity or not, but it certainly is striking that F is that high.

CHAIRMAN DANIEL: This may be for Jeff as well, but it appears like with that one outlier model run with using the dome-shaped selectivity on both the bait and the reduction fishery; that makes a huge difference, but it also looks like the dome-selectivity that was used was kind of extreme to the conservative side. It makes perfect sense that if you're not catching any of those five and six year old fish your fecundity is going to go way up, so that makes logical sense to me.

You mentioned the word "plausible" a couple of times. How does the stock assessment subcommittee or the technical committee – how plausible do you think that one example that you used is for the fishery, and then the follow-up question to that would be if you were to incorporate a few more of those four, five and six year old fish into the catch, that is going to cause the F's to go back up in line with the other models; right?

DR. WILLIAMS: This topic; I think we cover it in the technical committee report and the stock assessment report and basically say that sensitivity run was just that, a sensitivity, and I think we even put language in there that suggested don't think of these anywhere near plausible. How plausible; I'd say implausible and not assign a probability, but it is certainly not going to be the configuration we would use in another benchmark.

MR. TRAVELSTEAD: Just one more question; Erik, a number of answers to the questions around the table seemed to indicate that the stock assessment committee or the technical committee did not delve into certain issues in depth because that was outside

of the job you had to just simply update the assessment.

I can understand that, but my question is how much time would the stock assessment folks or the technical committee need to delve into those issues in more depth to be able to answer some of the questions that the folks around the table have had; and is there a difference between doing that and doing an all-out benchmark assessment? In other words with a little bit more time, can you tell us answers to some of these questions without having to wait for a new benchmark assessment?

DR. WILLIAMS: The technical committee discussed this and I think the answer was, no, we couldn't do it in any kind of short amount of time. Essentially it would take a benchmark assessment to fix these problems, because there is a strong likelihood that all these issues are going to interact so they all need to be sort of addressed at once. The conclusion of the technical committee is we strongly recommend a benchmark as soon as possible.

CHAIRMAN DANIEL: Any other questions on the stock assessment for Dr. Williams? If not, thank you, Erik. There may be additional comments or questions that you may be able to help us with after Jeff provides our technical committee report; so, Jeff.

MR. BRUST: As you just saw and as you heard from a lot of Erik's responses, Erik gave the presentation on the assessment results and is leaving the technical committee discussions up to me. I will be providing the presentation on the technical committee's deliberations of the assessment results and their implications for management.

Hopefully, I can answer some of your questions during the presentation. If not, I'd be happy to take questions at the end. My presentation is going to be split into two parts. The first part will be the conclusions regarding the assessment from the technical committee, and the second part will focus on responding to a memo from Chairman Daniel that he sent to the technical committee requesting specific information so that the board could move forward and develop management options for Amendment 2. The first part is the technical committee's conclusions the assessment update.

I'll go into more detail on the following slides, but you probably got a whiff of this from Erik's presentation. The technical committee had major concerns with the assessment model and the results and the implications for management. Three of these issues were identified by the 2009 peer review panel. I guess it was 2010. Most of the work was done in 2009, but the peer review was actually in 2010.

Three of the concerns were evident then and they persist now in the 2012 update. Two of the other concerns are more recent developments with the update. You could see them in the 2009 assessment, but they weren't big enough to really make the short list of concerns, but they have gotten worse.

Overall these five concerns cast considerable doubt on the utility of the model as it is currently structured as well as the accuracy of the assessment results. The bottom line is that the technical committee believes the data and the model both need to be re-evaluated, and the best way to do this would be through a benchmark assessment.

We believe that the board should recommend expediting the next benchmark assessment. It is currently scheduled right now for 2015, and so the technical committee's recommendation is to move that forward. The three concerns that were identified by the peer review panel, they all have to deal with the data that are used as well as the model configuration.

I think we talked about each of these in Erik's presentation and the questions afterwards. The first is the overweighting of the age composition data. Basically it overshadows some of the other sources of information, and we just need to tweak the model a little bit to give equal or more representative weighting for the different sources of data.

The second concern that the panel identified is that the model does not account for changes in the fishery over time because menhaden segregate by size and age particularly in the summer. When we had more reduction plants up and down the coast, we had a wider range of ages within the data representing the fisheries in the different regions.

As we have lost the reduction plants, we have lost those older ages in the fishery and we've lost those older ages in the data. If we don't tell the model that there has been a shift in age structure that is due to a change in the fishery, the model is going to interpret it as a change in the population whether or not it actually has occurred in the population. We need to

look into that and see if we can restructure the model to more accurately represent the fishery.

The third concern is the lack of a coast-wide adult abundance index. This wasn't news to the technical committee. This is something that we've been concerned about for quite some time. Unfortunately, there is no short-term for it or else we would hopefully have done it by now, but it is still a major concern for conducting the model.

The two more recent concerns deal with how the model performs and more specifically the output. We have concerns about how the model is fitting the data. These may or may not be directly related to the concerns with the data themselves and model configuration. Erik went over both of these; the two concerns. The first one is the poor fit to the PRFC Adult Index. As Erik mentioned, the open circles are the observed data and the lines are the model interpretation of what is happening. You can see in the last five or ten years or so the divergence between the observed values and the model fit is getting larger.

The second concern, of course, is the retrospective pattern. In recent years the model tends to be overestimating fishing mortality and underestimating fecundity or SSB. The technical committee did discuss maybe trying to correct for this and put the terminal year estimates on a more plausible scale based on the retrospective pattern.

As Erik mentioned, the shift in the pattern over time makes it really hard to know what is going to happen in the future. Is it still overestimating F? The technical committee didn't feel comfortable making a correction for it. We recognize it's a huge pattern. It is much larger than many of the species we see, and it is a big source of concern.

Because this was a stock assessment update, the technical committee was constrained in the different kinds of model runs we could do. Basically everything we had to do for the 2012 update was constrained to exactly what we had for the 2009 benchmark; just adding a few years worth of data. We did do a number of sensitivity runs, but here they are again just as a reminder; changing the weights for the age data, altering the selectivity patterns and removing the index series one at a time as well as a bootstrap analysis.

I want to make it clear – I think it has been discussed already, but I just want to repeat that since this was an update assessment, there were constraints on how much time we had to do this type of work, so the sensitivity runs that we did were not meant to be an exhaustive list of everything that we think could have been wrong.

I think there were close to two dozen sensitivity runs for the 2009 benchmark. For this one we did five, maybe six. These were just meant to try and get a handle on those sources of uncertainty and how the model might respond to those different configurations of the model and the data.

One thing that is important to point out – and I think you saw it in Erik’s figures – pretty much all the sensitivity runs, except for the one with the dome-shaped selectivity, pretty much all of them gave very similar results. The mode results were very stable to the different configurations of the data in the model, which in a way tells you that there really wasn’t a smoking gun that would fix these problems.

This points to larger issues within the data, the sources or the model construction. Basically we need to do more than just scratch the surface to get to the bottom of these concerns that we have. It is not just an easy flip a switch kind of fix. Obviously, the best way to get to the bottom of these concerns would be through a benchmark assessment.

The technical committee’s conclusions, given all the concerns that we have, is that the results of the assessment, the terminal year results in particular, these are very uncertain. However, maybe one shred of light at the end of the tunnel is that the technical committee is relatively confident that the stock status determinations are robust given the current model structure and the currently defined reference points; and that is to say overfishing is occurring and the stock is not overfished given our current reference points. We can say this for two reasons. First of all, as you saw from the sensitivity runs, only that one dome-shaped selectivity run had much impact on the trends, but even that one, all of them showed the same overfishing status in the terminal year.

None of the sensitivity runs changed the stock status determinations noticeably. Second, the overfishing determination makes sense in light of the recent actions by the board. You’ll remember that the 2009 benchmark, we found that overfishing was occurring then; and then Amendment 5 went into place that lowered the fishing mortality threshold, but nothing

to date has been done to lower the fishing mortality rate within the fishery.

If we’re overfishing in 2009 and we lower the threshold but don’t lower the fishing mortality rate, it stands to reason that we’re still overfishing. The bottom line is that the technical committee feels that even with the uncertainty in the assessment results, we think the stock status determinations are relatively robust.

On a related note I wanted to point out to the board that there is a general mismatch in the reference points that are being used. The fishing mortality; because through Amendment 5 the fishing mortality is evaluated relative to maximum spawning potential but nothing was done to change the biomass reference points, so those are still evaluated relative to median recruitment.

The technical committee recommends to the board that the biomass reference points should be changed to MSP-based reference points as well to be consistent with the fishing mortality reference points. Just to note, these were investigated during the assessment; and if we were to use an SSB of 15 percent as a threshold that is consistent with the fishing mortality reference point, the stock would be overfished. The status would be overfished as well as overfishing.

To summarize, the overall conclusions of the technical committee, the technical committee has identified these five major concerns with the assessment model that casts considerable doubt on the accuracy of the results. Despite the uncertainty in the point estimates, we feel that the status determinations are robust.

We can say with relative confidence that based on the current reference points overfishing is occurring but the stock is not overfished. The best way to address the concerns that we have would be to expedite the next benchmark stock assessment. Those are the technical committee’s conclusions regarding the stock assessment. As we were going through this process – do you want me to keep going or do you want to stop for questions?

CHAIRMAN DANIEL: I’d like to keep going. I think the second part of the presentation will answer some of the questions that folks have,

and I also would like to go ahead and get it all out there.

MR. BRUST: Okay, so as we were going through this, Chairman Daniel was very attentive during the process; and when he got wind of the concerns that the technical committee had and how useful we thought the results were going to be, he was thinking ahead to this meeting and the discussions that needed to occur.

In order for the board to make any progress at this meeting, he realized that the technical committee needed to provide certain information to the board. He wrote a memo to the technical committee tasking us to address certain concerns and provide certain information to the board. Essentially there were three tasks identified in this memo. For the sake of this presentation, I broke the third task into two parts.

The first request was to complete the assessment for the briefing materials. Hopefully, you all noticed that the full assessment, text, tables, figures and appendices were included in the briefing materials and hopefully you all got that. The second task was to identify the concerns that the technical committee had with the model and its use for management. Hopefully, I gave you a pretty good flavor of that in the first part of this presentation.

Then the third task requested the technical committee to provide any additional data that we thought might provide insight to the board on stock status as well as some suggestions on how to move forward toward achieving the reference points. The remainder of my talk will try and focus on these two parts of the third task requested from Chairman Daniel.

In response to the request for the additional data that might provide insight on stock status, since this was an update we're limited to the data sources that were involved in the 2009 benchmark. At the time of the 2009 benchmark, all of the relevant data sources were included in that assessment and therefore were included in the 2012 update as well.

There have been a couple of new data sources that have been identified that might provide information on stock status, but the technical committee has not had the time to review these and determine how useful they are. The short answer is at this time there are no other sources of information that the technical committee felt comfortable providing to the board that provided additional insight on stock status.

I can give you an overview of the data sources that we did use and our comfort level in each of those. We feel that the reduction landings estimates and the age composition information from that fishery are very reliable. We've had good sampling and good harvest reporting for a number of years.

The bait landings estimates are a little less certain, but they are also a much smaller portion of the total catch than the reduction landings. As I mentioned before, we are concerned that there is no coast-wise fishery-independent index of adult abundance. The two indices that we do have, we want to go back and re-evaluate those in terms of how representative they are of the coast-wide population.

Another source of information is the natural mortality rate from the MS-VPA Model. The increasing abundance of the predators is showing an increase in the natural mortality rate, and we think those are pretty reliable as well. One concern that we thought the board might be interested in is we took all these data sources and we ran them through an alternative model.

We ran them through the single-species portion of the Multispecies VPA and got similar results in terms of retrospective bias; poor fit to the PRFC index and things like that, which gives us a little bit of comfort that the results that we're seeing from the base model are not due to a coding error. You'll remember that there were some issues with the code during the 2009 benchmark, so we wanted to make sure that we weren't seeing something like that wasn't the source of all the uncertainty in the update.

The results from the MS-VPA single species indicate that it is something more than just a coding error. Because this request was specific to stock status, I'll repeat that we feel that the stock status determinations are robust under the current model framework and existing reference points that we're using.

This claim is supported by similar status determinations for the different sensitivity runs as well as the recent management actions taken since 2009. As I've said, overfishing is occurring though we are not sure by how much. That terminal point estimate is uncertain but the status determination is robust.

Given the currently defined SSB threshold, overfishing is not occurring; but as I mentioned we think there is a mismatch in the biomass reference points and that should be changed. In terms of how to achieve the reference points, Erik went into this a bit and hopefully you also remember that we were intending to provide projection results that forecast how the stock would respond under different constant harvest regimes.

I provided preliminary results of this back in February and we were supposed to update those based on the update assessment and give you, quote, final results for the amendment. But given all the uncertainty we have in the assessment model and the terminal year results and some of the assumptions that go into the projections, the technical committee felt that at this point those projections are not useful for setting harvest limits, so we can't use them to help you set quotas.

We do think that the projections give an indication of a stock might respond under different harvest levels, but we didn't think that they were specific enough to give you information on specific harvest levels that would help you achieve the reference points. With all the uncertainty we have and lack of projections and uncertainty in the terminal year estimates, what we were left with is essentially a data-poor situation.

The technical committee had some discussions on what do different management bodies do in data-poor situations, and what we came up with a set of ad hoc rules used by the regional management councils for data-poor species. Essentially what you do is you calculate average catch for the recent years and then you apply a multiplier to account for uncertainty or other indicators such as the stock status or the species life history or the ecological function of the species, among others.

You take this correction term and you apply it to the recent average harvest to get your harvest limit. This top table shows a list of the species and the correction factors applied to them for the different regional management councils. Hopefully, you can see those in the back. Generally they're in 25 percent increments, but I guess the Caribbean Council felt the need to be a bit different and they chose 0.85.

For example, how this would work is for New England groundfish they would calculate average catch for the last three years or five years or whatever period they felt was appropriate and then multiple that by 0.75 to get their harvest limit. I need to point out at this point this table is for information only.

The technical committee has not had an opportunity to go through the different multipliers and determine which ones are most appropriate for menhaden based on the life history and ecological function and things like that. This is the entire list that we could put together. We are not promoting any single one of these numbers as the one to use for menhaden. But that being said, the bottom table shows you if you selected a different multiplier and applied it to the average harvest for either the last three years or the last five years, the bottom table shows you what the harvest limit would be for menhaden.

Just to put these into perspective, Dr. Daniel requested that we provide some projection figures based on the 2009 assessment just to show you how the stock would respond and the probability of reaching the reference points. A couple of things to consider here is the top left figure is fishing mortality and the bottom right is biomass. I intentionally took the scale off of these because the technical committee was concerned that you were going to see a certain value and run with it.

As I said, we feel that these projections are useful to show how the stock responds in a qualitative fashion, but we didn't want you to take them in a quantitative context. You can see in the top left graph, that top line, that is how the fishing mortality would react in the future if you kept harvest at 100 percent of the recent history; whereas, the bottom line, the blue line, shows what would happen if you reduced harvest to about 50 percent of recent years.

You can see that obviously it makes intuitive sense the more you reduce fishing mortality – or excuse me, the more you reduce harvest, the more you're going to reduce fishing mortality. The figure on the bottom right is just the opposite. It's with SSB; the more you reduced harvest, the larger increase you're going to see in fishing mortality – or, excuse me, the larger increase you're going to see in SSB.

The legend is a bit small, but the numbers that I show up there are 100 percent, 90 percent, 75 percent and 50 percent. One hundred is the darkest line; 90 is the green; 75 is the red; and 50 percent is the blue. These are just showing the relative changes in F and SSB at different harvest levels.

Again, the same subset; again in the qualitative sense, this is the probability of achieving your reference points at those different harvest levels. The top left is 100 percent; top right is 90 percent; the bottom left is 75 percent of recent harvest; and the bottom right is 50 percent. Again, the more you reduce harvest, the higher your probability of achieving those reference points. I believe that is the end of my presentation, Mr. Chairman.

CHAIRMAN DANIEL: That was well done and I want to thank the technical committee. They did an excellent job putting all this information together and responding to my questions. They did a great job with that as well. We will go ahead and take some questions for the technical committee. Pete.

#### **CONSIDER ACCEPTANCE OF STOCK ASSESSMENT UPDATE AND TC REPORT**

MR. HIMCHAK: I had a question for Dr. Cieri. He is in the back of the room. I'm very happy to see you. My question is you gave the results of the Atlantic Herring Benchmark Assessment on Tuesday morning, and you made extensive use of the food web data base from the Northeast Fisheries Science Center. Essentially you're coming up with age-specific natural mortality estimates due to predation, which is what we use with the MS-VPA. Would that food web data base enhance the capabilities of this model for menhaden?

DR. MATT CIERI: Matt Cieri from Maine DMR. Yes, it would in some respects. Probably the best course of action would be to sort of bring that through the MS-VPA. We already use the food habits data base extensively in calculating the MS-VPA and in giving the results, but there are probably some other things that we can do in addition. However, as what has been indicated, that requires a lot of work and it requires going through and looking at the ability to add additional predators as well as alternate prey into the MS-VPA, and that would require a benchmark.

DR. PIERCE: Just two questions; and I do agree with the Chair that the technical committee has done some great work here. You really have gone way beyond what I expected you would be able to provide, so thank you for that. The first question is actually a clarification. I think you said in your presentation, towards the end of the presentation, that if we went ahead and matched the fishing mortality and the SSB reference points, if we did that then we would be overfished. Did I hear that correctly?

MR. BRUST: That is correct. If we made the spawning stock biomass reference points consistent with the fishing mortality reference points that is an SSB 15 percent of maximum spawning potential, we would overfish. I've got a slide if you'd like to see that. Okay, if you go to Slide 21 and 22.

Okay, this slide shows the time series of SSB relative to the red line, which is the SSB at 15 percent. You'll see that we are below that for most of the time series. If you go to the next one, this is the scatter plot of the 2000 bootstrap estimates, and you will see that every single one of them is above the fishing mortality rate at 15 percent MSP and below the biomass abundance at 15 percent. Again, that is a very robust number.

DR. PIERCE: Okay, thank you, and then I'll ask the question I asked before that was deferred to you. I hope you've had a chance to jump ahead and take a look at those figures I referenced in the stock assessment document on Page 204, Figure 75; on Page 210, Figure 81 where there is a plot of full F versus fecundity.

It shows a rather dramatic change in the situation for 2010 and 2011 versus previous years. Do those figures still stand; should we still look at those figures and embrace them or should we step back from them?

MR. BRUST: Unfortunately, I did try to look at the figures and my version of the final report – let's see, on Page 204 of the PDF document or 204 of the actual document?

DR. PIERCE: The actual document.

MR. BRUST: Okay, give me a second; 204 of the actual document is Erik's A, D, and B Code, so that doesn't help me. I'm sorry, Dr. Pierce, the question is should we still stand by these figures?

DR. PIERCE: Yes, it is basically Figure 75 and Figure 81.

MR. BRUST: I don't have a Figure 75 or 81. Okay, I've got them here. I'm sorry, if you pose the question again.

DR. PIERCE: Right, those figures to me are very informative relative to what is happening now, 2010 and 2011; and if I was to use those

figures as a basis for how to move forward, well, they would influence me strongly. Should be still reference those figures and use them for guidance or have the caveats, the qualifiers the technical committee has offered up resulted in our taking those figures off the table?

MR. BRUST: I'm trying to figure out what the difference is between the two. It's just the time series that were used to develop them. I would be careful using them in terms of the point estimate. The technical committee is concerned that the point estimates for the terminal years are very, very uncertain, but that the stock status determinations are robust, so are we to the left of that line; most likely.

Are we exactly at 4.5 on Page 204 – well, that is full F; so are we at exactly about 15,000 billion mature ova or is it somewhere – anywhere on the left-hand side of that line. That's more likely. The point estimate, I don't think you'd want to use, but the determination that we are overfishing and that we are less than –

DR. PIERCE: Let me phrase it and see if you agree with what I have to say. Okay, the point estimates, I'll shy away from them because of the reasons you have stated. However, the notable change in the values, whatever they may be, from 2010 through 2011 versus the previous years, that still exists. There has been a rather marked change in fishing mortality and perhaps even in population fecundity in recent years, 2010/2011.

MR. BRUST: The one concern I have with that statement is those points will most likely change when we add more years of data because of the retrospective pattern. Right now we are underestimating fecundity with the current retrospective pattern, so hopefully those values would improve for the better – or change for the better when we add more data. Given the terminal year, yes, what you're saying is correct, but there is still uncertainty in even that trend discussion that you just mentioned because of the retrospective pattern.

CHAIRMAN DANIEL: I actually have a followup to Dr. Pierce's question, if you will allow it. I don't want to leave this topic without making sure the board understands what we have just talked about in terms of the reference points. Let me make a few statements and see if Erik and Jeff agree or disagree with what I'm saying.

It confounds me how we can have F rates of 4 and 5 and 6. I think that probably confounds everybody. If

I look at the plot of F relative to the reference point, we have been overfishing almost the entire time series, but yet we're not overfished. How is that possible? Well, I think it's possible – thanks to my help from Genny, I think it's possible because the Fmed reference point is based on some average recruitment, which we know doesn't occur.

You might have some extraordinary recruitment event that has huge impacts on the Fmed. Whereas, if you match up the F reference points and the biomass estimates to the same currency MSP, it starts to make a little more sense that if you have been fishing at such a high level and you have been overfishing for the time series, that I don't see how you couldn't be overfished. Is it true that the reference points moving to an MSP-based reference point for overfished makes us more in line with what we're seeing in the fishery? Is that as clear as 40-weight or did I confuse things?

MR. BRUST: Well, no, I think it makes intuitive sense to have your fishing mortality and your SSB reference points in the same currency essentially, so, yes, I think making them consistent certainly shows a better representation of where the fishery stands.

CHAIRMAN DANIEL: So then it would be the technical committee's conclusion – I'm not trying to put you on the spot – that if we were to agree that we should use MSP as the currency and biomass, that based on your best judgment we would be overfished and overfishing?

MR. BRUST: Well, you did a pretty good job of putting me on the spot considering you weren't trying. I don't want to overstep my bounds as technical committee chair. The question to the technical committee was given the current reference points are we overfished and overfishing and given the current reference points we are overfishing but we are not overfished.

But, and that is a big but, there is a mismatch and the available data suggests that if we consistent reference points, the status determination would be overfished as well as overfishing. That is just based on the model results. The technical committee has not, to my knowledge, come out and said that specifically, but that's just based on model results.

CHAIRMAN DANIEL: Right, exactly. I just didn't want to get past Dr. Pierce's point on the MSP without making sure that we all understood that a lot of the stock status determination depends on the reference points that we selected, and we've got a recommendation. Doug Grout.

MR. DOUGLAS GROUT: Well, first of all, thank you, Louis and Dr. Pierce, because you asked the question I was going to ask only in a different way, and that was what the practical implications of matching up our reference points and what are the practical implications of not matching them up?

Clearly, since we've set a more conservative fishing mortality rate, it would make sense that we also have a more conservative biomass reference point. But I did have another question, Jeff, and it has to do just with some clarification about this retrospective pattern. Remind me, did we have a retrospective pattern in the benchmark assessment?

MR. BRUST: Yes, there was a retrospective pattern. I don't have the figure, but can you pull up Erik's retrospective figure? What I'm going to show is that it seems like the retrospective pattern is getting larger over time. We did a large enough peel when we did it for this update that we went back enough years that you could see it before and after – excuse me, from the benchmark and even years before that.

You will see that the pattern was there, but it was much tighter. I think if you take away the last three points on that figure and you will see that there is a retrospective but it is not nearly as concerning as what we're seeing now in terms of how much we're overestimating F. The switch is still there.

I don't remember detailed discussions about this, but we're seeing it plus or minus a relatively small amount. It wasn't a huge concern at the time. There is always concern when there is a retrospective, but there is always a retrospective. That is because the last few years of data you don't have the full information on a cohort, so the model is trying to guess what is happening. We saw this figure without the last three points and said, okay, there is a retrospective, not surprising, it doesn't look so bad; move on.

MR. GROUT: And there was a flip in the past assessment, too, so this just was a different magnitude.

MR. BRUST: Okay, Erik is reminding me that we didn't have the first three years either, so take out

three colored points on either end of that retrospective, but, yes, it did flip.

MR. GROUT: And all this increase in magnitude occurred as a result of just adding three more years of data?

MR. BRUST: Correct.

CHAIRMAN DANIEL: It blew up.

MR. GROUT: And I'm sure at the next benchmark assessment they'll give us a reason why it blew up, but not at this one.

MR. BRUST: No.

MR. STEPHEN TRAIN: Thank you, Jeff and Erik. I really appreciate these presentations because when I read through this stuff my level of understanding I don't think is anywhere near yours. One thing I took from this that you both seem to agree on was that the current models overestimate fishing mortality and underestimate spawning stock biomass? Both of you said that, correct?

And then you went on later to say that if we were to reduce fishing mortality by certain percentages, this would be the level we could get to – I saw the graph – so my question is if we are underestimating fishing mortality now and you both agreed on that – I think Erik said up to 50 percent – how close are we already to that?

MR. BRUST: Can we get that retrospective back up there? Actually you had a plot of the retrospective relative to the reference points as well. Okay, this plot shows – the retrospective pattern is saying that we're overestimating fishing mortality; but even when we add additional years of data, it brings the fishing mortality rate down, but you can see even with, say, three additional years of data, the 2009 assessment still says we're above the new reference point.

I hazard to guess that if we were still working under the old reference points we would not be overfishing; but with the new reference points we're still above it. I don't know if that directly answers your question.

MR. TRAIN: It answers partially, but the thing is when we work forward here, we're trying to get to that point over a certain time period,



whether it's going to be three years, five years or ten years. If our starting period actually has us on Year 3 and not on Year 1, then I need to know in my opinion what do we need to do to get there and how drastic a measure do we need to take, because we apparently are not really at Year 1 if we are already overestimating our fishing mortality.

MR. BRUST: It is a very good question, but I'm not sure as the technical committee chair I should be telling you how much of a reduction to take; sorry. I can say that the terminal year is overestimated; so given the recent pattern, the terminal year is overestimated so hopefully that pattern continues and you are a lot closer to your reference point than the terminal year says, but I can't say for sure how close you are. I hate to defer that but I can't give you the answer that you're looking for.

CHAIRMAN DANIEL: Let me try to help just from a management perspective. We don't know where we are relative to the current F other than I would say very certain that we are overfishing, but the degree we don't have a clue. If we use the MSP reference points for biomass, we're overfished at a fairly standard of 15 percent. The target is 30 percent.

In order to get ourselves above the SSB 15 percent, if we use the MSP reference points, we also need to rebuild biomass, which we would do by reducing fishing mortality. The problem that we have is the technical committee can't tell us if we need a 50 percent reduction or an 80 percent reduction or a 90 percent reduction.

They also have no confidence in the projections, so that can't tell us how we may – you know, we've talked about having a three, five, ten year rebuilding schedule. We're getting into those discussions right now, but this is really a discussion for Mike's presentation on the amendment. But what we have to decide is really take the projections out of it because we're not going to have that until we get a benchmark, so what do you do in the interim between now and the benchmark?

That's why I asked for the technical committee to construct the data-poor examples that were used in the New England Council and Gulf Councils and various other councils that kind of give you an idea and a justification for looking at a 0.75, 0.85, 0.9 multiplier by the current landings data and that is your reduction that you would basically hold steady until we get the benchmark assessment wherein we might have projections to tell us how we need to get to a specific point.

That's where we're hopeful. What we also looked at during the technical committee call was we looked at the most peer-reviewed stock assessment that we have is through 2008, and what that suggested to us then was that in order to get to the 15 percent threshold we needed about – I think it was about a 15 percent reduction, 10 percent reduction.

If you match up those two and you look at that table that shows percent reductions, that may give us some sense of how we need to move forward, but to be able to say we need a 16.3 percent reduction to end overfishing, we're not going to have that number at this assessment. Dave Simpson.

MR. SIMPSON: I'm still kind of stuck on the fishing mortality rates and the calculation, and I was sort of going back to fundamentals, looking at the weights at age, which is the essential element of converting the tons landed to numbers of fish and therefore mortality. There is quite a pattern in there over time of mean weights at age, especially the older ages, and the implications for the retrospective pattern coming out of the level of sampling I think were apparent. If I'm not mistaken, reading the average – is it correct that the average number of lengths taken from the reduction fishery, for example, averaged 1,200 fish in recent years and there are 600 to a thousand fish in the fishery being measured.

That strikes me as being a very, very low sampling intensity for a fishery in the neighborhood of 150,000 tons of landings. I would just suggest that greater scrutiny on these mean weights at age and conversions – I mean, you go back and the weights are lower back about six years and then they jump up quite a bit six years previous to that, and that does kind of line up with the retrospective pattern, so it's probably something to look at carefully.

And, just a reminder of the figure you had up there for others to – the difference between an F of 4 and an F of 2 is not half. One is 99 percent mortality and the other is about 87 percent mortality due to fishing. It's not as dramatic as the graphs suggest when you consider it on an annual basis.

MR. BRUST: Do you need a response to that?

MR. SIMPSON: Well, relative to what discussion the technical committee had about the very small sampling intensity and the discussion about mean weights at age, kind of the fundamentals that learned from Fred Serchuk many years ago.

MR. BRUST: I guess the peer review concern as well as the technical committee concern is that we have at least enough if not more than enough aged samples. There are some diagnostics that come out of the model that help us determine a number that gives us the information we need without giving us too much information.

After you collect a certain number, everything after that is just going to tell you the same thing that the first set did. It is certainly something that we will look at when we go into a benchmark; are we collecting an appropriate number; is it too much; is too little; what can we do to improve it? I can't say anything right now. It will be something that we discuss during the benchmark.

MR. SIMPSON: Am I right that the total number of fish measured in the reduction fishery was about 1,200 fish?

MR. BRUST: Was it 1,200 fish or 1,200 ten-fish samples? I will have to look into that. Originally we were counting each fish individually; but statistically and the way the fish segregate by size and age, those fish from a given set are not independent of each other so the sampling frame is actually the set rather than the fish.

I don't know which side of the fence you're sitting on; are we counting the individual fish or are we counting the individual sets? Obviously we'll look at that. In terms of the changes in weight at age, that might just be a reflection of the changes in the fishery. You will remember that up until five or six years we had the Beaufort Fishery that was catching smaller fish.

When you include them, they're going to bring the average weight down. Five or ten prior to that we had a farther northern plant which was catching bigger fish, which you add those back in and it is going to shift the average weight up. Again, I don't know the actual years that these occurred and I don't have the figure in my mind, but changes in the fishery, changes in the fish that are being harvested will change the average weights. Certainly, we'll look at it and make sure it is being adequately represented, but those changes over time in average weight at age might be due to changes in the fishery.

MR. SIMPSON: Okay, finally, if I could, I know it's fairly standard practice, and again the Northeast Center assessments that I'm more familiar with, to represent the sampling intensity by the number of samples – as you say, 100 lengths per hundred metric tons landed, something like that that would give us a sense of the sampling intensity.

Because you're right, it is number of samples. When you go down to the boat and take a sample, there is an auto-correlation in terms of, you know, the fish you see today versus next week or two months from now. So, just something I think that would help us for confidence level – knowing what the intensity is relative to the very high volume of landings per fishery.

MR. BRUST: It is a good point.

MR. TERRY STOCKWELL: Thanks, Jeff and Erik, for your presentations. As we move forward and consider approval of a public document, I've got a couple of questions about the multiplier and the data-poor stocks that you're talking about, Jeff. One of the questions may be more appropriate for Matt Cieri. With a multiplier of 1 for Atlantic herring, did that consider forage and predation?

MR. BRUST: Yes, I'm going to kick that one to Matt, who is actually on the Herring Technical Committee.

DR. CIERI: To answer Terry's question, the SSC used 1 partially because of the status of Atlantic herring. There was that sort of general idea that they were not overfished and overfishing wasn't occurring, and so the SSC felt very comfortable with just simply using a 1 as a multiplier. That is one of the things that goes into your choice of a multiplier is the life history but also your status and how well you think your stock is doing relative to your reference points in a general sense.

MR. STOCKWELL: And I guess the question for you, Jeff, would be will you able to develop a suite of multipliers to have included in the public document, because it is certainly going to impact whatever measures and how the industry is going to comment on them.

MR. BRUST: I'm being told that the table that was presented up there; it was also presented in

the response memo to the board's memo. That is the table that is in the draft amendment right now. It includes multipliers of 1.0, 0.9, 0.8, 0.75, 0.5 and 0.25.

CHAIRMAN DANIEL: And we added that during the call. We talked about that and some of the technical committee members suggested not just putting in a 0.75 to 1, which is what you typically see, is add that 0.8 and 0.9 to lessen those restrictions if that's the desire of the board and not box us into 0.75 or 1. I thought that was a good recommendation from the technical committee.

MR. STOCKWELL: And thanks, Louis, for participating. It is very helpful.

CHAIRMAN DANIEL: It was very helpful for me. David Watters.

REPRESENTATIVE DAVID WATTERS: Mr. Chairman, perhaps I missed this in the presentation, but I wondered about your confidence in the figures on recruit classes over the last few years. Did that change in terms of doing a retrospective analysis or those indications?

MR. BRUST: The retrospective on recruitment is similar to biomass. I believe it is underestimated in recent years, so hopefully the recruitment is higher than the model is estimating right now. Again, I believe there was a switch however many years ago, so eight or ten years ago we were overestimating recruitment, but the recent trend is that it has been underestimated.

MR. PATRICK AUGUSTINE: Very enlightening questions around the table. Needless to say, I want to make a motion to accept when we're ready, but a point to your report, Jeff. I was concerned when you suggested we need to set an SSB F and the technical committee recommended 0.15.

I went back and looked at the document that was put together with a possible spread. My biggest concern, before I looked at the chart, is how many years will it take before we stop overfishing and overfishing is not occurring. The spread that we have in there as samples seems to accommodate both three years and five years, and more likely five years; and if you went further, it would be a steady increase.

My concern again was if the year of the young and fecundity issues remained constant, I guess the real question that comes up is are we ever going to see that stock get back to where it was fifty or a hundred

years ago. The answer is probably no, but do you have an answer for it? It is a good question, Jeff.

MR. BRUST: As they all are. A little bird on my shoulder is telling me the stock is exactly where it was fifty years ago; but, great news, guys! You will remember when the board was developing the reference points, the technical committee tried to get the point across that increasing biomass is not a guarantee that you will increase recruitment.

We think menhaden is environmentally driven in terms of recruitment; so when the advantageous environmental conditions occur, when we have more biomass we're hoping that will also allow higher recruitment. There is no guarantee that more biomass means more recruits, but we need those favorable conditions.

MR. AUGUSTINE: Just a follow-on, Mr. Chairman; it is interesting; and as you all know I look outside the box, so I look at the bigger picture. We have the MMPA; we're protecting everything that God created from the top; whales all the down, including walruses and everything. And so you look at yourself and say, golly, gee whiz, after Matt Cieri's presentation yesterday, we went from a hundred thousand metric tons, which was the predator/prey business for herring, to 600,000 metric tons. We walked out and said that's interesting.

However, you then showed that the quota would actually go down over a period of time. And so even though you're trying to restrain your harvest, at the same time we're satisfying what appears to be a natural need, so maybe the answer to my own question was never; because if we're not controlling anything in that food chain from whales on down and we're trying to protect them all, eventually the people at the bottom of the food chain, meaning recreational and commercial fishermen, will be the – we will receive what we receive. Maybe that is the answer, I don't know. I wasn't trying to be smart.

I was trying to get a sense – you know, when you start talking about ecosystem management and the exercise you folks went through in the Chesapeake on the food chain and how striped bass turn out to be opportunists, if you will; and then we look at Jim Beard's presentation of what they're seeing on the other end; and then we

looked at the disease that some of those fish had; so, you wonder how much management, quote-quote, we can really do and how much restriction we actually can do when nature kicks in and says, oh, by the way, we forgot to tell you God says we're doing this; so just for what it was worth.

I was interested in the chart that was developed in the document. It definitely shows you there is a possibility that again maybe we set something before the meeting is over this afternoon as to what our first step would be until a benchmark kicks in, and that will give us a much clearer picture if we go where you want us to go. So when you're ready, Mr. Chairman, I would move to accept the technical committee's report for management purposes as presented today; when you're ready.

CHAIRMAN DANIEL: I will come back to you. Yes, and I think it is important for us to note that we are talking about ending overfishing. The board has clearly directed us to move forward with the target. Ultimately our goal is to hit the target, but right now it seems with the uncertainty that we're looking at trying to end overfishing first. That's certainly a decision that the board is going to have to wrestle with, if that is indeed the track we want to go down.

MR. WILLIAM GOLDSBOROUGH: Mr. Chairman, you just took some of the words right out of my mouth that I'm trying to understand – I have a question and then a followup for Jeff to the extent of trying to understand a little better what utility we can get out of the update and the previous benchmark and the ad hoc approach for trying to do that very thing; our immediate responsibility of ending overfishing.

A couple of things; one, I'm trying to understand to what extent your conclusions about the utility of the update also apply to the 2010 benchmark. I noticed pursuant to Doug's earlier question about the retrospective bias in the previous benchmark that in the peer review panel report they state that a retrospective analysis was performed by the assessment team for the base model and there were no retrospective patterns of any consequence.

And then the technical committee's report, in response to the Chair's memo, you make reference to not using the projections of the update to establish harvest limits for the fishery. So, I'm trying to understand to what extent we might be able to use the previous benchmark, those projections, perhaps, and how much firmer ground that would be for us; and also to what extent we might be able to use or glean something out of all three, the current update, the

previous benchmark and perhaps the ad hoc approach, that would give us even firmer ground to understand what we have to do to end overfishing. Because, if I understood you right, there are pros and cons of all of them. There are some things that we can take with some certainty out of the update, for example, the status information, for example. So, if there is anything more you can elaborate, I would appreciate it.

MR. BRUST: Well, there was some discussion at the technical committee level on the update isn't suitable so can we fall back on the 2008 and 2009 assessment? That is the typically the process is if your update doesn't work or even if a benchmark doesn't work, you fall back to the most recently peer-reviewed, approved model.

It's up the board, but that is certainly an appropriate step to take. But there is also discussion at the technical committee level about whether the projections at this point, four years down the road – remember, the terminal year was 2008 – whether projections from that point, given the things that have happened, recruitment patterns or lack thereof, harvest history, things like that, age structure of the fishery – given everything that has happened, I don't think there is as much certainty in the projections from that model at this point.

I guess I agree with your statement that there are pros and cons to each of those three different options. There are things that you can take away from each of them, but I'd be careful which parts you take away. I think the 2009 assessment is the most recent peer-reviewed, approved method, but I don't think the technical committee actually had a discussion – you know, came to consensus on this statement, so I just want to present it as a source of uncertainty that those projections from that 2009 model may or may not – and I would lean towards the may not be indicative of what is happening now or where the stock would go in the future.

At this point we have already projected almost five years from that data point and there is a lot of uncertainty in recruitment in the fishery and age structure and things like that so take them all with a very large grain of salt.

MR. GOLDSBOROUGH: I did have a followup, Mr. Chairman. With respect to doing the next benchmark at an earlier date, I

understand that would probably provide some increased clarity on some of these questions. I'm wondering about the tradeoff between that – see, I'm trying to figure out a way we can go forward based on what we know now and get the most out of the next benchmark.

I understand that the 2015 scheduled date for the next benchmark actually has some other things that are in process now tied to; specifically a rework of the MS-VPA that would depend on new inputs from the major predators and the addition of a fourth predator, spiny dogfish, and the inclusion of a prey-to-predator feedback loop, I believe; in other words, improved outputs to serve as inputs to the menhaden assessment.

So if we moved up the next benchmark for menhaden we would not have the benefit of those improved inputs, so I see that as kind of a tradeoff. We would provide a little more clarity on the questions before us today, but we would lose the benefit of those improvements.

I am wondering if you could reflect on that tradeoff from the standpoint of whether or not we have enough information and glean something from all three of these potential approaches before us to go forward and yet still keep the scheduled next benchmark to get the benefit of those other improvements.

CHAIRMAN DANIEL: Yes, I think that's a board decision.

MR. BRUST: Unfortunately, yes, I do agree that I can't tell the board how to move forward at this point. We have given our recommendation in terms of the ad hoc and given you our recommendations in terms of the current assessment update. I can't go farther than that.

CHAIRMAN DANIEL: But I think that is a discussion that we're going to need to have today as to how to move forward with the update; whether we wait to incorporate what Bill has suggested or we rapidly move forward. I think it is also important – we're talking about one side of the equation here, it seems like, consistently.

It does appear that the Sulikowski work is probably showing – may be showing that there are more fish that are outside of the fishery and that there is some level of dome-shaped selectivity, which is going to reflect favorably on the stock. I think that is fair to say. I don't have a crystal ball, but I think there are

multiple implications of the new work that we're doing and the further information we need to do for an update.

Again, I think we still are in a situation, regardless of how we cobble together the various results that we have, of being unable to say with certainty exactly how much we're overfishing and how much we need to reduce at this particular point in time. Kyle.

MR. KYLE SCHICK: I wanted to go back to that graph that we had looked at, the scatter plot. I guess that is if we had moved everything to the same currency, as we called it, the 15 percent, showing that it is possible that we're overfishing and overfishing has occurred. Before we had talked about using this 15 percent, overfishing has been occurring for over sixty years.

My question is, is this a resilient stock that allows us to overfish and possibly have overfishing occur for over sixty years and have it not collapse or are we really looking at a situation where the data is a really data-poor situation and in fact we may not be overfished and not overfishing, because we don't have enough data. The question is, isn't it – in the technical committee's opinion is it more important to let's get this data-starved situation under control before we start determining the rest of it? Isn't that the beginning of what we have to do?

MR. BRUST: I think it's very good point. You bring up a very good point about the amount of data that we have for menhaden. A lot of times people look at the fishery-dependent data that we have and say we have more data for this species than we have for most other species on the east coast, but it's important to point out that most of the data we have is fishery dependent.

There is not a lot of fishery-independent data to go with it. I guess to that point, yes, there are certainly data needs that we could address for this stock, and we have talked about some of them already today; the lack of a coast-wide adult abundance index. But, in terms of the question of have we actually been overfishing for sixty years or so, we've talked about this at the technical committee level a couple of times

I'm sorry I don't remember everything exactly how we've discussed it, but I think part of it is how the reference points are defined. If we think

menhaden is a cyclical species and we're only using a certain time period to develop the reference points, then it is going to affect the status determination outside that time period; so it might look like we're overfishing, but really the reference point for that time period would have been something different and so you wouldn't have gotten the same status determination.

Certainly, the status determinations are relevant for the recent time period, but I wouldn't necessarily take them at face value more than the recent history. We plot the reference point over the entire time series just because it makes a pretty graph, but I'm not convinced that the reference point would be constant throughout the time period, especially with a cyclical species.

MR. SCHICK: So to follow up, we're really talking about overfishing is a relative term over time and may in fact be based on the subjective reference points that we have put on to it over time, and in fact we may not be overfishing at all if we had more data showing a larger biomass out there and whatnot?

MR. BRUST: There is a possibility there. If we had a better adult index coastwide, if we had information on what is happening outside the range of the fishery right now, it is possible. I wouldn't hang my hat on saying that it is probable or anything like that. There is a chance, yes.

MR. TRAVELSTEAD: Mr. Chairman, it is not the agenda, but it seems to me at some point need to have some discussion about how quickly we can expedite a new benchmark. It seems everything is hanging on that, and certainly at least my opinion of what we should include in Amendment 2 and we go forward with that will depend on how quickly we can get a new benchmark. I'm wondering if the staff has done any followup on that or has any suggestions for us on how we might go about expediting – or whether the Fisheries Service has any ideas on how we might expedite that.

MR. PATRICK CAMPFIELD: As we've discussed, menhaden is scheduled for the next benchmark in 2015 through the SEDAR review process. The staff as well as the commission's Assessment and Science Committee have examined this question. Zooming out beyond menhaden and looking at all the other species that are on the assessment schedule, it is a very full workload in the next two-year time period.

It would be quite a challenge to complete it in the next couple of years. From that broad perspective,

there are more down-in-the-weeds considerations about getting onto a SEDAR or other review venue schedule. Then I'd have to defer to the Menhaden Technical Committee or the stock assessment subcommittee about how long it would take to develop the next version.

CHAIRMAN DANIEL: Does that answer your question, Jack?

MR. TRAVELSTEAD: Not really. I just think we have got to be innovative here and try to come up with a genuine way to expedite this thing. It's not clear to me; is it a function of a lack of funds to get it done; is it a function of a lack of staff to get it done; what is the weak link there?

CHAIRMAN DANIEL: My understanding is it's probably both in that the stock assessment subcommittee or at least the ones that I know on the stock assessment subcommittee have a very full plate of assessment needs for other species. Really, it is a policy board decision in my mind as for priority and what we need to – if we need to move something off the list or delay a certain assessment in lieu of a menhaden assessment.

Based on the comments we have received and based on the interest in this plan, I'm not aware of anything that is a hotter button issue than menhaden right now. That is a board decision and then a policy board decision as to how to move it around. The only other option that has been thrown out there from my consideration is to farm it out and try to get – and I don't know whether the stock assessment unit in Blacksburg at Virginia Tech would be willing to take it on and if we would feel comfortable with the results if they took it on; if there would be some external group that would want to do it.

Those are some of the discussions that I've had with some folks. I think that a decision we need to make and then push it at the policy board meeting if we want to move it up before 2015, but then I think we also need to keep in mind Bill Goldsborough's comments about missing out on; you know, when would the next benchmark after that be when we could incorporate this new information that we seem to – it seems a majority of the board wants to look at this MODA analysis and some more of this ecosystem-based reference points. Does that help?

MR. TRAVELSTEAD: That helps and I just would encourage the staff to continue to look at these other options that might be available so that this board can consider them and make some informed recommendation to the policy board.

CHAIRMAN DANIEL: Bob, do you have anything to add or have anything to say?

ACTING EXECUTIVE DIRECTOR ROBERT E. BEAL: Not a long beyond what you've already said, Louis. The list of species that we have for 2013 and 2014 are northern shrimp, striped bass, summer flounder, bluefish, black sea bass, lobster and tautog. Those are the priorities that were set by the policy board at the May meeting.

On those species there are a number of stock assessment scientists that overlap with the menhaden folks. The SEDAR Steering Committee had a conference call yesterday morning and they have accelerated the Gulf of Mexico menhaden assessment, so a lot of the folks like Erik in Beaufort are going to be working on the Gulf of Mexico Menhaden Assessment, and that is for 2013.

There are a lot of moving parts here, and I think farming it out may be something to look at. I'm not sure of the cost associated with that, but we can explore that; probably not by this afternoon's policy board, but we can look into it. If there is one of those species on that list that I mentioned that the policy board feels can be put off and that frees up both financial resources and the individuals that can do the assessment, this can be accelerated to some degree.

I think it brings us back to the comments that Dr. Williams made earlier, which is there is not a real quick fix here. Even if we have a lot of horsepower as far as stock assessment scientists go to apply to this, it is still going to take some time to work through a number of these questions and work on the data issues and those sorts of things. There are a lot of reasons why – you know, 2013 is really ambitious, I think, and I can't envision a scenario where 2013 is probably realistic; 2014, maybe, but even that is going to be a pretty heavy lift and we will have to get creative with how we pull that off.

MR. SIMPSON: To that, I've thought for a while – and I have mentioned this to the principal parties involved that this species seems to be ripe for the assessment support from the industry and a group like Pew together. Obviously both have a lot of interest and have spent a lot of money to represent those interests in various ways.

I think those two groups getting together through some mechanism that involves the commission and hiring a stock assessment team through a university or other respected group with ease the burden of how are we going to fit this in and also serve that need that I see to update this thing on a regular basis. We're going to want updates every year.

We need to improve the quality of the assessments, and you've already seen the industry step up to try to add some sampling. Well, we need this kind of help on the assessment, too, and I think having both perspectives involved can result in an assessment that everyone can feel is an objective one and a very useful one for management, so I just offer that up.

MR. G. RITCHIE WHITE: Great presentations and extremely helpful for a lay person to understand this complicated information. Something that would be helpful to me – and I guess I would ask if there is reason why it couldn't be done – is to have a number of your graphs that show the threshold to also show the target so that we would have a sense of where we're going to manage to the target. Maybe we have to go a little bit to get over threshold, but maybe we have to go quite a lot more to go to the target and it would just be helpful to me to have that shown.

MR. BRUST: Yes, we will certainly take that into consideration for the next presentation, but I believe all those figures are in the full report. Not to put you off, but we'll take it under consideration for the next time, but they are included in the full report.

MR. HIMCHAK: Mr. Chairman, I'll pass because my comment was relevant when I raised my hand, but it would be a divergence from this discussion right now.

DR. GEIGER: Jeff, great report and I appreciate it. I think the technical committee made a very good and put forward a very complete suite of recommendations for this board. My sense is, as I look at those recommendations, it was not necessarily your intent for us to cherry-pick among those recommendations. It seemed to me those recommendations were all intricately linked together. Is that basically and my right interpretation of the technical committee's recommendations?

MR. BRUST: Yes, I don't think we ever spoke about presenting them all as a package, but they are all relevant to the update assessment and the implications for management. I think it would be more appropriate if they were taken as a package. That is my personal feeling given the discussions that we had at the technical committee, but we didn't actually say if they take one they have to take all of them.

DR. GEIGER: Certainly, I am very sensitive to the suite of species we have for any kind of expedited benchmark assessment; but again if we changed the name of menhaden to striped bass, I wonder what our discussion would be right now. I certainly could predict what that discussion would be.

I do think it gets back to having the appropriate adaptive management flexibility to readjust the schedules that we made earlier and to look at those tradeoffs that Bill Goldsborough put on the table. If we do look at an expedited benchmark assessment, and again clearly understanding what that means, okay, and what the resources are necessary to do that and then what are the biological, ecological, social and economic tradeoffs we may be giving up to do that versus the value coming out of that, I certainly would like to see that discussion teed up for this board.

Then I think it is going to lead into discussions later on for the policy board. I think those two discussions are going to be linked as well, so I would hope that we may want to have some flexibility on the policy board discussion to at least address that, Mr. Chairman.

CHAIRMAN DANIEL: Yes, I think we can talk the chairman into doing that. Lynn.

MS. FEGLEY: Mr. Chairman, I guess I'm going back to recap where we are and how to move forward. I think we want to be careful expediting a benchmark in light of not having significant new information to put into that benchmark. We want to make sure that we have additional data that is going to be helpful.

It seems as though what is before us now is that we are certain that overfishing is happening; and even with the sensitivity runs that are run, sensitivity runs with the extreme dome-shaped selectivity, we see that. The problem that we have is that we don't know how far we are above that line, so those projections that were done to tell us how far to go back down and the probabilities of achieving the

target or the threshold within a certain timeframe are not something we can rely on.

However, perhaps it would be helpful for us to remember that when we started down this road, the board stated the goal of putting more fish in the water. That was one of our stated goals for adopting this interim reference point. What those projections do show, as Jeff said in his presentation, is the stock response.

We do have projections that show – and these projections take into account variation in recruitment, et cetera, so perhaps one thing that would help the board would be to have those projections retooled so that rather than showing for each level of harvest the probability that will get to the target in a certain number of years, perhaps those probabilities of achieving the target could be replaced with SSB.

And then we would know at a certain level of landings what the SSB might be in a given number of years, and then that can be related back to the SSB target. It is just a thought that might help us put some things in perspective, and I was wondering if that was something you could do or would be worth doing. Thank you.

MR. BRUST: A couple of things; first, I'm not sure I understand your distinction between showing the probability of achieving the reference point and the probability of achieving a certain biomass, because the reference point is based on a certain level of biomass, so if you could clarify.

MS. FEGLEY: In the table itself, in those projection tables, what is in there now is a probability, and rather than a probability it would be a biomass level; not a probability, a biomass level.

MR. BRUST: All right, I understand, right, a biomass level. I guess certainly this would have to be something that is discussed at the technical committee level. What I can say right now is that given the uncertainty in the terminal year estimates, you need a terminal year estimate from your stock estimate to know where to start your projection. Given the uncertainty we have in the terminal year estimate, projecting forward we don't know if we're starting at the right level.

On top of that, some of the assumptions that we made for the projections, the more we think



about it, the more we're starting to be concerned with our own process; the lack of a strict spawner-recruit relationship. Right now we're assuming average recruitment given plus or minus some error that has been observed in the recent years.

Chances are there is a spawner-recruit relationship, but it is not modeled right now for our projections. I think we could do what you're saying, but I'm not convinced we would have any more certainty in the results given the concerns we have about the assumptions as well as the starting value. If our terminal year estimate is wrong, then our starting value was wrong and projecting forward – go ahead.

MS. FEGLEY: I guess what I'm trying to get at is you had showed the graph with the ad hoc approach, showing the stock response using the multipliers. What you have said to us is that the projections themselves can't be used to set a TAC that would tell us how long it would take to get to the target, but it will show a stock response. I guess my question to you is there a way that you could show how those various levels of harvest; what would that stock response be, you know, in a more concrete way.

MR. BRUST: The graph I provided was meant to show it in a qualitative sense and I think that's the stance of the technical committee is that they will show it in a qualitative sense. Achieving the reference point is dividing the predicted biomass by the biomass target; so just providing a certain level of biomass in our figures doesn't necessarily take away – if I just showed you biomass, you could then write it down and do the math and say how close we are to the reference point, so that's not really changing anything in terms of the certainty that we have in it.

I guess the short answer is I don't think the technical committee would approve of that. Certainly, I can take it back to the technical committee. The difference between what we had intended and what you're requesting is just a division, divided by the reference point level. If I provide you biomass, you divide it by the reference point and you've got your status, and you move forward over time and see how close you get to your reference point. I don't know if I'm making sense with that, but it's just a simple mathematical step between what we intended and what you're requesting.

CHAIRMAN DANIEL: And I think that's all we can do right now is the qualitative viewpoint. We don't have the projections that we can look at to say – you know, we have to go on faith that we reduced harvest

we'll reduce F and we will increase biomass. We just have to go on faith there.

The \$64,000 question is based on the issues that have been raised from Dr. Sulikowski's work, the issues that have been raised with dome-shaped selectivity; you know, how much do we need to reduce that by in the interim until we get a benchmark stock assessment that hopefully at that point will give us those projections that give us those precise estimates. Tom Fote.

MR. THOMAS FOTE: I was going to start my comments right after you made your comment about offshore, but I'll say one other thing on Dave Simpson's comment first is when we basically have – I hope we have better luck doing that than we did with horseshoe crabs. We did go out to look to get research money and it just seems never to come from either part of the community at that point.

I was interested in your comments, Mr. Chairman, about offshore and how those fish may be offshore now. It sounds familiar when we talk about striped bass or when we talk about any species and we always say, well, they're offshore. My question to the technical committee is those fish could have been offshore fifty years ago.

Nobody was sampling them out there fifty years ago because most boats were not even going out there. I know there was striped bass offshore because people were actually netting them twenty miles offshore fifty years ago. Even if we found that there are schools of menhaden offshore, wouldn't that be the same as because they have no – they weren't sampled out there.

We don't know if that is an increase or basically the status quo of what has been going on for the fifty years is not really additional fish. The reason I'm saying that is because I remember very vividly when we reduced the fishing mortality on summer flounder and we went from 25 percent to 10 percent.

I says, boy, that is going to be an increase in fish, and Mark Terceiro said, no, it might be just that we were catching less fish because the mortality was actually greater and we won't know anything for five years until we see the long-term effects of that, so there was no increase in fish even though we had reduced the fishing

mortality for hook-and-release mortality by 15 percent.

What I'm asking is the question of if there are fish offshore and we start including that data, how many years do we basically have to look at it before it really says there are more fish out there or it is fish that have always been out there but we're increasing the area that we sample for those fish?

MR. BRUST: The short answer is the more years the better. I think Erik mentioned earlier that three to four years, maybe five. The longer time series you have the more you're able to see the variability in that. Certainly, the distribution of the fish is going to depend on a lot of things that might vary from year to year. The more years the better; and you're right, we'll never be able to know what happened fifty years ago unless someone uncovers a source of data we didn't know about. But moving forward, once we have some data, we can make assumptions about what happened in the past.

MR. FOTE: When we basically – I know when I first got on the commission here, the legislative appointee from – another governor's appointee from Massachusetts was Tony Verga, and his proxy became Vito when he became a legislator. Both of them have been in the purse seine industry and harvesting menhaden back in the sixties and seventies, as Vito has told us over the years, but nobody is no longer doing that up there.

We knew there were reduction facilities from Maine all the way down to Florida fifty or sixty years ago. Do we have any records of actually what those landings were for those reduction plants back in that period of time, and could we have that presented to us so we know how much was being landed – well, actually, that was a hundred years ago when it was being landed in Maine since they stopped that fishery about a hundred years ago – but the ones that were active over the period of time, because New Jersey had a reduction fishery, how many we were harvesting. It would give us a perspective over the years of how many fish were there then and not there now.

MR. BRUST: Yes, we have that data. It is currently included in the assessment. It's lumped in with all of the landings, so the total landings estimates that we have are not just for the currently existing plant. It is for all the plants combined when more than one was active. Within Amendment 5, we have those broken down by region and not specifically plant. I think we can do that; we have the data, but it's at least broken

down by region within Amendment 5 – excuse me, Addendum V, and is it in the Draft Amendment 2?

MR. MICHAEL WAINE: No, it is not broken down by region.

MR. BRUST: It's not broken down by region.

MR. WAINE: It's just reduction landings in total.

MR. FOTE: Yes, because also interesting is if they showed a reduction, to equate that is when those plants started shutting down, because you're saying they were there and they were harvesting, because maybe one reason or another they shut down, whether it was lack of fish or because of the environment and because it wasn't profitable anymore. We really need the time periods of when they were in operation and that dropped off when they didn't become an operation, just to be – I'm trying to get a good data base and I think that is a way of doing it. Maybe I'm right or maybe I'm wrong; I'm just asking for suggestions on that.

CHAIRMAN DANIEL: Well, I think you bring up a good point that I think is important to answer the question is emigration an issue in the model. Is it likely the model is not picking up some fairly significant proportion of the population that is comprised of larger, older fish or have they always been there? I think that's an important point that the technical committee needs to keep in mind.

What I heard the technical committee say was that because some of the northern fisheries have stopped, they tended to catch some of the larger, older fish; so the question is are those fish still up there, they're just not being harvested, or are they not there? That is where the Sulikowski work I think falls into play and that is where the emigration issue falls into play, and that is something that is going to important I think for the industry for us to try to resolve that question. I think that's a big question from the industry's perspective. Bill Adler.

MR. WILLIAM A. ADLER: In looking at the next issue of considering acceptance of the stock assessment for management use, it came to my attention that over this discussion we have had for a while we have overestimated mortality, underestimated SSB, the technical committee

can't tell us how much or what to do, take some of it with a grain of salt, we are overfishing – of course, that's partially because we moved the goal posts a little while ago – and environmental and ecological factors are the conditions that have this menhaden.

This is some of the stuff I've got out of the last, what is it, 14 hours I have been here, but I think they ought to be remembered particularly as Pat Augustine wants to move on to the next agenda item there. I just wanted to make those points of what I got out of this today. Thank you.

MR. ADAM NOWALSKY: Mr. Chairman, I think Bill just made a good summary of a lot of what I wanted to talk about. I think the advice that we have got out of this is clear; that based on the reference points we're currently using, overfishing is definitely occurring while overfished is not. The current stock status, if we do update the reference points to those recommended by the SSC, we would be overfished the majority of the last fifty years; and if we look at it actually from the target level, all of the last fifty years, including the confidence intervals.

That is a pretty significant statement and I think that was pretty clear that irregardless of what the actual points are that we get out of this update, that some of those overall statuses are a reason for concern. The specific question that I have here is going back to some previous information, reports that the Service has put out in the past from retrospective working groups where they've stated that a strong retrospective pattern is grounds to reject an assessment model as an indication of stock status or the basis for management advice.

The question to Jeff and Erik are, are the retrospective patterns here strong? In the report here the statement is that they cast considerable doubt. Are they strong enough that we should not use them for management advice, taking into consideration, though, that overfishing is occurring? I think a lot of those are assumptions, but we have to make a decision. A motion is likely to be made here in the very near future whether or accept or reject this for management advice, so are the retrospective patterns strong enough that we should not be using them?

MR. BRUST: How to attack this; strong is a relative term. It is stronger than some species and it's probably not as strong as others. The technical committee has identified five concerns with the model. It is not just the retrospective pattern. We are concerned with the accuracy of the terminal year

estimates. I don't think I can tell you what you should decide.

I hope I have laid out the technical committee's concerns for you and that we feel that there is considerable uncertainty in the terminal year estimates. Again, I'm not trying to brush you off. It is just I think the determination on whether this should be used for management is a management board decision. If you would like me to make a statement, Mr. Chairman, I could, but I would prefer to leave that up to you.

CHAIRMAN DANIEL: I think you're smart.

MR. NOWALSKY: How would you compare this; then if we don't use this and we'd have to fall back to something else, would you characterize this as a better management tool than the most previous recent advice that we would have been using, the 2008 update or the last benchmark update? Is this a better tool than what we would fall back to if we didn't accept this today?

MR. BRUST: I think there is much more uncertainty in the terminal year estimates than we saw in the 2008 and 2009 benchmark.

CHAIRMAN DANIEL: Well, that is what we would be accepting if we accept the report. It's not that we accept using the benchmark because the technical committee has told us all the concerns and the problems that they have with it. I don't think by rejecting the stock assessment update report that we're throwing out any alternatives or options that we may have to consider. We've got like just a couple of minutes. I have two more people on the list to speak. We've got to get this motion out of here before lunch. I have got Bill Goldsborough and Pete. If it's something important, let's go and make quick, please.

MR. GOLDSBOROUGH: Well, of course, I think it is important, Mr. Chairman, but I will make it quick. I just wanted to offer another big picture view relative to the point Kyle brought up earlier about this dilemma of having this fifty year plus history of overfishing now and what does that mean about the stock.

I guess I wanted to remind everyone of what the little birdie said in Jeff's ear earlier in the meeting that the stock for the last fifty years has been about what it is now, is that a fair

statement, so maybe 8 to 12 percent maximum spawning potential. We've been holding the stock at that level. I don't think it means that it is a healthy stock in any respect.

I think quite the opposite actually that maybe the best explanation is that we've got a case of a shifted baseline, that we've had an unlimited fishery and we've held the stock down at that level, and the response is what you would predict in that circumstance, that you'd have good recruitment only in spikes periodically; whereas, in a healthy stock you'd expect to see an on average fluctuation around a higher baseline level of recruitment with some highs and lows.

We have seen a pattern of spikes in recruitment, which would happen when the environmental conditions are just right. But it's not a healthy, stable circumstance to maintain a stock that you only get good recruitment only when the environmental conditions are just right. With that picture, it is no surprise that we haven't been able to identify a stock-recruitment relationship. I think this was the point that Mark Gibson was making at the annual meeting when he said it is absurd to think there isn't a stock-recruitment relationship, but it is because of that circumstance, I would suggest. Thank you.

MR. HIMCHAK: Mr. Chairman, I raised my hand to throw you a lifeline and open the door for Mr. Augustine. I think in Issue 5B in Amendment 2, under TAC-setting methods, there are four options and they encompass all the discussions that we have had this morning; to the benchmark in 2010, the update, the ad hoc, a combination of all those, so I would open the floor to Mr. Augustine.

MR. AUGUSTINE: **Mr. Chairman, I guess I'll make the motion that we accept the stock assessment update as presented today.**

CHAIRMAN DANIEL: Second by Lynn Fegley and motion by Mr. Augustine to accept the stock assessment update as presented. Any discussion on the motion? Mr. Adler.

MR. ADLER: I would accept the stock assessment update, but is this for management use? I have a little bit of consternation about that one. Is that what this is for or just accept the stock assessment?

CHAIRMAN DANIEL: We're accepting the approach. It will be up to the board to decide through the amendment if we use it to set our management objectives, and those options are laid out Pete

described in the amendment itself, which we may want to change after lunch, but that's where we are right now. Yes, Jack.

MR. TRAVELSTEAD: I wonder if we should add to the motion "acceptance of the technical committee report".

CHAIRMAN DANIEL: Without objection to the maker of the motion, just change "stock assessment" to "technical committee"?

MR. AUGUSTINE: Without objection.

CHAIRMAN DANIEL: Without objection and the seconder is cool with that, Lynn? Okay, that correction has been made, so I will read the motion. Motion to accept the stock assessment update and technical committee report as presented. All those in favor say aye; all those opposed. **It passes unanimously.** Thank you all very much. We will break for lunch and return promptly at 1:45.

(Whereupon, the meeting was recessed at 12:45 o'clock p.m., August 8, 2012.)

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#### WEDNESDAY AFTERNOON SESSION

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The Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission reconvened in the Presidential Ballroom of the Crowne Plaza Hotel, Alexandria, Virginia, Wednesday afternoon, August 8, 2012, and was called to order at 1:50 o'clock p.m. by Chairman Louis Daniel.

#### **CONSIDER DRAFT AMENDMENT 2 FOR PUBLIC COMMENT**

CHAIRMAN DANIEL: I would like to go ahead and get us started back. If everybody will take their seats, we will reconvene the Atlantic Menhaden Board. All right, we're going to go back into our session. We're on to Agenda Item Number 5, which is to consider Draft Amendment 2 for public comment.

Mike is going to review the draft amendment options and then we'll hear from Mr. Windley to give the advisory panel report, and then we will need to make any discussions, changes,

corrections to the amendment that we see fit and then approve that for public meeting. With that, I'll turn it over to Mike to run us through the amendment.

### **REVIEW DRAFT AMENDMENT OPTIONS**

MR. WAINE: At the beginning of the meeting staff passed around the most recent executive summary from this Draft Amendment 2. Also, the plan development team put together a guidance document that is meant to summarize all the management decisions that are involved in this amendment. It might be easier to follow along with my presentation with that in front of you as some of the stuff on the PowerPoint might be tough to see, but it will be in this guidance document.

Just to review the timeline and where we're at with this, at this meeting the board is reviewing this draft amendment for public comment. Pending approval, it will go out for public hearings over the next couple of months. We'll summarize public comments and then bring it back to the board at the annual meeting to finalize the document.

The purpose of the amendment, remembering that the board implemented new interim fishing mortality reference points in November of 2011, those are based on maximum spawning potential and were intended to provide increased protection for spawning adults. There is a new threshold of 15 percent MSP and a new target of F 30 percent MSP. Based on both the benchmark stock assessment results and the updated stock assessment results, overfishing is occurring and the board must take steps to reduce fishing mortality to the new target.

The board must consider changes to the current management program. I'll just go through a quick overview of all the issues and the management decisions that were contained in this draft amendment. Issue 1 is spawning stock biomass reference points. Issue 2 is reducing fishing mortality to the target level. Issue 3 is a timely monitoring program.

Issue 4 is fishery-dependent data. Issue 5 is total allowable catch or a quota. I'll use those terms interchangeably. Issue 6 is the Chesapeake Bay Reduction Fishery Harvest Cap, which was carried over from previous management actions through the addenda for this management plan. Issue 7 is de minimis and Issue 8 is the complementary action in federal jurisdictions.

I just wanted to make you aware. In the interest of time I'm not going to go through every single section, of course, in the draft amendment, but Amendment 2 does completely replace Amendment 1 to the fishery management plan for menhaden. All sections from Amendment 1 were updated where possible.

The plan development team is still working on updating the protected species section. That is Section 7 in the document. We're working with our federal partners to do that. Since you received this draft amendment on the CD, there have been a few minor changes, and I'll indicate that throughout my presentation using these asterisks.

The other thing I wanted to talk about is the Committee for Economic and Social Sciences evaluated the potential economic and social impacts on proposed management measures in Draft Amendment 2. Those sections were provided in the supplemental materials. Since receiving those materials, the section that discussed the economic benefits of improved water quality for Atlantic menhaden based on filter feeding was removed because it was inconsistent with recent science that suggests that menhaden in the Chesapeake Bay may play little role in removing nitrogen from the water. I just wanted to make you aware of that change.

I'll move into the issues now. Issue 1 is spawning stock biomass reference points. As the technical committee noted in their presentation earlier, there is a technical mismatch between the current – let's just say overfished reference points – overfishing and overfished reference points, meaning that the F reference points don't match up with the spawning stock biomass reference points.

To address that, the board could consider changes to the spawning stock biomass reference points. Option A would be the current reference points that they use now and Option B would be to match them up and base them off the maximum spawning potential. The second issue is reducing fishing mortality to the target. As I mentioned, overfishing is occurring and the board must take steps to reduce the fishing mortality.

Because those reductions in F are more substantial to achieve the target, the board is considering a schedule to reduce F to that target.

There are various options in here; status quo, no longer than three years, no longer than five years and no longer than ten years. This issue deals with timely catch reporting and monitoring. The current catch reporting system does not provide complete data particularly in the bait fishery.

Better reporting would allow the industry and managers to monitor landings throughout the season. There are several different options that the plan development team put together to both enhance the completeness of reporting and the timeliness that would occur. Option A would be status quo, the current monitoring systems.

Option B would be weekly reporting where states submit plans to the board for approval. Option C would be require SAFIS dealer weekly reporting. SAFIS is a electronic reporting system through our data partner's ACCSP. Option D would be require SAFIS eTRIPS harvester daily reporting. Option E is sort of a combination of C and D where you would have SAFIS weekly reporting but triggers to daily reporting when 85 percent of that quota is reached throughout the season.

Issue 4, this is where a change has occurred. This issue got split into two sections. The first one is biological data, and that was to address essentially the age and the length information that is used in the assessment to get at the catch at age for the stock assessment. The second issue was to address the potential of further development of an adult survey index, so I'll go into those more specifically now.

For the biological data, the age and length information, currently several states provide length and age data for menhaden, but the plan does not specifically require biological monitoring to get that data. The board could consider making biological monitoring a mandatory requirement of the FMP. That was a change.

The second issue under 4 is the adult survey index. Currently the stock assessment uses the PRFC Pound Net Index for adults. You heard from the technical committee earlier today that they'd like more information and further development of an adult survey index. A potential does exist to enhance this index with data from other states.

The plan development put in some options to collect catch and effort data from all states that have pound nets as an enhancement to the adult survey index. Issue 5 has several sub-issues. This is the total allowable catch. This is the management measure

that the board selected to use as a potential to manage the catch by year.

The plan development team added these options up front for clarity. It just is right when you see it first in the document we wanted to included these options of status quo harvest would not be restricted through the use of a TAC; or Option B, harvest would be restricted through the use of a TAC. We just moved that up front and that was a change.

Then we go through all these sub-issues. If you select that the harvest should reduced using a TAC, then you launch into these sub-issues, so 5A is the TAC specification. It describes that the board will set an annual TAC with the option of setting a constant TAC over multiple years, so there is some flexibility in there.

The other thing is that changes selected in the reporting requirements, as I walked through before, may take some time to implement, so the board has also some additional flexibility to select a lower closure percentage; meaning that the fishery would close when landings were projected to reach a percentage of that total TAC for that year. There are several different options for the board to do that.

This change for Option D was simply that the board could specify the percentage annually or for multiple years. There is that flexibility built in for that option as well. Issue 5B is the TAC-setting method. I think this sort of characterizes a lot of the discussion that we had before lunch. The status quo option was removed and addressed first up front when I went into this TAC section, so that was a change here.

The intent with a TAC is to set the TAC using the best available science. The board has several different options to use to do that. Option A would be to set the TAC based on the 2012 projections. Those projections come from the stock assessment update report, and that is what was presented to you by Dr. Williams.

Option B is to set the TAC based on the 2010 projections, and those projections come from the benchmark stock assessment. Remember, these projections use a constant landing scenario to achieve the F fishing mortality rate target over a given number of years and you have a certain probability that matches up with that. Those were those tables that you saw earlier.

Option C is this ad hoc approach that is used by the regional councils, and the technical committee also presented this in their report to the board. This is the approach that uses an average landings history say over the last three or five years and then applies a precautionary multiplier based on the life history of the species and different things that are considered in terms of risk for that.

That was the approach that is used by the councils in situations where you have an uncertain stock status or a data-poor stock. That was included as an option for setting the TAC. Then Option D represents the most flexibility, per se. It gives the board the flexibility of setting the TAC either based off the projections or based off the ad hoc approach, depending upon which essentially are the projections usable as deemed by the technical committee; and if they are, the board has the flexibility of using those projections to set a TAC; and if they are not, they have the ability to use the ad hoc approach. Option D gives the most flexibility there.

This section deals with TAC allocation, and I'm going to walk through each of these suboptions. It is going to be beneficial to look at the tables in this guidance document as I walk through this. Right up front there are three options. Option A would be the menhaden commercial TAC is to be managed on a coast-wide basis. Option B is the menhaden commercial TAC is to be managed on a regional basis. Option C is that the TAC is managed on a state basis.

I'm going to take each one of these one by one and walk through it. The first one is coastwide. The coast-wide allocation option; if you select coastwide, you go to Suboption A. Suboption A is the menhaden commercial TAC is not allocated by fishery, so it wouldn't be allocated to the bait or the reduction fishery.

If this is selected, that essentially represents a cap on harvest, but it doesn't allocate that to one sector or another. If this option was selected, that issue is completed. The other option is to actually allocate by fishery, so allocate to both the bait and the reduction. Then, as you can see in the table, you have suboptions based on the allocation percentages, which were calculated based on these time periods.

You have in all of these options four different periods and so the average three years and the average five years are based on the most recent history, and that represents the timeframe that has the best reporting in terms of the bait fishery. This average of the last

seven years represents the time period at which only one reduction fishery plant remained in operation, and that was the one in Reedville. That timeframe is maintained through all these options as well.

And then the highest three years is pretty self-explanatory over that same timeframe, so it is the highest three years since 2005, so you're basing the percent allocations based off those highest three years for each fishery. As you can see from the table, the breakdown is roughly 80 percent reduction, 20 percent bait.

Option B is the menhaden commercial TAC to be managed on a regional basis. The regions that were used came directly from our FMP review as that already breaks the bait landings down into regions. Those were New England, which is Maine through Connecticut; the Mid-Atlantic, which is New York through Maryland Coast; the Chesapeake Bay, which is the Virginia, PRFC and the Maryland Bayside; and then the South Atlantic, which is North Carolina through Florida.

For the regional allocation option, Suboption B-1 is that the menhaden commercial TAC would not be allocated by fishery but only by region. Essentially what this does is it lumps the reduction landings into the region in which those occurred, which is the Chesapeake Bay, and so it does not allocate separate fishery; just by region. It has the same timeframes.

From this table you can see that the Chesapeake Bay has a majority of the allocation because the reduction landings fall within that region, so this represents allocation based off total landings, both bait and reduction. The other option in this regional allocation approach is to allocate first by the fishery and then to take the bait portion of the quota and allocate by region, so there are two parts to this.

The first one is to allocate by the fishery, which we have already walked through this allocation, and then to take whatever roughly 20 percent of the bait quota is and allocate that portion further by region. This is the table that shows what the allocation percentages would be for that bait portion of the quota under this scenario.

Option C is the menhaden commercial TAC is to be managed on a state basis. C-1, similar to B-1, is the menhaden commercial TAC is not

allocated by fisheries so you're not allocating by bait or reduction. You're lumping that together but only by state. It is kind of hard to see but essentially what you have is over these same time periods for the allocation scenarios you have got a majority of the allocation going to Virginia because that's where the reduction landings are being accounted for.

The second suboption for a state is to, once again, first to allocate by the fishery and then take that bait portion of the quota and allocate it by the state. Part 1 for this is to allocate by the fishery, and then Part 2 is to take that bait portion of the quota and then to further allocate that by state. This is where you see a lot of the states that have the higher bait landings over the most recent periods getting a larger percentage of the allocation.

For example, New Jersey and Virginia actually have high bait landings as well. If you're still with me, we'll move on to the quota transfer and the rest of the issues under TACs. For quota transfers, it is pretty self-explanatory. Essentially this only applies if the board selects state allocations, so this would be Option C-1 or C-2 for the allocation issue.

The reason there is that there is transferability from state to state, but to the PDT it didn't make sense to be transferring from region or from the bait fishery to the reduction. This is only if the state allocation scenario is adopted or selected. The quota transfers are used in other managed species; for example, bluefish.

Option A is the no transfer option and Option B is to allow the transfer. Just a simple change that occurred was that the states have the responsibility to close their fisheries once the quota is reached or a percentage thereof; because if you remember, we included the option of closing earlier to account for late landings in the reporting structure. That is quota transferability.

5-E is quota rollover. If there is any unused quota by either fishery, depending on the allocation scenario selected – this would apply to all allocation scenarios; so either fishery, region or state, that unused quota could be rolled over from one fishing season to the next. There are several different options that sort of break out how that rollover would occur.

Option A is that the quota couldn't be rolled over. Option B is a hundred percent rollover of unused quota, and it doesn't specifically specify rollover of transferred quota. Option C is rollover of unused

quota, included transferred quota; and Option D is that a state may not roll over unused transferred quotas; or Option E is that a maximum of 5 percent of the unused quota may be rolled over, including the transferred quota. There are some specifics there, but that issue deals with quota rollovers.

The next issue is quota payback, so if a fishery, region or state harvests over its respective quota, that specific jurisdiction would be required to pay back the quota in the following fishing season. There is simplicity here; either there is quota payback or there isn't. There is an issue in here that deals with bycatch allowances, so this would be for non-directed fisheries for Atlantic menhaden.

The directed fisheries would not be able to occur during a closed season, but a bycatch allowance would be included for non-directed fisheries. The no action alternative is Option A, and then Option B would be a pound-based bycatch allowance for a non-directed fishery. Option C would be a percent-based bycatch allowance for non-directed fisheries.

Issue 6 was the Chesapeake Bay reduction fishery cap. As I mentioned, this was carried through from previous board action through the addendums to this FMP. Currently this management measure will expire in 2013, so the board could consider taking action on this specific issue through Amendment 2.

Just as a reminder, the annual total allowable harvest for the Chesapeake Bay by the reduction fishery is roughly 110,000 metric tons. With a rollover underage, that could be increased to 122,000 metric tons. The specific options are status quo; this management measure would expire in 2013; or some flexibility of Option B and C, which is to either extend it for a given timeframe or adjust the Chesapeake Bay Cap as it relates to any quota management approach that would be selected.

So on to Issue 7; we're into de minimis criteria; and just as a reminder, de minimis basically means that conservation and enforcement actions taken by a specific state would be expected to contribute insignificantly to a required coast-wide conservation program. Option A would be status quo; de minimis criteria are not established through Amendment 2.



Option B would be to define de minimis for states without a reduction fishery, so this would be basing de minimis only off of essentially the bait fishery. If that Option B is selected, then the board has two things to consider. The first thing is the criteria for de minimis status, and then the second thing is what would be required of those states if they were granted de minimis status?

The two issues have two options. One is to base criteria off of the fact that in the most recent two years that state's landings does not exceed 1 percent of the coast-wide total bait landings. Option 2 would be that specific state does not exceed 2 percent of the total coast-wide bait landings. This was deemed as to not have a big contribution in terms of conserving and enforcing for a specific state.

The second issue, if de minimis is granted for a state, what does that mean exactly in terms of what their requirements are for the FMP? There are two different options here. The first is that they would be exempted from the biological sampling that would be collecting age and length data but would have to adhere to timely quota monitoring; meaning that they would still have to be adhering to any quota monitoring options that were selected by the board; for example, weekly reporting by dealers or something like that.

The other option is that they would be exempted from biological sampling, so once again age and length data and timely quota monitoring, so they wouldn't specifically have adhere to the timeliness but they would still have to submit annual landings. These options for de minimis do not exempt essentially a state from having to adhere from – let's say if they were issued quota; they would still have to not be harvesting over that quota and they'd have to monitor landings annually, but wouldn't have to adhere to some of the time constraints that the other states would have to.

The other change that occurred was a recommendation for federal waters. This is where the board would consider which, if any, options to recommend to NOAA Fisheries for implementation in federal waters, and that is always a consideration for our boards through any changes to our FMPs.

The other thing that would need to be considered, of course, is implementation of this plan. That essentially contains all the management decision sections in this amendment. I'd be happy to answer any questions on any other sections, but that concludes my summary.

CHAIRMAN DANIEL: Mike has done a great job putting this together and working with the technical committees and stuff. If you have specific questions about – I don't want to get into any discussion on any of the options at this particular point in time. I want to hear Mr. Windley's AP Report before we get into any of those discussions. If you have a specific question for Mike, I'll take those now. Otherwise, we'll wait until after Mr. Windley's presentation. Mr. Adler.

MR. ADLER: Mike, the measures subject to change, they're all in here that way in the document? Okay, thank you.

MR. WAINE: Yes, they are in the document.

MR. NOWALSKY: Under most all of the options that would allocate by fishery, a lot of the assessment work used a 75/25 split. Was there any discussion about including an option that mirrored what was in the assessment or a reason not to?

MR. WAINE: I can see you've done your homework; good catch there. That is actually something that the advisory panel picked up on as well, and they suggest submitting a clarifying statement that essentially says your issue that you just raised. The technical committee hasn't had a chance to base the projections off of those allocation scenarios specifically because there are different allocation scenarios, so it would be multiple runs and multiple projections. I guess they were looking for a little bit more guidance, but you're right that there is a mismatch there that currently exists.

MR. NOWALSKY: How would we go about getting comment on that? Is there a proposal from the PDT to get comment as we send this document out to the public to help inform us on that when we make a final decision at the annual meeting?

CHAIRMAN DANIEL: I think, Adam, we would make that call. If the board wants to see something in addition to the current allocations; if we wanted to go with 50/50, this board could make that an option to go out to public comment. So, yes, I think when we get into those discussions we can add or subtract anything we want at this point.

MR. WAINE: Just to follow up, the public can comment certainly outside of the range of options if they thought that there was an option that the board should consider that wasn't listed in there. They have the flexibility to do that through the process.

MR. NOWALSKY: One more followup; with regards to the options that there is basically for all the reduction fisheries, there is no breakdown there by state, understanding that the current reduction fishery is basically in one state right now. Assuming that there is a time in the future – in the past there were reduction fisheries up and down the coast – was there any discussion when there was review of this that having only one reduction fishery was essentially a monopoly; was there any discussion about that for inclusion any portion of the document?

MR. WAINE: The plan development team discussed this at great length, actually. What was being discussed is that essentially the timeframes that were chosen were, first, directives from the board to look over the most recent history to base allocation off of; and then other options that were included in addition to those essentially dealt with what the fishery has looked like in the most recent time period.

For example, if extending beyond those time periods, like you said you'd be incorporating more than one state that had reduction landings, but for most of the states they have either banned reduction fisheries in their state and most likely don't plan – or the PDT's perspective was that we didn't perceive that there would be reduction fisheries that would be starting up in states that have already closed those reduction fisheries. That's why we didn't go past the recent history that would include more than one state and the allocation for reduction purposes. Does that answer your question; I see you giving me some confused looks over there.

MR. NOWALSKY: Well, it certainly answers the question at the present time. New Jersey is a place where there is no reduction fishery in state waters, but that is not say that reduction landings could not occur in the state but the fish aren't harvested from state waters. I think I was more concerned with a lot of the socio and economic impact statements that accompany the amendment and if that would be any cause for concern that essentially we're allocating almost the entire reduction fishery to a particular state, and if that was a concern for the economic impact statements that would have to be drafted in conjunction with this document.

MR. WAINE: Yes, certainly a good suggestion. The committee that explored the impacts – of course, they based a lot of their impacts on the data that was available to them, and that would represent essentially the most recent timeframe. Yes, I think what you're suggesting is there is some sort of qualitative impact on the fact that this allocation scenario gives all the reduction to a specific jurisdiction, and so there would be some impacts because of that on other states.

CHAIRMAN DANIEL: I think we're getting into the discussions on what is in the amendment, though, and not questions on the presentation; maybe not but that's the way I'm perceiving this. Tom, if you have a question you'd like to ask, go ahead.

MR. FOTE: Well, no, a suggestion; when we did striped bass and when we basically looked at historical landings, we gave credit to Maine for some of their historical commercial fishery even though they didn't have it. We did the same thing with Connecticut, which Connecticut ten years later – I think it is even longer than that – based used that allocation to create a special fishery in the state that would have been its commercial fishery for other use.

This is not so different than we did on striped bass, looking at historical catches over the years, even those fisheries didn't exist at that period of time because in New York and New Jersey it was shut down because of PCB contamination when we made the allocations, but we still allocated based on past history.

MR. HIMCHAK: Yes, excellent guidance document, Mike. I recommend you have it at least for every public hearing. It focuses people on options. When I saw the revised Amendment 2 dated August 6<sup>th</sup>, I wanted to look and see what was new from the CD-ROM. This was an important topic from this morning; the number of samples that are aged by fishery.

This is a great improvement to the prior Amendment 2. It says 3,230 fish were aged in the reduction fishery in 2011 and 1,140 from the bait fishery. Now, that is just a fact. My question to Mike is in this revised amendment, Table 2, target number of ten fish samples as established in 1994 for the bait harvest; I would ask if – I think the technical committee should revisit that because that was based on landings at that time and bait landings have changed most

recently. I was wondering if – I mean, I hate to incur more work and a compliance requirement from New Jersey, but this is pretty important.

MR. WAINE: Yes, thanks, Pete, good suggestion, and actually Option B in that same section specifically describes essentially the process that you'd like to see. The technical committee will review and recommend a target number of ten fish samples.

REPRESENTATIVE SARAH K. PEAKE: Mike, thank you for the presentation. I would just like to reiterate having all the options laid out in a spreadsheet format like that is very, very helpful. Under the regional scenario that you described in the presentation, how would you handle or account for fish that may be caught in federal waters off of New Jersey but are landed in New Bedford? Where would they fit into the whole scheme of things?

MR. WAINE: My initial reaction would be they would be counted or included in the state or region in which they are landed. I wouldn't know of a way to account for where they were caught, and I'm not sure that you'd be able to track that easily.

MR. STOCKWELL: I've got a question that will lead into comments later, but my question is specific to the PDT's work on this draft document. Why was none of the adaptive management measures included in the document? Were they analyzed? We've got one measure we're looking at, which is quotas, and it is a one size fits all. I'll hold my comments until later, Mr. Chairman.

MR. WAINE: Through the public information document for this amendment we had explored essentially a very wide range of management options that went out for public comment and came back to the board. The board directed the plan development team to include all of those options in adaptive management so that the board could use those in the future using the addendum process, but directed the PDT to focus in on quotas as the main management option. The PDT acknowledges that states are using some of those management options in their states and that, of course, is acceptable but wouldn't be part of the coast-wide FMP for menhaden.

MR. AUGUSTINE: As indicated, Mike, an excellent presentation and very easy to follow. To Terry's point, this is replacing all of Amendment 1 and it is going to be complete, so then I guess to follow his point wouldn't we capture those adaptive management tools that were suggested in

Amendment 1 and just carry them over to Amendment 2? I know you've embodied some of those, but would it not be advisable to capture them in Amendment 2 so we can still go forward with it? Just think about it; I don't need an answer to that.

The question I have was on Issue 6, the Chesapeake Bay Reduction Fishery Harvest Cap, under B, extend the CB Cap to any specified timeframe; i.e., five years; well, I thought maybe one to five years because we never gave it to them for five years. We did go to three years, but this is an inference here that would suggest five years would be the number or change the word one to five or in one-year increments to be reviewed annually. I think we've got to have that option in there for them as this develops. There is no reason why if it shows that we need to extend it, we should be able to have that flexibility. Other than that, it's an excellent job, Mike.

MR. WAINE: The adaptive management measures were exactly carried over from Amendment 1 and then were added upon based on the directive from the public information document. To your second point, yes, the example is literally just to give an example. It wasn't to constrain by any means, but I acknowledge that maybe we should make it a little bit more explanatory so the public knows that it's not just five years that the board may consider.

CHAIRMAN DANIEL: I would like to ask Mr. Windley to provide the thoughts of the advisory panel now.

## **ADVISORY PANEL REPORT**

MR. BILL WINDLEY: I would like to first thank Mike Waine for his invaluable contributions to the AP process. He has really been a big help to us. The advisory panel met via conference call on July 25, 2012, to make recommendations to the board on Draft Amendment 2 for Atlantic menhaden.

Eight 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 meeting recommendations. Statement of the Problem: Some AP members wanted to clarify that the current level of MSP is

not just a result of fishing mortality but is also an effect of environmental conditions.

**Biological reference points:** Some AP members agree that the SSB and F reference points should be matched. **Rebuilding schedule:** AP members believe that the F rebuilding timeframe language is misleading because it usually refers to rebuilding biomass to the target and not reducing the fishing mortality rate to the target. Those members recommend changing the wording to “F Reduction Schedule” and only discuss reducing the current F to the F target.

**Quota monitoring:** AP members reached consensus and suggested adding a daily reporting requirement by dealers; noting that SAFIS is the preferred option as the daily reporting system. Some AP members also noted that some dealers already reporting daily. The AP cautioned that if Option E was selected it would be influenced by any decision in Section 4.2.1.1.

More specifically, if the board decides to close the fishery when 85 percent of the TAC is reached and they have a change in monitoring requirements when 85 percent of the TAC is reached, those two options would be in conflict. **Adult Survey Index;** The AP reached consensus to include an option that requires catch and effort data for gill nets and fish traps as well as pound nets for all states that use those gears.

**TAC-Setting Method:** The AP recommends adding language that the projections were based on the 75 percent reduction and 25 percent bait allocation scenario as an example, but the actual allocation will be determined in Section 4.2.1.3; **TAC Allocation.** Therefore, the projections may change based on any selected allocation option. This applies to both the 2012 and the 2010 projection analyses.

The AP recommends including additional local examples of the ad hoc approaches used by fishery management councils to set harvest limits. The AP believes that this ad hoc approach for setting TACs has been used in Atlantic mackerel and black sea bass. The AP recommends including clarification that not only is the ad hoc approach an option for setting the TAC, but the choice of a specific multiplier are suboptions that the public could provide feedback on.

**Addition of a Quota Set-Aside:** This is currently not in the amendment. The AP recommended including a set-aside option for small-scale traditional fisheries operating late in the season. They recommended an

analysis occur to options regarding the specific amount of quota to be set aside for the small-scale fishery.

**Quota Rollover and Quota Payback:** The AP recommended language to clarify quota rollover and quota paybacks. Some AP members recommended that allocation be specifically added to the measures subject to change. The AP commends the PDT for the quality of Draft Amendment 2. The only other thing that was mentioned is that some members object to the fast time track that Amendment 2 is taking. The PDT did add language to address all of our concerns. Thank you.

#### **BOARD ACTIONS TAKEN ON DRAFT AMENDMENT 2**

**CHAIRMAN DANIEL:** Thank you, Mr. Windley. Questions for Mr. Windley of the AP report? Very well done, sir, thank you very much. All right, folks, I think the way I’d like to proceed is let’s go back through Mike’s presentation and see if we have questions or comments on each of the various strategies and options.

Hopefully, we can get through this fairly quickly so that we don’t each up too much of the Sturgeon Board’s time. We need to go through and discuss these so if we could go to the SSB reference point slide. If somebody has a better idea on how to proceed, I am all ears, but this is just my thinking. We’ve got two options.

**MR. AUGUSTINE:** Wouldn’t it be easier to vote on each one, just take a motion on one as it stands and take a vote on it, and then go through it and then go for the whole document. I think, Mr. Chairman, it would probably be quicker. I think around the table there may be one or two suggestions to add something; but if we do right down the line we could probably go through this in relative quick time.

**CHAIRMAN DANIEL:** That is what my hope was is that if there is no – as we go through this, if you want to add or subtract from the option on the board, which basically we have Option A, status quo; and an Option B, the technical committee’s recommendation. If we got a motion to move forward or approve and move forward, I’m fine with that.

**MR. AUGUSTINE:** Okay, move that the board approve Issue 1, SSB reference points, as noted

on the document. Rather than reading the whole thing, you'd have to read it, Mr. Chairman, for Joe.

CHAIRMAN DANIEL: I think for this purpose we don't have to be that – Bob wants to talk.

ACTING EXECUTIVE DIRECTOR BEAL: If there is no objection to it and everybody is fine with it, there are two options; stay with what we have or go with the technical committee on this one. It's relatively simple and I don't think you need to go through the whole motion and voting and everything else.

CHAIRMAN DANIEL: Yes, that's true. All right, any objection to the option as presented?

MR. TRAVELSTEAD: I think we can leave it in there. I just think there needs to be a little bit more explanation of what is meant by technical mismatch. I assume it is just that the target and threshold aren't in the same currency, but I think there is more explanation needed for the public as to why that is a problem.

Then I would also point out that on two different occasions, when we were talking about reference points probably more than a year ago, I think it was Rob Latour, who was the Chair, told us the technical committee didn't think percent MSP was the appropriate type of reference point for a species like this, and now we're suggesting that we go the next step and add another percent MSP measure.

I think there needs to be some explanation as to why this is being proposed when it counters prior advice from the technical committee. I'm not suggesting to eliminate it, but I am suggesting we just need more explanation as to why it is being offered.

CHAIRMAN DANIEL: I don't there being any objection to that. Anything else on this option? If everybody is fine with it, we'll move to the next one. Any comments or questions about this one? Adam.

MR. NOWALSKY: Mr. Chairman, just a clarification from the AP report, PDT drafted text, and I heard Mr. Windley indicate that the text was included in the amendment, but I didn't see that in the electronic document or the executive summary portions that were handed out. I just want to clarify where that is included at the present time.

MR. WAINE: It is actually right in that advisory panel report. The AP makes a recommendation and right after that recommendation the plan development

team drafted text within that advisory panel report that addresses the AP's recommendation. It is succinct right in that report.

MR. NOWALSKY: Okay, so then that would mean that this will go out to public comment not as reducing F to – F Reduction Schedule is specifically what they recommend and that is what will go out for public comment?

MR. WAINE: Yes, if the board would like for the plan development team to essentially insert the AP's recommendations directly in there, we will do that.

MR. NOWALSKY: So that would require action on our part at this time to direct you to do so?

MR. WAINE: Yes, or just tell me issue by issue that would be the appropriate thing to do, just to say include the AP's recommendations as drafted, something like that. I can just make note of that and make sure that makes it into the final draft for public comment.

MR. NOWALSKY: Well, based on that then and the AP's recommendation, I will go ahead and make the motion for Section 2.6.2, to include the PDT drafted text.

MR. AUGUSTINE: Is that what you're suggesting?

CHAIRMAN DANIEL: Actually, we'll just ask if anybody objects to doing that so we don't have to go through motions and voting. I mean if anybody really, really wants to do a motion, that's fine. If it looks like there is any dissent, we will do a motion, but I don't think you'll have any objection to that, Adam.

MR. NOWALSKY: That's fine and I'll withdraw the motion and just ask that it be included.

CHAIRMAN DANIEL: And it will be done. Lynn.

MS. FEGLEY: I think there is still some language in the draft amendment that refers to rebuilding to Ftarget that is included outside of the actual options; so while we're at it, it might be worth just making the language consistent that we're talking about reducing to F throughout.

CHAIRMAN DANIEL: All right, I've got to get my head right on this one. Is this really what we want to do? I guess my question would be are we going to go out for a timeframe to reach the target in the absence of a new benchmark assessment? So that's the intent? Okay. Dave.

MR. SIMPSON: Yes, I do think it's the intent. I'm trying to figure out on the fly here – earlier in the morning was a presentation that basically presented a constant harvest strategy to get here, and I'm not sure on the fly how to marry those things up if they're contradictory or are they alternative approaches or do we follow the sort of spirit and intent as close as we can to the best of our ability to measure we're going try to get to where we need to be in three, five or ten years.

CHAIRMAN DANIEL: You all have lost me on this one, but that is fine if that is the board's decision to move forward with this, but I'm not quite sure I understand without the benchmark assessment we can make a determination that we're going to take less than three years when we get together in Philadelphia and make this decision to set up a timeframe to set up the target. But that's fine; if I'm the only one confused, that's cool. Dave.

DR. PIERCE: I think when this goes to public hearing we will very quickly realize that it's impossible for us to go to three years to the target. That's too aggressive and all the tables we have before us indicate that we just can't do it, to get to the target. I'm suspecting that eventually we will say ten years to get to the target.

In the meantime we're going to have the benchmark assessment that might lead us to evaluate what the Ftarget really should be. We'll take a step back and look at it with some fresh eyes with that new benchmark assessment. I think what is misleading here and maybe the public would be misled as well is that we begin by saying overfishing is occurring and the board must take steps to reduce fishing mortality to the new target of F 30 percent MSP.

Yes, overfishing is occurring and we are going to take steps to reduce overfishing without any projections to use, but we're going to take some steps to reduce overfishing; and then in the long term, either three, five or ten – and I suspect ten is going to be the number in light of these projections – we'll get to the Ftarget in a progressive stepwise approach to get to the Ftarget, but in the meantime we'll do something substantial coming out of this amendment that will enable us to reduce overfishing.

To what extent, that is all subject to debate, as we all know based upon this morning's discussions. I would like in the document itself some clarification to that effect, because it sounds like to stop overfishing we have to get to the target, and that's not the case. We stop overfishing when we get below the threshold. Do you follow me?

CHAIRMAN DANIEL: I agree with you a hundred percent, and that was the discussion I think we needed to have because I think it was misleading to the public. We're going to have a lot folks that say we need to reach the target in three years and we don't even have an assessment yet to tell us what we need to do. Is everybody comfortable with that clarification from Dr. Pierce and move on? Adam.

MR. NOWALSKY: Just to be clear and in further reviewing that, then including what the PDT drafted is not going to preclude the options that we currently have? I just want to be clear on that.

MR. WAINE: Correct, it maintains the same options and just provides clarity based on recommended text from the advisory panel.

MR. NOWALSKY: And I just to be clear on that because the advisory panel document includes the line "note the following text would replace all options", and that is not the intent here is not to replace all options? I just want to be clear on that.

MR. WAINE: Right, except that it alters the language for all the options, so all the plan development team meant in that it replaces it, but clarifies every option but keeps the options the same.

MR. NOWALSKY: Thank you for that clarification because that's important that the PDT text just shows an example for one of the options and that is not the intent, replace similar language in all of the options and not replace it with one option.

CHAIRMAN DANIEL: Anything else on this one? With those two charges, we will move on.

MS. FEGLEY: Mr. Chairman, I hate to be daft, I'm sorry, but can you just recap exactly how that language just changed.

CHAIRMAN DANIEL: Dr. Pierce gave – I may not do justice to what he said, but I think it indicates that we've got to take steps to reduce fishing mortality to the new target right away, and that is not what we have been discussing, but we need to have this in there, I guess. It just seems like it is going to be confusing to the public.

On the hand we're going to be talking about taking some modest reduction in order to try to get a handle on ending overfishing and at the same time we're going to be talking about how to achieve the target. We all agree we need to achieve the target, but the way it is written now is it clear to the public that in this amendment we're really just looking to reduce harvest to end overfishing and not to achieve the target at this particular instant. The other issue is what Adam wanted to add from the AP report. Jack.

MR. TRAVELSTEAD: In addition to what Dr. Pierce said, it seems to me we need more explanation of what the technical committee told us this morning in the document. This is an opportunity to inform the public of the trouble with the stock assessment, the model, all of those recommendations that they had to get us forward and then you come to this option and say this is about immediately trying to stop overfishing, but we'd also like your advice on longer-term issues for getting to the target. You can keep this in here but just make it clear, like you said, the purpose of the amendment is to stop overfishing first and then worry about getting to the target later, but in what timeframe?

MR. WAINE: Just to that point, this section, the full section that addresses this issue in the amendment carries over some language from the public information document that I think gets at some of the board's concerns from the discussion that we have been talking about, which is a longer timeframe is being pursued to achieve the target F with the acknowledge that the board is taking immediate steps to end overfishing. That language is in there.

CHAIRMAN DANIEL: Do you have a comment, Pat?

MR. AUGUSTINE: My comment was I'm not sure that satisfies Jack's need because it didn't satisfy mine. Is it clear enough, Mr. Travelstead, that we're going in that direction? I'm not sure that Mike responded to the point you were making. I think you're talking about that specific two or three paragraphs that discussed that issue that he just raised up that should be kind of a preface or prelude to get into this. I'd look for his clarification. It's not clear

to me that it's going to be in there. Is that going to be in there or not? I'm not trying to put you on the spot, Mike, but –

MR. WAINE: No, it's fine; I just am not completely sure what paragraphs you are referencing.

MR. AUGUSTINE: If Mr. Travelstead would restate it, he was looking for a definition and reason as to why – I won't say the technical committee was confused, but they were concerned the way they presented the information to us – Jeff presented it in such a way that here is what the technical committee went through to get to where we are on this. Is any of that going to be in this document at the preface or somewhere in the front of it for clarification purposes? The question is should it be there for the public. I mean, we're struggling with it here and I'm wondering what they're thinking in the back of the room.

CHAIRMAN DANIEL: I'm going to give you my opinion. It seems like to me that this document needs to be rearranged a little bit from where we're headed right now. What I would recommend, if you like this idea, would be to provide how we got where are today from the stock assessment; all the warts, bruises, bumps, scrapes, everything, and the issues that we're facing and the difficulties that we have.

In the first option that we discussed in terms of harvest reductions, we need to talk about the need to end overfishing right away, and that's really the meat and the guts of this amendment. And then in that we make the decision, okay, we're going to take a 10 percent reduction in harvest.

Then we're expediting a benchmark stock assessment as quickly as we possibly can with the hope and expectation that once we get the results of that benchmark assessment we will be able to determine what our target really is in terms of a biomass estimate and be able to put together a schedule that achieves that target within three, five or ten years; but until we have the results of that benchmark stock assessment, we really can't move forward towards the target. That would be the way that I would pursue this part of it. If you all like that approach, great.

MR. AUGUSTINE: If you could capture that the way you did, I think it would be very, very helpful to everybody.

CHAIRMAN DANIEL: It is recorded.

MR. AUGUSTINE: A clear picture; it's actually a clear picture.

CHAIRMAN DANIEL: Yes, it is recorded; I can't say it again in a million years. Jack.

MR. TRAVELSTEAD: I just agree with exactly the description you gave. You said it better than I did.

MR. A.C. CARPENTER: I got lost when Adam said that what was in the advisory panel reply was going to be put in this thing. I'm looking at 2.6.2, it's F rebuilding schedule; the first sentence says, "Through Amendment 2 the board will take immediate action to end overfishing. However, because the reductions in F are more substantial to achieve Ftarget, the board is considering three, five and ten year schedules to rebuild F to the target level."

I think that is what we have been – is that what we have been arguing about for the last few minutes and the language is already here? And then what was in the advisory panel's report, it says, "The board shall take action to reduce the current F to at least the target F in a timeframe that shall be no longer than three years." Is that supposed to be Option B, and then Option C would say no longer than five years and Option D would be no longer than ten years; is that how I understood this last ten minutes worth of discussion?

CHAIRMAN DANIEL: Yes. Bill Goldsborough.

MR. GOLDSBOROUGH: Mr. Chairman, I'm a little confused here because I thought all along that our intent was to end overfishing immediately and phase in the target over time. I understand that's a little more difficult now understanding how far we have to go to get to the target, but we do know what direction we have to go.

I'm not comfortable with saying on the record now that we've decided that we're only going to end overfishing and then wait for the benchmark before we move any further toward the target. It seems to me that it's really just a matter of deciding what pace we're going to impose upon ourselves for getting to the target; and that most likely from all the discussion we're going to have a benchmark before we complete that phase-in anyway. I don't think there is any

reason, given everything we know about what has to be done, that we need to stop just because we've hit the threshold to await the next benchmark; if that is what you were saying.

CHAIRMAN DANIEL: Well, I guess it is what I was saying, and that is the crux of the issue here. That is the motion, in my mind, is the allocation and what to do about overfishing right now. I get the sense from the discussions that I've heard around the table and from what I've heard from folks is that we feel very comfortable with the stock assessment that tells us that we're overfishing.

And if we accept their recommendation on the percent MSP, we're overfished, but we don't have any clue as to how much, so we're going to take what I would call a precautionary approach and reduce the harvest by the level necessary to achieve the 15 percent. I think with all of the uncertainty that has been expressed by the technical committee in terms of the retrospective patterns' in terms of the issues with emigration; with the issues with the dome-shaped selectivity, which seems to have some merit – I don't know to what degree the dome-shaped selectivity pattern should look like, but it is probably somewhere in between what Erik presented earlier and flattop.

Until we get a stock assessment, what justification do we have to continue ratcheting down? I think that's the question and that is what this board needs to decide is it our intent to end overfishing immediately and begin ratcheting down further harvest before we get a benchmark stock assessment? That's the question to the board. You all have got to figure that one out.

MR. TRAVELSTEAD: It seems to me if you don't wait for the next benchmark, you're asking the public to comment on, well, we don't know where we need to go, but we want your advice on how quickly you want us to go there. It doesn't make sense. I think you have got to be up front with the public and say, look, we don't know how far we've got to go to get to the target. That's what the next benchmark is all about. We want to expedite that and in the meantime, once we figure that out, do you want to get there in three, five or ten years.

CHAIRMAN DANIEL: I'm sorry to keep interrupting up, but I think that was my



understanding when we left the last meeting was that we would have the three, five and ten year rebuilding period and that we would have the information in hand today when we discussed this to be able to say three, five or ten.

I think if we had information and had the benchmark stock assessment that told us precisely where we needed to go, we would have been able to make that determination; but now that we don't, I don't know how we do that. I just want to make sure that we're all on the same page and obviously we're not. I knew that was going to be the meat of this discussion was this issue right here. Tom.

MR. FOTE: That's not how I remember the 45-minute discussion when we threw one year out. We basically looked at those three options to leave three, five and ten in because that's what we basically decided. I remember there were about four motions to go and try and finally get to that point and it was a long discussion. We spent a lot of time and effort on this.

I remember going out in a proposal because we wanted to do it on striped bass in lieu of the benchmark was ready to do so we'd have a plan of action, and the benchmark showed we didn't need to do that, but that is what we did on striped bass, which is similar with what I think Bill and few other people are talking about on menhaden. I'm just trying to figure it out, but the three, five and ten was included and that is what we voted on. We took out the one year and left it at three, five and ten.

MR. AUGUSTINE: Mr. Chairman, along with what Tom was saying, I was under the impression that the proxy, the chart that was in the document that was developed in that three, five and ten gave you what the likelihood of landings might be from 75 metric tons down to 225 metric tons.

Under the option as to whether the public looked at that and said, well, we can go out to 2107 to get to an F of whatever number is – if we're shooting for F 15, the closest would be probably 2015 or 2017 – let's see at 200 metric tons, you could reach a 0.17 by 2015. So, I thought the public was going to have this document with this chart, maybe doctored up a little bit, to put the two together.

And agreeing with what Tom said, we threw out one year because one year was not conceivable, it was no way in hell. And then some of us argued ten years was not conceivable; and now listening to the technical committee and where we are, ten years is

conceivable based on how we go and how the benchmark develops.

But, for the public to just pull out of the sky and say, well, I think we ought to go three years, with this chart in hand they have a document. They could pick from Column A and Column B. I thought that was what the PDT developed in terms of different language to further emphasize some of these points.

The public could take a look at this and say, hey, guys, I think we ought to – or gals here – we should do this, and that would be the recommendation. But without this document and letting them decide or select whether it's a three, five or seven years and what that percentage is against the target, I think we're fooling ourselves. That's where I'm at, Mr. Chairman. I think the two would be self-satisfying to the public and let them make the decision. Thank you.

MR. CARPENTER: To that point, Pat said that if you have a 200 – and I'm reading from Table 4; that if you have a 200 metric ton harvest, you're out to 2021 before you get to 0.17, but that's not 0.17, and that's not the same the 0.15 F; and you have to get to a 1 on this table and not the 0.17. Didn't we also hear from the technical committee this morning that these projections, they don't have any confidence in them at all, so why would we even send this out to public hearing if there is no basis for them at all?

CHAIRMAN DANIEL: And I think you'll hear a board member make that argument here in just a few minutes. That's the difficulty that I'm having with this whole thing. The one, three, five and ten was discussed at the last meeting when we were anticipating a stock assessment, an updated stock assessment.

Well, in the interim, between the last meeting and this meeting, my stock assessment blew up on me, and I really can't say much about what is going on anymore. That's the advice we've gotten from the technical committee is that we don't have a lot of confidence in the absolute numbers, and we have no confidence in the projections.

That's what we spent a lot of time in our subcommittee talking about was what do we do now that we've had this stock assessment blow up on us? Our initial thought coming out of that

meeting – and we weren't making any decisions – but, I mean, I kind of came into this meeting with the idea that the three, five and ten option was off the table right now; that we weren't going to even be looking at the three, five – now I'm just telling you what I was thinking, and I might have been wrong. We might have been wrong.

I'm not making any statements on behalf of the committee, but the idea was that we're going to end up – we've got to end overfishing and that is what we focused on. Now we're trying to focus back on a stock assessment result that doesn't exist yet. The charts and the tables based on the projections, I don't believe the technical committee intended us to use those for management purposes because they have told us they have no confidence in the projections. I thought we had it kind of figured out, but clearly we didn't. Jaime.

DR. GEIGER: Mr. Chairman, I'm just struggling like most of the other board members. I don't disagree about what you said. I may disagree about how you stated it. I'm still trying to wrap my brain around all the information we got this morning. I do think that we have to factor that summary of information from the technical committee and from Erik into some kind of framework of which we lay this out, because the game has changed, and we still have some missing pieces of information we have not discussed; i.e., are we going to do an expedited benchmark assessment. We haven't decided that yet; we haven't had that discussion.

We also had what would be the tradeoffs of doing that per Bill Goldsborough's comment. There is a lot of stuff still in play that I'm struggling here with. In a way I almost wish we looked at this new plan development team document in the light of what we saw this morning; we had another day to reregulate this based upon what we heard this morning. I don't think we have that time right now. Again, that's why I'm looking somewhat perplexed, Mr. Chairman. I don't really know what the next appropriate steps are right now.

CHAIRMAN DANIEL: How about this? This came from staff and I think it potentially could get us off the box. What if we were to just add an Option E that we end overfishing right away and wait to take any further action towards the target until we have a benchmark assessment? That is an option out there; it addresses those concerns.

You've got the options to go ahead and adopt everything else, but I think that addresses the

concerns that I've heard around the table in terms of moving forward immediately with some kind of plan to achieve the target in the absence of an assessment. I mean, we're dealing with a public hearing draft here, folks. Lynn.

MS. FEGLEY: I think adding an Option E sounds like a reasonable idea, so it would be to end overfishing immediately, but I think that we would need to be more specific because unfortunately we don't know exactly how much we need to do to do that. I think what we need to do is use our best judgment and perhaps that's based on what we had off of the 2010 benchmark is how far we would have to go, which is – you know, if I remember, it was somewhere between 20 and 30 percent just to get below the threshold. I think the public is going to look at that option and wonder what do we mean by that when we say reduce overfishing immediately. Well, if that option were chosen, then what do we do? We still have to pick that harvest level.

CHAIRMAN DANIEL: We're getting wrapped around the axle. I'm hoping we get unwrapped.

DR. PIERCE: To this point, what is critical in this document – and I need to get it straight – Table 4 and Table 5, Table 6 and Table 7; are they out because the technical committee has no confidence in them? That is key because if any of them has any standing, then we can use one of them or all of them as a way for us to make some important decisions and to give the public some idea as to where we stand.

For example, Table 6, the option that says we would base our landing projections on the 2010 benchmark stock assessment, it says that to end overfishing in 2014 with a 22 percent probability we have to cut landings to 175,000. Well, right now we're 210,000 or so; so to end it immediately we have to drop it from 210,000 to 175,000.

And if the probability of 22 percent is inadequate, if it's too low; let's say 56 percent. That is 2017. So, in other words, I don't think the information we have in this document right now would make a very compelling case that we can end overfishing immediately. I thought from the discussions this morning we concluded that we were only in a position to say we are going to reduce overfishing, reduce the amount, hoping to get eventually to get into the position where we know what the overfishing level is as it

corresponds to a particular catch. Right now we don't know that, and that's our dilemma.

So, again, are these tables out of the document; because if they are, it is going to change my whole way of thinking about what in the world we're going to offer up to the public for discussion. I'm wrong, I guess. I thought that the 2010 benchmark stock assessment projections were usable, but based upon the updated stock assessment in information they were not usable, so again I need to get it clarified.

CHAIRMAN DANIEL: Yes, I would like for Jeff to answer that question.

MR. BRUST: If I'm looking at this correctly, Tables 4 and 5 are based on the stock assessment update; and the technical committee's decision, based on the update assessment, was that the projections were not useful for helping to set harvest limits. We discussed it this morning; your fallback when you fail a peer review is you go back to the most recently accepted peer review. That would be the 2010 benchmark.

But there was a question to this point this morning is how usable are the projections from that benchmark assessment at this point. I don't recall any specific decisions by the technical committee, but the farther along we are from that terminal year the more uncertain those projections become. We're already five years into those projections.

Given the uncertainty in the terminal year estimate, the retrospective pattern, the age structure of the fishery, the recruitment pattern or lack thereof that is assumed within the projections; the projections based on the 2010 benchmark, yes, it is the most recently accepted assessment, but I would caution that the projections based on that at this point are very uncertain. I can't tell you don't use them. They are the most recently accepted, but I would caution that they are highly uncertain.

DR. PIERCE: Well, with that said, Mr. Chairman, I think that Tables 4, 5, 6 and 7 are out of play; and if that is the case, then once again I fall back to the conclusion that what we are trying to do is cut catch to some level below where it is now with an understanding that level of catch, that cut will get us a meaningful reduction in fishing mortality so that we're not as high as we are right now.

In other words, we know we're sand, soft sand because these projection tables cannot be used. If any one of them can be used, we're in real good shape. Otherwise, we're going to have to cut back

catch from recent years' landings because we are overfishing and the stock is overfished. But the level to which we will cut that catch, we can't quantify the degree to which we are reducing overfishing and the degree to which we are not so much overfished.

I'm wrestling with this as well. This part of the document would have to be rewritten in some sensible way once these tables are struck; assuming that is what the board wants to do. Right now I have no confidence in those tables.

CHAIRMAN DANIEL: And it doesn't sound like our technical committee does either. Kyle.

MR. SCHICK: I think we were talking about – going back to the reduction of F; we're talking about immediately reducing F and not necessarily eliminating overfishing immediately; am I correct in that statement; we are taking steps to reduce overfishing.

CHAIRMAN DANIEL: The way that I understand it, and I think it may be where we screwed up, is in this Issue 2; it says reducing F to the target. I think what we needed to do – what I wish we had done is had the first section be reducing F to the threshold; discuss why we need to do that, what the constraints are from the stock assessment, and have an action item that says we're going to reduce F to the threshold.

Remember we had an option that basically says we can use the 2012 update, the 2010 benchmark, we can use the ad hoc approach or a combination. So why don't we use our collective wisdom and look at the benchmark stock assessment, the updated stock assessment, our best judgment and let's say what do we need to do in our best judgment to end overfishing.

Now, if you look at the benchmark stock assessment, there was a number there. I don't want to quote it because I'm not sure what it was, but there was a number there in that benchmark assessment that we needed to reduce to end overfishing at 15 percent. So, if that's something that the board agrees that we need to do right away – and I think everybody does agree that is something that we need to do right away – then that closes out reducing F to the threshold.

Then we move on to reducing F to the target. And with the prelude of the problems with the stock assessment, we come back and say, all

right, right now we know what we want our threshold to be is F 30 percent; what do we need to do in order to get there; further reduce, maybe, probably, but at what level and how fast do we need to get there.

Then we should have a year under our belt at 15 percent by the time we get our updated stock assessment and then we may want to come in and do an addendum at that point to modify that schedule even more. To me it is very difficult for us to be making decisions or asking the public to make decisions that will have substantive impacts on the industry when we don't have the results of the assessment yet. I don't think that anybody around the table disagrees that we don't want to have some schedule for meeting the target and not just resting on the threshold laurels like we have in the past.

MR. SCHICK: Well, I do agree in adding Option E; I think that's a good thing. I don't want to mislead the public in thinking that we've got this grand plan when we don't even really know how much we're overfishing, if we're even in fact overfishing at all. I know some people around the table are saying we definitely are overfishing, but I don't think that anybody can say that with a certainty.

I think they can say that with a probability, and they can point to all kinds of evidence. I think Option B is unreasonable and to even propose it to the public misleads them to think that we could do that in three years. Now, I know the last time we were arguing about Option 1, you know, a one-year thing, but like you said we have new data now; what happened the last meeting is out the window. I think we should put an Option E, and I think we should also take Option B off the table and don't mislead the public in thinking that we've got a plan up here that can do something in three years.

MR. CARPENTER: Mr. Chairman, I appreciate your recent statements and those of Kyle. It is beginning to sound like to me, if I'm beginning to look at this list issues, I think what we really need to do is structure this to Issue 2 is to rebuild; Issue 2A then becomes to end overfishing and Option 2B is to reach the target level; and have schedules for each one of those under that.

One, three and five years for reaching the threshold may be reasonable and five or ten for reaching the target may be something that you can take out to the public. I think you've got to separate the threshold and the target, and I think that's one way that it can be done is two separate suboptions.

MR. BEAL: Louis, the way the document is written now is it says the board will take immediate actions to get to the threshold, to end overfishing. If you want to add the schedule that A.C. said and put some time span to get to the threshold, you can do that. The way it is written now it says you're going to immediately take steps to get there.

Then the second step is what is included in Issue 2 on the screen right now, which is how quickly you want to go from the 15 percent to the 30 percent. As Kyle said, maybe three in his opinion is not viable and we should add another option that said we'll stick with the threshold until we get the next benchmark and those sorts of things. I think the way it is written now, unless you want to change it, is immediate action is to get to the threshold.

DR. PIERCE: I had a slightly different take on that. Today we are taking immediate steps to end overfishing; we acting. We're going to send a document out to public hearing that will have in it the steps we will take to end overfishing. Today is the action. We can't end it tomorrow or the day after based upon the information we have in hand.

Frankly, to me the most compelling table, the most compelling data within this document is Table 10 where it says very clearly the probability of reducing overfishing with different multipliers. For example, by taking a three-year average of recent harvest levels or a five-year average of recent harvest levels and applying a multiplier of let's say 0.80, which means we're reducing current harvest levels by 20 percent.

We are reducing overfishing by cutting the harvest level back by that amount, and it says to us that would result in a quota of around 170 or 169,000 metric tons. Okay, so we might end up taking that step to reduce overfishing, but we are not yet in a position to know, using assessment information, whether that is getting us to a particular fishing mortality rate.

The threshold in particular; we don't know what it equates to relative to F; so we can compare that with where we want to; that is, the Fthreshold. That I think is only going to come about through further assessment work through the benchmark assessment, but in the meantime we have to take action to reduce overfishing and

to get ourselves on track towards ending overfishing and getting to that target F

That is going to be done through this particular amendment because we are overfishing; and once we change the SSB reference point, we will conclude that we're overfished. So, action has to be taken and Table 10 as far as I'm concerned is going to be the most informative table for public use and for our use, especially after we scratch out of the document Tables 4, 5, 6 and 7; that while compelling don't stand up because the technical committee does support those particular tables. It's a good effort on their part to give us initial insights but they're not useful. So we're going to be reducing overfishing and we're going to have to inform the public that we can't equate to the threshold value, but it's a step in the right direction. That's all we can say.

MS. FEGLEY: Just to follow up on that, we were chatting over here, I agree that Table 10 is a big one, especially if those tables that contain all the projections are no longer useful to us, so essentially Issue 2 could be rewritten to offer the public options as to the aggressiveness of our action; and rather than a timeframe it becomes a probability of ending overfishing, which are the multipliers here in Table 10. The problem there is it's no longer relating directly to the reference points, but it is allowing the public to comment on the degree of aggressiveness of action that they feel the board should be taking since we can't specifically say how aggressive we should be right now.

CHAIRMAN DANIEL: I think that's clear. Dave Simpson.

MR. SIMPSON: I think we have a lot accomplished in what has been put together in terms of moving toward establishing a quota for the first time in a new fishery – that is a big thing – and the mechanism for how we would monitor that and implement it. We also have in Issue 2 the pace to achieve the ultimate target fishing.

We have everything except a Year One action, and that is what the public expects. That is what Lynn was just alluding to. My thought is to leave Issue 2 just as it is. That is our time table for achieving the target F. I would simply add for convenience, if nothing else, when all those big issue questions are done we're going to establish a quota, this is how it is going to be allocated, this is how we're going to monitor it.

The final question is, all right, what are doing in Year One and propose a range of alternatives for specific target quotas for the first year of implementation; you know, 2013. Lynn's comments moved me off of my thought, which were simple alternatives of 10, 20 and 30 percent reductions in current landings. That is what I would propose.

It might be more perfect to refer to Table 10 and choose percent probabilities of achieving those targets in the 0.9 to 0.75 range, for example, so you would have a Year One target of 192,000 tons, 171,000 tons or 160,000 tons and put those out to public comment for what we do in Year One.

CHAIRMAN DANIEL: Good suggestion. I want Jeff to address that.

MR. BRUST: Maybe I'm off base here, but I think I'm interpreting some of the things that the board is saying is that Table 10 presents probabilities of reducing overfishing. There is nothing in here that says anything about a probability of reducing overfishing. There is a note at the top. It has changed form a couple of times since the original draft, but there is a statement says the probability of reducing overfishing decreases as you move towards a multiplier of 1.

Nothing in the table presents a probability. The proportions at the top; that is your multiplier. A multiplier of 0.8 means you take your average harvest and multiply it by 0.8 to get your harvest level. It is not saying that's an 80 percent chance of reducing overfishing. The larger the multiplier the closer you are to current harvest, and so the lower the probability of reducing overfishing. Maybe I misinterpreted what the board members were saying, but it sounded like they were seeing those as probabilities, and they are not.

CHAIRMAN DANIEL: And this was developed based on the data-poor models in the councils, pure and simple, so that what you're basically assuming is that if there is a general sense that you are overfishing, which the technical committee has told us that there is a fairly high probability that we are overfishing, do you want to reduce – you know, the less you reduce the less likely you are to end overfishing; and so how do you kind of get there and look between the 0.75, 0.8, 0.85 the reductions that you

believe, based on our best judgment, will get us near where we want to be. I do think it's important early on to indicate what we're planning for the first year.

I think that is the point that I think is critical and that we set this thing up with again reducing F to achieve the threshold and then moving forward with leaving this just like it is for achieving the threshold, but just with the caveat that we're not going to be able to say precisely until we get the benchmark assessment on the target. Jack.

MR. TRAVELSTEAD: I think several of the last speakers have had some good guidance for the board on a way forward; and before we forget what they said, I would like to formalize it in a motion so that we can at least see if all agree on that. There are two points I want to make. **One is I think we need a motion to eliminate Tables 4, 5, 6 and 7 based on the advice of the technical committee. I think there were a number of comments in support of that.**

**Then we use Table 10 as sort of the guiding document for public comment, but I would ask that the board add two additional options there under that multiplier and that they be 0.95 and 0.85; just expand that table out with a few more options.**

CHAIRMAN DANIEL: I guess I would ask is there any objection to doing what Jack has proposed? Adam.

MR. NOWALSKY: Certainly not an objection, Mr. Chairman, but I would just suggest including wording – and the AP touched on it later on – about this multiplier factor is actually a reduction; that 0.95 is a 5 percent reduction. That is something I think the majority of the public is going to understand more than a 0.95 multiplier.

CHAIRMAN DANIEL: I think we could have them both just because I think we do have public that are used to seeing the multipliers in the council documents, but I agree it would also be nice to have what that equates to in terms of a percentage reduction in the tables. I will ask again is there anyone that objects to removing the four tables? Doug.

MR. GROUT: Just a question so that I know what we're doing to make sure that we're clear; because those tables are in two options, Option B and Option C, so are we eliminating those two options under 4.2.1.2?

CHAIRMAN DANIEL: I think that's the intent. Jack.

MR. TRAVELSTEAD: I didn't hear his question.

CHAIRMAN DANIEL: We would be eliminating using projections to set TAC?

MR. TRAVELSTEAD: That's right.

CHAIRMAN DANIEL: And that's the intent?

MR. TRAVELSTEAD: Based on the assessment, yes.

CHAIRMAN DANIEL: I think that's the intent, Doug.

MR. GROUT: Yes, so then the real motion should be eliminate Options B and C?

CHAIRMAN DANIEL: Correct.

MR. GROUT: There is text associated with those.

CHAIRMAN DANIEL: Okay, so B and C are on Page –

MR. TRAVELSTEAD: A and B.

CHAIRMAN DANIEL: Okay, where is that in the document?

MR. TRAVELSTEAD: Issue 5B. Yes, if you want to get technical on the motion, it would be to eliminate Options A and B and Issue 5B, TAC-setting Method.

CHAIRMAN DANIEL: So everybody sees where we are and everybody understands what this does? Bob.

MR. ROBERT BALLOU: I understand, but I just wonder if we might also need to exclude Option D as well now because that relates back to projections.

CHAIRMAN DANIEL: Yes, I would agree or I would say that we do.

MR. WAINE: Can I clarify?

CHAIRMAN DANIEL: You may clarify.

MR. WAINE: Option D was the flexible option, meaning that right now the projections are not deemed usable by the technical committee to be setting a TAC; but if there was a future benchmark assessment where the results were reliable enough to use projections to set a TAC, that is what Option D provided was the flexibility to use that if a benchmark deemed that an appropriate method. I just wanted to make that clarification before the board acted on that.

MR. GOLDSBOROUGH: Mr. Chairman, before we rush to let this horse out of the barn or whatever metaphor you want to use, and in the spirit of what we recognized earlier that all three of our optional approaches have some utility and the question of what we can glean from all of them, I actually wanted to offer a suggestion for a possible new type of table that we might construct fairly readily. This is recognizing at the risk of oversimplifying that the update tables, Tables 4 and 5, were problematic in large part because they're projections from that terminal year that the technical committee has no faith in; that 4.5 F, that just is implausible.

Tables 6 and 7 were somewhat problematic because they were a little dated. The 2010 benchmark is dated. I'm wondering though if we don't have a possibility of making some kind of adjustment based on analyses today and best judgment to that terminal year estimate in the update.

I thought I heard at one point that the technical committee felt that terminal year estimate might be as much as 50 percent too high or something to that effect. I would cast this to Jeff and see if we have any firm ground upon which to say, okay, we're going to reduce that terminal year estimate by X percent in order to get it into a range where we feel comfortable and then construct a projection table from that that we do feel comfortable using.

MR. BRUST: The technical committee did discuss trying to develop a correction factor for the retrospective pattern and the decision was that it was not appropriate at this point. Well, one of the biggest concerns is the switch in the pattern. You remember that currently we're overestimating but in the past we were underestimating.

There is no guessing when that pattern might shift again. The technical committee didn't want to go out on a limb and say that pattern is continuing. In a broader perspective, a correction term for a retrospective pattern is sort of like putting a Band-

Aid on a shark bite. You have larger issues at hand than you're looking at.

The best way to get around this is to go back and try and find out what is causing the retrospective pattern and address that rather than just addressing the results. I guess the short answer is the technical committee was not comfortable providing a correction factor for the retrospective pattern.

CHAIRMAN DANIEL: Bill, you've got a followup?

MR. GOLDSBOROUGH: I do have a followup and that was on the other point I raised that Tables 6 and 7, which are based on the 2010 benchmark, they were somewhat problematic because they were a few years dated and we had to project that much further from them. I wonder can we not take any comfort in knowing that during those few years we've had very little change either in recruitment, landings had actually gone up, and so does that not take away or allay some of that concern of those projections being out a couple of extra years, such that we don't need to throw them out entirely and get no benefit at all from the benchmark assessment, which to date still is our best available science. It was peer reviewed and judged robust for management.

MR. BRUST: Again, I'll state that to my recollection the technical committee did not discuss projections from the 2010 benchmark in a lot of detail; just that a lot has happened since then. Certainly, there has been stability based on the current fit model, which we've decided isn't great. Recruitment seems to have stayed relatively stable according to the 2012 update.

There is just a lot of uncertainty. I can't say you shouldn't use them, but I would just again caution that there is a lot that has happened that may be being captured in those updates; the poor fit to the PRFC Index, the lack of a spawner-recruit relationship assumed in those projections. Things might be happening in the stock that we aren't able to capture, so there is just a lot of uncertainty there.

CHAIRMAN DANIEL: Do we have a second to Jack's motion? Everybody is cool with it? Well, let's just that we've got a second by Mr. Stockwell just in case. We're going to be here all day. Adam.

MR. NOWALSKY: Mr. Chairman, the AP and subsequently the PDT I think actually helped craft the language that would be applicable and possibly accept as a modification to this motion here; where basically Page 3 of the AP document the PDT drafted as options, specifically these multipliers, and perhaps that would be the best way to elicit the public comment, adding the two options that are up here, the 0.85 and the 0.95.

But Page 3 of the document, if we're modifying Section 4.2.1.2, we're taking out A, B and D. We're then turning Option C into these options that the PDT have already crafted. Option A, multiplier of 1 means a zero percent reduction; Option B, multiplier of 0.95, 5 percent reduction, and right on down the line as itemized here. I think that would provide options here and provide the best direction to the comment and then ultimately to us as a board to decide on something at the annual meeting.

CHAIRMAN DANIEL: I think that's a good suggestion, with the top reduction being 25 percent? That is what we have been talking about, 0.75, 0.8, 0.85, 0.9, 0.95, so we're looking at a range of options from 5 percent to 25 percent, correct?

MR. NOWALSKY: Well, the current table that was discussed here actually goes down to 75 percent. That is what in the table, a multiplier of 0.25 which would a 75 percent reduction.

CHAIRMAN DANIEL: Right, do we want to take that out? That is the question I'm asking. What everybody is talking about – I've not heard anybody mention anymore than a 25 percent reduction, so I'm just trying to pare it down. If we're going to do it in 5 percent increments – I don't know, I'm just asking, Pete.

MR. HIMCHAK: In relation to the initial charge to end overfishing and then start rebuilding, what is the earliest time when we can evaluate our performance in ending overfishing? Say we come up with a TAC in 2013; now we can't turn the crank of the assessment and get a current F for the fishing year because it could be like 4.5 or greater. Regardless of the amount of the reduction, when is the earliest we could evaluate when we have ended overfishing and then begin any kind of a rebuilding program?

CHAIRMAN DANIEL: Lord, have mercy, first you're going to have to do it. First you're going to have to get off the block and make a reduction. Then you're going to have to reassess with some semblance of – I mean generally speaking we like to

have three years of information under a new regime in order to get some sense of that.

So if we do an update in 2017, throwing out a number, it depends on when we do the update. If we do the update in 2014, maybe we'll be ready for another update in 2017, it is going to be then that you're going to know, I would think. You're not going to do a turn of the crank until you get a peer-reviewed benchmark, a new peer-reviewed benchmark.

MR. HIMCHAK: Okay, that's just what I wanted essentially get on the record that, yes, you don't just end overfishing and we're going to know next year and then we're going to start a rebuilding program. It is going to take a lot of work.

CHAIRMAN DANIEL: And it is going to also depend on the benchmark assessment as to whether or not we're overfished or not. I mean, presently if we select the SSB 15 percent, we're overfished, but that is on an assessment that we don't have a whole lot of confidence in; so when we get our benchmark we may be above this SSB 15 percent and not be overfished and not need a rebuilding period. I mean a lot of these things we just can't answer right now.

As much as you all want to, there is just no way we can answer some of these questions right now. I think that's the problem that we're running into right now is trying to make a sow's silk purse and it ain't going to happen. We've got to go with the best we've got and that is sort of the result of our subcommittee meeting that we need to move forward. I'm about ready to say, look, let's just delay any further discussion on this until the annual meeting because we're not getting very far. Does anybody else have anything that they absolutely have to say on this motion?

MS. FEGLEY: **Mr. Chairman, I would like to amend the motion, if I could, to add a multiplier of 0.7.**

CHAIRMAN DANIEL: Is that a friendly amendment to Jack?

MR. TRAVELSTEAD: In the interest of time, Mr. Chairman, we will consider it a friendly amendment, but I would like to get this thing voted on today.



CHAIRMAN DANIEL: Me too, and I know my chairman would, too.

MR. TRAVELSTEAD: Let me say this a little bit further. **I'll accept the 0.7 as a friendly amendment if we eliminate the 0.5 and the 0.25 in the table, which you discussed earlier.**

CHAIRMAN DANIEL: You stepped in it there, Lynn. All right, it sounds like it's not a friendly amendment any longer. There is an amendment to add 0.7 to the suite of options. Is there any discussion on adding 0.7? I need a second to add 0.7. Second from Dave Simpson. All right, any discussion on adding 0.7? Jack.

MR. TRAVELSTEAD: **I would move to amend the motion to add the elimination of 0.5 and 0.25 as options.**

CHAIRMAN DANIEL: Is there a second to that motion? Second by Mr. McElroy. All right, we've got an amendment to the motion to amend. Okay, any discussion on the motion on the board; move to amend to eliminate 0.25 and 0.5 as multipliers in Table 10. Motion by Mr. Travelstead; second by Mr. McElroy. Any discussion? Bill.

MR. GOLDSBOROUGH: I have a lot of problem with everything that has been added to the AP's proposed table, and I'll tell you why. If you were to use the ORCS approach, the only reliable catch stocks approach, that has been delineated in a NOAA Technical Memorandum and been peer reviewed and that the technical committee is suggesting as an option, and if you were to assume – there are several criteria with that approach.

If you were to assume that overfishing is occurring and go through those criteria, you would come up with – if I'm not mistaken and you come up with a recommendation for using a multiplier of 0.5, if you were to also assume that the stock is overfished – and the technical committee has, of course, recommended that we go with the 15 percent MSP and 30 percent MSP biomass, threshold and target, and that if you do that, the stock will be overfished, so if you add that to the analysis the ORCS approach would suggest that we need a multiplier of 0.25.

I do object to removing those two. As a matter of fact, I'll have to disagree with adding anything in increments of 0.05 because I think we're kidding ourselves that we have that kind of a handle on a resolution here. It was already reported to us by the technical committee that the councils, when they use

these approaches, do it in multiples of 0.25, and we're trying to bring this down to a level of 0.05 choices, increments of 0.05. I think our best advisable approach at this point, all things considered, is to stick with the table that the AP recommended. I will offer whatever kind of a motion or action you think is necessary to bring us back to that.

CHAIRMAN DANIEL: You can try. I wouldn't even begin to know how to help you, though.

MR. BEAL: I don't think you can go down a third sort of – actually the fourth level because your main motion, your motion to amend, and the motion to amend the amendment and then either a substitute motion, but the only thing you can do right now is affect the motion to amend the amendment.

CHAIRMAN DANIEL: And that's what we're going to do right now; we're going to vote on Jack's amendment. All those in favor of Jack's amendment – yes, we're voting on the motion to move to amend to eliminate 0.25 and 0.5 as multipliers. All those in favor raise your right hand; opposed same sign –

MR. NOWALSKY: Request to caucus, Mr. Chairman.

CHAIRMAN DANIEL: All right, I'll give you 30 seconds to caucus.

(Whereupon, a caucus was held.)

CHAIRMAN DANIEL: All right, are you ready to vote? All right, all those in favor of eliminating the 0.25 and the 0.5 option, raise your right hand; opposed same sign; null votes; abstentions. **The motion fails.** All right, we're back to Ms. Fegley's motion; move to amend to include 0.7 as a multiplier. Do we need to caucus? All those in favor of Ms. Fegley's motion to include 0.7 as an option, raise your right hand; opposed same sign; null votes; abstentions. The motion fails. Adam.

MR. NOWALSKY: Mr. Chairman, I would like to move to substitute for the main motion to use the table included by the PDT and the AP Report.

CHAIRMAN DANIEL: We have a substitute motion to include – wait.

**MR. NOWALSKY: If I can clarify, Mr. Chairman, move to eliminate Options A and B under Section 4.1.2 and use the PDT-developed table from the AP Report as the option; move to eliminate Options A, B and D and use the options from the PDT-developed table in the AP Report.**

MR. WAINE: Sorry, just to clarify, the table that Mr. Nowalsky just referenced is the actual table in the amendment. The AP didn't any changes to the multipliers; they just clarified the language to include the percent reductions.

MR. NOWALSKY: And the desire is simply to have them appear as options as opposed to table.

CHAIRMAN DANIEL: With the concomitant percent reduction as well as the multiplier, and those would be our options on setting the TAC. Everybody is clear on that?

MR. NOWALSKY: Yes.

MR. BEAL: On all these multiplier it is kind of – you're splitting hairs. In other words, all you're doing is taking a range of options out for public hearing. If you have 0.7 and 0.8, the board can pick 0.75. It doesn't have to be on the table. I want to illustrate some more options for the public to understand, I think it is straightforward. At the end of the day your highest point in there is 1 and apparently the lowest point is 0.25, so you're allowed to pick 0.87381 if that's really where the board wants to go. You don't have to have it on that table. It can't be anywhere within the range. I think you just need that range.

CHAIRMAN DANIEL: That's exactly right; we can't be more restrictive than what we take out to public comment; so as long as we encompass the range of options. A.C.

MR. CARPENTER: To the motion, I've heard that one person is referring to Table 10 and the other person is referring to the AP report. The AP report makes no mention of a three and a five year timeframe and Table 10 does. I would like for this to have the three and five year timeframes as part of this, and I would make that as a friendly amendment if necessary or just do it by consensus or get somebody to clarify it.

CHAIRMAN DANIEL: Yes, that's the three-year average or the five-year average and that is included in Adam's motion. All right, is everybody clear? Let

me read the substitute motion to eliminate Options – I think the intent was A, B and E, if I recall – A, B and D, sorry, under Section 4.2.1.2, TAC-setting method; use the options developed by the PDT in the AP report for the ad hoc approach. Motion by Mr. Nowalsky; second by Mr. Augustine. Adam.

MR. NOWALSKY: I think we would have to clarify because if we're using the table developed by the PDT it would offer six options. If we use the table as Table 10 as it exists right now, that would actually offer 12 options, if I'm interpreting this correctly. I'm not sure with the average of – we're talking about the average of the landings here is what these are, so we'd actually have to decide – we'd have to pick first are we going to use the three or the five-year average and then the multiplier or how exactly that would be crafted.

Maybe Mike can provide some advice to that, but I think my motion exactly as it is would wind up with six options. If we used table here, we'd wind with 12 options, and I'm just interested in getting the right option in here the board is interested in moving forward.

MR. WAINE: Yes, it is a two-step approach. First you decide the number of years you're going to average over and then you select a multiplier to adjust that average catch.

MR. NOWALSKY: And I think I'm comfortable going forward with that as that would give us the greatest number of options moving forward to make a decision in the range moving forward.

CHAIRMAN DANIEL: It is actually seven options. Jack.

MR. TRAVELSTEAD: So this motion is a substitute motion, correct, to the original?

CHAIRMAN DANIEL: That's correct.

MR. TRAVELSTEAD: It is a substitute motion?

CHAIRMAN DANIEL: That's what he said.

MR. TRAVELSTEAD: I just can't believe, based on everything that we heard this morning about the uncertainty of the stock assessment, that the board at this point would actually suggest to the public and want comment on a

measure that would cut harvest in this fishery by 75 percent? I mean, that would have an enormous impact on every fishery that uses menhaden up and down the Atlantic coast.

Of course, the reduction fishery would disappear immediately, but the bait fishery would, too. I'm amazed that we would go that far. Fifty percent is bad enough but 75 percent. **I'm going to press the issue again and move to amend the substitute by indicating that we would eliminate from the table the 0.25 option.**

CHAIRMAN DANIEL: Is there a second to that?

MR. NOWALSKY: Mr. Chairman, I'll accept that as a friendly amendment and I believe the seconder will as well. With all due respect to the efforts of the AP and their input and the desire to do so, hearing the comment and the information we received, again I think it would just be unfair to the public to put an option out there that quite frankly isn't going to garner much traction here at this level. I would accept removal of the 0.25 multiplier as a friendly amendment.

CHAIRMAN DANIEL: Thank you. Doug Grout.

MR. GROUT: Thank you, Adam. I was almost ready to support this motion with one exception, and that is the elimination of Option D, and the reason being is that if we do have – this gives us the flexibility in the future that if we do have a peer-reviewed stock assessment a couple of years from now where we do have accurate projections that the technical committee is comfortable with recommending to us, Option D gives us the option in the future to use this to help get down to our target; but if we take this out, we eliminate that option without another management action. As a result, I can support everything in this motion except for the elimination of D.

MR. CARPENTER: Wouldn't Option D be included in the measures subject to change on 4.6.2; aren't they already built into that?

MR. WAINE: Yes, that would mean that it would require an addendum to use projections to set a quota in the future; whereas, Option D, if it is retained in this document, it allows the board the flexibility to use projections when the technical committee deems it is appropriate to use them; or, in the absence of those projections it allows the flexibility for the board to use this ad hoc multiplier approach to setting a TAC.

CHAIRMAN DANIEL: So it probably behooves to at least retain the flexibility to use D in the future is what I'm hearing around the table; is there any objection to that? **Option D will be removed as a friendly amendment unless Terry is being unfriendly.**

MR. STOCKWELL: Not totally unfriendly. With this straightforward discussion we've had all day, everything we do about menhaden is contentious. I couldn't imagine not going out to an addendum if we're going to make a change as substantive as that. Leaving it in as an option at this point is fine, but at the end I don't think it is a wise course of action.

CHAIRMAN DANIEL: All right, we've got a motion to substitute to eliminate Options A and B under Section 4.2.1.2; TAC-Setting Method, to use the options developed by the PDT in the AP Report for the ad hoc approach with the elimination of the 0.25 multiplier. Motion by Mr. Nowalsky; second by Mr. Augustine. Thirty seconds to caucus.

MR. NOWALSKY: I would just, Mr. Chairman, offer the perfection including the 3 and 5-year average because that is not what is offered in the PDT language right now and just to ensure that is included; unless Mike is comfortable that is already there.

CHAIRMAN DANIEL: We're good; I think we're good and that way I won't have to read it again.

(Whereupon, a caucus was held.)

CHAIRMAN DANIEL: All right, all those favor of the –

MR. GOLDSBOROUGH: Could we get a roll call vote?

CHAIRMAN DANIEL: Sure; roll call vote.

MR. WAINE: Maine.

MAINE: Yes.

MR. WAINE: New Hampshire.

NEW HAMPSHIRE: Yes.

MR. WAINE: Commonwealth of Massachusetts.  
MASSACHUSETTS: Yes.

MR. WAINE: Rhode Island.  
RHODE ISLAND: Yes.

MR. WAINE: Connecticut.

CONNECTICUT: Yes.

MR. WAINE: New York.

NEW YORK: Yes.

MR. WAINE: New Jersey.

NEW JERSEY: Yes.

MR. WAINE: Delaware.

DELAWARE: Yes.

MR. WAINE: Maryland.

MARYLAND: Yes.

MR. WAINE: Potomac River Fisheries Commission.

POTOMAC RIVER FISHERIES COMMISSION:  
Yes.

MR. WAINE: Commonwealth of Virginia.

VIRGINIA: Yes.

MR. WAINE: North Carolina.

NORTH CAROLINA: Yes.

MR. WAINE: South Carolina.

MR. ROSS SELF: Mr. Chairman, the South Carolina  
representative is not here.

MR. WAINE: Georgia.

GEORGIA: Yes.

MR. WAINE: Florida.

FLORIDA: Yes.

MR. WAINE: National Marine Fisheries Service.

NATIONAL MARINE FISHERIES SERVICE: Yes.

MR. WAINE: U.S. Fish and Wildlife Service.  
U.S. FISH AND WILDLIFE SERVICE: Yes.

MR. WAINE: **Sixteen in favor.**

CHAIRMAN DANIEL: **All right, so it is the  
main motion?** Tom.

MR. FOTE: Yes, I say call the question and we  
don't need a roll call vote since the vote of the  
last one.

CHAIRMAN DANIEL: All right, so the  
substitute motion becomes the main motion. All  
those in favor raise your right hand; those  
opposed same sign; null votes; abstentions. **The  
motion carries unanimously.** That is what you  
call cooperation. Tom.

MR. FOTE: Mr. Chairman, I'm just looking at  
time-wise what are we going to do. We should  
basically take maybe a five-minute recess to  
decide what we're going to do with the Sturgeon  
Board, decide what the Policy Board is going to  
do because we've got a visitor coming. I'm  
trying to get some guidance there in thinking  
about this.

ACTING EXECUTIVE DIRECTOR BEAL:  
I've talked to Chairman Diodati and what he  
would like to do is run this meeting through  
about 4:45 and hopefully get everything done in  
the next half hour and then start the Policy Board  
for a brief Policy Board session because we have  
some guests from the National Marine Fisheries  
Service that want to be introduced and say a  
couple of things to the Policy Board. That will  
last about half an hour and then we'll go into the  
Sturgeon Board after a short Policy Board  
session. I think a break right now might waste  
some precious time.

CHAIRMAN DANIEL: Yes, we're not going to  
break. I'd like to break but we can't. All right,  
the next item – I hope that was the tough one –  
quota monitoring. I think we've got a good suite  
of options; are there any other options that  
anybody would like to add? Pat.

MR. AUGUSTINE: Mr. Chairman, a quick one;  
the AP suggested daily reporting by dealers, and  
I guess the question is are there ample number of  
dealers who are doing daily reporting and how  
much more help would that be to the technical  
committee in terms of knowing where we are.  
They did indicate in their paper that they

suggested daily reporting by dealers, so it's your option, Mr. Chairman; do we want to add that?

CHAIRMAN DANIEL: Well, we've got Option D to require SAFIS eTRIP harvesters daily reporting. We get the trip reports from Omega. If we can get bait reports, I think we're doing good for some of the smaller bait groups. I'm satisfied with what we've got, but Pete is not.

MR. HIMCHAK: No, I am, too, because they want to add Option F; and if you read Option F with all the difficulties in all the bait fisheries, this is just totally unrealistic for daily bait landing harvest reports. I would not add Option F.

CHAIRMAN DANIEL: So is everybody happy with what we have on the board for quota monitoring? Good, let's move on. Yes, Kyle.

MR. SCHICK: We haven't gotten a consensus on the F Rebuilding Schedule, because we were going to add Option E on that. I think that's how we got led into the TAC discussion. Where did I fall asleep?

CHAIRMAN DANIEL: No, I don't think you did. I think what we talked about doing – well, I hope what we agreed to do was that we would have the statement in there that we were going to end overfishing right away and achieve the 15 percent, but then that we would have the other options in there for the rebuilding. Do you want to start over?

MR. SCHICK: Yes, I thought we were going to talk about first reducing and then eliminating and then going to the target and we were going to add Option E based on benchmark.

MR. WAINE: The notes that I have been taking for Issue 2 was to do add Option E, which is end overfishing immediately and take further action upon receipt of the next benchmark stock assessment document. The clarification that I have for that section was to add that option and make sure that there is text in there that says the board is ending overfishing immediately and has these following steps to achieve the target F – for a timeframe to achieve the target F.

CHAIRMAN DANIEL: And that precludes the need for E, because E said just that, that we would end overfishing immediately and wait until we get a benchmark stock assessment, and that is the intent of the language that we have. I hope that's the understanding around the table; is it not? Dave.

MR. SIMPSON: I'm glad he brought it up because I thought what led into that series of motions was the idea that we need to include an issue here that talked about what are we going to do in Year One. I thought Issue 2 was great for the timeframe for reducing to the target, but I thought all of the discussion we had came out of the idea of what do we do in 2013.

The way I presented as an idea was simply to add it as Issue 9 once we have set this plan – adopted this plan, Year One action would be taken up under Issue 9. Issue 9 would be reduce by 5 percent to 30 percent or up to 50 percent now. That is how I saw it; we would use Table 10 to decide how we were going to take our Year One action and then the rest of it would hold. Issue 2 would be still on the table to decide; are we going to get to the target F in three, five or ten years.

I didn't see what we were going to do next year as an alternative to when are we going to get to the target. We need to answer both questions. If we could take what we just did and make that Issue 9, leave Issue 2 alone, I think we have separated the two questions and we'll get the proper comment.

MR. WAINE: Dave, I just wanted to clarify that if I'm following all of this; so the method in which the board would use to set the quota, which is essentially what all those motions dealt with, there are specific suboptions that the board is requesting the public to comment on regarding what an appropriate multiplier they would want and how that would apply to the average catch over the last three or five years, so essentially that would get at what they believe that a TAC should be for the upcoming season. Are you following me with that; but the table would essentially tell the board, based on the comment, what harvest level is preferred.

MR. SIMPSON: But I do think that is a different question because when we get to Issue 2 and we have to take a vote on do we want Option A, B, C, D or E; that's entertaining two questions at once. It's entertaining what do we do in 2013 and it's entertaining how long do we take to get to our target F. I still think the clearest thing to do is to separate these two things. I know it got muddy in how we discussed it, but I think again what led us to this was we need an Issue 9 that addresses what are we going to do in Year One in –

CHAIRMAN DANIEL: Excuse me; I thought that we done that, though. I thought we had said we basically had 2A; 2A was rebuilding to the Fthreshold, and that is the Step One; and then Step Two is 2B, which are the various options for the three, five and ten. We've covered those two things, I think. Okay; no problem.

All right, next; fishery-dependent information; what is that? Anybody have anything to add; either don't take samples or take samples under the technical committee's recommendation. Anything else to add to biological sampling? Next; adult survey index; not mandatory or have the pound net fishery collect catch/effort information, including age and length data; anything else? Roy.

MR. ROY MILLER: Mr. Chairman, didn't I hear the AP recommend gill nets and trap nets, I think it was; is that correct, Bill? Bill is nodding his head yes.

MR. WINDLEY: That is correct, Mr. Miller.

CHAIRMAN DANIEL: I wouldn't want to use a gill net survey for menhaden abundance because that is a directed run-around fishery. That is going to be meaningless in terms of catch-per-unit effort. That is just going to indicate what the size of the school is you set on and the selectivity of your net. I think if you want an index of abundance; having a stationary gear, that is the way to go. I would recommend very strongly not even going in that direction with gill nets. Roy.

MR. MILLER: Mr. Chairman, I brought it up not that I favored it, but simply because I was reacting to the AP's recommendation, and I would agree with you in that regard. Thanks.

CHAIRMAN DANIEL: I'm just sitting here trying to think of any other index that we might be able to generate from a stationary gear that could be meaningful and I can't think of anything else. Is there anything else that we want to add to the adult survey index module here?

DR. PIERCE: Just a clarification reference to pound net fishery; this would be a fishery with a pound net directed on menhaden?

CHAIRMAN DANIEL: I don't believe so.

DR. PIERCE: Okay, because, for example, in Massachusetts we have a weir fishery and occasionally a menhaden might pop up, but I would not want to put any effort into collecting that kind

catch/effort information in that particular fishery because it would be meaningless. It would not contribute in any way towards our getting a better understanding of the net fishery itself, the pound net fishery. That's why say a clarification; are there pound nets that direct their effort on to menhaden – well, what is the intent, I guess?

CHAIRMAN DANIEL: I think the intent is that for those states that do have pound net fisheries – I don't think there are any south of North Carolina. I don't know how far north we have the traditional pound nets like we have in Virginia, Maryland and North Carolina. I'm not sure about Delaware and I guess they don't – no, they don't.

We have bait pound, sciaenid pound nets and flounder pound nets. You're probably not going to see menhaden in a flounder pound net, but it might be possible for North Carolina to generate some type of index of abundance based on bait pound landings. We've got very few sciaenid pounds left.

I think it would be a matter of – if we agreed to move forward in this direction, what I would hope would be that we would have the technical committee look at the various pound net fisheries and determine which ones would be appropriate to use as opposed to having somebody go out and be forced to do sampling on a fishery that is probably not going to generate any useful information. I don't think by approving this automatically means you start a sampling program on your weirs and pound nets and then we get into defining a pound net, et cetera, et cetera. That is my thinking. Anything else? Lynn.

MS. FEGLEY: So the pound net fishery; would that also include weir fisheries up north if they encounter menhaden; does pound net also include weir by its nature?

CHAIRMAN DANIEL: No, I don't think so. Weir is a weir and a pound net is a pound net.

MR. GOLDSBOROUGH: I don't know if a trap net is the same thing as a weir, but it sounded to me like a trap net was basically like a pound net but it is floating, and it is what they use up north to target menhaden, right, so wouldn't you want to include trap nets along with pound nets while eliminating the gill net recommendation?

CHAIRMAN DANIEL: But that is not a stationary gear; is it? Oh, it is; so I would just say then maybe states with stationary gear that interact with menhaden and then just cover it all. That way if we come up with another – you know, if channel nets for shrimp end up catching juvenile menhaden, then maybe we could use that as well. If we can make that change and everybody agrees, then we will make that clarification so that if Mark wants to go look at his traps off of Rhode Island, he can. All right, anything else? All right, next – I think we've had this discussion. Terry.

MR. STOCKWELL: Not completely, Mr. Chair. My question to you earlier this morning was out of concern about the limit of scope of options here. From my perspective, Option B essentially eliminates a number of states and/or regions if we go in that direction from future access to the fishery, especially those in the northern area with episodic fisheries.

My suggestion is we add an Option C which would allow for conservation equivalencies as approved by the board. There are a number of adaptive management measures that we in fact use. I think it would give the flexibility to the smaller operations an ability to stay in business. Going through a quota, and if you're looking at some of the states here, 0.2, 0.15 and all, as this quota goes down over the next number of years we have essentially just cut the feet off of some operations. This would give at least the state of Maine an opportunity to participate positively in the upcoming discussions.

MR. FOTE: I missed part of that conversation, but I thought it talked about conservation equivalency. I was going to wait until you got to the thousand pound bycatch, and I was going to make sure because I was reminded the last time I made a motion that allowed for bycatch that if I didn't mean conservation equivalency to be included there, I need to state it when we're doing it today.

I was going to make a motion later that on that thousand pound bycatch, it means a thousand pound bycatch and you're not allowed to use conservation equivalency. I found out what happened to that because it was supposed to be a bycatch fishery and then it turned into a directed fishery. I have some real concerns over that. If you're going to allow for a bycatch fishery, that's fine, and that should be the poundage that we state here as a board and it should not be circumvented.

CHAIRMAN DANIEL: Anything else on Terry's suggestion? Bill.

MR. ADLER: Mr. Chairman, I think on the page with you. I think it was one of the 1 percent things where it could hurt because we have sometimes where menhaden show up, and we just wouldn't want to be limited. If I'm correct, that is what Terry was getting at, so I didn't know what the movement was going to be on that. Was that going to add another or not?

CHAIRMAN DANIEL: I'm trying to figure out how that would work. I guess what I'm trying to see is we have a TAC, I don't know how you would do conservation equivalency if you have a TAC. If we do state by state, it is a non-issue. I'm trying to figure out exactly how that might work, Terry.

MR. STOCKWELL: Well, for lack of better words I used conservation equivalency. I don't know what the proper language would be, but we do have a program with trip limits, gear restrictions and management areas, and it is a very limited scope. The vessels are restricted, the carriers are restricted, the areas are restricted, and some years we catch just a handful of fish and other years the landings are quite significant.

As I look into my cloudy crystal ball at this amendment, I see every state north of New York not having a fishery anymore. How can you ask a fishery to key up or to invest or even think about operating on some of the percentages that are here and what is going to be from my sense a drastically lower number of available fish for commercial harvest in the years to come? It is profoundly unfair and we'll be kicking and screaming all the way through the amendment.

MR. TRAIN: To reinforce what Terry is saying, there are times – and it's an episodic fishery – where the menhaden are so thick in the bays that we've had die-offs. If we don't have the opportunity to harvest them because the fish that was caught off the Jersey Shore was landed in New Bedford and counted in the New England quota and now we are out because the TAC is filled, we're going to have big problems. We're just looking for an opportunity to harvest the fish the years that they're there, and the TACs that we have in this plan will not allow that. There won't be enough.

CHAIRMAN DANIEL: Well, if we go with the simple breakdown of a coast-bait quota and coast-wide reduction quota, then it wouldn't be divided by state or region. It would just be a

coast-wide quota and then it would just be a race to the fish. If we caught the quota, then there would be some allowable bycatch for non-directed fisheries.

At the 1,000, 3,000 and 5,000 level, we might be able to satisfy – I don't know if that would satisfy your needs in Maine – if the 1,000, 3,000 or 5,000 pound trip limit would satisfy you during those times. If it doesn't then you either need to – we either need to do one of two things. We need to increase the amount of bycatch allowed when the fishery closes or else we need to start adding in – we need to go back and counter our charge to the PDT and go back in and add options on how else to reduce harvest as opposed to a TAC. Terry.

MR. STOCKWELL: This is not a bycatch fishery. In our previous conversation about floating fish traps and weirs, we do have a bycatch in those and they target primarily herring and mackerel. There is some menhaden that comes in, but this is a very specific directed fishery in years when there is a lot of fish.

I had two feet of rotting fish in front of my house about 12 years ago. Without the opportunity to harvest that, it is a huge waste of resource and it is completely denying northern New England access to a resource that we haven't had for the last number of years. I would suggest the PDT come – you know, we've provided comments during the public comment period to this effect. There is nothing in here that works for us, so I would request that the PDT go back, scratch their heads and come up with an alternative that would work for the states that have episodic fisheries.

MR. ADLER: Once again I'm in favor of what Terry has been talking about the same reason I'm not going to go into, but isn't there some way that something could be added in that would at least leave the door open other than the Option A one; some way that it could be to cover the possibility, because in our area, when they show up once again, it's a directed – it's a bait-fixed fishery but it is a directed fishery.

It is not a couple of fish they caught in something else when they show; so if there is some way you could – I just don't want it to come back after public hearing, oh, we can't do that because we didn't put it in the addendum or the amendment and we can't do it now. I just didn't want that.

CHAIRMAN DANIEL: I think an Option C; other options would cover Terry's needs and others. What we probably need to do is think about for that New England Fishery, when they have that type of

episodic harvest – I mean, there is a real benefit to having those fish up there particularly for the lobster fishery. We need to be cognizant of that and we don't want to let that go. Is that satisfactory to you, Terry?

MR. STOCKWELL: Yes, thank you, Mr. Chair. One other thought for the PDT to kick around, the AP did recommend the concept of a quota set-aside. We might be able to tease that apart; and then on the years that we don't have access to the fish it could be rolled back into the quota for everybody else. There is a similar mechanism with Atlantic herring. I will follow up with Mike afterwards about this.

CHAIRMAN DANIEL: Okay, anything else? We've got ten minutes or else we're coming back tonight; so if it's that important, raise your hand. All right, next – anybody want to talk about this one? Anybody want to add any options? Next; this is the one where we eliminated Option A, B, and we have Option C and D, and really D is a placeholder to make sure that we have that flexibility in the future once we have an assessment. Any questions or comments about this? Next; this is going to be ugly; any addition options that you want to think about here? Pete.

MR. HIMCHAK: Well, you're right, Mr. Chairman, this could be ugly. I would suggest an Option D where the TAC is to be managed by fishery. I wanted to know if the PDT had any discussion on the relative merits of a metric ton of bait versus a metric ton of reduction landings because of the size selectivity.

This has been brought up at a number of board meetings previously. We brought it up at the subcommittee when the subcommittee of the board met. This was to be a formal charge to the technical committee to give the board guidance on – because every option that follows is under the assumption that any reduction is going to be divided uniformly bait fishery and reduction fishery.

Now, should it be weighted towards one or the other, I don't know, but I would like the technical committee to give me some guidance. In other words, if there is a 20 percent reduction on the TAC, everything here says 50 percent bait and 50 percent reduction. But, if you look at it is more important to leave more smaller or younger fish in the water than older bait fish, there could



be biological implications for rebuilding SSB. Again, we discussed this and you were going to ask the technical committee for guidance so that we would know by the annual meeting if the reduction should be applied in some kind of a proportion. This has been brought up at previous board meetings by more than myself.

CHAIRMAN DANIEL: Well, I would think if you wanted to rebuild SSB as quickly as possible you would want to protect those larger bait fish; right?

MR. BRUST: It is not a linear question. I think the bottom line is that, yes, the technical committee could look at this. I'm not convinced that we could give you an answer that would be too helpful because there are a lot of uncertainties. We'd have to know the selectivity pattern. Right now we're using that flat-top selectivity.

We think it's probably dome-shaped, but how much doming we don't know, so we need to figure out the selectivity pattern. We might have to do some projections to see what happens if we do one or the other. As you know, right now our projection methodology has some uncertainty in it. I think we can certainly look at it and provide something back to you. I don't know if it's going to give you the answer you're looking for.

MS. FEGLEY: Mr. Chairman, I think the tables in question here are the ones – it's Tables A.2.5 that outlines the allocation between the bait and the reduction fisheries. I think the allocation scenarios now in there are really restricted to the 80/20 percent, which reflects the fairly narrow window of time over the last few years and doesn't necessarily reflect many of the social and economic concerns that are stated in the amendment, the high-value lobster fishery, the high-value crab fishery, the many, many coastal communities that rely on the bait fisheries.

In addition the projections that we all looked at, which are now gone, were based on 25/75 percent. There is also some language in the assessment update that states that the bait fishery was 28 percent. It is on Page 6 of the assessment. I think that we would be doing the public a disservice by not allowing the public to comment on a forward vision of this fishery which may not be the same as it has been over the last seven years.

**I'm just going to go ahead and put a motion up there to add rows to tables to A-2, B-2 and C-2 that add a bait 30 percent/reduction 70 percent; a bait 40 percent/reduction 60 percent; and a bait**

**50 percent and a reduction 50 percent for public comment.** Thank you.

CHAIRMAN DANIEL: Is there a second to that motion? Second by Pete Himchak. Does everybody understand what we're doing here; not just looking at the historical bait/reduction allocation but looking at the future and looking at the potential bait shortages that may arise due to endangered species issues, additional bait needs, et cetera. We're going to add a 70/30 split; a 60/40 split; and a 50/50 split to the other allocations. Kyle.

MR. SCHICK: Why don't we just go ahead and put an amendment in there to get rid of the reduction industry?

CHAIRMAN DANIEL: Is that a motion?

MR. SCHICK: I mean this is a question; is that what people want?

CHAIRMAN DANIEL: I don't believe so. I think the intent – basically the discussions that have centered around the board and the comments that we're hearing is these reductions – if you have a hundred thousand metric ton quota and the bait industry gets 20,000 tons and that is not enough to meet the bait demands for the blue crab fishery and the lobster fishery, then we're really boxing ourselves in with the bait fishery.

The concern there is that if we do have – for example, if river herring were listed as an endangered species or a threatened species and that disrupts the supply of bait from the Atlantic herring fishery, that could have tremendous ramifications to New England and the lobster fishery, and it would be my belief that the lobstermen would be far better able to out compete the southern blue crab fishermen for bait as result of the increased prices.

I think there is a real concern and I think it's a valid concern that bait shortages could have far more reaching economic impacts coastwide than to the reduction fishery. That is just my summary of the things that I've been told and that I've heard. It has very little impact on my state at this particular point in time, but that I think is the intent and purpose behind the discussion that we're having right now. Pete.

MR. HIMCHAK: That was not my intent. My intent had nothing to do with socio-economic issues. My intent was to ask the technical committee if there was a biological advantage to leaving more older fish in the water or leave more younger fish, more forage fish at ones and twos that can spawn three, four and five times or take out the older fish that are valuable as bait. I'm looking at this as purely a biological question. I think it is a valid question. If the technical committee comes back and says, well, we don't see the benefit of one or the other, then I would agree that any reduction should be shared equally between the two fisheries.

MR. TRAVELSTEAD: Well, I don't think it matters which way you argue it, whether it's socio-economic or biological, what you're ultimately getting at is eliminating the reduction fishery from the east coast. It's as simple as that. Any one of those options and Reedville disappears, and I just cannot see how you can possibly justify this.

I mean I hear everybody around the table talking about, hey, this fishery really needs to be cut back. You're willing to include options of cutting it back by up to 50 percent and at the same time everybody is speaking up about what can I do to get my bigger share of the resource, more than what I have now.

We're going to allow Maine to have more fish because they might show up in a future year. Well, Maine used to have years where they caught 400 million fish. I'd like to have that, too. I thought this was all about trying to reduce overfishing, and now you're just simply trying to drive a company out of business. I can't buy it.

CHAIRMAN DANIEL: Any additional discussion on the motion? The motion is to add suboptions for A-2, B-2, C-2 the following reduction and allocation scenarios of 70/30, 60/40 and 50/50. Do you need to caucus?

(Whereupon, a caucus was held.)

CHAIRMAN DANIEL: I have been requested to do a roll call vote. That will give some of you a little more time, but not Maine.

MR. WAINE: Maine.

MAINE: Null.

MR. WAINE: New Hampshire.

NEW HAMPSHIRE: Yes.

MR. WAINE: Commonwealth of Massachusetts.

MASSACHUSETTS: Yes.

MR. WAINE: Rhode Island.

RHODE ISLAND: Yes.

MR. WAINE: Connecticut.

CONNECTICUT: Yes.

MR. WAINE: New York.

NEW YORK: Yes.

MR. WAINE: New Jersey.

NEW JERSEY: Yes.

MR. WAINE: Delaware.

DELAWARE: Yes.

MR. WAINE: Maryland.

MARYLAND: Yes.

MR. WAINE: Potomac River Fisheries Commission.

POTOMAC RIVER FISHERIES COMMISSION: Abstain.

MR. WAINE: Commonwealth of Virginia.

VIRGINIA: No.

MR. WAINE: North Carolina.

NORTH CAROLINA: No.

MR. WAINE: South Carolina; not there. Georgia.

GEORGIA: Yes.

MR. WAINE: Florida.

FLORIDA: Yes.

MR. WAINE: National Marine Fisheries Service.

NATIONAL MARINE FISHERIES SERVICE: Yes.

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

U.S. FISH AND WILDLIFE SERVICE: Yes.

CHAIRMAN DANIEL: **All right, the motion carries with I believe two opposed.** Mr. Adler.

MR. ADLER: I understand that this also keeps in the proposal for an 80/20 as well.

CHAIRMAN DANIEL: Absolutely; all the other options are still in the document and most of them are in that 79 to 81 percent range, so those are all good. We have run out of time, so we will have to find a time to come back and complete this before the end of the week. We've got a lot of folks who have been waiting in the audience for a long time.

I'm going to go into recess at this particular point in time and just be prepared to come back and finish up at some time; hopefully not tonight, but I don't know when we're going to do it. We might have to do it early tomorrow morning, but I'll talk with Paul and we'll come up with something to discuss after the policy board.

(Whereupon, the meeting was recessed at 4:48 o'clock p.m., August 8, 2012, and was reconvened at 6:00 o'clock p.m., August 8, 2012.)

CHAIRMAN DANIEL: All right, we're going to go ahead and get started with the Menhaden Board and try to get done. We need to move along as rapidly as we possibly can. I think we're at transfers; is that correct? Doug.

MR. GROUT: **I did have one thing under 4.2.1.3 that I would like to put a motion forward to add an option in here. This is under the TAC allocation, and I would like to move under Section 4.2.1.3 – add an option that would state, “Any TAC allocation for a fishery, region or state adopted will be revisited and may be modified by the Menhaden Board.”** I have suboptions under this that it would occur in three years from FMP implementation or five years from FMP implementation. If I get a second to this I would like to speak to this.

CHAIRMAN DANIEL: Second from Lynn Fegley. Doug.

MR. GROUT: I've heard at this commission over the past few years that when state-by-state quota

allocations have been made and fisheries change over the years, distribution of fish change over the years that certain states have had difficulty staying within their quotas; and if there is a change in distribution, a change in fisheries, I would like to provide the option here – particularly since this is the first time we're going down the road of a TAC allocation, whether it be between states or regions, I would like to give the option – require the board to go back and revisit it, look at it and see if it's still appropriate in the future and have a time certain on those things for revisiting.

CHAIRMAN DANIEL: All right, it could solve some problems in the future. Any discussion on Doug's motion? Seeing none, is there any objection to just adding this in the document. Bill.

MR. GOLDSBOROUGH: I hope this is simple, Mr. Chairman; just clarify the mover's intent that this review would also include the no allocation option if indeed we chose that.

MR. GROUT: Yes, I'd agree to that.

CHAIRMAN DANIEL: Okay, that was simple. Anything else? I'll read the motion: Under Section 4.2.1.3, to add an option that any TAC allocation by fishery, state or region adopted will be revisited and may modified by the Menhaden Board, with suboptions for three to five years from FMP implementation. Motion by Mr. Grout; second by Ms. Fegley. Any discussion? Any objection to adding that to the document? **Seeing no objection, the motion carries and we will add that to the document.** The next item, the next group is Issue 5D, quota transfers, I believe. Correct me if I'm wrong now, but I think we're on quota transfers.

MR. BALLOU: I'm sorry, Mr. Chairman, but if your contention is that we're already on to quota transfers, which is Issue 5D in the cheat sheet, I guess I'm not sure that we had gone over all of the breakouts of the various allocation formulations or whatever we're calling them, Suboptions A through C on the two pages that precede that. I'm sorry if I'm out of order; I just wasn't sure that we had actually completed that review. If we have, then I'll defer to you.

CHAIRMAN DANIEL: I don't think we had to review it. I think that we agreed I believe to

move forward with those various options, but we didn't review the specifics of those options.

MR. BALLOU: So if I could, I think my comment which I had been prepared to offer has been allayed or addressed by Terry Stockwell's addition of an Option C under Issue 5; that is, other approaches being allowed; my point being that under the various breakouts of the allocation formulas, which included a state-by-state option, it puts Rhode Island in an awkward situation in that we would likely fall somewhere in terms of our preference between a state-by-state option and a regional approach.

The regional approach puts us in a big region from Maine down through Connecticut, I believe. My question is, is there room between those two for a smaller breakout region if that is the approach that we think makes the most sense; and by that I'm thinking of a southern New England region, perhaps, or even a bi-state approach working with Massachusetts.

The quick short story here is that the majority of our menhaden fishery takes place in Narragansett Bay and Rhode Island waters, but they're landed in Massachusetts. We have to figure out a way, because we want to preserve that and protect that fishery, to be able to have an option that would allow for that. It doesn't really jump out in the way presented unless the board feels comfortable that we could find room between the state options and the regional options.

I don't need to parse it anymore; and actually given Terry's proposal, which I believe the board adopted as an Option C for some other approach, maybe that's the place where we can park our state program. We want to preserve Rhode Island's current program which involved a very well-managed menhaden fishery that has almost all of it landed in Massachusetts. I'm just concerned that the document as currently framed doesn't really provide an avenue unless the board feels that there is plenty room; and if so, given the hour I won't pursue the issue. I'll just leave it at that. Thank you.

CHAIRMAN DANIEL: I think you're okay. I don't think you have to worry about that being off the table or not being something that you can pursue in October.

MR. BALLOU: I'll take your word; thank you, Mr. Chairman.

CHAIRMAN DANIEL: It is on the record. All right, the issue is the quota transfers. Basically we have two options; no transfer of individual state

quotas or allow transfers. Anything else on quota transfers? It's pretty straightforward. Next is quota rollover. I'll see if there are any comments on it first before I offer any. Adam.

MR. NOWALSKY: Mike, can you comment specifically on the changes that the PDT drafted, how they would specifically differ from what exists in the document, so we can determine what the best course of action would be with them?

MR. WAINE: The changes that occurred in this section were that for Option D, the transferred quota may not be rolled over. It had originally said a region/state but the transfer quota option only applies if the board selects a state allocation scheme, and therefore that option now just reads a state as opposed to a region or state. I don't know if that clarifies it.

MR. HIMCHAK: Mr. Chairman, I was going to bring this up during spiny dogfish meeting. As it stands now within commission plans, I believe the only commercial quota that can be rolled over is spiny dogfish. It was attempted through striped bass, an addendum on the commercial quota; and when that was defeated, that was at the Newport, Rhode Island, meeting.

There was discussion – I think it was led by you, Mr. Chairman – that the commission may have to come up with consistency on when a rollover is allowed and when it shouldn't. The only rollover that I'm aware of besides spiny dogfish is the cap in the Chesapeake Bay reduction landings, but that's a cap so that's not the same thing. But, when you start talking about rebuilding and trying to constrain F and reduce landings, rollovers of quotas don't seem to be an advisable course of action.

CHAIRMAN DANIEL: Well, the comment I was going to make, Pete, was rolling over in an overfished condition. It would seem to me that if we are overfishing or overfished, that we wouldn't allow rollovers anyway. I mean we never have. But if you're not overfished and overfishing is not occurring, then it is problematic and it is inconsistent with the way we handle it; not doing it for striped bass but doing it for dogfish.

I think we need to have the flexibility that this suite of options gives us, but I think we also – I can't remember when we did it or if we've even

done it yet, but we're looking at changing the percentage of rollover on dogfish and bumping it up. Why would we constrain ourselves to the same percentage here that we're now trying to bump with dogfish?

It would seem like to me that we could say a maximum of a specified percentage and not designate 5 percent and lock us into that. That would be some suggestions, but I don't think that we've ever – I don't think any board has ever authorized a rollover for a stock that is overfished or overfishing occurring. This would be framework more than anything. Are there any other comments on that or anything else we need to add to this section? Terry.

MR. STOCKWELL: Mr. Chairman, you just made the exact comment I was going to make. If there is concurrence from the board to amend the language in Option E, that would be a positive.

CHAIRMAN DANIEL: Is there any objection to amending the language in Option E that we don't set a specific percentage and have that be set by the board when the opportunity arises and make it clear – I think it needs to be clear in the public hearing draft that we would not allow rollovers if we were overfished or if overfishing was occurring. Is there any objection to making those clarifying statements? Bill Adler.

MR. ADLER: All right, does this mean that if your unused quota, including transferred quota; does that mean if you get a transfer of a quota from someone else to your state and then you roll it over – because I can't see that, but I can see if you had unused quota in your own system, that you should be able to roll it over provided let's say you're overfished.

I do agree to take the 5 percent out. When I'm looking at these options here, I say quotas may not be rolled over – okay, a hundred percent quota, unused quota, it does not specify rollover – where in there does say that you could choose just the unused quota – never mind the transfer stuff – that you could roll over the unused quota and is that in among these options that you could pick from or do you have to have the transferred quota tacked on or not?

MR. WAINE: Option B would essentially cover that, but all it says is that it doesn't specify whether transferred quota could be rolled over or not, but it does specify that unused quota in the jurisdiction of interest could be rolled over.

MR. ADLER: And if I may, but you could cut off the transferred part; it's there?

CHAIRMAN DANIEL: That's correct. Doug.

MR. GROUT: My only thing is I want to get a clarification on the record when we're talking about rollovers from one year to the next, that if you don't use your rollover from one year to the next, you can't roll over that rollover again?

CHAIRMAN DANIEL: No double rollovers.

MR. GROUT: No double rollovers, folks.

CHAIRMAN DANIEL: Right. All right, anything else? Adam.

MR. NOWALSKY: Mr. Chairman, with your clarifications to Option E, I'll ask that Options B and E be revised as per the AP document and as drafted by the PDT.

CHAIRMAN DANIEL: Okay. Does that make any substantive change to it?

MR. NOWALSKY: Based on what I heard from Mr. Waine, I don't feel it did. It clarified the language.

CHAIRMAN DANIEL: All right, and we're going to give staff the opportunity to make editorial changes as necessary. Anything else on quota rollover? Yes.

ACTING EXECUTIVE DIRECTOR BEAL: Not on quota rollovers but back on quota transfers, but a quick thing that may help Terry and some of the states out is if an option was added to allow quota transfers between regions with board approval, if fish are in one region but not in another in a given year and the board has some flexibility to move those fish around within year, it may provide some flexibility that the board could use or at least something that can be explored during the public hearings.

CHAIRMAN DANIEL: Okay. Anything else on quota rollovers? Quota payback; anything there? Adam.

MR. NOWALSKY: The same comment with regards to AP requested revisions.

CHAIRMAN DANIEL: Okay; and that is just making things clearer. All right, anything else? Next is bycatch allowance. Tom.

MR. FOTE: I'd just like to add an option in there that says that you are not allowed to use conservation equivalencies on bycatch.

CHAIRMAN DANIEL: That is just stuck in your craw; isn't it?

MR. FOTE: It is.

CHAIRMAN DANIEL: Okay.

MR. FOTE: And I was told that would have to be put in to make it stick.

MR. TRAVELSTEAD: How do you enforce a percentage bycatch quota and actually end up saving fish?

CHAIRMAN DANIEL: You don't.

MR. TRAVELSTEAD: Then it seems to me you get back to the dock, you've got to weigh everything, calculate percentages.

CHAIRMAN DANIEL: Yes, it is a horrible mess.

MR. TRAVELSTEAD: I don't see that as being workable at all. It is going to be hard enough to enforce the actual poundages in the B options. You take a pound netter who might catch 10,000 pounds of fish in a day, he is not going to know if he is over any one of those numbers until he gets back to the dock and starts sorting through his catch.

I mean, an experienced guy will have some feel for what he has, but if he is – you know, he might have a thousand pounds more than he is supposed to and then what do you do? I don't disagree with bycatch allowances at all, but in this case in these indirected fisheries like pound nets, it is going to be hard to enforce any particular number or percentage.

CHAIRMAN DANIEL: Well, I think, too, you've got to look at the value of the product and there would be a lot of effort going into a hundred dollars worth of menhaden.

MR. TRAVELSTEAD: It seems to me you would want to set the number – set it in pounds and set it so high that there is no chance that the guy is ever going to catch it so he doesn't have to worry about it, but he knows he is not going to get a ticket for it either.

CHAIRMAN DANIEL: Do you mean set the percentage so high?

MR. TRAVELSTEAD: No, the number, the poundage.

CHAIRMAN DANIEL: Because what we've done in North Carolina is we do 50/50 and that is pretty easy to eyeball. If you're using a shrimp trawl, 50 percent of your catch has to be shrimp. You can't use a shrimp trawl as a proxy for a fly net south of Hatteras. The 2 percent and the 5 percent would be extraordinarily difficult to enforce. I agree with Jack.

But the 50 percent, that's the way we've done it and it has worked well for us and that avoids directed. I can't imagine anybody is going to direct on one, two, five thousand pounds of menhaden, but they might if the price gets up high enough. What is your pleasure? We can modify the one, two, five; we can add additional options there and we can retain the two, five, and ten or we can add to that or we can take them out, but we do need to make some decisions fairly quickly. I don't want to rush it but I also don't want to get up at six o'clock to come in here in the morning at seven.

MR. AUGUSTINE: It sounds like an enforcement nightmare. Did we did talk to enforcement about it at all? If it's going to be an enforcement nightmare, I would suggest we remove C and be done with it.

MR. STOCKWELL: In the spirit of moving on, I'd leave them in and take them out to public comment. Industry is going to comment. We can cull them out in October.

CHAIRMAN DANIEL: That's fine. Would there be any objection to the board of adding a 50 percent option? Would that be satisfactory to everybody? David.

MR. SIMPSON: And along those lines probably a high number or poundage to cover the range of options. To Jack's point, this is sort of a trawl fishery, you get 2,000 pounds of sea herring when you're mackerel fishing or when it is closed, and I'm not sure it fits for menhaden.

CHAIRMAN DANIEL: It will; it could really resolve us a lot of problems in some small-scale fisheries. Obviously, the purse seine fishery is not going to go fishing for 5,000 or for 10,000

pounds and probably not for a 100,000 – well, I don't know. Without objection, maybe we would add the 50 percent option and then add a 10,000 pound option. Does that freak anybody out? Roy.

MR. MILLER: I'm sorry, Mr. Chairman, I'm not comfortable with adding the 50 percent option. It sounds to me like a directed fishery.

CHAIRMAN DANIEL: All right, we would need a motion to do that, then. Pete.

MR. HIMCHAK: Mr. Chairman, we usually either use 10 or 20 percent of the salable fish that are landed would be the cap on the bycatch.

MS. CATHERINE DAVENPORT: As someone who packs pound net fishermen, you don't know what is going in that net. It might be menhaden one day and it might be food fish another day. Then you might have a day where you've got such a mixture of stuff you don't know what the heck you've got. I pack them on a daily basis. You're going to have to set it a high enough level that it is not going to penalize somebody just because a fish goes into the net. If you've got your net set there, that's where you're going to get your fish.

CHAIRMAN DANIEL: Well, we don't have a consensus to add either 50 percent or 10,000 pounds; so if there is an interest in doing that we need to either make a motion or move on. Jack.

**MR. TRAVELSTEAD: I'll move that we add a 10,000 pound option and a 20 percent option.**

CHAIRMAN DANIEL: Second by Mr. McElroy. We're looking to add a 10,000 pound and a 20 percent option to the bycatch allowance issue. Motion by Mr. Travelstead; second by Mr. McElroy. Any discussion on the motion? Is there any objection to the motion? **Cool, so ordered.**

ACTING EXECUTIVE DIRECTOR BEAL: Just real quick; the board can select these in combination. In other words, they can select a poundage and a percentage and not just one or the other, right?

CHAIRMAN DANIEL: Correct; we'll clarify it. If we wanted to go 10,000 pounds and 2 percent, you would have to have a million pounds of – but, anyway, yes. All right, the next issue is Chesapeake Bay Reduction Fishery Harvest Cap. I think that covers the options. Adam.

MR. NOWALSKY: Before we go on to that, there was the request and this specifically came I know

from constituents in my own state to add another section, which would be Issue 5H, specifically Section 4.2.1.8, for a set-aside for the total allowable catch with two options, Option A, no allowance of a quota set-aside; Option B, a specific percentage or poundage of the TAC may be set aside for small-scale traditional fisheries.

The set-aside amount may be chosen by the board during annual specifications and is subject to an analysis of fishery receiving a set-aside. This option would be available provided adequate monitoring existed in the fishery receiving the set-aside.

I just read that for everyone's benefit here. That was the PDT-drafted language. That was something that was brought up again specifically by the constituents from my state and would request that it would be put in in some form of what I read.

CHAIRMAN DANIEL: Is there any objection to adding that to the public hearing draft? A.C.

MR. CARPENTER: Not an objection but a question; what is the definition of a small-scale traditional fishery? I think we may need some clarification on what qualifies as that, but other than that I don't have a problem with it.

CHAIRMAN DANIEL: All right, I think we can define that as we go. Is everybody okay with that? Okay, the next item is de minimis. Jack.

MR. TRAVELSTEAD: Mr. Chairman, you skipped over the Chesapeake Bay stuff, right?

CHAIRMAN DANIEL: I'm sorry, yes, I did. Jack.

MR. TRAVELSTEAD: I guess I'm wondering if there should be caps on other inland waters of water bodies. If there is the potential for significant changes in the fishery and reallocations away from the reduction fishery to bait fisheries, for instance, you could see significant increases in harvest in some of these areas; you know, Delaware Bay, Long Island Sound and North Carolina Sounds, Narragansett Bay. I'm wondering if we should add an option and seek some technical guidance on whether or not caps in those water bodies might be necessary.

CHAIRMAN DANIEL: I think as a placeholder we can do that. Right now I guess we can't really say; but you're right, if there is a shift in the allocation, if some of these options go forward, there will be, it sounds like to me. I wouldn't have an objection to adding an option in there that the board would be able to further refine area caps as needed or water body caps as needed.

MR. TRAVELSTEAD: Even if it was just added to the – what is the section in the back of the document – adaptive management measures.

CHAIRMAN DANIEL: We could do that, too. Is there any objection to doing that, add it to the adaptive management section, specific water body caps? Tom.

MR. FOTE: I just think of states like I'm looking at Raritan Bay between New York and New Jersey. New York has one set of rules on how you can fish menhaden in their state, and New Jersey has another set of rules. We allow purse seining and they do not, so it complicates it. I think Long Island Sound has similar and Delaware Bay. Those regulations are made by the Delaware Bay Commission and Potomac River and Maryland make it on the Potomac River. I think it is really state issue. I'm just trying to think because most of the time that's how it is decided.

CHAIRMAN DANIEL: Anything else on the options for the Chesapeake Bay Harvest Cap?

DR. PIERCE: Regarding the status quo, with 2013 being the final year for the cap, have we any plan to evaluate the cap as it stands right now? In other words, this board spent many hours, many days, many meetings, controversial meetings dealing with this cap; and we put it in place so that it would go through 2013. Do we have any already determined evaluation of the effectiveness of that cap, whether or not the number the number that was selected was appropriate? I'm unaware of any expected evaluation of the success of the cap.

CHAIRMAN DANIEL: Well, I think you just have to look at the stock assessment, which is not as informative as we would like it to be right now. We may be able to glean something from the new benchmark on what the impacts of that was, but I don't believe it ever constrained the harvest. That may have; I'm not sure. It seems to me to be a moot point.

If we're going with the TAC allocations and we do whatever it is we do, reduction and bait or state by

state or whatever, I personally don't see the need for a cap other than the coast-wide quota. Others may feel differently, but I have no concept of what the cap has done for menhaden management. Is there anything else on the Chesapeake Harvest Cap?

If not, we will move on to de minimis now and try again. We've got basically two options; do not establish de minimis criteria and then do basically two options, greater than 1 percent – or not greater than 1 percent or not greater than 2 percent as the various alternatives. That is fairly consistent with the way we handle de minimis in other FMPs. Lynn.

MS. FEGLEY: Is there any reason – because we have an option included that is no allocation at all, which is a viable option; is there any reason why we don't have a de minimis criteria that is consistent with that so it's de minimis on a coastal scale rather than the fishery scale? It seems like we have de minimis by sector essentially, but then we have an option that says there may be no allocation at all among sectors. So then your de minimis criteria would be by sector, but there is no allocation by sector, so I'm just wondering if that is not something we should consider adding.

CHAIRMAN DANIEL: It is up to you. I mean, I don't think you need it. All right, anything else that we need to do on de minimis? Next is the plan requirement if de minimis is granted. It basically lays out exempted from biological sampling but adhere to the timely quota monitoring and exempted from biological sampling but still submit annual landings. Is anybody going to apply for de minimis? Anything else that we need to add there?

Okay, and then the final item is complementary action in federal jurisdictions. I'm not sure if there are any actions that we need to bring up at this point. Keep them out of it as best we can. All right, I guess what I'll need is a motion to approve the public hearing draft as modified by the board. But before I do that, I am going to raise one point that is going to cause a lot of groaning.

We've made a lot of changes. There is a lot of stuff in here. Are we comfortable approving this document with no further review or do we want to have some level of review; do we want to charge the subcommittee that I established at the



last board meeting to review it? I personally feel very uncomfortable approving this document right now and not seeing it until it hits the street. Just keep that in mind, but I'll accept a motion to approve it for public hearing or discussion on further review. Jack.

MR. TRAVELSTEAD: Well, I'm not prepared to make that motion yet. I share a lot of your concerns. We've put things in here today that were not a part of any previous documents we've seen, and there are significant issues. We've asked for a lot of additional wordage to be put in here by staff. I'd like to see it one more time before we approve it to go out to public comment. Can staff tell us that can be done between now and October? I'm not saying we need to wait and look at it in October, but how quickly can it be done so we can take another look at it?

ACTING EXECUTIVE DIRECTOR BEAL: Well, not commenting on how quickly the PDT polish this up – there is a fair of work there – but the time between this meeting and the annual meeting is shorter this year than usual because we're meeting in the third week of October versus early November as we do sometimes.

The public comment requirements for an amendment are the document has to be on the street for 30 days before the first hearing. We've got to hold all the public hearings and then the public comment period has to be open 14 days after the last public hearing. That is a minimum of 30 days before and 14 days after and then at least two to three weeks to hold the public hearings. That's about nine weeks or so of time. That's about how much time we have between now and the October annual meeting. There is not a lot of time to rework this document and get it out on the street and get that 30-day clock running.

Another layer of review; if the board wants to do it, that's fine. It's just going to be a really cramped timeline. We're going to have to get the PDT to polish this up in literally a week and a review by the board pretty quickly after that. It is going to be tight one way or another. The subcommittee may be an option, but there are a lot of things in here that all the board members may want to look at.

CHAIRMAN DANIEL: What is your pleasure? Bob.

MR. BALLOU: Bob, in response to what I just heard you saying, the way my brain was going as you were talking is it is going to be tough to get this document revised per today's board session, out to public notice, public hearings conducted, everything back

and before the board for the annual meeting. In other words, if that's the plan I'm wondering out loud if that's asking too much and that therefore it might be necessary to bring this back before the full board in October and then commence the public hearing process.

ACTING EXECUTIVE DIRECTOR BEAL: Yes, and the other important step I forgot in there is the compilation of and the summary of the public comments that we receive. If the PDT is any addition where we got 90,000 comments, that is not an insignificant job for Mike to do. He has given up a lot of weekends already just pulling the document together.

But, you're right, Bob, mathematically it's tight. Even if the document was done and out on the street Friday of this week, it is pretty tight and there are not a lot of days left over to summarize the comment and get it to the annual meeting. The timeline that the board originally set up was to get this done at the annual meeting to feed into the Virginia State Legislative Schedule.

Postponing that and with final approval at the February meeting, the Virginia State Legislature would already be in session and more than halfway through their session, actually, so the board is going to have to consider that timeline. I don't know if Jack would want to comment on the legislative schedule.

I'd have to look at the budget; is there a meeting outside of the October meeting week when we can get the board back together. It's expensive to get everybody in the same place. Given how today has gone, it is going to take a full day to pick through these options and make final decisions. These aren't light decisions; they're pretty heavy stuff. We may have to be creative and think of a way to get everybody together maybe outside of a normal meeting schedule.

MR. FOTE: Mr. Chairman, we have a joint meeting with the Mid-Atlantic Council December 14<sup>th</sup> to do the scup, black sea bass and all that. A lot of us come in for that meeting, anyway, from Massachusetts down to North Carolina. It wouldn't be that much more expensive maybe to get at least some of them meet the day before the Mid-Atlantic Council.

We could meet the day before we have to do black sea bass and scup and do on the 13<sup>th</sup>. I'm just throwing out an option and this way we

could get it done in December, which give Jack the time before the legislature. How does that sound to you, Jack?

MR. TRAVELSTEAD: It's possible. I think the final day for submitting legislation during the next session is like January 15<sup>th</sup> or 20<sup>th</sup>. It is a short session so it will be over by the end of February. It goes very quickly.

DR. GEIGER: Mr. Chairman, everything screams to me that we need to review this again and review it very carefully given some of the implications; and given what Mr. Beal just talked about, if we had it done today and bring it out, it would be still very, very tight. My sense is this issue demands that we all review this again to make sure we're comfortable with that document based upon the information that we heard this morning.

I think that would be in the best interest of all of us including the commission to do that. I don't know what that does to Jack's situation. We're still going to have a meeting in February. My sense is we can still approve this at the annual meeting and go through that process – well, no, I guess we can't, Bob.

We will not be able to do it in February then, so then we have a real conundrum based upon what Bob just laid out in the schedule unless we approve this with a conference call before the annual meeting and then started the process, which would then be ready by the February meeting. Thank you, Mr. Chairman.

ACTING EXECUTIVE DIRECTOR BEAL: I think review and approval of this via conference call in a few weeks, whenever, may be an option and then a meeting either on the shoulders of the Mid-Atlantic or another independent meeting may be an option that can be considered. I think if you wait until our annual meeting to review and have final approval of this is going to put you back. You've got the holidays in there and the public comment period is going to get pretty tricky, and it's going to be, I don't know, next to impossible to have this approved by the January 15<sup>th</sup> Virginia deadline, for sure.

DR. PIERCE: Well, I, like many people, have had every expectation that we would vote to approve a final document – adopt the options, adopt what needs to be adopted at our annual meeting, so I would urge that perhaps the Chair working with staff develop a strategy that would enable us to do that. Going beyond the annual meeting to approve all of the final measures seems to me to be just a grave

mistake in light of all the effort we've put into this document. In light of the fact that we are overfishing, that it is likely that we are overfished, we do everything possible to provide Jack with a document that can be provided to his legislature in a timely way and not create a situation where no action can taken because we missed that very important deadline that he has for himself. I would oppose any strategy that would bring us past the annual meeting for final decisions.

MR. CARPENTER: It is beginning to sound to me as if the best course of action is to give the staff the time to fix this document – and it is going to take them a week or so, even two weeks – have a conference call shortly after that to okay it to go to public hearing. You're not going to make the October annual meeting, but you'll certainly be able to hold the public hearings in October and November and meet the mid-December Mid-Atlantic meeting and we will just have to tie in with that one. That seems to be the most – and that's where we'll make our final decision. It's unfortunate that we can't make it at the annual meeting, but the mid-December Mid-Atlantic meeting I guess is the best option we've got to look at right now.

CHAIRMAN DANIEL: All right, I figure we've got – when is the annual meeting?

ACTING EXECUTIVE DIRECTOR BEAL: October 22<sup>nd</sup>, Louis.

CHAIRMAN DANIEL: We've got 11 weeks. I figure we've got 11 weeks between now and the annual meeting and we need 9 to satisfy the various timelines. Is it ten – so ten weeks. I can't speak for staff in terms of how much time it is going to take them to get this thing ready to go. Your turnaround time would be one day to be able to review it. We could do it through the subcommittee or the full board. The full board would be a nightmare conference call.

We can maybe add one or two people to the subcommittee if you felt it necessary, but then have that subcommittee approve, on behalf of the board, the public hearing draft and then give it the notice that it needs and scramble on the public hearings. Now, is there any requirement – I mean, what if we had regional public hearings to minimize the number of – I'm sure everybody is going to say they want an individual state meeting. If you really want to try to make the

annual meeting, it is going to be a bear to meet the annual meeting.

ACTING EXECUTIVE DIRECTOR BEAL: Louis, one thing we can do is compact the time of the public hearings by having multiple staff kind of scatter around the coast and do as many as we can. Toni and Mike and I can do those hearings up and down the coast. We may have three hearings on Tuesday night, one in Maine, one in South Carolina and one in North Carolina; who knows. That's the one variable we have in this is the length of time that the public hearings occur. The 30 days beforehand and the 14 days after, those are set. The other variable is the time to compile the public hearings.

CHAIRMAN DANIEL: So that is Option 1. Option 2 is the December 14 or some time around the December 14 timeframe for the Mid-Atlantic Council. That would be the last option I think we could satisfy to meet the Virginia Legislature deadline. Then the other option would be to just do it at the February meeting. I don't know if there is another option or not, but those are the three I can come up with. Pat, have you got another one?

MR. AUGUSTINE: Well, why not just get a show of hands of the states that could conduct the public hearings ourselves as opposed to having staff get involved and then try to get those moved forward as fast as possible, cluster them even though they're in individual states, and then go from there.

I know in our case we can run it, can't we, Jim, and I imagine others can do it. I think the idea is to try to save as much time from staff as we can to get us to that date. I think the real commitment is do we want to get it in place for 2013 or for again the Virginia Legislative Session. This is our great push and it seems to me we have to pull all the stops out.

MR. GROUT: Given also the potential of the public hearing comment that staff is going to put together, my suggestion would be a subcommittee reviews the final draft for public hearing, approves it, then we go to public hearing, give staff time to pull together all the public comment on this and shoot for a December meeting with the exception – I'd like to hear from Bob as to whether we even have the money to do that.

That's a key thing because you're talking about bringing everybody from Maine to Florida together in Baltimore. Do you have any feeling for whether that is anywhere in the budget, because I don't think we've budgeted for this?

ACTING EXECUTIVE DIRECTOR BEAL: We didn't budget for that. I'm looking at the Menhaden Line and there are a few dollars left over. The good thing with the Mid-Atlantic Council is the states from Massachusetts through North Carolina will already be in Baltimore at the joint meeting with the Mid-Atlantic Council since our Summer Flounder Board will be there.

It is only the two northern most states and the three southern most states that won't be there. There are a couple of representatives that – like Louis doesn't usually attend the Mid-Atlantic, Chris Batsavage does, does there are going to be a few folks that are different. Hopefully, if folks are thrifty with their travel dollars and it is in Baltimore, we can use the remaining Menhaden Line money to cover that, but it will be tight.

MR. STOCKWELL: We've been beating this around all day long. In order to give all the work we've done and to help satisfy the public's expectations, I think we owe it to ourselves to let staff do the work to modify the document. I'm uncomfortable with just a subgroup reviewing it. There are issues in the document that are important to us that I'd like to personally review.

Then defer until a point where you, Mr. Chairman, and Bob can work out a schedule in a couple or three weeks of what would be the most time-efficient and expedient and cost-effective that will satisfy Jack's needs. I don't think we're going to figure it out tonight. Unfortunately for Mike menhaden isn't the only species he works on. We've got an important shrimp addendum coming up, so we've got to be judicious his time and do this amendment well.

CHAIRMAN DANIEL: I don't think I understood that. We have the December meeting so when do we get everybody together to approve – if we're going to have everybody review the document, when in the world are we going to do that and give us enough time to meet all the statutory requirements for public notice? If we do it at the annual meeting, we're not going to have time to meet the December 15 – we'll have an even shorter timeline between the October meeting and December 14<sup>th</sup>. I don't think that's possible. I can put you on the committee, but I don't know what else to do.

MR. STOCKWELL: Well, sign me up.

CHAIRMAN DANIEL: Yes, I would definitely do that. A.C.

MR. CARPENTER: What about a mail ballot that after we get the final from the staff, give us three days to review it and each can send either comments back or e-mail and say this is okay or I need to change this item and try to do it that way rather than a face to face and then give the subcommittee the final say over incorporating the comments that are made or not.

CHAIRMAN DANIEL: That could work. That second part was a lot better, A.C., but I wouldn't know how to deal with the conflicts in comments, which I'm sure we'll get. Tom.

MR. FOTE: Incorporating what A.C. just said you send the document out, people look over the document, they basically have three days to reply whether they think they need a conference call – now, we had a conference call with 22 people on it the other day to basically do that. If it looks like there are not going to be major problems, we can move ahead. If there are going to be major problems that we have to approve at the October meeting, that is what is going to happen and it is going to be late and it's not going to make Jack's deadline.

But if there are not a lot of conflicts and people can accept the document once they read it and if there are a small amount of changes and we could do that on the conference call, then let's do the conference call and move it out, and then we've got the option. I mean, I'm just looking at this gives us the option of moving it forward and getting it in before January.

If Jack looks at the document and says he can't accept this and he needs to sit down and basically go through it, then we'll do it at the annual meeting and basically have it done. I mean, I think that is reasonable. It's like consensus; if you can live with it to go to public hearings – because remember this is a public hearing document – then let it go to public hearings. If you need a few tweaks on it and we have a conference call to do that right after the document – within three days you have to notify whether you think you need a conference call or you can accept it, just send an e-mail. I mean, that is a reasonable approach, I think.

CHAIRMAN DANIEL: Well, here is the way I want to do it and here is what we're going to do. Mike is going to have a revised document out by the end of the day on the 24<sup>th</sup> of August. You're going to have until the 29<sup>th</sup> of August to review it and submit any comments you want submitted to the subcommittee.

The subcommittee is David Pierce, Pete Himchak, Robert Boyles, Jack Travelstead, Lynn Fegley and Terry Stockwell.

And then we're going to meet on the 29<sup>th</sup> of September and we're going to approve that document, and then we're going to send it out for notice. As soon as we can have public comments, in October we're going to have public hearings and any state that can do their own public hearing to help staff out – North Carolina will staff its public hearing – then we'll have plenty of time to consolidate the probably 190,000 comments that we're going to have and consolidate all the public comment and then we won't be busting our hump to get it done by the December 14<sup>th</sup> meeting at which time we will meet and decide on the final actions that we're going to take. You better have a really good reason to object to that. Bob.

ACTING EXECUTIVE DIRECTOR BEAL: Not objecting; just trying to clarify. Mike will have the draft by the 24<sup>th</sup> with the PDT. The 29<sup>th</sup> of August is when all the comments are due to the subcommittee?

CHAIRMAN DANIEL: Correct. I don't want them to go to one individual person; I want them to go to the whole subcommittee.

ACTING EXECUTIVE DIRECTOR BEAL: The whole subcommittee?

CHAIRMAN DANIEL: Yes.

ACTING EXECUTIVE DIRECTOR BEAL: And then you said September 29<sup>th</sup> is when the subcommittee will meet.

CHAIRMAN DANIEL: I'm sorry; I screwed that up. Okay, September 5<sup>th</sup>.

ACTING EXECUTIVE DIRECTOR BEAL: September 5<sup>th</sup>, okay. I know Jack is preoccupied that day; I know that much. Jack, don't you have a conflict on the 5<sup>th</sup>?

MR. TRAVELSTEAD: Yes, I can't be there that day.

CHAIRMAN DANIEL: Sixth?

MR. TRAVELSTEAD: Fifth and sixth are bad.

CHAIRMAN DANIEL: Fourth?

MR. TRAVELSTEAD: Fourth will work.

CHAIRMAN DANIEL: Fourth.

MR. STOCKWELL: Where is it going to be; I've got to be in Canada on the 5<sup>th</sup>?

CHAIRMAN DANIEL: It's going to be on the phone.

MR. STOCKWELL: Okay, the 4<sup>th</sup> will work, in the morning.

CHAIRMAN DANIEL: Okay, we'll figure that out. So if the subcommittee approves the document on the 4<sup>th</sup> and we've got to give 30 days before we can have public hearings?

ACTING EXECUTIVE DIRECTOR BEAL: Thirty days once the document is released to the public before your first hearing.

CHAIRMAN DANIEL: Okay, so we'll release it on the 5<sup>th</sup>, right? Well, no, we'd give ourselves more time than that – release it on the 10<sup>th</sup> because we'll have some changes, I know. That gives us October 10<sup>th</sup> when we can start having public meetings, and then we could have a hearing at the annual meeting. That would be cool; having a hearing at the annual meeting and then after the annual meeting we'd have two weeks cooling off period; and then if you want to get together for Thanksgiving, we could do that. Yes, I think that will work. Ritchie.

**MR. WHITE: To facilitate that, Mr. Chairman, I'd make a motion to approve this amendment as modified subject to the approval of the committee on September 4<sup>th</sup>.**

CHAIRMAN DANIEL: Is there a second to that motion? Second by Pat Augustine. Bob.

ACTING EXECUTIVE DIRECTOR BEAL: I don't think you want to link to September 4<sup>th</sup> necessarily. If there is that comes up, there is a couple of days – I think it is just approval by the subcommittee.

CHAIRMAN DANIEL: Is that okay with you, Ritchie? Okay. All right, Tom.

MR. FOTE: Let me see what you're saying. The draft will go to everybody; if we have comments, we send them to people on the subcommittee to our recommendations. Jaime has been bugging me to make sure that is what we mean so he gets a chance

to comment. I just wanted to make sure we were clear.

CHAIRMAN DANIEL: Yes, my intent is to give everybody on this board an opportunity to comment. I don't want to be exclusive, but I also know that a conference call with this crowd after today, I ain't going to do it. I think the subcommittee worked very well between the last meeting and this meeting. I think with the addition of Terry to address the New England needs as well, that is good. He will be with David. We've got plenty of folks representing the Mid and the South Atlantic, so that is a good thing. Tom.

MR. FOTE: I would like to call the question, but I don't know if the public really wants – because we sat here and talked a long time and we have taken no public comment. It is a public hearing document so would you find out if there is anybody in the audience that needs to speak at this time?

CHAIRMAN DANIEL: Well, I'm not going to take the call the question because I've got another hand up over here. I've got two other hands up over here so I'm going to allow that. We've allowed everybody else to speak. I'm going to allow two more folks. I mean, if somebody is just dying from the talk about it, I think that's probably appropriate. A.C. and then Lynn, and then that's it.

MR. CARPENTER: I'd be willing to give the subcommittee the authority that you've got two conflicting comments in from two different people, that you have the authority to include both of those as an Option A and an Option B in the public hearing draft rather than get into a kicking contest over who is right and who is wrong.

CHAIRMAN DANIEL: That's a good charge. Does anybody object to that? Ritchie.

MR. WHITE: Well, my motion is wide open, so the subcommittee has the ability to do whatever they think is appropriate.

CHAIRMAN DANIEL: And we will take A.C.'s suggestion under advisement; and if we need to use it, we will. Lynn.

MS. FEGLEY: Here I go being daft again; so we approve the final document when?

CHAIRMAN DANIEL: Do you mean approve the amendment? At the December 14<sup>th</sup> meeting of the Mid-Atlantic or the 13<sup>th</sup> or whatever it is around that; whenever they schedule us to meet. Right now I'm free so you better get it scheduled quick. Robert.

MR. ROBERT H. BOYLES, JR.: Mr. Chairman, could we have five minutes to caucus, please; recess for five minutes, please; make a motion to recess for five minutes.

CHAIRMAN DANIEL: I would like to take the public comment first; and then if the desire of the board is to recess, then we'll recess. Is there anybody from the public who like to comment on these proceedings and please be at least reasonably nice, because it has been a tough day? Yes, sir, but quickly, like 30 seconds worth.

MR. PAQUETTE: Mr. Chairman, actually it's a question and not a comment. Patrick Paquette, recreational fishing representative. Is the process that you just laid out; is the subcommittee or the e-mail committee as a whole going to be able to or allowed to change alternatives that were voted in by motions today? In other words, the public having witnessed the process today, are we going to sort of like see different sets of alternatives or eliminated options that were approved today? Is that the process or is this just to clarify what was done today?

CHAIRMAN DANIEL: This is just to give us a final look at the document to make absolutely certain that everything flows the way we want it to and that the language and the explanations – for example, the discussions that Jack and I had about reaching the threshold and reaching the target and make sure that the language is in there that is appropriate and reasonable and understandable by the public. There will be no changes to any board action that was taken today; I can assure you of that. I'll take a comment from Mr. Kellum and then that is it.

MR. JIMMY KELLUM: Jimmy Kellum, bait fisherman and a menhaden fisherman. I sell fish to Omega Protein. I think it is in poor taste that we shove this on a skateboard. You think it's painful for you, but it has been painful for me to sit here and watch you dangle the strings of my livelihood all day long.

Not once today did you ask for public comment, Mr. Chairman, and not once did I say anything; but I'm saying to put this on a skateboard and shove this through at this rate, do you really think you're going

to do your best work between Thanksgiving and Christmas and give it all the attention that it needs or is it just going to be a check and let it go?

Some of the things that you've put in there today will put us out of business. A 25 percent cutback and then allocating to 50/50; I mean you'd just as well bulldoze Omega Protein down, and it's not fair. And this meeting being held after the fact, it should have been announced early today if you were going to continue after all the Omega people left. It was in poor taste. I hope I didn't offend anybody here, but you gave me a chance to speak my heart, and that's it.

CHAIRMAN DANIEL: Thank you, Mr. Kellum. Well, I will say to our defense that this has been a very, very difficult plan amendment. I fully intend to have as much public comment as is necessary as we develop this thing. I'm that we'll get a lot of public comment on this. As you can tell, we're five hours over our allocated time almost today, and we've got to get this done.

There are a lot of people watching this and we've got to get this done and it needs to be done right. I'm not going to let go out if it's not done right. That's my assurance and I'm sorry if there are folks that are unhappy with the process, but I think we've done as good a job as I know how to do to get us to this point and not trying to be too dictatorial. It has been requested that we recess for five minutes – for two minutes, so we're not going to recess, we're just going to caucus for two minutes.

(Whereupon, caucus was held.)

CHAIRMAN DANIEL: All right, is everybody ready? Jack.

MR. TRAVELSTEAD: I guess you were getting ready to vote. I just had one other comment to make. The way legislation gets adopted in Virginia is it can be a part of the governor's package, an administrative bill; or any legislator can pick up something and introduce it. For something to be a part of the governor's package, I have to inform him on Monday of the legislation and he has between Monday and December to decide whether he wants to make that a part of his package.

Now, if we go through the procedure of the dates that we have talked about, the governor is not going to know what is going to be expected of Virginia until mid-December at the earliest. I just want you to know the likelihood I think that this would be an administrative bill – I can't speak for the governor, obviously, but I just sense the likelihood of that being the case is going to be pretty slim, which means Virginia is now going to have to rely on some other legislator to pick up the plan and decide to draft legislation on it and move forward with it.

It is going to make it that more difficult for everybody. I don't know what to do about it. The only thing you can do about it would be to delay this whole thing a year, but I don't think I have the votes to convince you to do that. I just want to make you aware of that situation.

CHAIRMAN DANIEL: Well, from the discussions that we've had around the table, I think the schedule that I laid out at least to get through the public comment requirements could give us – we could meet prior to the December 14<sup>th</sup> council meeting. That is possible. If Virginia doesn't enact this legislation, then it's all for naught, anyway, at least until they are able to do that. Kyle.

MR. SCHICK: I agree with some of these statements. This is too important to rush this thing through and do what the public is going to view behind closed doors. We know that it is going to be; but in a way if it goes to this committee, it kind of is. I really think that this is too important to say we're going to try to rush this through on the hopes and prayers that some senator or some delegate in Virginia is going to stand up and say, "I support this bill."

I don't if that is going to happen with it being that rushed. They're going through that stuff right now; and if it was ready in October, that might be possible, but I really think that we should take this thing and go to public hearing after looking at it open and in front of the public in October and then vote on it in February and then it will go through its legislative process in 2014. That is the way it is going to happen anyway, probably.

CHAIRMAN DANIEL: All right, we've caucused on the motion and the motion really has no bearing on the timeline at this particular point in time. It just simply indicates that we're going to move to approve the draft amendment for public comment as modified subject to approval by the subcommittee. Let's get that motion done and then we'll discuss the issues

from Virginia again and see if we need to modify our timeline. So we've caucused; we're going to vote on this. All those in favor –

MR. FOTE: Roll call.

CHAIRMAN DANIEL: You want a roll call? We'll do one if everybody wants one. Mike.

MR. WAINE: Maine.

MAINE: Yes.

MR. WAINE: New Hampshire.

NEW HAMPSHIRE: Yes.

MR. WAINE: Commonwealth of Massachusetts.

MASSACHUSETTS: Yes.

MR. WAINE: Rhode Island.

RHODE ISLAND: Yes.

MR. WAINE: Connecticut.

CONNECTICUT: Yes.

MR. WAINE: New York.

NEW YORK: Yes.

MR. WAINE: New Jersey.

NEW JERSEY: Yes.

MR. WAINE: Delaware.

DELAWARE: Yes.

MR. WAINE: Maryland.

MARYLAND: Yes.

MR. WAINE: Potomac River Fisheries Commission.

POTOMAC RIVER FISHERIES COMMISSION: Yes.

MR. WAINE: Commonwealth of Virginia.

VIRGINIA: No.

MR. WAINE: North Carolina.

NORTH CAROLINA: Null.

MR. WAINE: South Carolina.

SOUTH CAROLINA: Yes.

MR. WAINE: Georgia.

GEORGIA: Yes.

MR. WAINE: Florida.

FLORIDA: Yes.

MR. WAINE: National Marine Fisheries Service.

NATIONAL MARINE FISHERIES SERVICE: Yes.

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

U.S. FISH AND WILDLIFE SERVICE: Yes.

**CHAIRMAN DANIEL: So the motion carries a bunch to a little.** Now, back to our schedule, I've indicated what I think we need to do. That's going to put Virginia in a box. If we do it December 14<sup>th</sup>, Jack is not going to have time to get it in his administrative package. If we do it prior to December 14<sup>th</sup>, we're going to have to pay for it and bring all you folks together again to take final action, which is going to be a big expense.

We can do it my way, which I'm not as comfortable with now from Jack's comments as I was when I came up with it. I think it was an outstanding plan, but it just causes some problems. I don't know how to get around Virginia's problem and not just maintain the process, review this thing in October, go out to public hearings at our leisure and take action in February. I don't know what else to do so you're going to have to decide which one do you want to do. Kyle.

**MR. SCHICK: I'd like to move that is exactly we do is that we vote on it in October's meeting for public hearing and then the final vote would be in February's meeting.**

**CHAIRMAN DANIEL:** Maybe we should have discussed this before we approved the last motion because that renders the last motion moot. We do have a motion. Ritchie.

**MR. WHITE:** Mr. Chairman, we have been working on this for some time, and we certainly indicated that we were going to do something that affected the 2013

season. Everybody has known that for some time, and I think to waver from that at this point is not fair to the people and it is not fair to the resource.

I would think Virginia could put a placeholder, piece of legislation in and then see what we finally pass and decide whether the governor would support that or not. That kind of thing is done all the time, so I hope that we continue on the schedule that we laid out initially down this road and continue to do what we told the public we were going to do. I support continuing what you have laid, Mr. Chairman, as a time schedule.

**MR. TRAVELSTEAD:** Just to Ritchie's comment that we promised the public that there would be something in place in 2013, keep in mind that legislation adopted in Virginia is effective July 1<sup>st</sup> of that year, so you don't really – I mean we never anticipated getting the full effect of this Amendment 2 in the first year. There literally could be cases where states may have caught their quota. I don't know what the quotas will be, but you could have caught it before the plan goes into effect in July.

**MR. FOTE:** Depending on what the plan – basically what we approve or what we vote on after the public hearings, we'll see what happens. We'll all have to implement rules if it is going to affect all of us and we're going to have to have that done in a period of time. I hate to say this because New Jersey has done it a number of times.

We actually called a special session one time because the state house flooded to get a striped bass; otherwise, we'd be voted out of compliance and we was told the fishery would shut down. We had the National Marine Fisheries Service. This has been a long time coming. Also, we spent a lot of time on scoping documents and we spent a long time going out with public hearings on this already, and we're just basically giving it the second shot. I think we need to move forward as fast as possible. I agree with Ritchie.

**CHAIRMAN DANIEL:** All right, the discussion I'm having is that the motion from Kyle was inconsistent with this motion. Right now we're on the timeline that Ritchie supports and that Tom spoke out in favor of. You would have move to reconsider this motion if you wanted to put another motion on the floor. I'm just trying to lay out all the options to the board. I see no



interest in doing anything in addition to what we've done. Kyle.

MR. SCHICK: Well, I'll move to reconsider.

CHAIRMAN DANIEL: It would have to be somebody from the prevailing side, so it would have to be somebody other than North Carolina or Virginia to make the motion to reconsider.

MR. SCHICK: Well, I'm looking at the motion. There is no motion of when we're going to take to public hearing and there is no motion of when we're going to vote on the final amendment. That motion just says that we're going to take it to a subcommittee.

CHAIRMAN DANIEL: That's true; make your motion. Well, you've made your motion and I need a second from somebody outside of Virginia. I need a second. The motion was final approval of the document at the annual meeting with final action taken in the February meeting. I believe that is your motion, Kyle. Is there a second to that motion? A.C. seconds.

MR. CARPENTER: I'll second for discussion purposes.

CHAIRMAN DANIEL: All right, A.C. seconds the motion.

MR. GROUT: Point of order.

CHAIRMAN DANIEL: Point of order from somebody; where is it coming from? Doug.

MR. GROUT: We in that motion moved to approve the draft at this meeting contingent upon the approval – review and approval by the subcommittee. We are approving it at this meeting, which to me, from my parliamentary procedure, this is saying, okay, motion to approve the amendment for public hearing at the annual meeting, so that is why I feel it is inconsistent with the previous motion, because we've already moved to approve the draft document with the previous motion.

CHAIRMAN DANIEL: And I may be wrong here, but I could argue though that subcommittee could make that determination at the annual meeting then to be consistent.

MR. AUGUSTINE: Point of order, Mr. Chairman.

CHAIRMAN DANIEL: Yes.

MR. AUGUSTINE: More of a point of information. However, Mr. Chairman, you laid out a series of dates that folks are going to make available to approve this document to go out to public hearings, to be back and ready for us to make a final decision on that in December. That was the total package I thought you were approving when Ritchie put that motion up there on the table. Now what we're trying to do is Kyle was trying to get that changed to the annual meeting, so all of the effort we've put into laying that schedule out is back on the back burner now.

CHAIRMAN DANIEL: I agree. I'm not trying to be difficult; I'm just trying to say I don't know that it does explicitly say that. I fully recall laying out the dates; but what I'm saying is that if it was the desire of this board to do what Jack has requested or what Virginia has requested, then we could make that happen.

I don't see that there is a whole lot of interest in doing that, so I've got a motion and a second to basically delay – I mean, basically what we're talking about, all this aside – we could still do this but not take final action until February is what they're essentially asking for. That is the motion on the table.

MR. AUGUSTINE: A followup, Mr. Chairman, what it seems like is we went through an effort to satisfy the need of one of the sister states to meet their need to take action. Then all of a sudden said state turns around and says, well, that's okay but we don't think we can do it and so we want to postpone it. I go back to what Mr. Fote said in the best interest of the fishery and the commitment that this board made, I think that we should vote this motion down and get on with our business. I would move to call this question, Mr. Chairman.

CHAIRMAN DANIEL: And I will accept that and give you 30 seconds to caucus.

(Whereupon, a caucus was held.)

MR. BOYLES: Mr. Chairman, point of parliamentary inquiry. This management board has approved the draft amendment for public comment, correct?

CHAIRMAN DANIEL: Contingent on the subcommittee's approval.

MR. BOYLES: It is approved, correct.

CHAIRMAN DANIEL: Subject to the approval by the subcommittee.

MR. BOYLES: The motion carried; did it not?

CHAIRMAN DANIEL: Yes.

MR. BOYLES: Is the following motion then out of order?

CHAIRMAN DANIEL: Well, that is what we have trying to figure out. There is a question as to whether or not Virginia can request to have the final action taken at the February meeting as opposed to a December 14<sup>th</sup> meeting. No, it doesn't mean that is not approved, but I think their primary intent and purpose is to have the final approval of the document in February as opposed to December 14<sup>th</sup> in order to meet their legislative requirements.

I'm going to allow it just because I think it is going to hopefully put the whole thing to final. All right, we're going to vote. All those in favor of the motion signify by raising your right hand, two; all those opposed same sign; null votes; abstentions, an abstention from A.C. **The motion failed.** All right, so we will move forward with our approach.

### **ADJOURNMENT**

All right, I know how much you want to talk about the MODA analysis but we're not going to do it today. It will be deferred. If there is no other business to come before the Menhaden Board, we are adjourned.

(Whereupon, the meeting was adjourned at 7:30 o'clock p.m., August 8, 2012.)