

**PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
AMERICAN EEL MANAGEMENT BOARD**

**Crowne Plaza Hotel Old Town
Alexandria, Virginia
August 20, 2008**

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INDEX OF MOTIONS

1. **Approval of Agenda by consent** (Page 1).
2. **Approval of Proceedings of May 6, 2008** by Consent (Page 1).
3. **Move to approve Draft Addendum II to be approved for public comment** (Page 12).
4. **Adjournment by consent.** (Page 17)

ATTENDANCE

Board Members

Terry Stockwell, ME, proxy for Lapointe (AA)	Bernard Pankowski, DE, proxy for Sen. Venables (LA)
Pat White, ME (GA)	Tom O'Connell, MD DNR (AA)
Sen. Dennis Damon, ME (LA)	Bill Goldsborough, MD (GA)
Rep. Dennis Abbott, NH (LA)	Russel Dize, MD proxy for Sen. R. Colburn (LA)
Doug Grout, NH (AA)	Steve Bowman, VA, (AA)
G. Ritchie White, NH (GA)	Catherine Davenport, VA (GA)
David Pierce, MA, proxy for Diodati, (AA)	Louis Daniel, NC (AA)
William Adler, MA (GA)	Jimmy Johnson, NC, proxy for Rep. Wainwright (LA)
Vito Calomo, MA, proxy for Rep. Verga (LA)	Bill Cole, NC (GA)
Mark Gibson, RI (AA)	John Frampton, SC (AA)
Sen. Susan Sosnowski, RI (LA)	Malcolm Rhodes, SC (GA)
David Simpson (AA)	Robert Boyles, Jr., SC (LA)
James Gilmore, NY (AA)	John Duren, GA (GA)
Pat Augustine, NY (GA)	William Sharp, FL, proxy for G. McRae (AA)
Peter Himchak, NJ, proxy for D. Chanda (AC)	Bill Orndorff, FL (GA)
Erling Berg, NJ (GA)	Steve Meyers, NMFS
Gilbert Ewing, NJ, proxy for Asm. Fisher (LA)	Jaime Geiger, USFWS
Roy Miller, DE, proxy for P. Emory (AA)	A.C. Carpenter, PRFS

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

Ex-Officio Members

Alexei Sharov, MD DNR

Staff

Vince O'Shea
Robert Beal

Braddock Spear
Chris Vonderweidt

Guests

Mark Alexander, CT DEP
Wilson Laney, USFWS
Ken Hinman, NCMC
Frank Kearney, CCA-VA
David Nobles, CCA-VA
Marek Topolski, MD DNR
Charles Lynch, NOAA
Ben Landry, Omega Protein
Ron Lukens, Omega Protein
Jeff Kaelin, Omega Protein
Clinton Scheynayder, Omega Protein

Jay Odell, The Nature Conservancy
Laura M. Lee, VMRC
Tom McCloy, NJ DFW
Dave Ellenton, Cape Seafoods
Arnold Leo, Baymen's Assn.
Sean McKeon, NCFA
Jack Travelstead
John Clark, DE DFW
Keith Whiteford, MD DNR
Pete Jenner, Stevensville, MD

The American Eel Management Board of the Atlantic States Marine Fisheries Commission convened in the Presidential Ballroom of the Crowne Plaza Hotel Old Town, Alexandria, Virginia, August 20, 2008, and was called to order at 8:00 o'clock a.m. by Chairman A.C. Carpenter.

CALL TO ORDER

CHAIRMAN A.C. CARPENTER: Good morning, ladies and gentlemen. It's eight o'clock and I would like to call the American Eel Management Board to order.

APPROVAL OF AGENDA

CHAIRMAN A.C. CARPENTER: The first item that you have on your agenda is approval of the agenda. Is there any request for a change to the order of the agenda, any additions or deletions? Seeing none, we'll accept the agenda as published.

APPROVAL OF PROCEEDINGS

CHAIRMAN A.C. CARPENTER: The Proceedings from the May 6th meeting, are there any corrections, additions, deletions? I have one, Joe. There is a place – and I'll show you later – “eel” gets spelled “wheel”. Is there any objection to the minutes? The minutes stand approved.

PUBLIC COMMENT

Public comment is on the agenda of our meeting for anyone who feels that they have something they want to share with the management board that is not listed on the agenda. Are there any public comments? Seeing no interest in public comments, we will move right along to Draft Addendum II. I'm going to call on Bob Beal, who is our newest staff member with this board, to update us on the draft of Addendum II.

DRAFT ADDENDUM II UPDATE

MR. ROBERT E. BEAL: Thank you, Mr. Chairman. I will just briefly go over Addendum II, but before I do that, a couple sort of housekeeping things. There are a few documents coming around right now. One is the summary of the advisory panel call that happened about a week ago, and I will go over that in a little bit more detail. There is also one written comment from one of the advisory panel members.

There is also a small supplement to the Addendum II Section on Maximum Size Limit. It just goes into a little bit more detail and captures some of the recommendations that came out of the technical committee and advisory panel meetings that took

place last week. We will go over all those in greater detail.

Also, the Draft Addendum II that was included on the CD, Appendix 2 is the updated analysis by the SLYME Model. As I go through my presentation, I am going to refer to a couple of the figures that are in that SLYME analysis. The figures are pretty complex; and if I put them up on the screen, they just look like a bunch of garbled numbers. I think it would probably be a lot easier if you just look at the figures that are in the document that was on the CD. With that said, I'll just quickly go through Addendum II and where things are. I think this is the third time that this draft document has come before the management board and each time the management board has requested additional items or additional analysis be conducted for inclusion in the document.

At the last management board meeting of Eel Board that took place at the spring meeting, there was a discussion on the value of slot limits or the potential use of slot limits to increase the eggs per recruit. EPR is the currency we're working in here. The technical committee and the stock assessment subcommittee conducted some additional analysis with the SLYME Model, looking at the potential use of slot limits. Laura Lee will go into that in a little bit.

The technical committee reviewed that and John Clark will give a review of the technical committee's comments and recommendations. The bulk of Addendum II really hasn't changed. The goals of the FMP still are protecting and enhance American eel abundance and contribute to the viability of the spawning population and provide for sustainable fisheries by preventing overharvest of any life stage.

The statement of the problem we're trying to deal with for Addendum II is yellow eel abundance is declining in recent years and the stock is at an all-time low abundance. The purpose of the document is to facilitate escapement of silver eels to the spawning ground. The status of the stock, again, hasn't changed since the previous draft.

The data from the most recent assessment indicate that there is decreasing recruitment, and there are localized declines in abundance. This was supported by ICES, the ASMFC Peer Review Panel and the Stock Assessment Subcommittee. The status of the fishery, again, is unchanged. The glass eels are harvested in Maine and South Carolina; yellow eels, all the states except Pennsylvania and D.C., New Hampshire, South Carolina and Georgia have reported no landings in '06. We're still compiling

the '07 landings. It is mainly a pot fishery. There are a couple of weir fisheries in Maine and New York. The commercial landing figure, I think you have all seen this a number of times. Since 1980, in the last almost 30 years of 25 years, the landings from the commercial fishery have been dropping off quite a bit. We're at about a third of where we used to be.

The management options contained in Addendum II, there are gear restrictions, size limits, seasonal closures, and there is also a recommendation for FERC relicensing and some language that is included. The document contains a theoretical mesh retention. The table that is on the slide, as well as I think it might be Table 1 or 2 in the document, is a theoretical minimum length that is associated with a diameter for the throat of a trap or the mesh size.

This can be used in conjunction with the gear modification section of the addendum. There is also a length/weight relationship between the length of an eel and the weight of an eel that is included in the document. This is for consideration if the board wanted to employ a maximum weight associated with the maximum length for eel management.

Gear restrictions, there are two options that are included now, status quo, which is essentially no specifications for the gear. Option 2 is a limited diameter of the throat opening. There are comments in the document from the advisory panel, from their last meeting, with concerns about the throat opening getting plugged up with other species of critters, including catfish and those things. There is some concern there about going down this route.

Under the size limit option, there are four different approaches. One is status quo, no maximum size limit. The document doesn't contemplate changing the current six-inch minimum size limit that is in the Eel FMP. Option 2 is to sort the catch with a grader. If graders are used, it would employ the length/girth relationship that was in Table 1 that I showed. Option 3 is maximum weight and Option 4 is maximum length. Option 4 has been expanded to include slot limits now as well.

The maximum size limit, at the last meeting the technical committee recommended a 19-inch size limit to achieve 100 percent increase in eggs per recruit. When the SLYME Model was updated when they were considering the slot limits as well as just kind of tuning the model a little bit better, that maximum size limit associated with the hundred percent actually changed to 18 inches from 19 inches, so that is going down a little bit.

One of the things that the board asked for at the last meeting is the relationship between the maximum size limit, the eggs per recruit and the landings; so if you select any maximum size limit, there is a relationship between how much eggs per recruit will go up and how much landings are projected to go do. Those are Figures B-12 through B-15 in Appendix 2.

There are four figures that show the rate of increase for eggs per recruit and the reduction in the harvest. Appendix 2 also has the relationship between maximum size and eggs per recruit, which as the maximum size goes up, the increase in eggs per recruit goes down. That is Figure B-7 in the document, so that is pretty straightforward as well.

Seasonal closure, the document has four different options right now; status quo, which is no closure. Option 2, 3 and 4 are a 90, a 60-day and 30-day closure respectively. The document contemplates that these closures would occur during the out migration of American eels, which generally occurs in the fall to late fall. Then there is the table in the document that shows when the out migration is occurring.

The notion here is that states and jurisdictions would select closures that overlap with the out migration of silver eels. This is the schedule. Some of the states are unknown, particularly in the south of the range, but toward the north it is, as I said, in the fall. Slot limits were evaluated by the technical committee, and Laura Lee and John will comment on that. They used the SLYME Model to evaluate that.

Appendix 2, Figure B-2 is a matrix of slot limits, minimum size limits, maximum size limits, and the eggs per recruit increase associated with those range of slot limits. In combination with that, Figures B-3 through B-6 is the impact on landings of slot limit combinations. They are state-specific for the four states that have sufficient data to analyze the impacts on landings of different slot limit combinations.

The slot limits appear to have limited impacts on egg per recruit. It is the maximum size that appears to have the most benefit and the technical folks will expand on that in a minute. I'm sorry, it should be Table B-2 through B-6 rather figures. The technical committee, in their deliberations, came up with some options that are essentially a combination of maximum size limit and seasonal closures. These combinations are included in the supplemental Section 4 document that was passed at the beginning.

I think John will go into a little bit greater detail, but generally a 30-day closure associated with both these

combinations, a 22- or a 23-inch maximum size limit, and the document describes the increase in eggs per recruit associated with the maximum size limits. The effect of the season is not known.

The technical committee did not evaluate or to date, anyway, hasn't evaluated the effect of the seasonal closures with respect to eggs per recruit. However, I think a lot of the states probably have a sense of what happens if you closed a certain month with respect to landings. It may not be a direct correlation to eggs per recruit, but there is a notion of what could be expected as far as changes in the fishery.

This is the last recommendation that is included in the Draft Addendum II. It is just recommended wording for the FERC relicensing process, for increased consideration for American eel and fish passage upstream and downstream for American eel. That is a quick summary of where we are. I'll be happy to answer any questions if there are any, Mr. Chairman.

CHAIRMAN CARPENTER: Are there any questions for Bob? Thank you for your report. I do have one. With regard the FERC relicensing, there were some discussions at the last meeting about a lot of dams that are not FERC licensed, and we were going to insert language encouraging states to try to address those when and where they could. Did that language – I didn't see it in the draft; did that make it in there and do we still want to include that language?

MR. BEAL: I don't think it was added. Obviously, it is up to the board if they'd like to include it. Obviously, it can be added pretty easily.

CHAIRMAN CARPENTER: Personally I think it is a good idea. It's only a sentence or two added to this section, and I think it comes under the same option. I think we should encourage the states to look at other dams that are state licensed but not necessarily FERC licensed. I see a lot of people nodding yes around the table, so that will be added before this goes out. Seeing no other questions, I guess we move to the next item, which is the SLYME Model.

PRESENTATION OF SLYME MODEL RESULTS

MS. LAURA LEE: Thank you. Good morning. I'm going to be referring to Table B-2 in the report, in the appendix. This summarizes the percent change in EPR for the slot limit combinations. The left-most column has the upper size of the slots, which are also

from 16 to 28 inches, which are also the same sizes that we used when we looked at just the maximum size limit.

If you compare those changes in eggs per recruit with minimum sizes of 8 to 15 inches, the change in eggs per recruit and having just that maximum size alone is less than 2 percent. So while it looks like it's as much as 137 percent, say, at a minimum size of 15 inches, really, that is just coming from if we had a maximum – maximum size alone is 16 inches, that's giving you pretty much all of that 137 percent.

If you look the slots with minimum sizes greater than 15 inches, from 16 to 20 inches, you're getting an estimated change in eggs per recruit anywhere from 8 to 132 percent. That difference, when you look at just the maximum size limit alone, translates to about 8 to 70 percent. Most of that is coming for the slots at those minimum sizes that also include a maximum slot size of 24 inches and larger.

All of that is coming from having the minimum size so high. If you recall in the analysis of the maximum size limits, sizes greater than 23 inches gave less than a 1 percent increase relative eggs per recruit. Tables B-3 to B-6 show that the cost to the fisheries, depending on the state, is very variable, but it is as high as 94 or 98 percent, depending on the fishery.

Really, the only slot limits that give something tangible would be really narrow, 3 or 4 inches to give maybe a 30 to 60-some percent change in eggs per recruit, and that could be at a very high cost to the fishery. I'll take any questions.

CHAIRMAN CARPENTER: Any questions for Laura? We did ask for this analysis at the last meeting, and I think the technical committee and the SLYME modelers have done an excellent job of providing the information that we asked about. I summed it up last night in an informal discussion that slot limits to me look like if you really wanted to accomplish anything, you had to have an 18-inch minimum size limit and a 16-inch maximum size limit. I just don't see slot limits being a reasonable approach to conserving the silver eels at this point. Are there any other questions for Laura?

MR. DAVID SIMPSON: I guess I should know this, but what percentage increase are we looking for; is there a target; is there a range? I don't know whether to be looking at the 4 percent or the 132 percent.

CHAIRMAN CARPENTER: I think the target we were looking for was a 100 percent increase in escapement. If you try to find that number on the

table, it is hard to get there. Thank you very much. The technical committee comments, John.

TECHNICAL COMMITTEE REPORT

DR. JOHN CLARK: Good morning. As has been stated by Bob and A.C., the technical committee was asked to look at slot limits. As Laura explained, when the SLYME Model was rerun to look at slot limits, the results were disappointing. The slot really did nothing to change the maximum size limit that we were talking about at the last meeting, which, as you may recall, was seen as being way too restrictive by the advisory panel.

When the SLYME was rerun in the second iteration, to get to a hundred percent increase in egg production the maximum size limit would have had to have gone down from 19 inches to 18 inches. The stock assessment subcommittee, realizing the drastic impact that this type of size limit that was being derived from the SLYME would have – for example, in this case one of the problems we have is we don't have that much biological data.

So to estimate the impact on landings, we had to use the data we had, which was just from four states, New Jersey, Delaware, Maryland and Florida. Of these states Maryland had the largest landings; Florida's landings were fairly insignificant. Doing that and taking a weighted average of the impact on landings, an 18-inch size limit would have resulted in a 52 percent reduction in landings based on 2006 landings.

The stock assessment subcommittee wrote to the technical committee asking to consider maybe a more incremental approach to restricting the fishery. The memo we sent gave an example of a maximum size limit of 23 inches. This would decrease landings, based on a weighted average of those four states, by about 20 percent. It would only give an increase in egg production of 2 percent based on the SLYME Model, but the thought was a reduction of this amount in landings would give us an opportunity to evaluate what type of impact that would have.

When these ideas were presented to the technical committee, the technical committee did not like this approach. Many of the members of the technical committee felt that the dire situation of the eel population in parts of its range required us to stick to the original plan of a hundred percent increase in egg production. They also pointed out the uncertainty in the SLYME Model in referring to that.

The preferred option that the technical committee wanted was to continue with the hundred percent increase in egg production, which would result in an 18-inch maximum size limit, and, as I said, a 52 percent reduction in coast-wide landings estimated on 2006. The TC did also endorse two other options, which include a larger size limit, a 22-inch size limit and a 23-inch size limit.

As I think is up there on the screen, the estimate would be for a 23-inch size limit, as I've already said, about a 20 percent reduction in landings. A 22-inch size limit would result in a about a 27 percent reduction in landings. In conjunction with these, the technical committee thought we should have a 30-day closure in the fall to also allow more silver eels to escape.

This was not something that had been modeled by the stock assessment subcommittee, as has been mentioned, so right now the recommendations that were given by the technical committee that do include these seasonal closures, we can't estimate what type of impact that will have on landings or on eggs per recruit increase. That was the decision of the technical committee. Thank you.

CHAIRMAN CARPENTER: Are there any questions for John? Bill Adler.

MR. WILLIAM A. ADLER: Thank you, Mr. Chairman. Does the technical committee take into consideration the natural mortality or the predation factor, which it seems to me through all of this, between river herring and eels, their populations seem to be down, fishing has been cut, the populations are still down.

The 30-day closure does sound like the easiest way rather than trying to measure sizes of eels and stuff, except you can't tell the striped bass that you're closing because they're going to feed on these things real quick. Do they take the natural mortality and figure that is pretty high?

DR. CLARK: Yes, Laura just pointed out that the age-specific natural mortality is included in the model, and, of course, it is much higher for the smaller, younger eels than it is for the older eels.

CHAIRMAN CARPENTER: John, I'd like to thank the committee for taking the initiative to put these combinations together because I think that in order to get to our goal this type of analysis and this type of combination I think is going to be an important component. I think we're going to need this kind of flexibility, particularly when we go out to public

hearing, to be able to answer some of the questions that they're having. I think that at this point – yes, Russell Dize

MR. RUSSELL DIZE: Mr. Chairman, thank you. On these regulations proposed, would that be the whole east coast?

CHAIRMAN CARPENTER: Well, I think that's a matter that the board is going to have to wrestle with a little bit later. I don't know that a single 30-day closure from Maine to Florida is going to be equal. I think some of the northern states may have to close a different 30-day period than some of the southern states, so I don't know that we can have that kind of one size fits all for this fishery. I think the uniqueness of the migration period is going to have to be tailored to each state.

MR. DIZE: The reason why I asked, in Maryland we seem to have probably more eels than we've had in 10 to 20 years, but the state of Maryland protects their eels. They do it by wire mesh size. A few years back when DNR saw that our eels were needing more protection, they went from three-eighth inch mesh size to one inch by one-half, which lets little finger-sized eels out of our eel pots.

It seems like to me that we're going at it at the wrong end. If you don't protect the small eels, it would be like selling your small rockfish for sardines. What we're doing is we're selling glass eels and not protecting them. In our state we seem to have quite a few eels and they seem to be coming back all the way the Bay. A couple of years in the Choptank River, it picked up, and then it moved up to the Chester River, so it seems like it is filling in up the Bay. The state of Maryland does a good job in protecting them, also. Thank you.

CHAIRMAN CARPENTER: Yes, Russell, thank you. On the Potomac we see consistent if not rising catch per unit of effort. We have got fewer eelers working today, but I think that's more a question of the market than it is the supply. We're having some of that data analyzed at CBL right now.

Coastwide, I don't there is any question. If you look at the figure of coast-wide landings, there is a problem, and I think we all need to realize that we have to each do our part and try to contribute to the recovery of the species. Jack Travelstead.

MR. JACK TRAVELSTEAD: Thank you, Mr. Chairman. I noticed in the document that was handed out on size limits, in a number of places the AP requests a full analysis of the seasonal closures,

and I'm wondering what additional analyses need to be done and does the technical committee intend to do those?

CHAIRMAN CARPENTER: I've had a discussion with Bob with regard to that seasonal closure; and I think if you look at the table of when the out migration period is for each state, what I would suggest is rather than delay this going forward anymore with this, I think each state can take a look at its own landings, take a look at a 30-day period, take a look at several 30-day periods within that window and be prepared at your public hearing to answer the question of what the impact would be on a local situation.

I don't think that we need the technical committee to do that. That's pretty much a simple arithmetic exercise, and I think each state could look at their data, look at their landings and estimate the impact of a 30-day closure. I know, for example, we could do it on the Potomac. If we decide to cut out the month of November, I can tell you pretty quickly what the impact is going to be. I think all the other states are going to be much in that same category.

MR. TRAVELSTEAD: Is there some percentage reduction that we're looking at through a seasonal closure that the states would be required to achieve?

CHAIRMAN CARPENTER: I think the problem is that we have a target of increasing the eel-per-recruit escapement by a hundred percent. A seasonal closure, the impact is going to be on the yellow eel as well as the silver eel, so it is extremely difficult to correlate the two, but I think that I'll ask John if he can give any additional information on that..

DR. CLARK: A seasonal closure, the advantages would be – if we did have a 30-day closure in the fall, in most states the silver eel emigration is over an extended period of time, but for the most part it does seem that the main pulse of them would be leaving during a discrete period that – this is most of the estuarine eels that are subject to the heaviest fishing pressure – could be emigrating within a 30-day window.

You could protect them. Of course, you could miss on that, but in addition it would reduce landings. Although eelers might try to increase their effort after the closure, it is unlikely they would be able to change that much that they would be able to make up for the 30 days of lost fishing. The fall is the prime time for the eel fishery. It is the best time to catch them.

It also is the best time for the bait market. The bait market with eels is very lucrative, but that is mostly for the fall striped bass fishing. That is the time that most of the eels are landed, and so this would have an impact on landings overall.

CHAIRMAN CARPENTER: Thank you, John. Since you have brought up the AP Report that was handed out, we don't have the chairman of the AP available here today, but Bob is prepared to give a briefing on that. Since that was the next agenda item, let's go ahead and get that out of the way. Then we can go on to the law enforcement, and then we can go back to a general discussion.

ADVISORY PANEL REPORT

MR. BEAL: Thank you, Mr. Chairman. As A.C. mentioned, there was a document handed out at the beginning of the meeting that summarized the advisory panel conference call that took place August 13th. At you can see at the top of the document, there were only four members of the advisory that were there, so not a quorum if you want to look at it from that perspective.

John Clark and Laura Lee were there to help with the technical questions, which was good for me. Jake Kritzer is the new chair of the advisory panel, but he has a scheduling conflict today and couldn't make it and sends his apologies. Just quickly I'll run through the recommendations and comments that came out of the advisory panel.

They expressed their appreciation for the board and the technical committee's responsiveness in conducting the additional analysis for slot limits. The AP agreed that slot limits probably aren't the way to go given that there is not a lot of kind of bang for your buck as far as increasing eggs per recruit from the slot limit approach. The advisory panel did not endorse the technical committee's recommendations of a 22- or 23-inch maximum size with a 30-day closure.

There were two concerns from the folks that were on the call. One was that this 30-day closure has the potential for a severe impact on the eel fishery as well as the markets. The other concern was that there is a lot of uncertainty associated with the fall closure. It was unclear exactly what the impact would be on the fishery as well as the impact or the benefit to eggs per recruit.

The AP generally but not unanimously of the four folks that were on the call felt that a two-week closure and a 22- to a 23-inch size limit may be a reasonable approach and should hopefully have some

impacts on increasing eggs per recruit. The AP felt, as Jack Travelstead mentioned a minute ago, that the effects of seasonal closures with respect to landings as well as an increase in eggs per recruit should be fully analyzed before the document goes out to public comment and included in it.

The AP reiterated a comment I believe they made at their last meeting, which is they feel that the commercial fishery doesn't land a whole lot of silver eels now, so fishery regulations may not have a significant impact on the overall escapement of silver eels. Obviously, there is going to be an impact on landings. You guys have seen the analysis for the impacts of eggs per recruit for maximum size limits.

The AP expressed some concern about the use of a hundred percent as a target. They felt they weren't comfortable with the basis for the hundred percent. They didn't know why it wasn't 80 percent or 120 percent, so they felt that a hundred percent was a little bit arbitrary I think is how one of members categorized that.

The AP had a long discussion about habitat, and they felt that the fishery regulations can only go so far for American eel. Habitat improvements and fish passages needs to be addressed, and the commission should be actively and aggressively engaged in habitat improvement. They felt this was an important issue that needed to be conveyed.

They also felt that Addendum II should either sunset with a specific date in the future or when well-defined indices are met. They felt that if something goes through and is implemented through Addendum II there should be some endpoint that the board is trying to achieve, either a date on the calendar where the board reconsiders this or when specific indices as far as either eggs per recruit or rebuilding, something along those lines, have been achieved.

The advisory panel also suggested that three additional approaches be analyzed. One is a restriction on new entrants into the commercial fishery, sort of effort control; and gear placement limitations; as well as creation of protected areas. They also felt that states should have the maximum possible flexibility under the addendum to achieve the same benefits to the eel stock, but have maximum flexibility in implementing regulations. That's a quick summary of the AP call. I can answer any question if there are any.

CHAIRMAN CARPENTER: I have a question regarding the last recommendation of the AP with the flexibility. I think I understand what they're asking

for, but my question is if we've only got data from four states that was sufficient to analyze, would the technical committee have the ability to come up with an equivalency for all of the states if they all came in with different – one comes in with a 30 day, the other one comes in with a 22-inch and one of them comes in with a 16-inch or something; is that even possible at this stage of the information that we have?

DR. CLARK: That would be difficult. From my understanding, I think the idea of the plan is to try to have some flexibility in the regulations, but I think that if we had a size limit in one state and a seasonal closure in another state, it would definitely complicate evaluation; wouldn't you say, Laura?

LAW ENFORCEMENT COMMITTEE REPORT

CHAIRMAN CARPENTER: Thank you. Let me go ahead and get the law enforcement report presented. Joe is here and we would appreciate hearing from him, and then we'll go back to a general discussion of Addendum II and try to figure out where we need to go from there.

MR. JOE FESSENDEN: Thank you. I did review the addendum, and we've mentioned this a couple of times, but measuring eels is pretty much impractical for law enforcement. However, if you required the harvester, when they're being harvested, to have a grader on board or available, it may be an option for law enforcement. I can't imagine law enforcement carrying around a grader with him. It's quite a bit unit. It may be an option.

If you go with the measuring, with the slot limits or whatever, I am really kind of against it, but the only way I could see you could even attempt to enforce it would be to require a grader on board the vessel, for the harvester. For purposes of law enforcement, the recommendation we have is under 4.3, Option 2, the gear requirement, the limited diameter of the throat opening is certainly enforceable.

Under seasonal closures, under 4.5, for law enforcement would be the easiest. They both would be enforceable and make our job a lot easier. Under 4.4, Options 3 and 4, Option 3 is the maximum weight and Option 4 is maximum length, there again the weight – we've tried to use weights in other fisheries. The scales for law enforcement, they have not worked, especially in the scallop fishery. We had a scallop weight size and it did not work at all. Maximum length with the eels, other than a grader, I don't see that to be enforceable. That's pretty much it.

CHAIRMAN CARPENTER: Thank you, Joe. I was going to ask the technical committee if they would volunteer to hold the eel still for you while you measured it, but I'm not getting very much support on that either. Roy, you had your hand up a moment ago and I didn't get to call on you. Now that we have got the reports out of the way, I'd like to call on Roy for his comments and/or questions.

MR. MILLER: Thank you, Mr. Chairman. I would like to go back to comments made by Jack Travelstead, if I could. Could I also request that the recommendations of the TC be put up on the screen again? I think, Mr. Chairman, that we would need more guidance in deciding – if one of these options were chosen, the states would require more guidance in terms of the seasonal reduction.

In other words, we need to know what percent reduction we're shooting for. Otherwise, if we were left with the option of picking any season, there would be an inclination, of course, to pick the season that had the least impact on the existing fishery, so we need more guidance in that regard in terms of the percent reduction.

We've heard from the AP how they feel about this particular combination, and I think it got less than a wholehearted reception on the part of many of the members of the AP. But at least to my way of thinking, the top option there, the 30-day and 22-inch maximum size at least gives us something to start from if we had a target reduction to go for. Thank you.

EXECUTIVE DIRECTOR JOHN V. O'SHEA: I had a question about the law enforcement; so whenever that is appropriate.

CHAIRMAN CARPENTER: Right now is just as good as any.

EXECUTIVE DIRECTOR O'SHEA: Was there any discussion on the season about the requirement that that would have to be through a regulation that required the gear to be out of the water as opposed to just landings, given Dr. Clark's comments about these things come all the way through at once and then sort of aren't there?

MR. FESSENDEN: Well, most season closures, we would require the gear to be removed from the water. I think to have a harvester block the throat opening wouldn't make a whole lot of sense. It would be difficult to enforce.

MR. G. RITCHIE WHITE: Thank you, Mr. Chair. To Jack and Roy's comments, if it is a simple matter of plugging in the numbers for each state, that the 30-day closure would make the most sense, it might be helpful just to put those right next to the recommendations. In other words, if we're trying to get a hundred percent, you know, Maryland would be November or whatever it would equate to.

MR. BEAL: John, Laura and I had a little sidebar conversation. We can fairly easily pull together a table of monthly landings for each of the states so you can evaluate what closing November would look like for a certain state or September for a certain state would look like. That can be done. It's pretty easy to calculate the percent reduction in landings associated with that.

I think the difficulty is taking the next step, which is a 20 percent reduction for an October closure in the Potomac River Fisheries Commission, for example – and I'm making the numbers up – the difficulty is taking the next step and figuring out what that means as far as increase in eggs per recruit.

The 100 percent that has been talked about a little bit today is the goal for increasing eggs per recruit, it is obviously not a hundred percent. The board isn't seeking a hundred percent reduction in landings, which is pretty easy to achieve, or developing regulations that achieve that are pretty straightforward. I think the reduction in landings is easy to calculate. The eggs per recruit associated with that take some more analyses.

MR. R. WHITE: Well, I guess I would agree with Jack and Roy, then, that there has to be more guidance with this for the states to come up with the appropriate month.

REPRESENTATIVE DENNIS ABBOTT: Thank you, Mr. Chairman. As we were talking about these seasonal closures, say, a fall closure of 30 days, would we not probably be leading ourselves down a path similar to horseshoe crabs where, as we close Maryland, then New Jersey fishing doubles because the demand is still there? So, if we have a rolling closure, I think that you'd just be moving the effort from here to there if the demand for the eels remains constant through the striped bass season, for instance. So, I think that getting into a rolling closure thing without more analysis would need much more consideration. You would have to look at what you anticipate the demand to be.

CHAIRMAN CARPENTER: That's an interesting point and it could complicate this thing considerably. Roy.

MR. MILLER: We heard from the law enforcement group, from Joe, that a maximum size is difficult for law enforcement officers to administer in the field. With the corresponding gear diameter appropriate to the maximum size of 22 or 23 inches; would that suffice instead of the maximum size limit?

Using the table from the draft plan, it looks like with a 22-inch retention length, the 1.19 inch diameter throat opening is the appropriate opening. I am wondering if we're going to go this route maybe we should be thinking in terms of something that is more readily enforceable. Thank you.

CHAIRMAN CARPENTER: Yes, I, quite honestly, think that size limits in and of themselves in terms of length limits are certainly unenforceable. Weight limits are just as unenforceable, but a throat diameter or a grading mechanism that can be measured and sorts the eels automatically, I think if we're going this direction is the only practical way that I see this thing working.

If you stick with the goal of a hundred percent escapement or increase in eggs per recruit, you're looking at an 18-inch maximum size limit. We know what that is going to impact, and obviously that's quite draconian at this point. We know that there is a complication between trying to figure out a straight seasonal closure with how many of those would be silver eels that are protected and how many would be yellow eels that would be taken off the market. There is no good correlation between the two bits of information, so I really think we're beginning – I'm starting to come to the idea that we're going to have to just use some best professional judgment here to try to start the recovery on this thing, and we may not be able to achieve the 100 percent. I think if you look at the 22-inch size limit, they're estimating a 27 percent reduction in landings but only a 12 percent increase in the eggs per recruit. That's a long way from a hundred percent.

DR. CLARK: To address some of the issues that were brought up, Bob said the advisory panel thought the 100 percent in EPR was a little arbitrary. It's actually completely arbitrary. The technical committee just thought that given the uncertainty in the SLYME Model, that a hundred percent increase in eggs per recruit would be our best bet of getting changes that would really help the fishery.

In terms of having gear restrictions and using a restrictor, I just wanted to reiterate that the advisory panel members didn't like that idea because they thought anything that would restrict the diameter of the throat to an eel pot would lead to problems with the pot getting clogged up. I mean, that could be a legitimate concern, and obviously they don't like that idea.

As far as the seasonal closures, as Laura pointed out, we only have biological data from four states; so even though we could predict what the impact on landings might be from a 30-day closure, we couldn't say how that would affect the population of eels in those states based on the closure dates. The closure in the fall would hopefully allow more silver eels to escape unmolested by the fishery.

As has been pointed out by the advisory panel and the technical committee, silver eels typically do not pot up, but there are a number of them that will. So, anything that reduces fisheries at that time should allow more silver eels to escape; plus, silvering is not like an overnight process where an eel goes from a yellow eel to a silver eel. It does take a while, so by having any type of closure, it could provide a time for eels to silver and escape from the areas where they're being fished. Thanks.

CHAIRMAN CARPENTER: Thank you. Looking at Table 3 and thinking about what Dennis Abbott had to say, I guess if I had to pick a 30-day period based on that table, it would be October 15th to November 15th that seems to be the only one that covers all of those states that have a known period. I guess the southern states, I don't know whether theirs would be impacted at all or not, but I'm guessing that there is some out migration as early as October in the southern states.

I think that we do have enough information at this point to I think add the options that the technical committee has come up with under combinations of the other gear and season restrictions. I think we're at the point where to go ahead and take this out to public hearing and let's see what the public has to say about this. This is our third shot at looking at this thing, and we seem to continue to come up with a reason why not to move forward.

EXECUTIVE DIRECTOR O'SHEA: Thanks, Mr. Chairman. Your last comments reiterated in my mind the difficulty of – in fact, somebody mentioned the word “draconian” measures and the fact that we're now looking at this the third time and saying this is going to be tough one. I'm wondering before this goes out if it would be helpful that the board look

on Page 4 the statement of the problem and sort of confirm that we're all on the same page, that we understand what the problem is and if that will sort of be a reference point to making the decisions as we go forward. If we're not on the same page of what the problem is, it is going to be even harder to come up with a range of solutions. I would assume the technical guys are also – their comment on that might be helpful as well. Just a suggestion, Mr. Chairman.

MR. MILLER: Thank you, Mr. Chairman. Before I forget, I wanted to go back to something you mentioned right before Vince's question, Mr. Chairman, and that was the idea of a standardized seasonal closure up and down the coast. I think Representative Abbott's concerns regarding the seasonal closure, I think that has to do with the assumption that fishermen in one state have the ability to move their operation to another state if their state is closed and the other state is open.

There may be limited opportunity to do that because of limitations on licenses in their respective states. I just wanted to point out that it may not be necessary to have one season closure to fit all states, that some variation on a state-by-state basis may be reasonable because of the non-availability of non-resident eel licenses, if you will.

But then moving on to the statement made by Vince, certainly no one here would dispute the fact that eel populations are in a difficult position in many states and in many areas, but the perception is not the same in all areas. Certainly in the Mid-Atlantic area, maybe Maryland, New Jersey, Delaware, perhaps Virginia, I don't know, the perception among the eelers and eel buyers and everyone else is a somewhat different situation. I can tell you that our fishermen don't understand this push for conservation of eels. They don't perceive that there is a crisis in the local supply, so I just wanted to point that out.

MR. TRAVELSTEAD: Roy had made the point that I wanted to make, but I would add to it. I don't want to hold this document up anymore than you do, but I think there still needs to be some further discussion of the seasonal closure issue in the document. I think someone had suggested that we, at a minimum, include a table of landings from the various states by month so that the public can see that. I would like to see that added to the document.

I think we, to some degree, also need to stay from one size fits all, as Roy said. I mean, for instance, it doesn't make sense to me that the Potomac River and Maryland and Virginia would all three have the same

30-day closure. I think you would just be setting Virginia up for a nice little harvest when the season reopened at the end of 30 days if all the Maryland and PRFC eels had migrated down into Virginia waters.

I think that's an argument for some type of rolling closure that was suggested earlier. I think there needs to be at least that kind of discussion in the document before it goes out to the public, and I think that can be done fairly quickly.

MR. FESSENDEN: On the seasonal closure I think we should add the gear removal should be made clear in the document. Vince brought it up; I think it's a good point that is added. During the public comment that would probably be useful.

MR. ADLER: Thank you, Mr. Chairman. I think everybody should be prepared for what I predict will be a lot of discussion at hearings on the other causes of the eel decline, because you're going to hear a lot of people say they can't get up the river. I noticed in the statement of the problem, you did have a line on that, but they're going to say that's the problem, and they're going to say the predation is the problem. I think everybody has got to be prepared to hear that because I think a lot of the feeling out there is rather than just the fishing pressure. I do think you should take this out to hearing. I think it is time for that.

REPRESENTATIVE ABBOTT: Thank you, Mr. Chair. Just to get back to my point and Roy's comments, I didn't consider the fact that eelers would probably want to move from one state to another. In my mind it was a "picture this". I know there is going to be a closure, I'm going to fish harder, I'm going to save them. I think that eels probably store quite well, so I think that would be what you would probably see.

I am reminded of a comment that I heard quite a number of years ago when we were doing a Lobster Plan up in Providence. It was kind of heated and one of the lobstermen said, "You know, you can make all the regulations you want and we're going to find a way around them." I'm sure that the people involved in this fishery will exploit the resource to the fullest.

Understanding all of that, I still think that we do have to move ahead with the plan, and it is going to be a dynamic situation that we really don't know where we'll end up in any amount of time unless we undertake the journey. You can have rolling closures, but if those rolls are geographically close enough, you're going to find yourself not achieving much, in my mind. Thank you.

DR. JAIME GEIGER: Thank you, Mr. Chairman. I commend the technical committee on their excellent review and excellent recommendations. I think we've heard a lot of good comments around the table, and I think the document could be improved with some of those suggestions. I do think the technical committee needs to put a little more elaboration on the 100 percent goal.

I certainly think the NOAA Fisheries and Fish and Wildlife Service Status Review would serve as a good source document. Again, I think that ought to also serve as a good emphasis on why we need to take some conservation measures for this particular species. I also sense that we can't wait much longer to get this document out. We should go ahead and get it out to public comment. Thank you.

MR. ARNOLD LEO: Arnold Leo, consultant for commercial fisheries, Town of East Hampton. I am puzzled in the approach here to trying to find a solution to what is perceived to be a problem with the eel stock. There is no consideration being given to quota management, setting daily trip limits with a quota. There is also no discussion of the effect of increasing the minimum size limit.

From the commercial fisherman's point of view, what is being proposed will have a deleterious and perhaps devastating effect on the commercial fisheries. Depending on which of these options is adopted, it will be anywhere from a bad to a disastrous effect on the commercial fisheries.

But without increasing the minimum size limit, you've not put any of the burden of rebuilding the stock on the recreational fisheries. They're the ones who want those glass eels and very small yellow eels for bait. So it's an inequitable approach to management without considering increasing the minimum size limit and what effect will that have on eggs per recruit.

And, once again, we're dealing with a data-poor stock. I believe the technical committee said that it was a bet that a hundred percent increase in eggs per recruit might help the eel stock. Well, a bet is kind of a poor way to create a bad effect on the traditional commercial fisheries. A hundred percent increase, whether it's in eggs or juveniles or whatever measurement we're using, whatever index of improvement we're looking at, a hundred percent is exceptionally high in a data-poor situation.

I mean, why not 50 percent – hey, let's try that for three years and see where that goes. It's just really

disturbing when we have these data-poor stocks that we're taking the most extreme approach as a bet. No thanks.

CHAIRMAN CARPENTER: Thank you, Mr. Leo. I will note with regard to the minimum size limit, we did ask about the slot limits and I think you can interpret that they indicate that increasing the minimum size limit is not going to get us where we need to go.

DR. CLARK: If I could just make a comment, also, about the minimum, when Laura looked at the SLYME again, to have the minimum size result in a significant increase in EPRs, the minimum size would have to be very large. Right now one of the things we were considering, also, was a big part of the eel fishery is the bait fishery. If the minimum size was put up to about 16 or 17 inches, of course then you wouldn't have the bait fishery anymore.

In Canada they have gone with a minimum size in the Maritime Provinces, but they don't have a bait fishery up there. Right now in the Gulf of St. Lawrence the minimum size, I believe, is 22 inches for eels. That works fine for them because it is just a food eel market. If we were to pursue a similar increase in minimum size here, obviously there would be no more bait eel fishery. That was one of the considerations there.

CHAIRMAN CARPENTER: Thank you. I have a list of things that I think we need to bring our attention back to the plan. One was the request to add a table of landings by month by state. I think that can be accomplished. I think Jaime's reference to the study that was done at the request of declaring the eel an endangered species needs to be referenced in this document. I think a broader discussion of the seasonal closure needs to be incorporated.

With that in mind, with those three things added to the document, is the board comfortable enough to leave those improvements to the staff so that we don't have to bring it back before this board before we take it out to public hearing?

MR. SIMPSON: Just a couple of things – well, first, I guess there is not a really clear statement – within the statement of the problem there is not a really clear statement of the objectives of the plan. The closest it comes to is the primary management objective is to facilitate escapement of silver eels on their spawning migration, which would lead you to one set of alternatives, I would think, that would target larger fish, perhaps a timing thing, not so much a minimum size, so that was a point of confusion for me.

The other is the hundred percent target that was mentioned that some elaboration – Jaime mentioned that – some elaboration on where to get to a hundred percent or how do we get there. Finally, some sense for the public of – I mean, if we're going to double the eggs per recruit – and that seems to be the management objective and not escapement of silver eels the way we're talking, so I think we need to recraft and clearly state what the objective of the draft addendum is; what percent reduction in harvest would be required to double the eggs per recruit. I think we're talking at least a 50 percent reduction and probably 80 or so percent reduction in harvest I would think to double the eggs per recruit.

DR. CLARK: The maximum size, it would be a 52 percent reduction. If you just considered, like looking at the graph, an 18-inch maximum size, to get about a hundred percent increase in eggs per recruit, that would result in an estimated 52 percent reduction in landings.

MR. SIMPSON: Okay, I think it would be helpful for public comment that they knew the range and reduction we were talking about. Thanks.

CHAIRMAN CARPENTER: Yes, and I think that kind of language can be incorporated in this. I was just handed a note there were several other things that we were going to add to it, and one was the requirement that gear would be removed from the water during any closed period. That works for eel pots; I'm not sure it works for my pound nets, but we will have to work on that. And then a discussion of the hundred percent eggs per recruit target, and I think that folds right in with the comments that we just had here of what would it take in terms of total landings reduction to accomplish that, so I think that will be added.

MR. THOMAS W. McCLOY: Thank you, Mr. Chairman. One other thing for consideration I think would be the analysis or report by the Law Enforcement Committee as to how they foresee enforcing a minimum or a maximum size limit. I think the sense of the board that I got from the discussion was that measuring eels not be the best way to approach it. I think if we could provide that information in the document it would at least give the public better idea of where to direct their comments.

CHAIRMAN CARPENTER: I'm getting the sense that we all realize that measuring the eel in terms of length or weight is not going to be, so do we even want to put that out there? Do we want to say that you want to measure it through a girth or a slot, a

grading system, and just the take the maximum size limit and the idea off the table.

Now, you would have to have the table in there that says the 18-inch size limit, you'd need a girth of whatever the diameter was, but just let the public know that the enforcement would be done through the girth diameter as opposed to any kind of length or weight. That seems to be simplifying the process when we go out to public hearing because we're going to get the same comment of who is going to measure an eel; if we just simply say that we're going to enforce this through the girth diameter of either a cold ring or a slot in a grader of some sort is the way to go.

I see some heads shaking around the table. I think we've now talked ourselves into enough of a rewrite that I think we might want to see this thing, but, Tom O'Connell, you had your hand up for a comment.

MR. THOMAS O'CONNELL: Thank you, Mr. Chairman. My comments were addressed by Dave Simpson. I think it's important that we need to more clearly define the objectives and what we're trying to achieve with these management actions.

EXECUTIVE DIRECTOR O'SHEA: Mr. Chairman, maybe anticipating where you're trying to take the board, one option that I think we could and we've done in the past relatively to bringing this back is it would be very easy for us to make changes in bold and then send them out electronically and put a deadline on it and do it remote control as opposed to having to bring this back at the annual meeting, if that's what you're looking for.

CHAIRMAN CARPENTER: I think that's an excellent suggestion, and I see some heads nodding on that one. Is there any objection to having the changes that we've talked about today prepared by the staff, highlighted in bold text, and we will have an electronic copy supplied to us, a deadline for us to make our comments and reply back, and then we can start to have the public hearings hopefully before the annual meeting?

Seeing no objection to that plan, I think that's what we're going to do with this document. My next question regarding this is can we have a show of hands of what states would be requesting a public hearing? It may be easier to ask who doesn't want one. Georgia and Florida, Pennsylvania, and I doubt the District is going to want one, but there is nobody here to speak for them.

UPDATE ON MOU WITH THE GREAT LAKES FISHERY COMMISSION

All right, with that, I think we have dealt with Addendum II. The next item on the agenda is the update our MOU with the Great Lakes and our Canadian friends.

MR. BEAL: Thank you, Mr. Chairman. The brief update is that – well, I guess to back up, at the last meeting this management board recommended to the Policy Board that the MOU is ready for signatures of the commission. That document was forwarded to the Great Lakes Commission, and they came back with some suggested edits.

The edits were fairly minor. In a couple places in the document they referred to "commission" and it wasn't clear if it was ASMFC or the Great Lakes Commission, those sorts of things. The general concepts included in the document they were comfortable with. I'm working with the Great Lakes staff right now to iron out those changes.

I sent an e-mail up there last week and didn't hear back, but hopefully we'll be able to square away those changes fairly quickly and bring this back at the annual meeting possibly for final approval. It sound the Great Lakes Commission is comfortable with the suggested language and where we're going and where they're going, but we have to iron out a few wording changes that are hopefully and appear to be fairly minor.

CHAIRMAN CARPENTER: But I thought we had agreed that it would go straight to the Policy Board and would not need to come back to the Eel Board?

MR. BEAL: That's true, if there are any substantial changes, we will bring it back to this group for comment again to the Policy Board. If it is just wording changes and straightening out some acronyms, then we will bring it straight to the Policy Board if this board is comfortable with that.

EXECUTIVE DIRECTOR O'SHEA: Thanks, Mr. Chairman. I probably raised this question at the Policy Board, but to review for the board where we are on this, we're more than six months off the timeline that we had agreed to with the Great Lakes Commission and our Canadian friends on producing this, through nobody's real fault, but there may be value in us sending a polite and nice letter to the Great Lakes Commission just putting in a marker that the ball is in their court on getting this thing done, and let them know.

They were the ones that were partly pushing this; and if it was just a month or two off, it wouldn't be a big deal, but we're going past six months. I'll raise that question at the Policy Board but the members of this board to be thinking about before then.

ADJOURN

CHAIRMAN CARPENTER: Well, I think a polite letter that says the next opportunity that we're going to have is October; so if you don't have anything to us before that, are you really serious and do you want to continue this effort-type thing. Is there any other business to come before the board? Looking very quickly and seeing none, we are adjourned.

(Whereupon, the meeting was adjourned at 9:15 o'clock a.m., August 20, 2008.)