

Atlantic States Marine Fisheries Commission

American Eel Management Board

*February 6, 2014
8:00 – 9:30 a.m.
Alexandria, Virginia*

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1. Welcome/Call to Order (*T. Stockwell*) 8:00 a.m.
2. Board Consent 8:00 a.m.
 - Approval of Agenda
 - Approval of Proceedings of October 2013 Board meeting
3. Public Comment 8:05 a.m.
4. Update on 2014 Maine Elver Fishery Management Measures (*T. Stockwell*) 8:15 a.m.
5. Technical Committee Report (*S. Eyster*) 9:00 a.m.
 - Update on Draft Addendum IV Board Tasks
 - American Eel Farm Aquaculture Request **Action**
6. Other Business/Adjourn 9:30 a.m.

The meeting will be held at the Crowne Plaza Hotel 901 North Fairfax Street, Alexandria, Virginia (703) 683 – 6000

Working towards healthy, self-sustaining populations for all Atlantic coast fish species or successful restoration well in progress by the year 2015.

Atlantic States Marine Fisheries Commission

MEETING OVERVIEW

American Eel Management Board Meeting

February 6, 2014

8:00 – 9:30 a.m.

Alexandria, Virginia

Chair: Terry Stockwell Assumed Chairmanship: 5/12	Technical Committee Chair: Sheila Eyer (USFWS)	Law Enforcement Committee Representative: Fessenden/Marston/Hurd
Vice Chair: Tom O'Connell	Advisory Panel Chair: Martie Bouw	Previous Board Meeting: August 7, 2013

Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, VA, NC, SC, GA, FL, D.C.,
PRFC, USFWS, NMFS (19 votes)

2. Board Consent:

- Approval of Agenda
- Approval of Proceedings from October 2013 Board Meeting

3. Public Comment:

At the beginning of the meeting, public comment will be taken on items not on the Agenda. Individuals that wish to speak at this time must sign-up at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Board Chair will not allow additional public comment. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Update on 2014 Maine Elver Fishery Management Measures (8:15 – 9:00 a.m.)

Background

- At the October Meeting, Maine agreed to meet with industry and report back to the Board in February options for a 25-40% reduction of glass eel catch from 2013 harvest for the 2014 season.
- Maine Department of Marine Resources held two public hearings in December to discuss potential plans to reduce effort in the 2014 fishing season, which opens on March 22.

Presentation

- Review of 2014 Maine Glass Eel Fishery by T. Stockwell

5. Technical Committee Report (9:00 – 9:30 a.m.)

Background

- At the October Meeting, the Board directed the Technical Committee and Stock Assessment Subcommittee to update key indices from the 2012 Benchmark Stock Assessment for American Eel, as well as landings data through 2013. The Technical Committee met multiple times to review the assessment indices and landings data. The final report will be presented at the May meeting along with Draft Addendum IV for Public Comment.
- The American Eel Farm has submitted an updated letter to the Board Chair requesting support for the harvest of 750 pounds of glass eels as authorized through a N.C. Division of Marine Fisheries Scientific and Educational Collection Permit. The harvest would be for aquaculture purposes.

(Briefing CD)

Presentation

- Technical Committee Report by S. Eyler, Chair

6. Other Business/ Adjourn

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

**The King & Prince Beach and Golf Resort
St. Simons Island, Georgia
October 30, 2013**

These minutes are draft and subject to approval by the American Eel Management Board.
The Board will review the minutes during its next meeting.

TABLE OF CONTENTS

Call to Order, Chairman Terry Stockwell 1

Approval of Agenda..... 1

Approval of Proceedings, August 2013 1

Public Comment..... 1

Overview of Draft Addendum IV for Public Comment 1

Discussion of Draft Addendum IV for Public Comment..... 5

Action Taken on draft Addendum IV for Public Comment 15

Additional Direction and Guidance on Draft Addendum IV 27

Update on the Proposed ESA Listing of American Eel 34

2013 Fishery Management Plan Review and State Compliance Report..... 34

Presentation by Dr. Wilson Laney 35

Consideration of Harvest Permit Request by North Carolina 38

Other Business..... 47

Adjournment 48

INDEX OF MOTIONS

1. **Approval of Agenda by Consent** (Page 1).
2. **Approval of Proceedings of August 7, 2013** by Consent (Page 1).
3. **Move to postpone action on Draft Addendum IV until the 2014 annual meeting and task the TC/SASC to update the landings and key indices through 2013. In the interim, Maine will meet with industry and report back to the Board a significant glass eel catch cap for 2014 at the winter meeting** (Page 16). Motion by Pat Keliher; second by Pat Augustine.
4. **Motion to amend to postpone to the Spring Meeting (May 2014)** (Page 20). Motion by Adam Nowalsky; second by Loren Lustig. Motion carried (Page 23).
5. **(MAIN MOTION AS AMENDED): Motion to postpone action on Draft Addendum IV until the 2014 spring meeting and task the technical committee and stock assessment subcommittee to update the landings and key indices through 2013. In the interim, Maine will meet with industry and report back to the board a 25 to 40 percent reduction of glass eel catch from the 2013 harvest for the 2014 season at the winter meeting** (Page 24). Motion carried (Page 27).
6. **Move to accept the 2012 American Eel FMP Review and Compliance Report and approve de minimis for the following states: New Hampshire, Massachusetts, Pennsylvania, South Carolina and Georgia** (Page 37). Motion by Pat Augustine; second by Bill Adler. Motion carried (Page 37).
7. **Move to accept North Carolina's scientific permit request for 750 pounds of glass eel harvest** (Page 44). Motion by Louis Daniel; second by Ross Self. Motion was defeated (Page 47).
8. **Move to delay implementation of the Addendum III dealer reporting requirement until January 1, 2015** (Page 47). Motion by Russ Allen; second by James Gilmore. Motion carried (Page 48).
9. **Adjournment** by Consent (Page 48).

ATTENDANCE

Board Members

Pat Keliher, ME (AA)	Loren Lustig, PA (GA)
Terry Stockwell, ME, proxy for S. Train (GA)	Mitchell Feigenbaum, PA, proxy for Rep. Vereb (LA)
Rep. Walter Kumiega, ME (LA)	Roy Miller, DE (GA)
Doug Grout, NH (AA)	David Saveikis, DE (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)	John Clark, DE, Administrative proxy
G. Ritchie White, NH (GA)	Bernie Pankowski, DE, proxy for Sen. Venables (LA)
Paul Diodati, MA (AA)	Russell Dize, MD, proxy for Sen. R. Colburn (LA)
William Adler, MA (GA)	Thomas O'Connell, MD (AA)
Jocelyn Cary, MA, proxy for Rep. Peake (LA)	Bill Goldsborough, MD (GA)
Robert Ballou, RI (AA)	Rob O'Reilly, VA, proxy for J. Travelstead (AA)
Rick Bellavance, RI, proxy for Sen. Sosnowski (LA)	Kyle Schick, VA, proxy for Sen. Stuart (LA)
Rep. Craig Miner, CT (LA)	Catherine Davenport, VA (GA)
David Simpson, CT (AA)	Louis Daniel, NC (AA)
Lance Stewart, CT (GA)	Ross Self, SC, proxy for R. Boyles, Jr. (AA)
James Gilmore, NY (AA)	Malcolm Rhodes, SC (GA)
Pat Augustine, NY (GA)	Patrick Geer, GA, proxy for Rep. Burns (LA)
Sen. Phil Boyle, NY (LA)	Jim Estes, FL, proxy for J. McCawley (AA)
Russ Allen, NJ, proxy for D. Chanda (AA)	Derek Orner, NMFS
Tom Fote, NJ (GA)	Deborah Rocque, USFWS
Adam Nowalsky, NJ, proxy for Asm. Albano (LA)	Martin Gary, PRFC
Leroy Young, PA, proxy for J. Arway (AA)	

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

Ex-Officio Members

Joe Fessenden, Law Enforcement Committee Rep.	Marty Bouw, Advisory Panel Chair
Brad Chase, Technical Committee Chair	

Staff

Robert Beal	Kate Taylor
Toni Kerns	

Guests

Peter Himchak, NJ DFW	Charles Lynch, NOAA
Brandon Muffley, NJ DFW	Arnold Leo, E. Hampton Baymens Assn
Michael Petony, NMFS	Mari-Beth DeLucia, The Nature Conservancy
Kelly Denit, NMFS	Joseph Gordon, PEW
Nichola Meserve, MA DMF	Will Bokelaer, Colonial Heights, VA
Dan McKiernan, MA DMR	Raymond Kane, CHOIR
Lauren Latchford, Duke Univ	Rick Allyn, Trenton, NJ
Stew Michels, DE DFW	Ann Pierce, Maine Elver Fishermen Assn.
Tracy Maynard, EPRI Hartford, CT	Jeffrey Pierce, Maine Elver Fishermen Assn.
Kelly Place, Williamsburg, VA	Mark Alexander, CT DEEP
Michael Luisi, MD DNR	

The American Eel Management Board the Atlantic States Marine Fisheries Commission convened in the Lanier Ballroom of The King and Prince Beach & Golf Resort, St. Simons Island, Georgia, October 30, 2013, and was called to order at 9:40 o'clock a.m. by Chairman Terry Stockwell.

CALL TO ORDER

CHAIRMAN TERRY STOCKWELL: Good morning, everyone. I'm Terry Stockwell, the chair of the American Eel Board, and I call this meeting to order. We've got a long and likely contentious agenda today, so we're going to want to be expeditious and succinct in our comments.

APPROVAL OF AGENDA

CHAIRMAN STOCKWELL: To begin, we're going to approve the agenda. I do have Russ who has something to add under other business. I am going to, after consulting with staff, propose that we move the consideration of Draft Addendum IV up directly after the public comment period. It is the issue we're all here for, and I think we need to spend most of our focusing on that. Without objection, we will make that change.

APPROVAL OF PROCEEDINGS

CHAIRMAN STOCKWELL: Seeing none, approve the proceedings from the August 2013 board meeting. Are there any corrections? Seeing none; consider the proceedings approved.

PUBLIC COMMENT

CHAIRMAN STOCKWELL: Is there public comment for items that are not on the agenda?

Okay, for those folks that have traveled quite a distance to get here, there will be an opportunity to comment on Addendum IV after Kate's PowerPoint presentation and after the questions by the board on the presentation. I request you to be succinct and to the point. We have a full business. As in previous board meetings concerning elvers, I have stepped down as chair

because of the importance of this issue to the state of Maine. I am going to turn this meeting over to Bob Beal.

EXECUTIVE DIRECTOR ROBERT E. BEAL: I am going to ask Kate to go through her presentation in a minute, but I think it's important to note at the outset here that this is the third meeting on this issue. I think the last two meetings have been at least five hours and felt like much longer than five hours.

With that, I just ask of the board to remember that a lot of these issues have been talked about. I don't know if there is a whole lot of new information that is going to be introduced. I don't think it's productive to rehash all the things that have been said at the last two meetings. I think we can move through this efficiently – we do have a fair amount of time, but that time can go pretty quickly. With that request, I guess you would call it – yes, Mitch.

MR. MITCHELL FEIGENBAUM: I just want to state for the record that I do have a financial interest in the eel fishery. Although I am looking forward to participating in today's discussions, I will not be making any motions and I will be recusing myself from all votes or participation in my state's caucuses.

EXECUTIVE DIRECTOR BEAL: Thank you for those comments, Mitch, I appreciate that. Kate, are you ready to go.

OVERVIEW OF DRAFT ADDENDUM IV FOR PUBLIC COMMENT

MS. KATE TAYLOR: The background on the addendum for new board members, the American Eel FMP was approved in 1999. The board initiated Addendum II in 2006 to propose measures to facilitate escapement of silver eels on their spawning migration with the intent of halting any further declines in juvenile recruitment in eel abundance.

In 2008 the board delayed management action on Addendum II in order to incorporate the results of the benchmark stock assessment in the management measures. The Stock Assessment

Subcommittee worked for over four years on the assessment, which was completed and accepted for management use in 2012.

The stock assessment found that the American eel population in U.S. waters is depleted. In response to this, the board initiated the development of Draft Addendum III to respond to this status. Draft Addendum III for public comment included a range of options for the commercial glass, yellow and silver eel fisheries as well as the recreational fishery.

In August the board approved Addendum III. Specific measures included the nine-inch minimum size limit for commercial and recreational fisheries, a half by half inch mesh requirement for the commercial fishery, a reduction in the bag limit from 50 fish per day per angler to 25 fish per day per angler with an exemption for the party and charterboat industry, pigmented eel restrictions and also restrictions on the silver eel fishery.

At that same time the board initiated the development of this addendum to include but not limited to addressing a coast-wide glass eel quota, adequate monitoring requirements, adequate enforcement measures and penalties, transferability, and timely reporting; and also to address the New York silver eel weir fishery, which was granted an exemption from the requirements as specified under Addendum III.

This addendum contains those measures covering the glass, yellow and silver eel fisheries. It includes comments from the Law Enforcement Committee as well. For the glass eel fishery, Option 1 is the status quo. As we know, glass eel fisheries currently operate in Maine and South Carolina.

Under the FMP, states are required to maintain existing or more conservative measures at the time of the implementation of the FMP, and it is these measures that prohibit the development of glass eel fisheries in the remaining states and jurisdictions. Option 2 in the addendum for public comment includes a closure of the fishery, and this would either be an immediate or

delayed closure as a timeframe as specified by the board.

Option 3 that was developed is a quota for the glass eel fishery based on the more recent landings. The time period recommended by the plan development team is from 1998 to 2010. The plan development team does not recommend using landings' data from 2011 and 2012 as these years were not representative of the historic operation of the fishery given the recent spike in demand for glass eels and illegal harvest of glass eels. Under this option Maine would be allocated 5,233 pounds and South Carolina would be allocated 70 pounds.

The allocation for each state was based off of their landings from this time period and they were calculated independently from one another. Option 4 is a quota based on the ORCS methodology. This is a report that is calculating the acceptable biological catch for stocks that have reliable catch-only data, ORCS.

The board has previously seen this method used for menhaden under Amendment 2. It specifies that the board will set the TAC based on the best available science; but if the projections are not recommended for use by the technical committee, then the board will set a TAC based on the ORCS approach, which has been used by the councils.

I'm going to explain a little bit about this for those that might not be familiar with it. The ORCS methodology was derived to set an overfishing limit and allowable biological catch and an annual catch limit for stocks that have only landings and discards data. This is the most reliable source of data that we have for American eel.

The buffer between the overfishing limit and the ABC accounts for the scientific uncertainty while the buffer between the ABC and the ACL accounts for the management uncertainty. The plan development team used this method based on the time period from 1998 to 2010. Under the step to account for scientific uncertainty, the plan development team recommended starting with a multiplier of 0.5; so this is the multiplier

that is applied to the landings from this base period.

This multiplier was selected by the plan development team given the depleted status of the eel population. However, the plan development team recommended increasing it from 0.5 to 0.7 due to the high productivity and the high natural mortality and the limited exploitation coastwide of glass eels, so this results in the multiplier of 0.75 to account for scientific uncertainty.

From here to account for management uncertainty, the plan development team recommends a multiplier of 0.9 to account for the uncertainty associated with the landings and any illegal or unregulated landings that occur in the fishery. What this results in is an allocation to Maine of 3,501 pounds and an allocation to South Carolina of 71 pounds.

If a quota system is implemented by the management board, there can be options to address quota overages and quota underages, as well as allowances for research and aquaculture; so that is if the board chooses to go forward with the quota based on the landings or the ORCS method. Under quota overages, there is an option for an equal payback, which would be pound for pound, the following year.

There is also an option for a quota overage tolerance; and this would be a tolerance of up to 5 percent would be allowed without payback. This is just given the environmental conditions that can cause the landings to spike overnight, and so it's to sometimes account and plan for those. But if a state exceeded its quota above the 5 percent, then the entire amount must be paid back.

Option 6 deals with quota underages. Under this option up to 25 percent of the unused quota may be added to the state's quota in the following year. Any quota that is rolled over can only be used in the year following the underage and could not be carried over for additional years. Option 7 deals with research and aquaculture allowances. The first option is the research set-aside program.

This RSA Program, as included in the addendum, will establish a procedure through which up to 5 percent of a state's glass eel quota may be set aside to fund research. The quota could be allocated either through a bidding process where the fishermen bid on the quota with the funds raised distributed to approved research projects or through an application process where the quota is allocated to researchers with the harvest sold to fund approved research projects.

It would be the option of the state to participate in the RSA Program. Any research projects would be subject to review and approved by the participating state in consultation with the technical committee. The other option is for an aquaculture allowance. Under the aquaculture program this would allow for a small portion, recommended up to 5 percent of a state or jurisdiction's quota of glass eels, to be harvested and used for aquaculture purposes.

The request for aquaculture would be subject to technical committee review and board approval. Option 8 under the glass eel fishery proposed measures deals with the reporting requirements. This option would require daily electronic accounting to the state for harvesters and dealers in order to ensure accurate reporting of the harvest.

Option 9 is a monitoring requirement. This states that any state or jurisdiction with a commercial glass eel fishery must implement a fisheries-independent life cycle survey covering glass, yellow and silver eels within at least one river system. Those survey proposals would be subject to technical committee review.

Moving on to the yellow eel fisheries, currently there are commercial yellow eel fisheries operating in all states with the exception of Pennsylvania and the District of Columbia. The management measures selected by the board in Addendum III that I described earlier will go into effect January 1, 2014. This includes the nine-inch minimum size and the half by half minimum mesh requirements.

Option 1 would be the status quo, to maintain these measures. Option 2 would be a quota based on the landings. The plan development team used three time periods to develop the quota allocation options; 1998 to 2010, 2000 to 2010 and 2005 to 2010. I would like to note that the minimum allocated quota was fixed at 2,000 pounds; so if a state's proposed quota under any of these different landing scenarios was less than this amount, it would automatically set to 2,000 pounds.

This provides all states a quota level sufficient to cover any directed or bycatch landings without creating an administrative burden. This 2,000 pound quota is not expected to promote a notable increase in effort in the fisheries. Table 5 on Page 12 shows the different quota allocations by state and the difference from the current 2012 harvest.

Option 3 is the quota based on the ORCS methodology. Again, the minimum quota would be fixed at 2,000 pounds for states that fell below this, and the same three time periods were used as the previous option. Similar to the glass eel quota, the plan development team started with a multiplier of 0.5 to account for scientific uncertainty given that the American eel stock is at a low level.

However, unlike glass eels, yellow eels face an increasing number of threats and for longer periods of time across their entire range. Additionally, natural mortality at this life phase is more similar to fishing mortality and overall productivity at this stage is less than it is for glass eels. Therefore, the plan development team recommends maintaining the 0.5 multiplier to account for scientific uncertainty.

To account for management uncertainty, a multiplier of 0.9 is recommended to account for any illegal, unregulated and unreported landings. So using the scientific uncertainty and the management uncertainty, the quota allocation coastwide is specified under the medium acceptable risk option. This translates to quota allocations as seen on Table 8 on Page 15.

If a quota system is implemented by the board, the board can choose to address quota overages and transfers. These options are only applicable if the quota management is chosen. Option 4 deals with the quota overages, and this would be a pound-for-pound payback the following year. Option 5 would be a quota transfer, and this would be a state-to-state quota transfer, so states could petition other states to provide them quota if needed.

These quota transfers would be approved by the board, and they would have to be submitted by December 31st of that fishing year, similar to what we have for bluefish. Under this option the 2,000 pound automatic quota is not eligible for transfer. Option 6 deals with yellow to glass eel transfers. This option is only applicable if the board approves quota management for both the yellow eel fishery as well as the glass eel fishery.

Under this option states or jurisdictions could petition the board to transfer all or a portion of their yellow eel quota to a glass eel fishery within their states. This would apply to any states with the exception of states that receive that 2,000 pound quota. They would not be eligible to transfer that quota amount into a glass eel fishery.

The petitioning state must develop a transfer plan that details the scientific analysis the transfer is based on and clearly shows that the transfer will not increase overall eel fishing mortality in the state. The board should task the technical committee to develop a template of minimum standards for the transfer plans.

These transfer plans would be subject to technical committee review and board approval with a recommended submission date by July 1st of the preceding fishing year. For those states that are interested in the development of a glass eel fishery but have minimal yellow eel landings to transfer or would like to increase the transfer amount, they would be allowed to petition based on a combination of the historic landings in their fishery, any habitat improvements that the state or jurisdiction has undertaken, the enforcement capability of the state or jurisdiction, what

monitoring requirements they have in place and also any other conservation measures that are applicable to American eel.

If approved, the state or jurisdiction would be locked into that transfer and would not be able to transfer the quota back to the fishery that it came from. This would be to promote stability in both the fisheries and to decrease the uncertainty that participants might have if either fishery was eligible for a transfer at any time.

Moving on to the silver eel fishery, under Addendum III the states and jurisdictions are required to implement no take of eels from September 1st through December 31st for any gear type other than baited pots and traps or spears. These gears may still be fished but retention of eels is prohibited. New York was granted a one-year exemption from the requirements under Addendum III.

Option 1 is the status quo; the current regulations would remain and the one-year exemption would expire for the Delaware River Eel Weir Fishery on December 31, 2014. Option 2 would be an extension of the sunset provision at a timeframe specified by the board. Option 3 for the New York Weir Fishery would be effort reductions or like a time closure, and this would limit the Delaware River Weir Fishery from August 15th through September 30th.

The table provided shows landings, so this would essentially cut out the October portion of the fishery and mostly half of the August fishery. The majority of landings are occurring really in September and October. Option 4 would be a license cap; and under this option the Delaware River Weir Fishery would be limited to those permitted New York participants that fished and reported landings anytime during the period 2010 to 2013.

Once issued, the licenses are not eligible for transferability and only one license could be issued per participant. The Law Enforcement Committee has weighed in on the ability to enforce management measures that were included in Addendum III, which are similar to

the measures contained here in this addendum. This included analysis of the glass eel fishery, quota management options and the time closures.

The LEC has weighed that they are unlikely to obtain the resources necessary to effectively monitor and control a limited glass eel harvest. The LEC has also weighed in that a quota system would be difficult to enforce depending on the strategy that is associated with the quota implementation; and as the complexity of the quota system increases, that will generally reduce the enforceability of that system.

The LEC has also weighed in that enforcement of the time area closures for the silver eel fishery are reasonable. If approved for public comment today, public hearings would be held from November to January and the board would consider approval at the February meeting. That concludes my report. Thank you, Mr. Chairman.

DISCUSSION OF DRAFT ADDENDUM IV FOR PUBLIC COMMENT

EXECUTIVE DIRECTOR BEAL: Thank you, Kate, and you and the plan development team have done a lot of work since the August meeting and hopefully will help things along today. What I'd like to do is have specific questions from the board to Kate on the draft addendum. Let's try not to get into the next step of talking about including options and taking options out. It's just questions at this point.

As Mr. Stockwell mentioned, there are a number of folks in the back of the room that traveled a great distance. I think after we have board questions, we will take public comment from those folks and then we will get into the board decisions. I'm not sure if Mr. Stockwell mentioned this at the beginning, but regardless of where we are at noon we're going to break for a previously scheduled lunch event. We will reconvene this board at 1:30, if necessary, and then finish up the agenda. With that, are there questions for Kate and the plan development team? Terry.

MR. STOCKWELL: I've got one question for you, Kate. Why, when you were drafting this document, is there only one quota based on landings for the elver fishery and three for yellow eel?

MS. TAYLOR: The plan development team did look at a range of options but was most comfortable with using the 1998 to 2010 for the glass eel fishery; and for the yellow eel fishery just did include that range of options given their increased confidence in the landings' data.

MR. STOCKWELL: So there was no plan development team confidence in the elver landings back to the same time periods?

MS. TAYLOR: The plan development team just chose to use 1998 to 2010 to encompass the kind of range in the fishery. We didn't look at other timeframes, but that can certainly be something that we could be tasked to do.

MR. DOUGLAS E. GROUT: I have three clarification questions about different sections. On Page 10, under Suboption 17B, glass eel harvest for aquaculture, there is a sentence here that says, "Eels sold for aquaculture may not be sold until they reach legal size in the jurisdiction of operations unless otherwise specified." I would like some clarification as to who is doing the specification; what is the intent here? Who is going to be specifying things?

MS. TAYLOR: Under this option, the requests from the state would have to be submitted to the technical committee for their review and board approval. The petitioning state could request for allowances to sell the eels at a lower minimum size, but that would be subject to technical committee review and board approval.

MR. GROUT: So that is the intent behind this; okay. It might be good to clarify that it needs to be approved by the technical committee. Then if we go to Page 16 of the document, under Option 6, yellow eel to glass eel transfers; there is a sentence in the middle that says, "For states or jurisdictions that are interested in development of a glass eel fishery but have minimal yellow eel landings"; I'm trying to get a feel for what

minimal yellow eel landings are given that there is going to be a 2,000 pound quota here that will be given as a minimum. Is the 2,000 pound considered minimum? I didn't think so because I think you're not allowing to transfer that.

MS. TAYLOR: The 2,000 pound quota allocation is just given to those states that have – I think New Hampshire has –

MR. GROUT: Three hundred pounds.

MS. TAYLOR: – three hundred pounds, yes; it is very low. Just to reduce that administrative burden, if New Hampshire would be interested in petitioning to participate in this transfer request, then New Hampshire could use its 300 pound landing and then take into account other actions that the state has done to improve fish passage or habitat conservation to increase the transfer amount.

The minimal amount is really just to kind of say for those states that are given this 2,000 pound quota or don't necessarily have enough yellow eel landings, that when they apply the scientific method to transfer to their glass eel fishery, they don't end up with one pound of glass eels.

MR. GROUT: Okay, and one more clarification question. We're going to the next page, which is Page 17, Option 3, effort reduction time closure. Just so I'm clear on this, the sentence says, "Under this option the state of New York would require to implement no take of eels in the Delaware River and tributaries with New York from August 15th through September 30th from any gear type other than baited traps/pots or spears and weirs." Those would be one or the other; right?

MS. TAYLOR: That is a typographical error, which is a very good catch. It should be "baited pots, traps, spears and weirs".

MR. ROB O'REILLY: Kate, it was information flowing pretty quickly, so I guess my questions relate to management uncertainty. What exactly was the basis for management uncertainty; and did you cover scientific uncertainty?

MS. TAYLOR: The recommendations for the multipliers for management uncertainty are just those recommendations from the plan development team. The board should discuss and develop what their comfort level is in setting the multiplier for the management uncertainty. For the scientific uncertainty, this multiplier was chosen just given the life history of American eel, confidence in landings' data, the information we have on the stock status, and the vulnerability of the species at that life stage, how long they live. It takes into account a lot of different factors.

DR. LOUIS B. DANIEL, III: I've been in and out so if this has been asked, I apologize. I'm trying to figure out why there is an allowance to roll over quota. That seems to be inconsistent with every plan and every argument we've ever had around this table, especially on a depleted stock, so why would there even be consideration for quota rollovers even for one year?

MS. TAYLOR: The quota rollover for the glass eel fishery was just in recognition of the fact that there are a lot of environmental conditions that influence the amount of elvers that will be entering the rivers. Some years there just will not be an availability of glass eels that are coming up the streams and rivers. Given the plan development team was comfortable with a 25 percent rollover of the quota and taking into account the reductions that the quota options are allocating, they were comfortable with doing that and just considering a quota rollover for the yellow eel fishery as well.

DR. DANIEL: Just as a followup; that is not a very satisfactory reason from my perspective, so I'm assuming we're going to have an opportunity to take some of this stuff out of the document later after we hear public comment.

EXECUTIVE DIRECTOR BEAL: Yes, we will, definitely. Jim Gilmore.

MR. JAMES J. GILMORE, JR.: I've got questions on two areas, Kate. Let me go to the silver eel one first because I think that is more straightforward. If you remember at the last meeting we kind of got a little bit bollixed up

because if we go back to the May meeting, I think the AP recommendation was that they thought that the six weirs that were going to exist were not a problem.

In fact, they quite frankly stated that so that there would be an exemption for the current situation. After we got to the August meeting, we looked at, well, we had to do some kind of a significant reduction, and that's understandable. I think the options that we have in there give us some latitude on that with the exception of Option 4, I believe it is. That would completely eliminate the fishery eventually, and that is I think going well beyond what the reduction was.

That is an eventual elimination of the fishery because of that provision that says that the licenses are not transferable. As Louis had said, I think one of the changes we need to make in that is maybe take that transferability provision out. I think we would like to reduce it by as much as 50 percent of the licenses, but again it was not to completely eliminate that fishery over time. That's Point Number 1.

Number 2 gets on the yellow eel fishery with the quota options. We talked about menhaden a couple of days ago and we're setting up the stage for the same thing again. We have very poor landings for the time periods that we're talking about; and based upon those numbers, we're looking at I think New York will be getting that 2,000 eel quota, whatever, which is we know is low, and we're going to go right back into what we did with menhaden and set up a quota that we're suddenly not going to be able to live by.

We're going to have big problems trying to support some quota. I have no problem with a quota if we're basing it on good data; but if we're basing it on poor data, we're going to go around and around on this because I'm not getting back into Menhaden II. We need to talk more on that.

MS. TAYLOR: The plan development team did discuss Option 4 under the silver eel fishery and did recognize that over time the fishery would be phased out, but the plan development team

was supportive of including that option in the document just given that all other states had to eliminate their silver eel fisheries.

MR. ADAM NOWALSKY: On Page 16, under Option 6 for the yellow to glass eel transfers, with the sentence that ends “clearly show the transfer will not increase overall eel fishing mortality in the state”; do you have any examples you could provide at this point of how we would do that? New Jersey without a glass eel fishery right now would be something that we could potentially use this option in the future, but some examples of what that would mean would be helpful at this juncture.

MS. TAYLOR: The next sentence states that the technical committee will develop a template of the minimum standards for these transfer plans, but it would be subject to the state to use the data that they have and develop the plan that would be approved by the technical committee and the board.

EXECUTIVE DIRECTOR BEAL: Work in progress. Adam, do you have a followup?

MR. NOWALSKY: Well, I think your last statement “work in progress”; again, I was looking for an example now and I guess the answer is we don’t have one to show you what it might look like right now.

MS. TAYLOR: Really, the basis for this is coming from the development of the sustainability plans under shad and river herring. I think many of the technical committee members on shad and river herring are also on eel, and many of the plan development members are also the same. I just given kind of the successes that we’ve had with that and also the areas for improvement of those plans, we would be able to move forward with the development of plans and build on kind of existing knowledge.

MR. RUSS ALLEN: Just to follow up on that; I think the difference that I see in shad and river herring versus eels, the natural mortality in glass eels is much higher and that it is very hard to take what you would catch as a glass eel and

relate it to yellow eels – that is our problem when we started all this – whereas for shad and river herring we had young-of-year indices and things of that nature that you can actually use to project to adults.

Maybe you guys will come up with a template for this, but I know you struggled with this for years on how you’re going to have a connection between any glass eels to yellow eels. For a state to be able to show that when you know there is not data coastwide will be very tough for a state to do that. Thank you.

MS. TAYLOR: That was kind one of the reasons why the plan development team was supportive of the state plan was because there are so many variations regionally between the states and between river systems, and so there is different data that’s available.

MR. ROSS SELF: Mr. Chairman, just let me follow up on this yellow to glass eel transfer thing to be sure I understand. Essentially the plan development team is not proposing some multiplier. They’re going to have the states pitch or try to sell their individual multipliers to get their plans approved; is that correct?

MS. TAYLOR: That is correct; the states would be able to – the multiplier kind of refers to the ORCS methodology, but the states could, using the data that they have, develop a plan to say they would like to transfer their yellow fishery to the glass eel fishery. If the board does task the technical committee with the development of minimum standards, the technical committee could look at habitat improvements, law enforcement measures, monitoring measures and develop maybe some standards there to assist the states and say given your efforts here in these other areas, this would equate to an allowance for a quota of this amount, possibly.

MR. SELF: And if I can, I’ll jump back with you to Option 3; I know you and I have had some communication about that this morning. The way you explained it to me is those quotas for Maine and South Carolina for glass eels were established on historic landings within each of those states independently.

The way I read the language in Option 3, I infer from that that a coast-wide quota was established and that was allocated back to the states. Can the plan development team try to clarify that language before this goes out for public comment?

MS. TAYLOR: Yes, we can do that.

MR. FEIGENBAUM: Kate, I sat in on most of the plan development team calls, but I think I missed one and a half. Has the plan development team considered any alternatives to setting a glass eel quota for a state that wants to enter the fishery other than a transfer of a yellow eel quota? I specifically refer to using some sort of watershed discharge basis, meaning the glass eel quota – did we talk about watershed discharge? It seems that by using a yellow eel quota, we're really just rewarding states that have had a historical yellow eel fishery by letting them get a bigger share of the glass eels.

Environmentally speaking it might be that the glass eels are really recruiting in much greater numbers to states like Massachusetts and New Hampshire that have very small yellow eel quotas, but they might be the states most amendable to a glass eel fishery because they have geographies very similar to Maine. I know that it was identified as one management approach, but I'm just curious was it discussed at all.

MS. TAYLOR: I think kind of what you're discussing is really encompassed in the transfer plans from the yellow to the glass eel fishery so that if the states were open up habitats and drainage areas, then they could use that to petition for more quota.

EXECUTIVE DIRECTOR BEAL: I don't see any other questions around the table. Tom.

MR. THOMAS O'CONNELL: It was helpful to me to see the economic value that was added to the glass eel fishery section to understand the magnitude of that fishery. I was wondering if it would also be possible to include some economic information as it relates to the yellow eel management options.

Speaking for Maryland, for example, those reference periods are going to result in a very significant reduction disproportionate to other states; up to 50 percent. I think it would be important for the public and the board to understand under the current options what kind of economic impact that will have to fishermen. If that information is available; and we'd be happy to share with you the information we have on the value for Maryland to see if we can get some economic information for the yellow eel quota options. Thanks.

MS. TAYLOR: Yes, if we have that information available, we certainly can include it in the public comment document.

MR. O'REILLY: My question just relates to the data; and if I remember correctly – and I think it was a couple of meetings ago – given the completion of the stock assessment, the recommendation was not to include data beyond 2010 as a risk-averse approach. I'm wondering with the ORCS process has that viewpoint changed. The reason I'm asking this is if we're already having indications that data quality might be more suspect as you go back in time – and a couple of these time periods start in 1998 – is there a good tradeoff to maybe consider later data? I don't know whether that has been talked about.

MS. TAYLOR: That is something that the board could consider additions of years to the allocation methods and also taking into account the board's comfort level in assigning a multiplier for the management uncertainty.

DR. DANIEL: Looking over Suboption 7B on the glass eel harvest for aquaculture, at some point there needs to be another option there; because basically what that does is that limits all aquaculture activities to Maine and South Carolina. If this addendum were to pass and if we're looking at trying to develop an aquaculture situation in North Carolina, which we're all aware of, then we wouldn't have an option with Addendum IV. Once it passed, we'd no longer be able to participate, so there needs to be something sort of like what Mitch was saying about the – you're going to have a

hard time transferring yellow eels to glass eels and disadvantaging your yellow eel fishermen.

That is going to be storm that I don't think any of us want to go through, but there needs to be some option for how to provide aquaculture fish to various states that have an interest in an aquaculture facility. Otherwise, we're all out of the game after this is done whether we get our permit request approved or not. That is a concern. At some point before we go to – I mean, if everybody agrees, I think there needs to be some way to allocate for bone fide brick-and-mortar technical committee and board-approved aquaculture operation some allowable harvest of glass eels anywhere.

EXECUTIVE DIRECTOR BEAL: Louis, keep that in mind. We're going to get to motions on things to add or delete from the document, so keep that in mind as kind of the next step. I had Representative Kumiega.

REPRESENTATIVE WALTER KUMIEGA, III: Is there a way to, if we had accurate censuses of silver eel escapement, to transfer that to either silver eel or yellow eel quota? Do we have the technical ability to instead of basing it on historical catch but basing it on the state's production of – I mean because silver eels are really the thing that we need to produce in order to maintain the stock quality.

MS. TAYLOR: The plan development team did look at that. Since we started with the ORCS method with the glass eels and then we moved it to the yellow eel fishery and we discussed this transferability from the yellow to the glass eel fishery, the plan development team believed that the high productivity of the silver eels and how important they are and given how long that they have already survived and how close they are to spawning in the Sargasso Sea, they were not comfortable with including that option.

REPRESENTATIVE KUMIEGA: I wasn't referring to transferring quota but to somehow using a census of a state's silver eel production to transfer back to how many – you know, if they're producing X-number of silver eels, they can harvest X-number of glass eels or X-number

of pounds of yellow eels or a way to say, okay, your production is X so your harvest can be Y.

MS. TAYLOR: This could be something that could be petitioned in the transferability plan. If a state wanted to go that route, I think the technical committee could consider that.

EXECUTIVE DIRECTOR BEAL: I had Mr. Lustig and then I think I'm going to go the audience after that. Loren.

MR. LOREN W. LUSTIG: Kate, right at the end of your presentation, you gave us a brief summary of input from the Law Enforcement Committee. I was taking notes and I believe you said that the quota system was going to be difficult to enforce. Perhaps you told us but I didn't catch it; what did they recommend in terms of enforceability?

MS. TAYLOR: The difficulty in enforcement of the quota system was just in relation to – it depended on which management strategy was associated with how the states implemented it. It kind of just depends on that. I don't know if Joe would like to comment anymore on that. It is just as the quota systems became increasingly complex, it would create problems for enforcement.

EXECUTIVE DIRECTOR BEAL: Joe, do you have any law enforcement perspective on it?

COLONEL JOSEPH FESSENDEN: Well, we have been actually reviewing our data in Maine. We've hired an investigator to compare our harvest landings with our eel landings' reports, and it is a work in progress. It has been an eye-opening thing for me. This year we're going to a scanning system, I hope, for harvesters.

I am really optimistic that is going to be successful; so maybe requiring a scan card to sell elvers might be an important thing to use. It would certainly help law enforcement to identify who is selling eels. It is a tough thing for law enforcement to monitor. We're doing it in the shrimp fishery successfully in Maine. The last couple of years we got into quota management for shrimp. I see down the road it is kind of the

wave of the future for law enforcement to get more involved with landing data and place a lot more importance on landings and that information.

MR. LUSTIG: I just wanted to say that certainly the recommendations of law enforcement are absolutely critical because if we cannot be absolutely confident in their ability to provide us with a system that ensures that poaching and cheating of all types isn't occurring, then we are left without confidence in our overall decisions,

EXECUTIVE DIRECTOR BEAL: I think the law enforcement folks, not to speak for Joe, but they'll probably say that simple is better. The more complicated the system gets, the harder it is to enforce so if we can keep that in mind moving forward. From the audience, can I have a show of hands of folks that would like to comment to the board? I only see three, which is good. Please keep your comments brief – there are only three of you, but I think the board is very aware of the importance of this fishery and the economic importance of this fishery to a lot of states and a lot of fishermen.

MR. RICK ALLEN: My name is Rick Allen from American Eel Farm. I just want to support Louis' comments pertaining to the aquaculture. I would like to share with you a quote from NOAA's Website: "Estimates suggest that seafood production from wild fish stocks will be insufficient to meet growing U.S. and global demand for seafood products in the next century. While maintaining and rebuilding wild stocks remains the heart of our mission, stewardship also demands that we encourage the production of seafood products through environmentally sound aquaculture to help meet this increasing demand."

Today the United States produces 0.8 percent of all aquaculture. Asia produces 88 percent. Aquaculture is important to any fishery; and for the eel fishery, I believe that it should be removed from any quota system and it should stand on its own. If there is a brick-and-mortar facility that is licensed and prepared to do business and an investment has been made in

aquaculture, that facility should have the ability to go before the commission and the state and stand alone as far as a quota to have the ability to harvest eels and to get the aquaculture industry off the ground here for the eels. Thank you.

MR. GREGORY BLACKLER: My name is Gregory Blackler. I wrote a couple of letters, so I'm just going to kind of highlight one and address the one that Kate just presented. The goal of an elver is to make it to freshwater where it starts to feed and grow. Maine is a perfect habitat as it has 3,500 miles of tidal coastline, 33,000 square miles of total acreage and 13.5 percent of it is water. Maine also has 3,900 miles of streams and 24,000 miles of brooks.

Maine has the most extensive system of undeveloped free-flowing rivers than any state in the northern United States. Because of this, Maine is unique. Accompanied with several dam removals in a year and a strong co-management approach to a sustainable fishery, Maine and its elvermen has and will continue to take an active approach to ensure our fisheries survives.

Committee members, be cautious as you consider making important decisions on clearly a fishery that needs a lot more understanding. We understand how it works all the way up in Maine. Ask for our help; we will be glad to assist. Use us as a model of how to set up a fishery; but whatever you do, don't change what we have worked so hard on. Our methods are obviously working.

My other letter, I just wanted to highlight a couple of things that we've given up over the last 15 to 20 years. In 1996 Maine had 2,207 licensed elver fishermen. By 2012 there were 557. Over 2,600 fyke nets were being used in 1996. By 2012 there were 347. The amount of dip nets was over 2,000 in 1996 and by 2012 only 172.

Jumping around, the most important and successful law adopted, I feel, was the non-fishing of the middle third of the river in 1996. This has allowed the strongest elvers a safe an

unimpeded passage upstream. I am going to jump around a little bit more. I know you guys are rushed for time. Gear reductions played a major role in sustaining our fishery, but equally important are dam removals. I've talked about that.

There have been seventeen dam removals to aid the unimpeded passage of elvers over the last 20 years. The Veazie Dam on the Penobscot River was the most recently removed. When you add that one and the Great Works Dam also on the Penobscot River, it opens up over 15,000 acres for the American eel.

I guess I'll skip to the end on what I have to say here. The state of Maine and its elvermen have been very active and complying in terms of keeping our fishery sustainable. We have given up a lot over the last 20 years and we feel enough has been done to ensure it stays this way. Again, if other states want to experiment with catching elvers, we strongly encourage adopting Maine's laws as a starting point. If any research is to be conducted, we are friendly people and will offer our help, our nets and our time to ensure a proper and accurate study. Thank you.

MR. G. RITCHIE WHITE: Mr. Chairman, just a couple of questions for Kate. If I'm reading this correctly, and it's possible I'm not, why did the plan development team not consider having quotas available to all states outside of the yellow eel transfer?

MS. TAYLOR: The plan development team did not have the information sufficient to set those quota levels and so they felt the most appropriate way to meet the goal of the addendum was to allow states to petition for this transfer as opposed to setting a coast-wide glass eel quota.

MR. WHITE: And the second part of the question is if we selected Option 3, that would mean that 5,293 pounds of elvers could be harvested by Maine and South Carolina. If a state did a transfer and was successful and got a certain amount of pounds of elvers for their yellow; would that come out of that number or

would that be a harvest in addition to that number?

MS. TAYLOR: That would be a harvest in addition to that number.

MR. WHITE: So did the plan development team do any off the back-of-the-hand calculations in how much that could be? In other words, if we're saying that they think that the 5,293 pounds is our goal, then if we double that with the transfer and wouldn't that be too large a harvest?

MS. TAYLOR: The transfer request, though, would come with a corresponding reduction in the yellow eel fishery and it could also be corresponding to improvements in habitat enhancement, law enforcement measures to reduce illegal harvest, monitoring to help understand the life history of American eel; so overall it should lead to a reduction in mortality.

EXECUTIVE DIRECTOR BEAL: I have got Jim Gilmore and then I know I have one more hand in the audience and Pat Keliher. I will go with Jim and Pat Keliher and then the audience comment, if that's okay.

MR. GILMORE: Kate, Table 5, if you could help me out a little bit with it, because I'm not sure I understand it and maybe it's just I'm a little slow today. There are some amazing percentages on that. I'm looking at Massachusetts in particular, so could you explain that a little bit better. It says essentially those historic landings and based upon current landings, and 699 percent really just jumps off the page.

MS. TAYLOR: For Massachusetts it is because the Massachusetts landings have been about 300 pounds, I believe roughly, and you'd probably see corresponding for New Hampshire and those other states that have those 2,000 amount amounts because they have double-digit and maybe triple-digit landings in 2012.

MR. GILMORE: So the negative indicates – so that would be an increase for them of 700 percent and then other ones in the negatives

would be a decrease in percentage, but that is all based upon 2012 landings that were showing significant differences on the historic landings?

MS. TAYLOR: Yes, the negative ones there would be decreases in landings and it is from the 2012.

MR. PATRICK C. KELIHER: Mr. Chairman, I have many different comments here, but they would evolve into a motion, but I do not want to move forward with a motion until you've completed the public. I'm just checking where we are.

EXECUTIVE DIRECTOR BEAL: Yes, let me get the last public comment and then we'll come back to you if you have a motion ready because I think the next portion of this is to decide what to do with Addendum IV, either doctor it up or set a course of action.

MR. JEFFREY PIERCE: My name is Jeffrey Pierce. I'm the executive director of the Maine Elver Fishermen's Association. I'm not going to read this. Before you, you have a letter on comments for Draft Addendum IV from the Maine Elver Fishermen's Association. We spent all weekend gathering 197 signatures in response from a lot of scared people in Washington County; the poorest county on the Eastern Seaboard.

Remanding this back to the technical committee and plan development team might not be an option, but we certainly would like to see an impact study on your regulatory and your management. Greg Blackler brought up a lot of good points so I won't have to reiterate them. We really just ask for a fair and balanced approach to this fishery and status quo in the glass eel fishery with each state coming up with modifiers if they want to enter into the glass eel fishery and coming up with their own conservation equivalencies, as we all have different habitats.

Maine has a tremendous amount of river herring habitat where we have opened up. River herring and elvers share the same habitat. They're in the water at the same time; they claim the same

impediments; and they have the same outward migration problems. The glass eel fishermen in Maine are being challenged by these regulations.

Outward migration is the challenge for the silver eels. They grind up 20 or 30,000 pounds of our silver eels pretty easily in the state of Maine alone. Each silver eel is capable of spawning a million-plus larvae. That's more than we could even imagine taking considering 20 silver eels, if all their larvae lived, would be the total catch for Maine. We're talking a fishery that had 19,000-plus pounds last year. That is not a lot of poundage when you think about what is being ground up by the turbines. We just ask for a fair and equitable solution. Thank you.

EXECUTIVE DIRECTOR BEAL: Thank you, Mr. Pierce. Dr. Daniel.

DR. DANIEL: To that point that the speaker just made, I'm kind of fading in and out of the twilight zone here with this plan. I think we're going to have a real problem if we don't answer some of the questions that are arising from a technical perspective on the number of silver eels and the resulting number of elvers and that type of information.

There is no way we can't have at least some estimate of how many – of 2,500 elvers to the pound how many make to the silver eel stage. There has got to be a way to figure that out. Even if it's subjective, there has got to be a way. Is it a pound for pound? I would probably pretty close, but are there some folks that think it's a hundred thousand pounds of eels for a pound of elvers? No, but we keep getting comments that nine eels make more elvers than are caught.

We've got to remember that every day that egg is in the Sargasso Sea and in that leptocephalus form and it is floating around out there in the middle of the ocean, you're losing that nine million eggs is dropping every hour by huge percentages. So trying to forecast year class strength is something we always wanted to be able to do, but it is nothing we've ever been able to do.

But if we're just going to just 2,000 pounds per state that doesn't have a glass eel fishery – that doesn't have a yellow fishery, well, how about 2,000 pounds for each state that wants a glass eel fishery. Is it going to have any impact on the stock?

No, so we're going to have a real hard time with this plan when we go out to the public if we don't address some of those technical questions and technical concerns and at least provide some information to the public as to what this conversion is going to look like if we move forward with it. Why not just make it easier on ourselves and either have a fishery or not and authorize some allowable level of elver harvest to see what kind of interest there is from the states? That is going to be tough.

EXECUTIVE DIRECTOR BEAL: Thanks, Louis, I think. Brad, do you have a comment on the relationship between the life stages?

MR. BRADFORD C. CHASE: Yes, the stock assessment subcommittee did entertain this question in July and we did produce a survivor model that would allow you to consider options; but as described in August the assumptions are really outstanding. We just don't have information on mortality in marine waters. On a watershed basis it is just limited.

The board could task the technical committee and the stock assessment subcommittee to revisit this, and we could try to produce something that had levels of assumptions that could be acceptable. It is worth trying. Another point to consider is the stock assessment was pretty clear that opening new fisheries would not be compatible with the goals of reducing mortality, so we have to have checks and balances if we want to open new fisheries.

EXECUTIVE DIRECTOR BEAL: Tom Fote hasn't commented yet and then I saw Mitch's hand and then I'm going to go back to Pat because I think he said he had a motion to maybe focus this discussion a bit. Tom.

MR. THOMAS FOTE: We do a lot of plans where we can't basically actually say what

would happen and how many striped bass produced that over how many survive. I don't want to do voodoo science. I mean if we can't get something that is even close that we could back up in a reputable way, we can't go there.

I'm not put something in a paper and approve something that goes out in a plan to out for discussion that we're just pulling out of the hat. We might as well just say that we're going to pull this out of a hat. We've got to really be confident when we're going to put something in a document.

Again, as we're going through this process, remember this started as a process because we were concerned about the health of the stock of eels. I mean that's the real concern up and down the coast and up in the Great Lakes. When we start talking about how do we accommodate and how do we accommodate, remember the goal is to reduce the mortality on eels.

I also am upset with the guys – and I agree with the guys in the elver fishery. I've said this on striped bass and I've said it on weakfish; we can regulate the fishermen but we can never regular the power plants. They get permits that kill as many as they want as long as they have a permit to do it, as long as they have FERC.

I always wanted to put a plan in that they have to do a reduction if we have to do a reduction. We talked about that in the Habitat Committee when I started it 20 years ago at the commission level and nothing has ever been accomplished. NMFS can't do it; the Fish and Wildlife Service can't do it; and we don't seem to be able to do it.

MR. FEIGENBAUM: Kate, could you very quickly put up the slide – I think it was the monitoring requirements. It was the one right after law enforcement, I believe, or right before.

MS. TAYLOR: For the glass eel fishery?

MR. FEIGENBAUM: Yes; and I think it was a general option. It was where the plan development team had suggested in Option Number 9 that jurisdictions with the glass eel fishery must implement a fishery-independent

life cycle survey covering glass eels, yellow and silver eels. Following up on your point, Louis, this is the first step. This is the necessary foundation to beginning to do the analysis of what mortality rates are.

The technical committee, the advisory panel and obviously the plan development team as well have all recommended this be done. When we consider how can we make this process go forward more effectively, the point you make is really a critical one. We need to understand what is the mortality and the relationship between the life cycles.

As Brad has pointed out, and it has been pointed out several times, it is highly variable based on the nature of the watershed. Sometimes we have seen reports in some areas where the mortality is 99.9; we have seen reports that say mortality is as low as 96 percent. The differences between those two numbers are huge because they're orders of magnitude. I just would say to my fellow commissioners please no matter what we do today let's try to get moving on this Option 9. We need the information.

MR. GROUT: I realize that Pat has a motion; but before we get into the bigger thing, there has been one concern that I've had with the way this document is. We have a large number of states that years and years ago put in minimum sizes as conservation measures that have essentially eliminated the elver fishery.

Now, in our previous management we've allowed two states an exception. One of the things that I've been wrestling with because my state has virtually no yellow eel fishery is what happens if we get a stock assessment in 2015 or 2016 that says conditions have improved. We no longer have a depleted resource.

I really don't have a mechanism other than to transfer a hundred pounds of recreationally caught yellow eels to get into an elver fishery where we could potentially have a sustainable fishery. With your indulgence, I would like to make a motion to add a suboption that would provide the states that have put in the six-inch minimum size limit so long ago as a

conservation measure the opportunity to have an elver fishery should we get a stock assessment in the future that would indicate that we no longer have a depleted resource. With your indulgence, if I could make this one motion at this particular point in time before we get into –

EXECUTIVE DIRECTOR BEAL: Well, I thought you were commenting on some of the previous comments and I had mentioned that I would go back to Pat because he said he had a motion earlier. Let's handle his motion and then we can come back to yours to change the options if that is okay. Pat.

ACTION TAKEN ON DRAFT ADDENDUM IV FOR PUBLIC COMMENT

MR. KELIHER: Thank you, Mr. Chairman, and I will be happy to second Mr. GROUT's motion when he makes it; how is that? I do want to thank Kate and Brad for all the hard work that was done and the rest of the plan development on this document. After hearing a lot of the questions and comments and concerns here this morning and upon reflecting upon the discussion with the Menhaden Board and looking at a lot of the unknown implications of some of the details with any of these issues involved with implementing a new management program, I'm not convinced the document is ready for primetime.

My primary concerns are the addendum does not incorporate the most recent data and updated indices indicated to develop a fair and equitable new quota management program that will have huge economic impacts to the state of Maine. Addendum IV only offers one range of years for the glass eel historic landing option while three for yellow eels. That will be a very contentious issue to bring to public hearings in Maine.

Addendum IV does not address the need for limited silver eel landings in order to satisfy FERC relicensing requirements as well, and that's something I think needs to be discussed. Given the status of the stock, I'm fully aware of the board's intent to move this action along as soon as possible. I'm supportive of that direction as well, but I propose the go slow-and-

easy approach that I hear yesterday during our striped bass discussions.

As I was doing some additional review of the Draft FMP and looking the goals and the objectives that are in support of the goal, I think a delay is warranted to help us bring additional information to the table. With that background, I'm prepared to make a motion.

I move to postpone action on Draft Addendum IV until the 2014 annual meeting and task the TC and the SASC to update the landings and key indices through 2013. In the interim, Maine will meet with industry and report back to the board at this next winter meeting with a glass eel catch cap for consideration at the 2014 annual meeting. If I get a second here, Mr. Chairman, I will provide some further rationale.

EXECUTIVE DIRECTOR BEAL: Is there a second to the motion; Pat Augustine, thank you.

MR. KELIHER: I believe a delay until the next annual meeting would do the following. It will allow for more recent information to be used in American eel quota management. It will more fully align ASMFC management with the ESA process and it matches it up a little more clearly with the recent court decision which delays any ESA announcements I believe until 2015.

It will gauge if the most recent increase in recruitment have increased the yellow eel abundance. It will allow the board and the plan development time to fully explore the concept of conservation credits for yellow eel and glass eel quotas. It will allow the board, the technical committee or the plan development team more time to examine requirements for states to transfer yellow eels to glass eel quota.

EXECUTIVE DIRECTOR BEAL: Thank you, Pat. Are there comments directed to this motion, please? Tom Fote.

MR. FOTE: There is a little difference between the stock of striped bass and the stock of eels. The striped bass is not being overfished and overfishing is not taking place, and we're

deciding whether we want to be more conservative on a stock that has a great spawning biomass and is not threatened. We're kicking the can down the road.

Are we going to get any better information or more defining information that will basically help us make decisions a year from now? No. I mean, we're just going to basically regrind some of the data and put some new data in, but it is not going to change the overall look at what is going on with the eel population. This document is not perfect; we understand that. That is what you go to public hearings for; that is what we started moving it for.

I cannot support this motion that will delay the start of the public hearing process for another year. We've been waiting long enough and we need to do something. I remember years ago Phil Coates sitting around this table saying – that is when he was chairman of the commission – we have to move forward on eels, and he was the one pushing for the six-inch minimum size back then. I think we still need to start moving forward. Again, I have great difficulty justifying this type of motion and I can't support it.

MR. GILMORE: Maybe not as financially important as the glass eel fishery in Maine; we have a bait fishery in New York that under the yellow eel provisions we're probably harvesting between 40 and 50,000 pounds. Under the quota system we would be reduced down to – well, I think the number is right, 91 percent reduction in that fishery, which would have a significant impact on the recreational fishery. For that reason alone I agree with the state of Maine that we need better data on this before we proceed. I think we need to get that before we move this forward, so we're going to support the motion. Thank you.

DR. DANIEL: I'm going to support it as well and for maybe a little different reason, and that is to address some of the points that I brought up earlier and trying to have answers to some of these questions for the public comment. I think it's very important for us to be as transparent as we can but to have as much information in the document as can.

Mitch made a good point about the monitoring; but if you read the last sentence of that monitoring requirement, it says for states with a glass eel fishery in one river. That's not really going to get us the life history information that we need on a coast-wide basis if we're just doing it in Maine in one river. We really need to think about that and recognize that a lot of these provisions in the plan right now are very restrictive and really only apply to Maine for the most part, and that's a problem that I think needs to be resolved in the addendum.

MR. WHITE: I really question the credibility of this commission. We've been working on this thing for some time. We have a depleted stock and we're going to allow a substantial overharvest of elvers for another year at least, probably two years if we kick this can down the road. It is not right.

I think the only way to delay is to implement some kind of cap on Maine so that we either stop or slow the overharvest of elvers and then take time to flesh out the rest of this. But to leave this wide open and to allow this overharvest on a depleted stock, I think it would be shameful for this commission to do that.

MR. O'REILLY: Virginia can support the motion. The situation is that based on last meeting where – I don't know how many hours it was; someone said five or five and a half – in the last half an hour everyone was compelled to start at least to take some action. That should probably be reflective on a very deliberative, uncertain board, and I don't think rushing now is the answer.

I think there are issues that haven't been addressed and may not be addressed within a year, but part of the discussion from past meetings was just what is the natural mortality in terms of the glass eel fishery. The questions were asked is it just part of the natural mortality; do you really make a difference? I really thought there would be some dialogue about that coming back and there hasn't been.

I think at that time I talked about Brian Jessop and how Virginia, back in the late nineties, had

correspondence with Brian Jessop and what his take was on glass eels versus natural mortality; are they separable or not? I think the comment came from Mitch at that time about it really being area-specific, that there could be differences, but none of that has been talked about.

We have had I think 14 years of supporting sampling under a mandate by ASFMC of the elver fishery, and it always draws a lot of questions especially from the license boards that provide the funding for that project. Here is another question that I've asked several time; how close are we to knowing anything about the correlation – I wouldn't call it a relationship – with that life stage and any other life stage.

Now, maybe that is something the technical committee is getting close to based on other comments. On the yellow eel fishery, it is surprising to me that we have the ORCS method to a small extent, not like for the glass eel fishery, but we're willing to look at putting in a buffer – I mean that is really all it is – and yet we've got issues of data quality that maybe could be addressed in this interim. That was really bothersome to hear about the data quality issues and also the time period involved to not possibly look at data through 2012 or 2013, in this case. So for those reasons, Virginia can support this motion.

EXECUTIVE DIRECTOR BEAL: I've got a pretty long list here so I'm just going keep working down it. John.

MR. JOHN CLARK: I am support of this. I think one of the things is the options that came out of the plan development team; a lot of these don't really mesh with what I remember as some of the options that the board was looking for in terms of transferability and in terms of glass eel quotas.

The other thing, Mr. White mentioned the depleted status through the assessment. Of course, the assessment was based entirely on commercial landings. We know commercial landings have been pretty much constant here because this is an odd fishery. It only supports

so much catch of yellow eels. I don't think adding a few more years of data, if we use the DB-SRA model still, will show anything other than a depleted stock based on that.

But at the same time when this assessment was completed, one of the concerns was we did see these diminishing catches of glass eels in glass eel surveys up and down the coast. However, since the assessment was completed in 2010, particularly in 2012 and 2013 we have seen two of the biggest year classes of glass eels, just remarkably huge.

Especially this year was a record size. I mean, this once again shows the difficulty of trying to relate recruitment to the stock size that we're seeing based on our landings. I would say that we don't know enough about eels to – at this point I don't see this glass eel harvest that we have in Maine as causing any problem at all if we look at the Canadian Maritimes where they're taking much larger quantities of glass eels and they have a very well-managed fishery for glass eels and yellow eels. Frankly, I think we think we should wait and look these over and maybe get some better focused options here. Thank you.

EXECUTIVE DIRECTOR BEAL: All right, thank you, and I think John made a great suggestion of sticking with the rules that we have imposed on ourselves about one favor and one in opposition. John was in favor. Representative Miner, are you in favor or in opposition?

REPRESENTATIVE CRAIG A. MINER: Actually I'm trying to formulate an opinion that requires I guess an answer to a question. I'm curious as to whether the postponement date is an indication as to long this further study would take or whether it is one based more on the economics of the state of Maine.

I've heard a lot about wanting to get better information and more information, but I'm unsure in terms of our staff as to how long that would take. If that information were available at a meeting date sooner, assuming that the information on a cap was going to come I think

in February of 2014. what the necessity is for, let's say, three more meetings?

EXECUTIVE DIRECTOR BEAL: Let's see if Kate can take a shot at that one for you.

MS. TAYLOR: We do have the landings' data and the annual young-of-the-year recruitment data. That information is updated and included in the FMP Review, so we could add the updated indices data to the indices analysis that we have in the report. However, the model, as was brought up, the DB-SRA Model and the other modeling approaches that were used in the assessment, the stock assessment subcommittee members are already heavily tasked with doing menhaden, lobster, sturgeon and other assessments.

It would be very difficult to probably have them come together and review those models, so that would take a greater amount of time and potentially could lead to delays in other assessments. The individual young-of-the-year surveys; that, as I mentioned, is updated with the FMP Reviews and that would be easy information to obtain. Having the technical committee evaluate all of those indices taken together would lead to a change in the status is a much larger conversation, obviously.

EXECUTIVE DIRECTOR BEAL: So I think the response is depending on the rigor and the complexity of the analysis the board wants has a lot to do with the timeline needed.

REPRESENTATIVE MINER: So I guess hearing that, my opinion is that I think that postponement date should be as soon as possible. I think there will be people watching what we do and why we do it; and so if it is for a scientific reason, then I'd rather have good data. If it is for putting – or the illusion is to put it off – and I'm not sure I'm convinced that is not what this is all about, but if people feel that it was just to set a date, I don't know how the other activity, ESA and whatever, how they will view what we have not done or what we have done. I guess I would be looking for the soon as possible date rather than the next annual meeting.

DR. LANCE STEWART: I'm unequivocal right now, but I just wanted to add something that I keep seeing from board meeting to board meeting on eel. It is the point that we think we own the particular – we have a real good management control of the population within our own estuary, so within our own states, and this involves a different mindset.

In an international fishery with a tremendously different international recruitment process, you can have a Scandinavian female with a Spanish male that spawns in the Sargasso. A lot of these things are uncontrollable; so even though we think we have a relationship with the glass eel fishery quantity and the silver eel fishery within our state, we may be spinning our wheels and doing a lot of work for the science of it that really doesn't apply.

So one of the things for the technical committee – I don't see a lot of it in front of us – is a poll of the Canadians and the Europeans of how their fishery exists; just some of the basic statistics on what their glass eel fishery is, what their silver eel fishery is, what their aquacultural production is.

These are things we're right at the beginning stages of trying to implement. They have been at it for a little bit longer. I think Mitch would verify that. In order to do proper science, you have to have it all in front of you; and I think that is just a suggestion to the board that the plan development team may need more time to get more valid information so we can start looking at managing this fishery more realistically.

EXECUTIVE DIRECTOR BEAL: Thank you, Lance. We have a new representative from the U.S. Fish and Wildlife Service here today. Welcome, Deborah Rocque; can you comment, please?

MS. DEBORAH ROCQUE: Good morning. I just have a question for the technical committee. There is a lot of uncertainty underlying the models and the information, and I'm just curious if another year of data will help reduce that uncertainty? I think the Fish and Wildlife Service with the lack of information, we support

a precautionary approach, and so I just would ask the technical committee that question.

MR. CHASE: In terms of the landings' data I think we're still going to see that we're at a period of very low harvest relative to a few decades ago; so if we add 2011, 2012 and maybe 2013, I don't think we'll see a very different picture in the indices and the harvest trends. In terms of getting more information on looking at transferability, it could be a benefit to look at what Europe is doing and gain perhaps a better model or a better understanding of the assumptions involved. Those are two different topics; but in terms of harvest data, I think it is going to be a very similar picture.

EXECUTIVE DIRECTOR BEAL: I've got a pretty long list here. Doug are in favor or in opposition or still undecided is the third category.

MR. GROUT: No, I'm in opposition, Mr. Chairman. I believe that we do have a document that's very close to being ready to go out. Just so people don't think I'm hypocritical because I was about ready to make a motion to make a change to it, believe me, I came here with the intent of making a very simple, easy change of adding a suboption to just give states with a low yellow eel harvest a foot in the door for the future if we ever get a change in our stock status. That was it. I believe we have been working on this for a while.

We took this out of the last addendum and we moved forward with action on that. We've come forward with this addendum. I think it's time to take this out to public hearing. For Maine's concerns, I certainly understand the impact of going in a single year from 18,000 pounds harvested down to 5 or 6,000 pounds would be a dramatic impact, but I also see in here an option for delayed implementation of these closures or quotas.

We could have a phase-in to try and make this something that would be a little easier for them to take; and who knows, there could be some information that might come down the road in either a new stock assessment or some of those

life cycle stage studies that could provide different data that might provide a different picture in the future. At this point I feel that we have something that's very close to being ready. I think we can get it ready today. I will oppose this certainly without any – there is no quota up here until we get to February, so I can't even begin to support this right now.

EXECUTIVE DIRECTOR BEAL: I've got four more people on my list. I think what I'm going to do is go through those four. We have been at it for a couple hours now, so I think folks are tired. Pat, you're not on the list; what is going on?

MR. AUGUSTINE: Put me on the list.

EXECUTIVE DIRECTOR BEAL: You want to be on the list. All right, I've got five people and then we're going to – you're waving around like it was an emergency and I wanted to make sure you're all right. We've got five people on the list. We'll go through those five and then the board can decide if you're in a position to vote, we'll vote. If you want a break, we'll take a break, so let's where we are after these five. Adam.

MR. NOWALSKY: I'll make this simple, Mr. Chairman. **I move to amend to postpone to the spring meeting; and if I get a second to that, then I'll briefly speak on it.**

EXECUTIVE DIRECTOR BEAL: Adam, just to be clear, you're not postponing this motion; you're changing the wording in the motion to postpone the addendum?

MR. NOWALSKY: That is correct, Mr. Chairman.

EXECUTIVE DIRECTOR BEAL: Is there a second to Adam's motion? Mr. Lustig, thank you. Do you want to comment, Adam?

MR. NOWALSKY: Yes, very briefly. I think that the points that were brought forward in the original motion, I think to give Maine the opportunity to address a number of the concerns that this addendum was meant to, I applaud them

for doing so. I applaud the members of the audience for being here and being willing participants in the process.

I want to give them every opportunity to do that and then use that information that they come back with as well as a compilation of the landings and indices data that are identified herein. And then going to the spring meeting would give the plan development team time to take into consideration what Maine brings forth to us at the winter meeting to go ahead and craft that into consideration for a draft addendum consideration at that time.

EXECUTIVE DIRECTOR BEAL: All right, so it is the spring meeting when you want to see the next version of this based on what Maine brings back at the winter meeting, is that right, if this amendment was approved. Paul Diodati.

MR. PAUL DIODATI: I was going to make a substitute motion, but perhaps I'll wait.

MR. STOCKWELL: I can support Adam's motion to amend and I want to provide some rationale to the board following up on Representative Miner's questions. After consultation with Kate, it was clear to me that the technical committee was quite overwhelmed. Maine's fishery, as Pat explained, is a spring fishery. We're going to go barreling down the road here.

The spring will be here before we know it, and so our intent was to bring a catch cap for 2014 and implement it through an emergency action as some demonstrated measure to the board that we take the goals of the addendum very seriously. There have been a number of issues raised around the table here. I guess my question to Kate and Brad would be can you do this work in time for the – are we going to be ready in May or do you need until the summer or the fall?

MS. TAYLOR: Again, it depends on the complexity of the analysis that is performed. The board is familiar with the turn-of-the-crank assessments, and that would be almost impossible for the staffs given its makeup and their workloads on other assessments to come

back for the February or for the May meeting. If it's just something like updating indices, that is relatively easy to do and we can just plug those in. Knowing how that is going to influence things, as Brad said, we're likely not to see much of a change.

MR. STOCKWELL: We're on the cusp of proposing a brand new quota management system for two different fisheries. It is going to be fraught with issues and problems. We all suffered through Monday's menhaden meeting and several more where we beat to death the episodic events' proposal on 1 percent of the fishery.

Maine's elver fishery is a huge deal; so just speaking on behalf of Maine, we don't want to rush this along. We understand there has to be conservation measures. Incorporating the most recent data in the indices into the final decision that we're going to be likely implementing a quota management program makes sense to me. Thank you.

EXECUTIVE DIRECTOR BEAL: Please tell me there is no such thing as an elver episodic event and we don't have to go down that road. (Laughter)

MR. STOCKWELL: You just wait.

EXECUTIVE DIRECTOR BEAL: I can only imagine. Dennis Abbott.

MR. DENNIS ABBOTT: Mr. Chairman, when I put my hand up I was going to speak to the main motion and this amendment satisfies some of my concern; because on the main motion I was probably not so supportive of the first half of it. Where we say in the interim that Maine will meet with industry and report back to the board a significant glass eel catch cap for 2014 at the winter meeting, I think that if we vote to amend and it's successful, then I think we really have to be clear in what we expect to get back in February.

Kate is saying and I agree and I feel that no amount of studies or work by them is going to provide us with scientific information which is

going to be conclusive and satisfying to all the parties, so it takes us back to the point when we do something. But I do want whatever action is supposed to take place between now and the spring meeting to be spelled out very clearly so that we have expectations and we will see results by that meeting. Thank you.

MR. AUGUSTINE: Mine is more direct and simple I think. To the technical committee and Brad, in response to the questions and concerns that Dr. Daniel had relative to this transferability pound for pound, you indicated that you would have to get some direction from the board to do that, and can we agree to do that and can you do that within the timeframe we're talking about so it could be included in the document? I'm not sure how big a task that is. I'm not sure if it's just number crunching or having a computer spew out a bunch of combinations of X-number of these for those. Can you give us some enlightenment on that and can you do it in time to go in the document?

MR. CHASE: Well, I think Kate really just explained the situation. It is a very difficult timeframe between now and the spring meeting. We could certainly accumulate the harvest data, the indices data and produce information on that; but to do them over the transferability I think would take a lot of time. Kate does have idea of the scheduling than I do, I think, of the staff.

MR. AUGUSTINE: Okay, but we still have a – I need a clear answer. Can you do it in a year? I understand it's complex and it's complicated, but can you do it in a year? What we're doing is we're putting a document out there to the public; and everyone who reads transfer from one glass eels to yellow or silver, they may know what it means, but most of them don't.

They say, well, gee whiz, yes, they can figure out what that number is going to be. To a yellow eel fisherman, to be able to get pound for pound of glass eels for a pound of yellow eels, man, he is going to go crazy, he'll love it, but there is no sense of what that means. He is making five dollars a pound for yellow eels and he is going to make \$2,200 for a pound of glass eels. We need some number in there. Maybe

just pull it out of the air and say it's 2,732-1/2 glass eels equals 7 yellows; I don't know.

MR. CHASE: A year would obviously be more time to produce that information, so I think that would be something that is more possible than a spring meeting, but the guidance has been pretty clear from the stock assessment subcommittee and from the plan development team that mortality has to be reduced. The basis for doing that is setting up a quota system. And if you want to get to transferability, then you have to have a quota system to base that on. I think the guidance has been fairly clear from the different committees.

MR. AUGUSTINE: That helps; thank you.

EXECUTIVE DIRECTOR BEAL: All right, I've got a couple more hands. We're at the point where I was planning on breaking, but that was before this motion to amend came up. Do you guys want to power through until noon? It is only another 40 minutes or so. All right, let's keep pushing through. Rick Bellavance.

MR. RICK BELLAVANCE: I guess just for my own satisfaction or clarification; I'm not really following that Maine will meet with industry and report back to the board with a significant glass eel cap. I guess I need just some clarification as to what that could mean. As I read it in my head, 50,000 pounds is a significant glass eel cap, and I would just like some direction or the intent of what the original maker of the motion meant by that and if there is a way to wordsmith it to a way implies that there will be some conservation equivalent there; if that makes sense.

MR. KELIHER: The department has not had any meetings to date with industry, so our intent would be to have probably two or three coast-wide meetings to have discussions regarding the existence of the draft addendum to make sure they have an understanding of that and why we're asking for the delay; but also to have the industry to have a better understanding that there are going to be reductions coming. We understand that; they understand it.

I think to the point made earlier from Representative Miner, there is obviously an economic component into this as we make political decisions and discussions. The meetings will happen. I have been reluctant to say what a significant reduction would be only because I haven't had those meetings; but my feeling is that they're going to have to be somewhere in between the range of 25 and 40 percent reduction going into next year's fishery.

Then beyond that, based on the way we envision the existence of the plan development team's report now, we know it is going to be another step-down, but where that will go is unseen and uncertain. I hope that clarifies.

I do want to, since I've got the floor, Mr. Chairman, just quickly say there were some comments made earlier from Mr. Grout about going to a minimum size and basically eliminating these glass eel fisheries coastwide with the exception of Maine and South Carolina.

I think it's important to point out that Maine at that time was in the process of eliminating our silver eel fisheries. There were a few small weir fisheries left that were grandfathered in. Those are all but now eliminated as well, and we're prepared to fully eliminate those going forward. We have made changes in order to justify the existence of our glass eel fishery, and I thought that was an important point to reiterate. Thank you.

EXECUTIVE DIRECTOR BEAL: Paul, you had deferred your comment earlier, so do you want to comment now?

MR. DIODATI: It is consistent with Rick's last comment about clarification, and I think you helped just now, but I'd prefer it be in the motion. Up here it says eel catch cap, but you're really talking about not a cap, a reduction, and I'd prefer if "cap" said "reduction". I'd prefer if it said what you were reducing from. Is it the 2005 to 2010 average annual landings; that would be a significant reduction. I'd like to see more specifications put in the motion and that would make me feel better about it.

MR. STOCKWELL: Can we take a quick break so we can wordsmith that, Mr. Chair?

EXECUTIVE DIRECTOR BEAL: You want to do some wordsmithing. We have got about half an hour before lunch; why don't we take a ten-minute break and hopefully we can – Adam.

MR. NOWALSKY: I was just going to suggest that I hear a lot of the comments getting back to the main motion, and maybe it might make sense to dispense with this amendment, then take a break to allow time to address the main motion.

EXECUTIVE DIRECTOR BEAL: Yes, you're right, folks are commenting on both of these, and I think folks are having difficulty keeping the two separate. I think some folks are hung up on how long to postpone and some folks are wrestling with should there be any postponement at all, so I think clearly the two are intertwined.

Are folks comfortable with voting on the motion to amend right now or is there more discussion need on the motion to amend, just that one part. All right, I see no hands saying that folks need more discussion on the motion to amend. David.

MR. DAVID SIMPSON: I just want to make that if this is defeated now and ultimately we decide after some detail is put here that it turns out spring is the appropriate time, that we haven't forfeited that opportunity.

EXECUTIVE DIRECTOR BEAL: I think with any commission actions if there is a need for the board to get together and review progress on a document or review information, I think that is fair. I think Mr. Keliher was originally saying the next decision on this addendum would be deferred until the annual meeting, but I think there may be some progress and check-ins along the way if necessary, if that helps you.

MR. ABBOTT: Regarding our action on the amendment, it simply says we will postpone to the spring meeting. In that is the assumption that we're postponing action on Draft Addendum IV is what we're saying; so after we

vote on this, does that mean that we're all done talking about today Draft Addendum IV; yes or no? In my opinion we would conclude our discussions on Draft Addendum IV if that becomes the main motion and is voted upon.

EXECUTIVE DIRECTOR BEAL: I think the main motion would become delaying action until the spring meeting. Mr. Nowalsky's intent was not to delay action on the main motion. It was to change the wording in the main motion to read "move to postpone action on Draft Addendum IV until the 2014 spring meeting".

Then I think the main motion, the board would then deliberate on whether they want to postpone to spring or not. Is everybody comfortable with that concept? All right, any other discussion needed before you folks vote on the motion to amend? The states can caucus while I'm reading this in and that will speed things up a little. Move to amend to postpone to the spring meeting (May 2014). Motion by Mr. Nowalsky; seconded by Mr. Lustig.

(Whereupon, a caucus was held.)

EXECUTIVE DIRECTOR BEAL: All right, are folks ready to vote? Let's go ahead and vote on the motion to amend. All those in favor of the motion to amend please raise your right hand; those opposed like sign; abstentions; null votes. We have got one null vote from Rhode Island. **The motion carries 14 in favor, one in opposition and one null vote.**

Now the main motion becomes to postpone this until the spring meeting of 2014. Pat, there were a couple of requests to wordsmith this a little bit. Do you need some time to do that now or do you have wording available or are you comfortable with the motion as it is? Tom, you will be the filler. (Laughter)

MR. FOTE: I like that; I'm a filler. I was adamant not doing it until the next annual meeting because I look at by the time we do this, it means 2016. If I'm looking at this schedule now, we can do something and get it in place at the annual meeting next year and maybe approve a plan to go out in the summer for public

hearings. I can support this now. I think that's reasonable. I think we will get us some more information and it sounds like we can do that. I think we can vote on this right after Pat wordsmiths it a little bit and then we don't have to come back at one o'clock.

EXECUTIVE DIRECTOR BEAL: We have some other projects on the agenda. Dr. Daniel.

DR. DANIEL: Yes, I'll be filler, too. To Dennis' point, I think it would be my hope that we would absolutely come back – we've got a lot more to do other than just this – and provide some direction to staff on some of the concerns that were raised around the table so they're not spinning their wheels. I think they need to be able to understand what the criticisms were and the need for additional options or taking some things out or whatever it needs to be. I think we need to have at least some time to provide staff some direction.

EXECUTIVE DIRECTOR BEAL: Yes, I think the plan development team has kind of indicated that they've given all they can give on this one and they need some more input from the board if there are additional options or additional directions you guys want them to chase down. I think that will be a pretty important discussion, Louis. Pat Keliher, are you ready to go?

MR. KELIHER: I think what we've tried to do is encompass Paul's comments to give a little more specificity; **so move to postpone action on Draft Addendum IV until the 2014 spring meeting and task the TC and the SASC to update the landing and key indices through 2013. In the interim, Maine will meet with industry and report back to the board a 25 to 40 percent reduction of glass eel catch from the 2013 harvest for the 2014 season and will report back at the winter meeting.**

EXECUTIVE DIRECTOR BEAL: Does that reflect your changes?

MR. KELIHER: Yes.

EXECUTIVE DIRECTOR BEAL: This isn't really the official parliamentary approach here. We had a main motion that was amended, but this is in response to some of the requests around the table, so I'm hoping this speeds it up and we don't have to go through multiple motions to amend to get the wording right. If someone is uncomfortable with this approach, please let me know. Ritchie White.

MR. WHITE: When the state of Maine comes back and let's say they pick a 30 percent reduction and let's say this board wanted 35; is there a way of us voting to make that happen or is all this voluntary on the state of Maine?

EXECUTIVE DIRECTOR BEAL: This is my interpretation, and, Pat, please correct me if I'm wrong, but I think this is a voluntary action taken by Maine in the interim while Addendum IV is being completed. In other words, Maine is going to be voluntarily more conservative than the existing fishery management plan at the time. Is this a followup to the same point, Dennis?

MR. ABBOTT: Yes. I would ask Maine the question, which I think I know the answer to, that by the time they report back to us in May, the season will have already been concluded for 2014; is that not correct?

MR. KELIHER: The season will not have been fully completed but it will be very close at that time.

EXECUTIVE DIRECTOR BEAL: But Maine is going to report back what their cap is going to be at our February meeting.

MR. KELIHER: At the February meeting, correct.

EXECUTIVE DIRECTOR BEAL: And your season will not have started by then.

MR. KELIHER: That's correct.

MR. O'REILLY: Mr. Chairman, my question just is on the commercial data. Is there an

expectation that there will at least be pretty solid preliminary data for 2013 by that point?

EXECUTIVE DIRECTOR BEAL: Pat, can you comment on that? He is asking if you're going to be in a position to know what your 2013 landings are so that when you calculate your reduction, it can be based on pretty solid data.

MR. KELIHER: Yes; I can tell you right now.

EXECUTIVE DIRECTOR BEAL: He can tell you right now, Rob.

MR. KELIHER: In 2012 we landed 20,700 pounds and in 2013 we landed 18,253 pounds.

EXECUTIVE DIRECTOR BEAL: And those are robust landings; you're comfortable with those numbers?

MR. KELIHER: Yes.

EXECUTIVE DIRECTOR BEAL: Yes; fair enough. Rob, followup?

MR. O'REILLY: It is also on the yellow eel and how much of the 2013 data will we have if there are changes to the timeframe for quota setting.

EXECUTIVE DIRECTOR BEAL: I'm not sure I understand the question. Maine I don't believe is proposing any changes to their yellow eel fishery.

MR. O'REILLY: Well, we're going to come back and look at the addendum overall, right?

EXECUTIVE DIRECTOR BEAL: So you're thinking for additional options or additional years worth of data to be included in the addendum – when will the states have the 2013 yellow eel landings; is that your question?

MR. O'REILLY: Or are we going to just stop at 2010 where we are now?

MS. TAYLOR: The plan development team has been very clear in their recommendation of using data only included in the stock assessment. If the board would like to request the plan

development team to include additional years; that is a motion that can be made.

MR. O'REILLY: I would like to make a motion, when the time is right, to include more modern data.

EXECUTIVE DIRECTOR BEAL: Yes; let's decide what the board would like to do with the timing of this and postponement; and then I think it gets to Louis' point which let's make sure we have clear direction for the plan development team and staff. Bill Adler.

MR. WILLIAM A. ADLER: I'm looking at this thing now. When you're saying postpone action on draft addendum, the action is approving it to go to public hearing is what you're talking about. Then the last line there it says reduction of glass eel catch from the 2013 harvest for the 2014 season at the winter meeting.

In other words, if we're taking it out public hearing and then it comes back to the next meeting and we get approval of whatever; what is the harvest for the 2014 season? That would be next year – what are we doing? That was one question; is that correct basically? Secondly, there was a mention earlier about finding out like what the Canadian fishery is. I don't know if Lance made it. Is there any way that any of that information can come back to us as well, because I think it's interesting to see. Those are my questions.

EXECUTIVE DIRECTOR BEAL: I will have Terry respond to the first one on the timing of events.

MR. STOCKWELL: Let me see if I can kind of untangle this for you, Bill. Our intent is to meet with our industry members between now and the winter meeting and come back to the board with a 25 to 40 percent reduction of our catch from last year, which was 18,000 and change, for the 2014 season.

We're doing this voluntarily in order to address the issues we've heard from the board about the need to have immediate action on a mortality reduction. If this motion is approved, it will

postpone the action until we have the updated landings and key indices of three more years. Bill, it won't require any board action at the winter meeting. Pat would implement the 2014 quota under his emergency authority.

MR. ADLER: All right, so the 2014 quota that you guys work out will be in effect; and even though what might happen here is the Addendum IV will go out to public hearing, let's say, following the May meeting?

MR. STOCKWELL: Correct; and that would be whatever action is moved ahead in Addendum IV would be for the 2015 fishing year.

MR. GROUT: I appreciate this change here because it does give a little bit of something we can grab on to. Let's say we come back and it's, just for the sake of argument, a 35 percent reduction over 2013 landings. My thought is you do your best, you see the landings coming to that level, which let's just say, for example, they're 15,000 pounds and that is where you're going to cut off – well, what happens if late reports come in and you end up landing 18,000 pounds; would you take some action in the following year to have some compensation? Have you thought about that?

MR. KELIHER: I think the passage of Addendum IV will be beyond that as far as additional reductions I guess is what I'm trying to get to. I should state for the board's clarification and information that the state is getting ready to implement an electronic swipe card system for our landings' program specifically for elvers. Colonel Fessenden mentioned it when he briefly touched on some enforcement issues. It will be real-time landings, so I think definitely we'll be in a situation to help us avoid any overages.

MR. FEIGENBAUM: I just wanted to point out briefly that I'm quite confident that when Maine reports back at the winter meeting, it will not be reporting back merely the 25 to 40 percent reduction, but I'm presuming that Maine is also going to be reporting back an enhanced suite of measures that are designed to eliminate or at least seriously curtail the poaching concerns

which I know has driven a lot of the concerns of the plan development team and the technical committee. I'm happy to say I've been working – you know, the industry has been working with Pat and the DMR to that effect; and I think what they're going to roll out is going to be very impressive.

MR. STOCKWELL: Just a quick follow up to Pat's comment is that there have been some questions about the reason for Maine to meet with our industry. This reduction, whatever it is going to be, is going to require us to scale the fishery to that number. We will be working with the industry to look at different options that will allow us to stay within whatever our quota is going to be. Just off the top of my head, it could be gear limitations, spatial limitations. These are the devil is in the detail issues that we need to work out very specifically with our industry.

MR. NOWALSKY: I was just going to offer that perhaps the wordage of 25 to 40 percent reduction I think probably sets certain expectations around the table. Clearly, it sets the expectation of a minimum 25 percent; but should Maine decide that 41 percent or something, might a minimum 25 percent reduction be more appropriate here versus pigeonholing yourselves into that range. It is something you might want to consider here.

MR. STOCKWELL: I don't think you have to worry about that one.

EXECUTIVE DIRECTOR BEAL: Are there other comments or are folks ready to vote on the main motion? Folks look talked out. I'll read the motion in, Joe, while the states begin their caucus: move to postpone action on Draft Addendum IV until the 2014 spring meeting and task the technical committee and stock assessment subcommittee to update the landings and key indices through 2013. In the interim, Maine will meet with industry and report back to the board a 25 to 40 percent reduction of glass eel catch from the 2013 harvest for the 2014 season at the winter meeting.

Everyone is all set on caucusing. All those in favor of the motion please raise your right hand;

those in opposition like sign, two in opposition; any abstentions; any null votes. **It looks like sixteen votes in favor, two in opposition, no abstentions and no null votes.** I think that is the plan for Addendum IV.

ADDITIONAL DIRECTION AND GUIDANCE ON DRAFT ADDENDUM IV

EXECUTIVE DIRECTOR BEAL: We've got a few minutes before lunch starts. I think it is probably worthwhile to have some discussion on additional direction and additional guidance to the plan development team. After lunch we can jump into the update on ESA listing and the proposal from the state of North Carolina, if that sounds good to everyone. For additional guidance, I've got Louis.

DR. DANIEL: If there is any objection obviously to any of these things, I'm just trying to bring up my concerns and what I'll be looking for in the next iteration of the addendum. One is some type of an option for states outside of Maine and South Carolina to develop a glass eel quota that is visible, something you can look at and see. I don't know if that's going to be possible or not, but at least to get the technical committee looking again at – and whether the conversion factor works or not, who knows.

The other option is I think we can shorten the document a little bit, but I'd be very careful and very concerned about rollover. I would suggest that we remove the rollover provision from the plan. I mean that's an analysis that really doesn't need to be done from my perspective; because if we do a rollover for eels, then why aren't we rolling over summer flounder and some of these non-overfished and overfishing species. We're setting a precedent for ourselves that I don't think we want to set.

Then one of my big issues obviously is going to be some way to allow for an aquaculture allowance. I think the board generally agrees that aquaculture is a good option for this fishery and domestic production is a positive thing for us and for our states. Right now there is not a mechanism in the plan that would allow for that to occur that I've been able to see.

It says only 5 percent of South Carolina's 70 pounds is not really going to be a whole lot of opportunity for South Carolina and there is no opportunity for anybody else in the plan. Those are the biggest issues that I'd like to see some additional information on. Then if we could get some clarification on the natural mortality rates that Brad was talking about and somehow being able to do some extinction factor work that shows generally from population ecology how many females does it really take to create 53,000 pounds of elvers.

It is not nine, I know that, based on just natural mortality rates before the glass eel stage; but clarifying that because a lot of the letters talk about that, a lot of the correspondence that I've seen have said that, and I think we need to try to do our best to clarify that technical issue with help from the technical committee. Thank you.

EXECUTIVE DIRECTOR BEAL: Louis, Kate has a question from her position as plan development team chair.

MS. TAYLOR: You're looking for an option for states to develop a glass eel quota, so this is something separate from the yellow to glass eel transfer?

DR. DANIEL: And that is really up to the board, too. If folks don't agree, then I'll back off, but my concern is that the way I understand the transfer would be that I would have to come in and somehow figure out and convince the technical committee and the board that – you know, if I could convince you that a thousand pounds of yellow eels equals a thousand pounds of elvers, I'm good, because that's really all I need.

I'm not trying to develop a glass eel fishery in North Carolina. I'm not sure many of us are with the mess that Maine has got with their enforcement issues and stuff. Like I said in my earlier comments, if we're just going to give 2,000 pounds of eels to states that have no eel landings, yellow eels, that is a little bit contrary to me.

I would rather have those yellow eels ultimately silver eels going offshore and I would rather have an opportunity for glass eels and protect those females. That is the issue. I don't know whether it is possible or practical. The Services voting against this motion to delay gives me a little bit of concern; and I don't know how worried to be about the endangered species issue.

Anybody can petition an agency to be an endangered species. Is it reasonable and is there really a chance; and if there is, that's going to throw a monkey wrench into the whole thing, but I think we need to be open and forthright about that, too.

MS. TAYLOR: Just to follow up, the 2,000 pound allowance was just given to states – a recommendation that it be included to be given to states so that New Hampshire wouldn't have to monitor a 68-pound quota for their yellow eel fisheries. Certainly, the board would have the option to remove that provision that the plan development team put in.

The plan development team and SAS and technical committee have been pretty adamant in following the recommendations of the stock assessment, which said that opening up new fisheries on any life stage would be inconsistent with the recommendations of the peer review panel.

If the board is looking to put in an option for the opening of a glass eel fishery, the technical committee and plan development team has discussed this at length and there is just no value that we can come up with, so the board will have to specify what the amount is that they would want if they want to open up a fishery. This would have to come from the board.

DR. DANIEL: That's fair.

EXECUTIVE DIRECTOR BEAL: I'm going to try to do this without a whole lot of motions. Does anyone object to the suggestions or recommendations Louis just made? Terry.

MR. STOCKWELL: I generally agree with your suggestions, Louis. The one issue I do have some concern with is your suggestion that we eliminate the rollover. We've just incorporated it in our Atlantic Herring Fishery; and it makes the monitoring easier and it reduces the incentive to lowball the projections. If the industry gets shut down early, then they have the opportunity to harvest again the next year, and there is far less opposition from the industry for working within a quota system. I suspect there is going to be a significant enough cut in the quota to keep the buffer even.

DR. DANIEL: I was just trying to save time and effort, but if the general consensus is to leave it in there for public comment, that's fine. Again, think striped bass, think summer flounder, think et cetera, et cetera, but that's cool to leave it in if you want to.

EXECUTIVE DIRECTOR BEAL: How about it gets left in and then the board will make a decision when they revisit this document in May. At that time if you don't want it in, you can cut it out; does that sound all right? I've got a long list of folks up this side and then a couple in the back, so I'll just keep moving along. Rob O'Reilly.

MR. O'REILLY: I'll be quick, Mr. Chairman. The first part of that motion I took as being all-encompassing to the postponement, and so I'm not sure what the information is coming from the technical committee as far as revising the quota years for yellow eel. Is that something that it is anticipated can be done today or would that be done at the spring meeting to add on 2011 and 2012, because I wouldn't expect 2013 to be final data overall for the commercial data. I guess that's a question.

EXECUTIVE DIRECTOR BEAL: I think if you want to add that, Rob, this is probably the right time to ask the plan development team to include that. They can work on that as they can between now and the spring meeting. Kate.

MS. TAYLOR: Yes; if you can provide the specific guidance of what years you'd like to include since the plan development team has

maintained they only want to include data through 2010. And again we were waiting until the May meeting when the technical committee comes back with their report, if we were providing it then, then I could eventually require the plan development team to go back and develop the options and then it would be August that the board would be looking at the addendum for public comments.

MR. O'REILLY: Kate, you talked very quickly there, but I think I caught most of that. The request would be to add 2011 and '12. I assume that the 1998 to 2010 from other meetings are the important years. I understand the situation with the assessment and also with the statements about risk; but at the same time I know with the multipliers in there and what has been done, we probably should consider at least going out to 2012 without changing the bottom of the baseline.

EXECUTIVE DIRECTOR BEAL: Rob, is that for just yellow eels?

MR. O'REILLY: That is just for yellow eels.

MR. O'CONNELL: Just to add on in regards to the yellow eel options, we didn't really get to it today, but I was prepared to offer a suggestion and would ask that it be considered. I understand that the staff doesn't want to go beyond 2010 because that was used in the stock assessment. It doesn't mean you can't use more recent years to look at the allocation and then base a percentage reduction to get you lower than that 2010 assessment period.

I support the idea that Rob suggested; but with that I think there still will be some pretty significant disproportional impacts to the states like New York, Maryland, and Virginia to a lesser extent. I would ask that incorporated into the quota options a consideration of two things; not allowing the states quota to be higher than its current landings with the exception of the 2,000 pound minimum – we're trying to reduce harvest and not expand – and, two, perhaps establishing a cap for which the reductions would not exceed.

For example, maybe it's 20 percent and no one state's reduction should be higher than 20 percent. We need to look at what that would be to ensure that we do achieve a reduction below that 2010 time period. I would ask to be considered. I think it would provide a greater balance of the level of impact amongst the states.

EXECUTIVE DIRECTOR BEAL: Thanks, Tom. Is there any objection to adding Tom's or Rob's suggestions to the document? All right, seeing none; Representative Kumiega.

REPRESENTATIVE KUMIEGA: I had one question on the stock assessment on the harvest data. Is there any correlation between effort – and I don't know how you'd measure that. I know if, for example, you were using glass eel catch and the price were to go back to ten dollars a pound next year, the catch would crash but it wouldn't be an indication of the stock abundance. It would be an indication of the fact that people aren't fishing.

I understand that some of the reason that yellow eel harvest has been down, that some of the demand hasn't been there because horseshoe crab and striped bass fisheries have been reduced, so there is not as much demand for yellow eels. The other thing is silver eel escapement; is there a mechanism or could there be a mechanism for states that do something – a turbine project or something that increases – you know, they can demonstrate that increased silver eel escapement; would there be a mechanism for that to allow for an increased quota, either yellow eel or glass eel?

EXECUTIVE DIRECTOR BEAL: Well, I think to your last point, Walter, actually those provisions are in there. The draft addendum, as it is written right now, allows for states to petition the board highlighting habitat restoration or other management considerations, power plant issues, whatever it may be that could justify a change in their quota. That provision is already there. Do you have a comment on anything else?

MR. CHASE: Just a quick comment on the silver eel escapement; I know the stock assessment subcommittee has an interest in looking at Europe has done in some countries to use escapement as a metric, so that will be something that I think we will explore. Then getting back to the catch-per-unit effort, the stock assessment did review all available data. We found that fishery-dependent data was not as strong, and so the stock assessment results are mainly supported by the fishery-independent data. The information wasn't that good for that purpose for the stock assessment.

MR. GROUT: First of all, I agree with Louis' request to have some kind of a mechanism for states that originally didn't have an elver fishery to get a way in other than through the yellow eel transfer, because some states don't have much of a yellow eel to be able to transfer. I would like to also have some kind of option in there that ties states that don't have an elver fishery, give them an access to an elver fishery once we get a stock assessment determination that no longer depleted.

Originally I was just going to allow us to transfer that 2,000 pound minimum yellow eel quota; but if there is another mechanism that would just say, okay, once we have a stock states that we're not depleted, then all states will have some minimum elver quota that they could use, but again I would like to have the option tied to stock status change from what we're at. Is that clear?

EXECUTIVE DIRECTOR BEAL: So are you saying no change in the glass eel fishery until we get another assessment or are you saying when a new assessment comes along you would like to allow consideration of additional fisheries?

MR. GROUT: I'm saying once we have a stock assessment in the future that says that we are no longer depleted, then there would be an option in there that would allow for either a minimum quota or to allow the yellow eel transfer the minimum 2,000 pounds to the elver fishery.

EXECUTIVE DIRECTOR BEAL: Would a provision in the document that essentially says

based on the next assessment the board will reassess the stock status and glass eel provisions?

MR. GROUT: Well, what I was hoping is if we put it in this document we wouldn't have to go through another addendum to be able to do it, which would take some time. That's why I'm trying to get it in here; and then if we get this status and the board approves the assessment, then this measure would be a quota that would be available to us.

EXECUTIVE DIRECTOR BEAL: Well, I think the board would have to go through the addendum process either way to make changes to the glass eel fishery based on a positive stock assessment finding.

MR. GROUT: Why is that? It's a stock status determination. We have a measure that is a stock status determination. We're putting something in that is just a management measure that says this will be triggered by the stock determination.

MS. TAYLOR: If we added this provision in and the states wanted to go forward with the transferability, then this would prohibit states from opening up their glass eel fisheries because we wouldn't have a stock assessment. We don't have one planned right now, and this last one took four years. If we have that provision in there, then the states wouldn't be able to do the transferability.

MR. GROUT: Again, it would only be an option that we'd have in there. I understand that we'd have two options; one that we'd have some kind of access without that determination; another one would be dependent on –

EXECUTIVE DIRECTOR BEAL: We can put an option in there and see what it looks like when we come back in May. It kind of sounds like you're working toward a specification-setting process where based on changes in the eel stock status, the board could then take board action to adjust quotas from year to year. Is that kind of where you're going maybe?

MR. GROUT: You could do that or you could put it in ahead of time. It could be a specification, but the point is that it would be quicker than going through an addendum.

EXECUTIVE DIRECTOR BEAL: All right, we'll work with the plan development team and try to figure that out. Mitch.

MR. FEIGENBAUM: As one of my questions earlier suggested, really the very best approach to glass eel fishery management requires serious study and consideration of the size of a watershed that you're taking the glass eels from. I would ask that the plan development team just incorporate that concept, which I believe the members of the plan development team agree and understand that is the case. If we're concerned about proper ecosystem management, we need to understand that it's not just a matter of how many glass eels to take but how many glass eels can we sustainably take relative to the size of watersheds. There is information that exists and I would be happy to share with some of our technical staff some of the work that is being done that might help guide them in that regard. Thank you.

MS. TAYLOR: Are you looking for something beyond the transferability plan where it says states would develop the plans and they could incorporate their specific state information on their watersheds or are you looking for the plan development team to come up with the specific metrics for all states?

MR. FEIGENBAUM: Well, I don't know if it's fair for me to suggest that the technical committee has to do – how the work should be done, but I do think that as to Louis' point and Doug's point like how would the state – what alternatives are there to yellow eel transferability? I hear there is a sense in the room that some people feel that the issue should be separated; that if a glass eel is justifiable, a state should be able to get in whether it had a small history of yellow eel harvesting or a large history of yellow eel harvesting. I see a few people nodding their heads and I appreciate that. I guess I'm suggesting that should either be an alternative approach to be considered or at least

to incorporate concepts of watershed size into the existing framework.

MS. TAYLOR: So it would be kind of like similar to the requirements that are in the transferability plan but it would just be for the glass eel fishery?

MR. FEIGENBAUM: Yes.

MR. SIMPSON: I appreciate that you pointed out that there is sort of a conservation enhancement mechanism to allow a state without a glass eel fishery to perhaps begin one; but I think rather than where I find it is embedded in Option 6 that is a yellow eel to glass eel transfer and that would only apply if certain things happen; I would like elevate that up to its own level to give it a little prominence and some thought.

I had crafted it somewhat in the form of a motion, but to develop an alternative method for a state to develop a controlled glass eel fishery based on habitat improvements that increase upstream and downstream eel passage in their states. The idea would be that if you were able to improve glass eel passage to the tune of ten million eels, the board would consider a fishery of some small fraction of that as a mechanism for a state to get into a glass eel fishery.

EXECUTIVE DIRECTOR BEAL: Is there any objection to including the concept by David? It's similar I think to where Mitch and Louis are going and some other folks, so just weaving all those together and having different approaches to justifying or supporting glass eel harvest levels in the states. Is there any objection to that? Seeing none; Rob O'Reilly.

MR. O'REILLY: I was just going to say from Doug's comments as sort of a promotional management trigger when there can be relaxation; I think that is something that probably should be talked about a little bit more later. The idea is I was thinking that we're really not bound by National Standards, we start to dabble a little bit into some of the measures that the federal government uses, but there is also rebuilding horizons.

As Doug was talking, I was thinking will the public have information as to some semblance of a rebuilding timeframe; so the measures that have already been adopted and more that will be adopted, will there be information to give some characterization of when possibly or, you know, some timeline when rebuilding could occur?

EXECUTIVE DIRECTOR BEAL: Brad, do you have any comment on rebuilding projections or timelines?

MR. CHASE: Well, the DB-SRA Model was used to explore that concept, but again it wasn't approved by the peer review panel. There is not a lot of support right now for using that, but it could something done in the future.

EXECUTIVE DIRECTOR BEAL: That exhausts my list. If folks think of things they really need here over lunch, I'll make one more offer, but I think we need to dispense of that very quickly when we get back and then jump into the ESA update and the aquaculture proposal from North Carolina.

(Whereupon, the meeting was recessed 12:10 o'clock p.m., October 30, 2013.)

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AFTERNOON SESSION

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The American Eel Management Board the Atlantic States Marine Fisheries Commission reconvened in the Lanier Ballroom of The King and Prince Beach & Golf Resort, St. Simons Island, Georgia, October 30, 2013, and was called to order at 1:30 o'clock p.m. by Executive Director Robert E. Beal.

EXECUTIVE DIRECTOR BEAL: We will go ahead and reconvene the Eel Board. I think Kate has a couple of questions on Addendum IV just to make sure that the plan development team fully understands where to go with that document. After all of the Addendum IV discussion is over, Terry is going to come back up and resume the chairmanship of the board.

With that, Kate, do you want to ahead and ask your questions.

MS. TAYLOR: I just wanted to ask for clarification if the board would still like the ORCS options to be considered for quota management for the glass eel and yellow eel fishery or if they were more in favor of using the landings' methods as specified by Rob and Tom?

EXECUTIVE DIRECTOR BEAL: Are there any comments on keeping those options in the document as they're drafted now or removing them? I heard one leave them in. Terry.

MR. STOCKWELL: Mr. Chairman, I think at this point we should leave it in at least until the spring meeting. Pat and I have to think our way through a few issues before we come back to the board in the winter.

EXECUTIVE DIRECTOR BEAL: Fair enough. John, yours is on a different issue?

MR. CLARK: No, are you saying to have either/or or both options in there?

MS. TAYLOR: It would be to include the ORCS options along with the two other options.

MR. CLARK: Yes, that would be fine.

EXECUTIVE DIRECTOR BEAL: All right, any objection to retaining the ORCS options in addition to the other quota options that are included? Seeing none; they'll stay in. Kate, do you have any other questions? John, did you have another comment?

MR. CLARK: Yes, thank you, Bob. After Tom made his proposal for basing the yellow eel quota on recent harvest and also to not allow any state to have more quota in there than they currently are getting; I discussed this with Tom because we have a situation where our eelers have not been able to get the bait that they usually use, so our catches have been depressed because of that. I discussed this with Tom and we'd like to have a little time to develop something where it would hopefully work out

equitably for all states as we consider a cap based on recent landings. Thanks.

MS. TAYLOR: Can you please provide some more direction as to how you would want that allocation to occur? We would need that information for the plan development team.

MR. CLARK: Yes; can we get you something in the next couple of weeks?

EXECUTIVE DIRECTOR BEAL: Tom, are you okay with helping out with that?

MR. O'CONNELL: Yes.

EXECUTIVE DIRECTOR BEAL: Great; Tom and John have homework; so it is good. Is there anything else on Addendum IV? It seems a pretty comprehensive list that was explored before lunch and everyone is in agreement in adding those in. The plan development team will work on those as they can between now and the February meeting.

Kate, I think the intention is to provide an update on the status of those options in February and then bring the full document back at the May meeting. Brad, does that sound reasonable to you or Sheila as the tech folks? Do what you can between now and February and then bring a full report in May. Pat Augustine.

MR. AUGUSTINE: Mr. Chairman, we did talk about what we were going to ask the technical committee to do and not add anything to the document; but Lance and I were talking about it and his experience is that there are well-established parameters that are used both in Canada and Europe and other places. Maybe if the plan development team or the technical committee has time, we should at least access ourselves to that to see if we can't draw upon existing formulas and whatever they have out there to see if in fact we don't have to create a new wheel but take a wheel that is already established or formulas that are already established. Can you do that; would that be viable during the next six or twelve months or whatever that timeframe is?

MS. TAYLOR: Some of that information may be site-specific and only applicable to those sites, so that might be a limitation for using that information but we'll certainly take a look at those examples and see if we can gather anything from it.

MR. AUGUSTINE: And to that point, they may be site-specific but I think the problem is that we're looking at only one fishery to do our evaluation. As Dr. Daniel mentioned earlier, we're using information from one geographic location. If we don't have time to look at all the other locations up and down the coast, again the Canadian one has been around for a long time; the European one has been around for a long time, and I just think we're missing an opportunity at least to look at it. If you would do that, we'd appreciate it. Do you want to add something?

DR. STEWART: Yes, if I can, Bob, I was just interested not to go into every site and try to get specifics; it is just to look at a relative comparison of what their glass eel fishery is, what their silver eel fishery and do they have a bait fishery, do they have a yellow eel fishery.

They should have an annual synopsis like we do and also the European countries would have some sort of a segmented report on the dollar values and quantities; so not in depth of the science but just a general comparison of the categories we're trying to manage in the U.S. to what the European countries have done within legitimate eel range of the viable body of the species; so we're not isolated and trying to say we're doing this sort of thing and becomes a full picture.

EXECUTIVE DIRECTOR BEAL: As Kate said, the plan development team will look at that. As time permits and as data is available, they will include that. Is there anything else on Addendum IV? Not seeing anything, Terry, are you ready to resume the chairmanship?

CHAIRMAN STOCKWELL: Thank you, Bob, for doing the heavy lift this morning. Kate, you're going to provide us with an update on the proposed listing?

**UPDATE ON THE PROPOSED ESA
LISTING OF AMERICAN EEL**

MS. TAYLOR: As the board is aware, there was a petition submitted to the U.S. Fish and Wildlife to list American eel under the ESA back in 2010. The positive 90-day finding was published by U.S. Fish and Wildlife in 2011 that listing may be warranted. Staff and funds are actually being allocated now for the status review.

In August 2012 a lawsuit was filed by the petitioning agency in order to have Fish and Wildlife make a 12-month finding on the petition. A settlement agreement was approved by the court requiring Fish and Wildlife to publish their 12-month finding – a proposed rule by September 30, 2015. The Service is expected to begin work on the status review in early 2014. The commission has provided the data from the stock assessment for use in the Fish and Wildlife Service Status Review.

The second item that was included in your briefing material just as an update is a letter from the European Commission to the Fish and Wildlife Service on the implementation of CITES in the European Union. It just is making Fish and Wildlife Service aware of the fact that the EU is not in a position to allow export or import of the European eels until the end of 2014 in response to the population status of the European eels. That concludes my report.

CHAIRMAN STOCKWELL: Are there any questions for Kate? Seeing none; you're back up.

**2013 FISHERY MANAGEMENT PLAN
REVIEW AND
STATE COMPLIANCE REPORT**

MS. TAYLOR: This is the Fishery Management Plan Review for the 2012 fishery. That should say in 2012 landings totaled just over one million pounds. This was an 8 percent decrease from 2011. Landings increased within the New England Region. We saw increases in Maine and Connecticut and in the southern Mid-

Atlantic the Potomac River, Virginia and North Carolina.

Landings declined in the northern Mid-Atlantic Region, including New York, Delaware and Maryland. Landings from New Jersey, Maryland and Virginia accounted for – each totaled over 100,000 pounds of eels and accounted for approximately 77 percent of the total coast-wide commercial landings.

Landings of glass eels were reported from Maine and South Carolina and in 2012 totaled over 22,000 pounds. This was 143 percent increase from 2011. The table in the document shows the landings by states and landings from New York were not yet available and are not included. In 2009 the MRFSS, now MRIP Program, stopped collecting data on recreational harvest of American eels.

The FMP requires states and jurisdictions to conduct young-of-the-year surveys and monitor the annual recruitment. In 2012 Rhode Island and Florida's recruitment levels were below average. New Hampshire, New York, Virginia and Georgia had average survey results. The states of Maine, Connecticut, New Jersey, Delaware and Maryland had above-average YOY catch results.

Actually all of these states had their highest YOY catch on record. Florida had the lowest YOY catch for their time series in 2012. The trends kind of vary across the board. There were just a few changes to monitoring programs in 2012. New Jersey re-implemented their young-of-the-year survey. It was not accessible in 2011 due to a collapsing overpass, but the monitoring did resume in 2012.

Pennsylvania and D.C. both initiated electrofishing surveys in order to supplement their young-of-the-year surveys that they have been conducting; because they catch very few or no young of the year in those surveys. There were no changes to the management programs, but the states will begin implementing the regulations required under Addendum III in 2014.

The FMP stipulates that states may apply for de minimis if their average commercial landings constitutes less than 1 percent of the coast-wide landings. New Hampshire, Massachusetts, Pennsylvania, South Carolina and Georgia have requested de minimis and all the states that applied for de minimis do meet the de minimis standard.

New Hampshire was not included in the FMP Report, but they did apply for it in their compliance report and so it is shown here. The plan development team recommends that the board approve the de minimis requests for all states that did request it. The plan development team requests that all states collect biological data from their commercial landings and greatly appreciates those states that do collect this data as it is very helpful.

The plan development team requests that states work with their law enforcement agencies to include information on confiscated eels from illegal or undocumented fisheries. Additionally, the plan development team requests that states that do not regulate their personal-use fishery should be required at a minimum to permit their participants in this fishery and collect harvest data in order to provide an estimate of catch and effort. That concludes my report.

CHAIRMAN STOCKWELL: Are there questions for Kate? Bill.

MR. ADLER: Mr. Chairman, back on the de minimis; didn't we already vote on that? The states were de minimis or could be de minimis; didn't we already vote on that maybe at the last meeting or something?

MS. TAYLOR: I think the FMP Review was done in February for this year's fishery; and so these are de minimis requests for the 2014 fishery.

MS. ROCQUE: If it's okay with the board, I would like to request that Wilson Laney come up and provide a little bit of a status update on a technical question clarification. Thank you.

PRESENTATION BY DR. WILSON LANEY

DR. LANEY: Thank you for recognizing me, Mr. Chairman. I had a couple of technical comments, and I also going to the give the board an update on the Roanoke Rapids Dam Eelways, because everyone seems to always be interested in how those are going. The first comment is I know a lot of us tend to use the terms "elver" and "glass eels" interchangeably, but just keep in mind those are two different size classes when we're talking about those. Elvers are generally larger and obviously pigmented as opposed to glass eels.

Relative to the Roanoke Rapids Dam Eelway, consistent with I think what has been observed in the glass eel fisheries for the last couple of years, the numbers that we're passing at Roanoke Rapids Dam have now jumped up again by an order of magnitude so that thus far this year we have passed 802,000 elvers at the two eelways at the Roanoke Rapids Dam.

The operator of the eelways, Chad Colley of Dominion Environmental and I think that given that we haven't reached the fall preferred temperature around 15 to 16 degrees, it is entirely possible that we will wind up passing over a million eels at Roanoke Rapids Dam this year, because they seem to have a preference for 15 degrees or thereabouts and we usually see a big peak in November. I'll keep you posted. We're anticipating that number going up.

Relative to the issue of incremental mortality between life stages, I certainly agree with Dr. Daniel and Mr. Feigenbaum that that is something that we really need to know. It is a very difficult thing to determine, as you all know. American eel is probably the most complicated species with which you deal because of its life cycle.

One of the things that we've discussed is that probably about the only way you can do that would be to measure what is going in and what is coming out and what is inside of a given watershed as Mitchell suggested.

Brad and I talked about this a little bit after lunch, but I think the technical committee has discussed in the past that one approach the commission may want to take – and certainly this would be a board decision – is that if you pooled your resources and sampled a watershed on a regional basis, perhaps one in the South Atlantic, one in the Mid-Atlantic and one in New England somewhere, you might actually be able to do that because you would have to measure glass eels, not necessarily elvers but certainly yellow eels inside the watershed; glass eels going in and yellow eels inside the watershed and then silver eels coming back out again.

It would be important to measure those all in the same watershed and also from north to south or south to north, take your pick, to get that latitudinal variability and age to maturity and those sorts of things. I'll just mention again that in those places where one or the other life stages currently are being monitored and counted on an annual basis, it gives you a great opportunity to do that.

I'll add parenthetically that the concept that Dave Simpson mentioned of trying to provide some sort of credit to those states that are working hard to implement conservation measures or restoration measures would be sites to do that. The Roanoke would certainly be one good site to do that, and Mr. Travelstead and Dr. Daniel would conceivably benefit greatly by virtue of the vast number of eels that they are passing upstream into the upper Roanoke River now.

I think that's all I needed to say, Mr. Chairman. I think that is an alternative approach to monitoring a population that you may want to take that would focus in – that would give you some idea of what the latitudinal differences are but also would give you ultimately the data to generate the science that Dr. Daniel would like to see and I think everybody around the table would like to see.

It would, though, as Brad and I discussed, take somewhere in the neighborhood of a minimum of three to maybe as many as seven to ten years

to generate those numbers with a sufficient degree of statistical rigor to generate the incremental mortality estimates between those life stages. Thank you.

CHAIRMAN STOCKWELL: Thank you, Wilson, for the report, and it is good to hear your voice has come back. Before we go on to Pat, are there any questions for Wilson? Walter, do you have a question for Wilson?

REPRESENTATIVE KUMIEGA: Well, Wilson or possibly staff. Do you think it would be scientifically valid to do a study like that on a relatively small watershed? I mean, obviously, it would be cheaper. If you picked relatively small watersheds in three different areas or does it have to be a big area to make it have validity?

MR. CHASE: I think Wilson's suggestion to have a range is probably better to have a sample size of the same types of watersheds; so if you could have a range of types of drainage areas, it might provide more information. If you could ever be so lucky as to have a decent sample size of seven or eight, then you could start to address some of these watershed characteristics against the eel population characteristics, and that could be really valuable.

REPRESENTATIVE KUMIEGA: Does anybody have an idea of what the budget for that would be?

DR. LANEY: The short answer is no, but I think we could generate one. On the Roanoke and any other facility where there is a FERC licensed hydropower facility that is required to monitor those eels as part of their license, then the applicant in those cases usually pays for that although it depends on whether or not a settlement agreement is in place and whether the agencies have agreed to pick up part of the cost.

But on the Roanoke we did have a period of time for three years where Domtar Paper Company downstream at Plymouth was paying for East Carolina University to monitor the larval fish community, and they were picking up glass eels as part of that study. We could probably put some numbers together for that.

To the size of the watershed, if you wanted capture the relationship from the glass eel stage to the silver eel stage, then obviously you need to pick a watershed that is large enough that it is going to be generating the silver eel life stage on the back end. Some of the coastal watersheds which do receive tremendous inputs of glass eels; I don't have a feel – maybe Brad or Sheila do – for whether or not those fairly short coastal watersheds generate silver eels or not.

I just don't know. We have devilish time catching them down south; catching the silver eels, that is. We still haven't figured out how to do it. One of my colleagues, Mark Cantrell in our Asheville Office, has been trying for about three or four years in a row now and has yet to catch one. I think given time – Sheila, correct me if I'm wrong, but I think the technical committee could probably come up with an estimate of how much it would cost. Again, it would be greatly to the commission's advantage to pick a system where some FERC licensee is already doing the monitoring of one or more life stages because that would theoretically save the commission dollars.

MS. SHEILA EYLER: I think that's something the technical committee can address. We do have information from studies with FERC projects in particular. It would be good if this fishery is involved in those rivers as well; but I think we could come up with some cost estimates. I know some of the technical committee members in the past have talked about doing those kinds of projects in their state and have some ideas of what it is going to cost; so it's something we could put together.

MR. CHASE: I just want to remind folks that the recommendation from the stock assessment subcommittee now is that any jurisdiction that would want to open up a new glass eel fishery would need to conduct such a life stage survey; so what Wilson is offering would be an alternative to that approach.

MR. AUGUSTINE: Are you ready for a motion?

CHAIRMAN STOCKWELL: I still have one more hand. John.

MR. CLARK: I was just going to say in answer to Wilson's question that in Delaware back in the early 2000's we did do a study of silver eels coming out of a small coastal impoundment, which is right where we sample our glass eels, and in terms of numbers it was not many were coming out of that. It was a very small watershed, but at the same time it is a very attractive area to glass eels. We get hundreds of thousands of glass eels at that spot.

CHAIRMAN STOCKWELL: Are there any further questions? Okay, Pat, you're up.

MR. AUGUSTINE: **I guess we're ready to have a motion to approve the 2012 FMP Review and State Compliance Report and accept the de minimis status for the following: New Hampshire, Massachusetts, Pennsylvania, South Carolina and Georgia.** I believe that is the complete list. That is my motion, Mr. Chairman.

CHAIRMAN STOCKWELL: And seconded by Bill Adler. Is that your motion, Pat?

MR. AUGUSTINE: Yes, Mr. Chairman, you do want to include the names of the states, please.

CHAIRMAN STOCKWELL: Are there any comments? The motion is move to accept the 2012 American Eel FMP Review and Compliance Report and approve de minimis for the following states: New Hampshire, Massachusetts, Pennsylvania, South Carolina and Georgia. Motion made by Mr. Augustine and seconded by Mr. Adler. This is an action item but is there a need to caucus? Are there any objections? **Seeing none; this motion is approved.** We're on to Dr. Daniel.

DR. DANIEL: My head is spinning from Wilson's outstanding report. My understanding is that these eels that are passing into the Roanoke River are not glass eels. These are year or a year and a half old eels. How could there be a million year and a half old eels or a year or a year and a half old eels for anything

endangered? That's just in one river system; fairly small drainage basin, too.

I'm wondering is this information that maybe the Service could use to make a decision quicker on this eel listing and get that monkey off our back; so I guess it's a question to the Services or whoever is more familiar with the ESA stuff than me. I don't know if there is some magical issue with this 2015 deadline, but that's something we're going to have to deal with and stress about what really doesn't seem like it's warranted.

CHAIRMAN STOCKWELL: Is someone able to answer Louis' question? Deb.

MS. ROCQUE: There is a process with the ESA and doing a 12-month finding, and we will take all new information into consideration, but there is nothing that actually speeds up the process.

DR. DANIEL: I'm always trying to think of a way to move it along faster, but it doesn't work most of the time.

MR. FEIGENBAUM: Dr. Daniel, in response to your points, I would just remind my fellow commissioners that the 2007 Fish and Wildlife Decision not to list the eels; it relied very heavily on the fact that the recruitment was stable and even showing some positive signs of growth. I think I've mentioned this before and I'm sure many of you know this, but approving the 90-day finding and deciding to take another look at the question, the FWS specifically said that they are standing by their conclusions from the 2007 decision on almost all of the factors that they consider when making an ESA review.

There were two exceptions. They just wanted to take another look at the species because of, A, the new information about the prevalence of the parasite; and then the second one, of course, global warming or changing the climate pattern. I think that the Fish and Wildlife Service has already exhibited a pretty good understanding that the recruitment is positive and trending in the right way, but they've expressed their

concern about these other issues for which perhaps new information has come forward.

DR. LANEY: Just to correct Dr. Daniel on one point there. Louis, the Roanoke is not small watershed. It's a huge watershed. Much of it lies in Virginia, so it really is a large watershed.

CHAIRMAN STOCKWELL: Is there any further discussion on this agenda item? Okay, Dr. Daniel, you're up.

HARVEST PERMIT REQUEST BY NORTH CAROLINA

DR. DANIEL: I think everybody has had an opportunity to review much of the information that has been presented by the American Eel Farm both at the August meeting and here at this meeting. From my understanding from multiple conversations with Mr. Allen, he has talked to many of the commissioners seated around the table. I think you know who we're dealing with in this request.

I submitted a letter to the board requesting you folks allow me a harvest up to 750 pounds of glass eels for a bona fide brick-and-mortar grow-out facility in North Carolina. If we were to receive this allowance, I would issue a scientific collecting permit to American Eel Farm. They would be authorized to permit maybe up to about eight fishermen to go out and harvest these eels with a very specific window of time that they would be able to harvest and then a very specific period in which they would have to grow the eels out; about ten months.

As an example, it might be a February season and an October time period which would be the only time that those eels could be sold after that time period of grow-out. Those would be observed at the Trenton Facility and then they would go straight to Atlanta where they would then go straight to wherever they go.

There would be no – well, there is always a possibility for anything, but it minimizes the chance of undersized eels getting into the market, first off; and, secondly, it doesn't really impact our domestic market. I think I've got the

constraints working with my staff on a scientific collecting permit, call in when they go to harvest, call in when they get back, daily reporting on the amounts and the ability if there is one misstep to pull the permit.

I can do that immediately based on my authority in North Carolina with our scientific collecting permit program. I know there are probably a lot of questions. I don't want to get too much into the addendum, but it provides with an opportunity to collect some information in North Carolina that we just don't have.

And so I think it is a valid scientific collecting exercise not only for the elvers but for what happens to the elvers, the grow-out; is it a reasonable thing for us to pursue. That's one of the reasons why I'm trying to get it now and not waiting for the addendum is because the eel farm needs to get moving. T

They're sitting without a whole lot going on, and so I think economically they need to get moving. I think that is best reason for doing this way is I can. It also provides us with an opportunity I think to have some more information – maybe we'll have some more information as we develop Addendum IV. If we get started this winter, we'll have some information before our spring meeting, and that could be very valuable and important information for us to have. I'll stop there because I'm sure there are a lot of questions, and I'll try to do my best to answer them. As far as business models, though, that is really not my forte, so I'll do my best.

CHAIRMAN STOCKWELL: Okay, a lot of hands up; I'm going to start with Bill Adler and go right around.

MR. ADLER: If I might ask, Mr. Chairman, Dr. Daniel what he meant by grow-out? I always thought that it took several years for eels to grow to other colors; you know, yellows and silvers and whatever. That was one question, what he means by grow-out, within a matter of six months or something. The second question is did this facility get built before we even would give permission to do this and what provoked them to build the facility ahead of time?

DR. DANIEL: The facility was built 15 years ago or more by Mr. Kuntz. He has been in front of this board. I think one of the amendments or the original plan basically had held out a little hope for them to be able to do this down the road. Mr. Koontz had some health issues and now the facility has been bought. Mr. Allen is now a partner in American Eel Farm with Mr. Kuntz.

This is the story as I understand it. The facility was purchased. The equipment in the facility – it was just determined six weeks so, so even since American Eel Farm came to the commission last meeting, has discovered the facility is only good for growing out the fingerlings. What happened was he purchased two 7,500 gallon tanks so that he could expand his operation and grow these things out to the legal size. That is his ultimate goal from my understanding.

Well, what he found out from talking to the guy who he bought the system from was that by adding those two 7,500 gallon tanks and thereby adding capacity to his system, he threw all of his bio-filtering and all of his CO2 things and oxygen stuff and all these other things that they got going on in that facility renders it basically useless.

So, his approach now and his request now has changed from the original request that he suggested to us in August, which was to immediately grow them out to nine inches, he wants to be able to grow them out to the five- to six-inch range, which I guess would be an elver stage, for this initial grow-out opportunity. Then those would be sold overseas.

Now, my understanding is that the long-term plan is to build the system up in order to handle the grow-out of the larger eels and be able to process and market those larger eels ultimately. But, we're asking for a scientific collecting permit – they're going to need to be able to harvest eels every year.

Well, this may come in conflict with Addendum IV, so that is kind of one issue where this does kind of go hand in hand. If we approve this ultimate motion to grant this; if that's approved,

then we'd only get about a year's worth if we don't have something in the addendum. So we need to sort of be a little forethoughtful in how we want to handle this whole aquaculture situation with this request and Addendum IV. I hope, Mr. Adler, that answers your questions, but that was a game changer about four to six weeks ago from my understanding, and so that is why the request on the time has changed.

MR. DIODATI: I was supportive of this concept of developing some domestic production capabilities; but this approach just sounds like an elver fishery. If we kind of approve this the way this is presented, we're probably going to have some difficulty when I submit the proposal that I'll submit to get some elvers to put in my garage or something for a couple of weeks, and then I'll sell those.

I guess I'm having a little bit of a problem with the way this has evolved. I'll listen to the discussion and see where it goes, but it is not what I – because I initially did support this in a big way, but I thought it was going to be a long-term aquaculture project. This leads to my next point as we develop the aquaculture elements of the addendum that we've already talked about, I'd like to see a definition of that, that it's not just holding them for less than a year and then selling them out of the country somewhere, and that sort of thing. I don't view that as an aquaculture project.

MR. AUGUSTINE: At the concept and at the initiation of this program, I was a hundred percent in favor of it because it is domestic. It would add to the economy and so on; but when I got into the details, similar to Mr. Diodati, unfortunately, I tried to allude that to a couple of the folks who are part of this, red flags went up.

I'm looking at the landings for state and life cycle on Table 1 and 2012. We have Dr. Daniel hoping that we can get the state to have 750 pounds or whatever they re. So with a fast calculation, at 2,000 bucks a pound that is \$1.5 million or thereabouts. If that comes off the top, it comes off the overall quota and it comes out of your state, then fine, do it, but that is my concern.

I looked at North Carolina's harvest of yellow eels at 66,580 pounds; and some others such as South Carolina with 1,400 and nothing in glass eels at all. I look at Massachusetts with 462 pounds, yet we'll only give away 750 pounds of these little guys, who in a matter of six months will grow out to be six inches or more, and I'm not sure what they'll sell for.

Like Mr. Diodati, I'm concerned at how this has changed. I think the idea of what we're trying to do in the state of North Carolina is very good, valid. It is the right approach; but having changed the game and now that we have moved the addendum off until next year, which would have allowed you up to 5 percent of your quota – and I harken back to your comments earlier, if we could have a transition or a flip-flop, how many of these or how many pounds of these for how many pounds of those.

I think once we got that, I think that's where we have to go. Unless this game plan changes again where it's more than just little animals in, bigger animals out, we make a ton of money and we put more little animals in; and, yes, we put some back in the environment. The problem with those that are going back into environment, I don't believe the protocol has been developed yet.

You may have it your state, I'm not sure, Dr. Daniel, but the protocol has to be developed that meets the criteria that you can in fact put them back in the wild. So, no question, this is the right way to go, but the real question is how do we get there in lockstep so everybody doesn't share the pain, quote-quote, it comes out of everyone's quota, that it comes out of the state that wants to support and recognize this.

I would hope that if we finally get that point, the state of North Carolina will benefit from the process of selling economically. That is where we are on it. I don't want to shoot the thing down, but I do think we need more work on it. It is a very viable approach and I think they have to go back to the drawing board and kind of come up with a couple more steps. That is my opinion, Mr. Chairman.

DR. DANIEL: Yes, and please don't think I'm not equally concerned about the change. It came as a surprise to me, but it also came as a surprise to Mr. Allen, I think. I wanted to make sure that was clearly on the table that his approach has changed. It raised concerns and red flags to me, and I can't disagree with anything you said or Paul said on the concern.

The only thing I can do is try to move forward in trying to make this work using as stringent controls on it as I know to do; and that I'll do if you all think it's a good approach. I don't want you thinking that I didn't understand the concerns and so they're not coming as a surprise to me.

MR. AUGUSTINE: Final follow-on, Mr. Chairman. Thank you for that clarification, Dr. Daniel. I guess the real question is we were to approve this letter or you to go forward with it and with the controls you're talking about, whether we or you would make the decision to take some of your quota, existing quota, figure out a transfer of whatever – if they change the protocol in the direction they want to go so it is more in line with what you folks believe would be the right way to go; would you look at doing that relatively quickly or would you wait until 2014? Have you tried to get a timeline as to how you and your staff would react if in face we did move forward?

DR. DANIEL: Well, in terms of moving forward with allowing the harvest, yes, I've got a protocol set up on how the scientific collection permit would be issued and the conditions, et cetera. We've got that fleshed out to our comfort level and our enforcement folks comfort level. But again, under Addendum IV right now, if we approve that next year and there is no provision for an aquaculture allocation, then we're dead in the water.

Then the other point that I think is very important for me at this point is that we're going to go out to public hearings in North Carolina. I have a feeling and I know what the commercial yellow eel fishermen's opinion might be of transferring some of their quota into glass eels for an aquaculture operation. I don't know how

successful I'll be in that argument. I may be shot down immediately, but I don't know.

I mean I would think that it would be in the best interest of a state, if it's a fairly close maybe one-to-one relationship that a thousand pounds of glass eels would be in far better interest of the state and our fishermen than a thousand pounds of yellow eels. And so they may be willing to give up a thousand pounds, maybe a couple of thousand pounds.

But if it impacts their ability to fish and their seasonality and things like that, they're not going to support it. That is the issue that I think needs to be vetted through the public process, which is the addendum. What this does is bridge the gap, and it's a gamble. American Eel Farm really doesn't have much of a leg to stand on; so they either get this permit which gives them an opportunity to try it this year and then it goes away and they go back to Maine to buy their eels or they have a long-term situation. That is going to be up this board next year.

MR. AUGUSTINE: A final question has to be begged to follow that. So, wouldn't we better served in the state of North Carolina and your eel fishermen if you were to do that survey prior to us kicking us off an action plan that is going to allow you to do thing else; or do you feel you have to do that in parallel?

In other words, if you went back and said, "Look, we're going to survey all of our eel fishermen and, by the way, guys, maybe get some preliminary information from Brad as to what that transfer might be," and query them and then come back and say, "Hey, guys, commissioners, fellow commissioners, here is what we want to do and here is what our state will support."

In the meantime we're going lockstep with Addendum IV and that option is in the document already that would allow in particular case up to 5 percent. And who knows when it goes out to the public, someone might come forward and say, well, 5 percent is not enough and maybe go back to that 750 pounds that you're suggesting might be a pot that comes off – I'm sorry, an

amount that comes off the top of the pot. It may be another option, but, Mr. Chairman, could we find out where we might with that and then I'll shut up. Thank you.

CHAIRMAN STOCKWELL: Will all respect, I don't want to have the board debate this issue right now. We've got other hands and questions and then we'll get back to you, Pat. Mitchell.

MR. FEIGENBAUM: I want to be clear as someone who owns and for many years ran a 100 metric ton eel farm, that I'm sympathetic and generally supportive of developing eel aquaculture in North America, and it's nice to see people involved in the process. But speaking about process, I have preliminary question.

I'm sorry that Bob is not here, but we can call this a scientific collecting permit, but basically Mr. Allen in his presentation and his written materials has been very frank about the fact that he's trying to support a commercial operation. I don't think there is any problem with that, but I do think there is a concern that there be no public process.

If we were to pass a motion right now; how could we pass a motion now without putting this out to the public? If we really want to gain a benefit scientifically from \$1.7 million worth of eels, well, I think Wilson and Sheila and all the other folks working on habitat issues and the very studies we were just talking about right before lunch when no one can say what would be the budget to do these complete life cycle surveys in multiple locations, no can answer that question; but I'll bet you \$1.7 million would get an awful lot of that work done.

So if our concern as a board is to gather scientific information and to use this resource to advance our knowledge, then there is a much better way of going about it than to award one commercial facility a head start, a leg up over others. I just would urge that as this process goes forward, we go forward openly, fairly, transparently; and most importantly in a manner that all the members of the public, including at least five entities that have come to me in the last year with proposals to open eel farms in

North America would all have an opportunity to pursue that on an equal footing. Thank you.

CHAIRMAN STOCKWELL: Okay, we're quickly crossing the line between debating a motion that doesn't exist yet, and I'd still like to go around the table with questions. John.

MR. CLARK: I emphasize with your predicament there, Dr. Daniel, but just to kind of reiterate I don't see where the scientific value of this will come. When Mr. Allen stopped by to discuss this with me, I was wondering what the business plan was. If you grew these out to nine inches, it would seem like a very expensive way to produce bait eels. I just didn't see how this would work. In fact, the only way I see it working is to sell them almost immediately. In that case I think the idea of allowing states to have glass eel quota – other states that don't have it now is fine, but I don't how this really fits in as a scientific permit.

MR. KELIHER: I am generally supportive of the concept of grow-out facilities in North America and the domestic side of this and moving over to aquaculture. But I think of the aquaculture facilities that we regulate in Maine, whether it's mussels, whether it's salmon, whether it is soft-shell clams, they all start with a seed base or a juvenile level that they are buying and not being able to go and harvest, so there is an up-front cost.

The gentlemen in question have eel dealers – there are eel dealers in the state of Maine. They have the ability to get that product and make that investment if they wanted to do so in that direction. My concern becomes not from the overall intent but the utilization of a scientific collector's permit for a commercial reason. I'm trying to figure out how to balance that and how to help move that forward.

MR. WHITE: I'm really agreeing with Paul and Pat. From a state that is looking like we will have no quota, I question the fairness of allowing this kind of harvest. New Hampshire has a facility that probably would fit this mold right now that's not being used in aquaculture. If we approve this, could New Hampshire get a

similar permit? I just think it's opening up a door at this point that we're not able to handle.

MR. MARTIE BOUW: Mr. Daniel, I did talk to some of the fishermen regarding North Carolina. I don't think there is going to be much support for it. How would you actually pick out the fishermen that would go and fish those glass eels?

DR. DANIEL: Can you repeat that question.

MR. BOUW: How would you pick out the fishermen that are allowed to fish those glass eels where other ones won't?

DR. DANIEL: I wouldn't pick them. It would be up to the permit holder to pick the fishermen that would fish for them.

MR. BOUW: So the fishermen that have been there for 20 years on the water every year might not even be picked and fish glass eels and they would see their harvest just go away. I don't think that is very fair.

DR. STEWART: Just reflecting on business plans of 20 years ago, we're at a very miniscule step up into aquaculture of – again, as I've mentioned my attitude is that we have phenomenally abundant recruitment of glass eels in every state. But at the time we were soliciting foreign investment and we do have some leverage here in terms of product we're selling abroad.

Although it's not the board's position to do this, some other outside economic entity might help in easing our problems with glass eel take and the fact that we think it's undermining the whole Atlantic fishery, which I doubt. I would say that almost any state wanting to get into aquaculture should have a plan that does, first of all, look at an endpoint of a food product and not a bait product. This species is too valuable as a delicacy abroad and not that much in the U.S. so we have a tremendous advantage of bringing that sort of endpoint product into the glass eel husbandry business.

Although bait is so valuable now, which I think is a shame, that you're selling one of the most precious items for striped bass. Anyway, that's another position we should kind of clarify. So, anyway, those are the points for the glass eel fishery that I think we're too conservative, much too conservative.

If I were to look at every state and every little tributary that attracts a glass eel run, I would almost say give industry a license on one little stream, to take all the glass eels that have no upstream holding capacity, no silver eel contribution, but at the point when they're orienting to that particular stream for olfactory purposes – I know because I've fished several of these streams experimentally when we were looking at starting eel farms – you can make 200 to \$300,000 just with that little stream with a dip net or a little wick fishery.

I kind of just want to stimulate the people who are in the business of assessment of stocks get out in the field, take a look at what this glass eel fishery is in the spring. I think we're way too limiting ourselves into the economic opportunities. The other facet of it if you don't go food is to restocking. It is far more important to restock a few streams and see if it works than to sell them for bait.

MR. FOTE: I've been very quiet, but when Lance starts basically to try and equate sending foreigners our fish to eat, to raise out and we talk about an industry that basically puts charterboat captains, tackle stores, boats out there fishing for striped bass, it makes up a billion dollar industry or \$1.3 billion in New Jersey, so I'm worried people home jobs; basically the charterboat captains, tackle stores that basically depend on bait to sell to their customers, and it's also a quality of life.

They might not want to eat them. I've used eels for bait for about 50 years, and it's an important part of that experience. It's always fun trying to basically handle them. But to say that is not as valuable as a food fish, you're making your economic decision on there while I basically would like you to know the tackle stores and everybody else, the charterboats that depend on

that, we feel a lot differently about shipping them overseas. These are homegrown industries, homegrown businesses and small mom and pop operations.

CHAIRMAN STOCKWELL: Okay, we've gone around the horn but all the way yet. Dennis.

MR. ABBOTT: I see this as being two issues. Whether Dr. Daniel chooses to issue a permit for this eel farm is one thing, and I think it should be something that he can accomplish on his own. The issue acquiring product for that experimental farm, whatever you want to call it, is another issue, and I think the very concept of allowing a state to have access to the glass eel fishery is very wrong, especially at this point in time.

Thirteen states don't have access to the fishery. As Paul Diodati says, you know, anybody can – and Ritchie White also – we would want to be at the table, too. I think this whole idea of allowing a harvest of a fish that belongs to the public is wrong to this time. And using a legislative term, this starts us down a very slippery slope.

CHAIRMAN STOCKWELL: Louis, reflecting upon the comments of the board, what is your pleasure?

DR. DANIEL: To go home! I think there is scientific merit to the work. I believe the harvest – despite the advisory panel chairman's comments, I think it could provide some real benefit to the eel assessments in terms of locations and collecting information on where they occur. We have very little information on eels in North Carolina.

The other thing I'm very interested in is the replanting and having a portion of those eels, if they can be tested to be *A. crassus*-free, and et cetera, et cetera, to be able to put some of those back in the water, and that could be a measurable result that could come from it. I hear the angst. I mean everybody around this table has the ability to make this request, so I

don't feel guilty for making the request. I think it was a good idea.

I know American Eel Farm is a bona fide place with bona fide people that have put a lot of time, effort and energy into it. Now, whether their business plan is sound or not, I don't know – that's not my job – but he seems to think he can make a go of it and make a living of it so I was trying to do everything I could to help him.

With that said and with my explanation to Mr. Augustine and Mr. Diodati, I agree with the concerns that have been raised, but I'm going to ahead and make a motion to accept our request; and if I get a second, I'm done talking about it, but go ahead and put it up for a vote and let the chips fall on a slippery slope.

CHAIRMAN STOCKWELL: Motion made by Dr. Daniel; is there a second?

MR. SELF: Second.

CHAIRMAN STOCKWELL: You're from South Carolina?

MR. SELF: Yes.

CHAIRMAN STOCKWELL: Paul and then I would like to go to Mr. Allen, too, before we have a vote on this.

MR. DIODATI: I guess just a question and I don't know if you're going to be able to answer this, Mr. Chairman, but someone here might. This can't be the only time a state has issued a scientific permit or a special permit to harvest a number of elvers in order to do research. I think it probably happens more often than we think. We typically don't see that request here probably at the commission. It is probably done as a unilateral action.

You may have done it in your own state, I don't know. Have you? Okay, that answers the question. So, I guess maybe it comes down to a matter of scale. If a professor at a local university sent in a request to harvest 500 elvers to conduct a study, I would probably not bat an

eye in terms of issuing a scientific permit to go ahead and do that.

I think in considering this, if it's truly a scientific permit that we're talking about, then maybe it becomes a matter of scale, and the board may want to consider what that scale is in the future so that we don't have to entertain this kind of a letter. If it's below a certain amount, it's a scientific permit and the state is free to do what they want.

CHAIRMAN STOCKWELL: Before I go to Mr. Allen, Louis, you haven't spoken with the technical committee yet, have you?

DR. DANIEL: The plan development team met about it and had some discussion on the issue, and I don't believe they supported – they supported it as long as the minimum size limit was nine inches. I think Kate can correct me if I'm wrong, but I believe that was their recommendation that they would have to meet the minimum grow-out size limit of nine inches.

MS. TAYLOR: The plan development team discussed aquaculture inasmuch as like what was included in the draft addendum. The specific requirement that the plan development team wanted to make sure was included in the addendum was that every proposal that was brought forward would be reviewed by the technical committee and approved by the board. This permit request was not sent to the technical committee.

MR. ALLEN: Good afternoon, Mr. Chair and commissioners. My name is Rick Allen from American Eel Farm. At this time I would like to give Willie Bocala an opportunity to speak for a few minutes and I'm going to follow up with a few minutes. He is an aquaculture expert.

CHAIRMAN STOCKWELL: We're running late so a few minutes would be really appreciated.

MR. BOCALA: Good afternoon. My name is Willie Bocala. I used to be the owner of the Endor Farm that Mr. Allen right now owns. I used to operate in the state of Virginia, and I

farm-raised 1,200 pounds of baby eels at the very high successful survival rate; above 90 percent. I'm here to plead for the aquaculture industry for the future because I know it is a part of the solution and not part of the problem.

I support American Eel Farm for a hundred percent for the simple reason that he is the only one who has a viable solution for the resource. You all want a new industry to develop in the United States. I have people who want to invest large amounts of money in aquaculture eel farming in the United States, including building a factory and include restocking and not taking away anything from the resource but even improving the resource.

The problem is this country has no protocol. If you as a businessman has \$10 million in the bank and want to build three or four aquaculture systems in the United States and employ fishermen and employ people and improve the resources, that cannot be a bad idea. American Eel Farm's pilot program can be the first step, a stepping stone to a new industry.

We have all kinds of ideas floating around how to restrict the baby eel fisheries or the elver fisheries. Nobody has an idea how to improve the stock. Aquaculture is the solution, but there is no protocol in this country. I defend the American Eel Farm because it is the first step. 750 pounds might be a gigantic amount in many people's eyes, but it is a small step forward. A big grow-out farm will need a lot more. If somebody wants to make a big investment for the food and the processing, they will employ hundreds of people.

They will invest millions and millions of dollars. American Eel Farm could be the first step that everybody can agree on a protocol for the aquaculture industry because that is what is lacking, lacking a vision. This is the opportunity for this board to do something different instead of going around in circles and circles and circles and be totally paralyzed because what I have seen today is total paralyzed; nothing happens. Do something instead of talking. This is all.

MR. ALLEN: Well, I didn't know he was going to reprimand you. Clearly, I have invested a lot of time and effort. I just met Willie. In fact, I met Willie after I met you. Briefly here is the history. February of this year I bumped in Mr. George Koontz. He tells me, "I've got an eel farm" and I said, "Great". He said you can grow them out to adult eels and I said great.

I do some research and I find out that the eel business is a growing business so I'm willing to invest money. I buy into the farm. I immediately get a South Carolina dealer's license. It was late in the season and we didn't get much done. We get a license in Maine. I go up to Maine and I get my license and I'm on the shore of the St. Croix River.

I'm standing there speaking to an individual. His name is Larry. I say, "You know, I'm the proud new owner of an eel farm, the only one in the country. I'm going to get aquaculture going." He said, "Okay, fine, what advantage do you have?" He said, "You pay 19 and I pay 19.50; you pay 2,000 and I pay 2,050. You have no advantage there."

I said, "Okay, that makes sense." Then he said, "And we buy the eels here, we take them back to China, we grow those eels out, because you can't beat us on labor cost, and we're going to sell them back to you." That's the truth. You want the reality; that's the reality. Step one begins with this farm, which is a fingerling farm.

And, yes, I started out under the impression that it would be designed for adult eels. Because, have you ever met George Kuntz; that is what he's like; no problem, you can grow adult eels. Well, I can grow adult eels. But after a visit to my farm from Martie, he called me and said, "Rick, you can't grow adult eels successfully there." In fact, he offered to buy some of the equipment.

There are some other points I would like to bring up here. As far as getting fishermen, I've already met fishermen in North Carolina. They sell to Martie now. They gave me their number; they'd be happy to collect eels. As far as other eel farms, I know Mitch made the point that

there is an eel farm in Canada, but it is not operating and he offered to sell it to me.

In Virginia the last time you did offer that, but anyhow my point is that we need to start with aquaculture. We need to start with step one. There is not a step here. This farm, I have since found out, is designed more for a fingerling farm rather than an adult eel. Right now 50 percent of the seafood even globally is produced through aquaculture.

The United States is the second consumer behind China. The United States is running 15th in the world in aquaculture. The U.S. produces 0.0 percent of aquaculture. Asia produces 88 percent. If you go to the mission statement of NOAA's Website, they clearly say that it demands that aquaculture be investigated. I've done my part. When I came back from Maine, I sat with Louis. I said, "Louis, is there anything we can do because I've got to let go of this farm?"

He said, "We might be able to do an experimental permit." I then went up to Maine. I got in the car and I drove from Maine all the way down to North Carolina trying to meet with everybody on this board to talk to them about aquaculture. I am just kind of – basically I've done my part. At this point, if this board wants to support aquaculture, they need to make an affirmative decision at this point. Otherwise, I'm done. I've done my part. I don't have any other investors.

This is a life cycle. You've got the first life cycle of a fingerling. Then you've got the life cycle of a yellow eel and then you process it out. The first step has to be taken with this species and that's a fingerling farm, and that's what I found out that I have is a fingerling farm; ideal for that purpose. It is the first step that will get aquaculture off the ground.

CHAIRMAN STOCKWELL: Okay, thank you; we're going to go back to the board and –

MR. ALLEN: As far as one other comment –

CHAIRMAN STOCKWELL: No more comments; thank you. We're going back to the board. Does anybody have a burning desire to speak? Dennis.

MR. ABBOTT: I won't call it a burning desire, Mr. Chairman, but would a motion to limit debate be in order? I think that we've talked about this long enough and I think everyone has had the opportunity to speak.

CHAIRMAN STOCKWELL: Actually, this is the one time you're half a step behind me. Does anybody have anything burning they want to provide? We've gone around the table and a lot of opinion has been made. Okay, why doesn't everybody and we're going to move the question.

(Whereupon, a caucus was held.)

CHAIRMAN STOCKWELL: Move to accept North Carolina's scientific permit request for 750 pounds of glass eel harvest. Motion made by Dr. Daniel and seconded by Mr. Self. Are folks ready to vote? Okay, those who support the motion on the board please put your hands up high; those opposed; those abstaining. **Okay, the motion fails one, fourteen, three.** We're on to other business and I have got one issue. Russ.

OTHER BUSINESS

MR. ALLEN: Mr. Chairman, as New Jersey was moving forward with our regulatory process in compliance with Addendum III, we realized that there was no chance to get our Addendum III dealer reporting requirement in place by January 1, 2014. We're asking a little leeway and some compassion from the board.

We're not sure how long it will take, but we probably won't get it done until probably late summer of next year. I'm not sure if other states are in the same boat as us. We do not have a comprehensive dealer reporting system in place and everything that we just went through with menhaden has left us scratching our heads.

We still haven't got that finalized on how we're getting all that reporting system in place for all the different areas where we found there were dealers that we didn't really know about. We were hoping to get that taken care of first and then move on to eels. I can make a motion if that is necessary, but I was just looking to see if we could get some consensus from the board that we could delay that part of the implementation of Addendum III for New Jersey and other states if that is the necessary process. Thank you.

CHAIRMAN STOCKWELL: Russ, I think it would be cleaner if you made a motion.

MR. ALLEN: **I'll make the motion and if people aren't comfortable with the data that I use, I would take a friendly to finalize that. I move to delay implementation of the Addendum III dealer reporting requirement until January 1, 2015.**

CHAIRMAN STOCKWELL: Is that New Jersey specific or for all states?

MR. ALLEN: I would say for all states if any other states are in the same boat as us. If they already have that in place, then they don't need to worry about it. I am not sure how other states are – what kind of situation they're in.

CHAIRMAN STOCKWELL: Seconded by Jim Gilmore. Is there a need for any discussion?

MR. WHITE: If you said summer of 2014; couldn't it be implemented right away?

MR. ALLEN: I wish I knew a date in hand, and I just used that as a date, but I'm willing to change that date. If it helps out the board, it could be September 1, 2014, or something of that nature. I'm not real sure on our regulatory process when it will get finished.

MR. WHITE: I guess I'd like to know if there are any other states that are in the same situation. I'm concerned about undoing this for one state.

MR. O'CONNELL: We're still trying to figure it out, but we're not to be in as bad of a situation. We're probably will be looking at early spring for Maryland.

MR. SIMPSON: Yes, eels, dealer reports, they're not sold as seafood, so they don't go through our dealers, so I don't know how we're going to deal with this at all except for direct reports from fishermen.

CHAIRMAN STOCKWELL: So are you more comfortable with January 1st or September 1st?

MR. SIMPSON: Well, as a practical matter, I don't know that we'd ever be able to actually do it.

MR. GILMORE: I'm okay with January 1st. I mean we're late on a bunch of stuff right now, and I think our neighboring state is still – which Russ didn't mention, but the nightmare of the Sandy aftermath is just killing us with all this extra work we've got to do, so it's very difficult to get a whole bunch of things done; so January 1st is fine with me.

EXECUTIVE DIRECTOR BEAL: Russ, you may have mentioned this, but the individual fishermen are reporting; it's just the dealer side of things; so you feel you're capturing the landings. You're just not getting it from both sides?

MR. ALLEN: Correct.

CHAIRMAN STOCKWELL: Are there any further comments? Okay, let's call the question. **Those who support the motion on the board please indicate so; those who are opposed; those who are abstaining; null. We have fifteen to zero. The motion carries, anyhow.** Is there any other business to come before the board? Seeing none; we will reconvene this party at the February meeting.

ADJOURNMENT

CHAIRMAN STOCKWELL: Before we do that, I want to recognize Brad Chase as this is his last official day of technical committee chair.

You've done a terrific job. You've kept me on my toes. (Applause) We welcome Sheila Eyler as our new technical committee chair.

(Whereupon, the meeting was adjourned at 3:00 o'clock p.m., October 30, 2013.)

Terry Stockwell, Chairman
American Eel Management Board
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200A-N
Arlington, Virginia 22201

Dear Terry,

I have recently become very interested in the potential of American eel aquaculture in the United States and in particular North Carolina. The purpose of this letter is to solicit the Board's help in securing a limited glass eel allocation for North Carolina aquaculture facilities. I know the Board did discuss this request at your Board Meeting in October and voted on the issue. However, the information you were given at that time was not accurate. You and the other Board members were led to believe that the grow-out facility in Trenton, NC (American Eel Farm) was for fingerlings only. That is not correct! This is a facility that can grow-out glass eels to market size (9 inches or greater).

The facility and the equipment within it is "state-of-the-art" as acknowledged by Tom Losordo from UNC (now retired). He visited the facility several times during construction and at the annual Aquaculture and Aquaponics Conference last February in New Bern he told Mr. Allyn that "the system was state of the art and ten years ahead of its time." Also, Arne Baekgaard, Project Manager at Inter Aqua Advance A/S in Denmark, visited the American Eel Farm very recently and said that the farm can hold and produce any size of eel. He estimated that, as a grow-out unit, it will be able to feed around 110,000 lbs. per year with an estimated production of 95,000 lbs. per year (report attached). The facility is an indoor grow-out facility (climate controlled) fed by three deep, fresh water wells. It has a main tank room that contains twenty-four 1,000 gallon tanks and two 7,500 gallon tanks. The purification room contains two large Hydrotech solid waste drum filters that were inspected in person by the North American representative and are good to go. It has a UV system and a CO2 removal trickling filter, four 18 foot tall advanced moving bed bio filters with the advanced bio media increased, and four liquid oxygen tanks. Also, there are new water pumps that increased the GPM necessary when the two large 7500 tanks were tied into the system and new air pumps to keep the moving bed bio-filters highly active.

While I do understand the decision of the Board to disapprove the permit request in October based on the misinformation presented on grow-out and the uncertainty from the stock assessment, I think the Board would now be missing an opportunity for valuable information that would come with a viable eel aquaculture facility in North Carolina if you do not move forward with this. There is no such facility for eels in the U.S. It is important for the ASMFC to foster this type of domestic operation where doing so is compatible with sound fishery management. These domestic operations give us the opportunity to conduct data collection and limited harvest in a highly monitored and verifiable setting while providing needed data and needed jobs. Also, this harvest could provide part of the glass eel monitoring that the ASMFC would like from each state. I believe it is important to encourage this type of initiative and job creation in a sound, scientifically supportable manner.

There is need for a Board-approved allocation of glass eels for this late winter and spring season. I ask the Board to consider allowing NCDENR, Division of Marine Fisheries to use a controlled harvest of up to 750 pounds of glass eels in North Carolina coastal waters (part of this would be ASMFC requested glass eel monitoring) for grow out in this aquaculture facility as part of an effort to better understand our glass eel population and the eel lifecycle. This operation would be conducted under a N.C. Division of Marine Fisheries Scientific and Educational Collection Permit. The permit conditions would include: timely harvest reporting, timing of the migration, population statistics, and review of the potential for returning a portion of the grown out eels back into the wild.

While I understand the sensitivity of the glass eel fishery, I do not believe this request would result in any measurable impact to the stock. Indeed, it could provide significant information and value for NC aquaculture operations and, perhaps, result in the first viable eel aquaculture operation in the U.S. I know that Louis Daniels would be happy to answer any questions that anyone may have on this request and hope that it can have a favorable review during this meeting.

Thank you for your consideration,

Richard B. Stone
Marine Fisheries Consultant
4071 Honey Locust Way
Southport, NC 28461
910-523-0643

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American Eel Farm Statement

Background

My name is Arne Baekgaard, and I am Project Manager at Inter Aqua Advance A/S in Denmark. I started my career in aquaculture in 1978 as production Manager at Danish Farm Eel Export, one of the pioneers in RAS eel farming in Denmark, with an annual production on 60 tonnes. Later was I employed as general Manager at DIAT Thy A/S. I was involved in designing and building a 1,200 tonnes RAS eel farm. Today still producing 1200 tons/year under the brand name Royal Danish Seafood. I believe I have hands on experience in aquaculture general and eel farming in particular.

On the 3rd of January 2014 I traveled from Denmark to visit American Eel Farm in Trenton, NC. And give hereby my view on the farm production design and capabilities if managed correctly.

Design, Capacities and Technical Facts

The American Eel Farm Trenton. NC is designed as a typical Recirculated Aquaculture System (RAS) with two separate identical RAS units each containing 12 tanks and a complete advanced water treatment section for both separate sections.

- Each section contains 12 raceway tanks with 750 US usable gallons each total. Total tank volume per section: 9,000 usable gallons. It is important to understand that eels are very crafty fish and are capable of escape so the tanks though they are larger cannot be filled to capacity. Each raceway tank is equipped with a fine screen outlet complete with a tertiary motorized brush system, to keep the mesh clean. In each tank there are also level switches that give alarm for high water level.
- Attached to those 12 tanks is a complete water treatment unit equipped with a HydroTech drum filter type 803 / 40 micron mechanical filtration unit. This unit has a max flow of 31,500 gal/hour or 63,000 gal/hour if both sections are in operation.
- After the mechanical filtration the water is led by gravity into 2 parallel 18 foot tall silos (four total for both sections) with patented Inter Aqua Advance A/S Moving Bed bio Reactor (MBBR)



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technology for biological treatment of the water. Primarily to remove the ammonia. Each has a volume of 1,300 gallons and are 55 % filled with IAA bio-curler bio media which is the optimum selection.

- With an optimum temperature for the growth of the eel at 25 degree C. or 77 degree F. The water treatment unit will be able to handle up 150 Lbs. dry feed per day per section (300 pounds per day total). After the MBBR water flows by gravity into a common pump sump.
- The water can be circulated with 3 separate pumps (per section, 6 pumps total), one 3 HP Low Head main pump and two 3 HP medium pressure pumps pump with 20 psi into two oxygen-cones (per section 4 total) for supersaturating of liquid oxygen into the water. In total the 3 pumps can give a flow capacity on minimum 31,500 gal/hour (63,000 gal/hour total).
- There are two Carbon Dioxide strippers (one per section) that are under repair which have counter flow packed tower technology and will be utilizing the existing structured packings of vacuum formed sheets of PVC. These packings will provide maximum wettability.
- The UV system is in the process of having the bulbs updated. This makes the system complete and state of the art.
- There is a back-up Liquid Oxygen system tied into the main Oxygen source with two stones per raceway as a safety net that is partially constructed and nearly completed. Should there be the need the main Liquid Oxygen source would back feed the tanks with 150 PSI automatically.
- There is a heating system that can heat the water which enters the system from either of three deep wells prior to entering the main water source if needed by passing heated water through several tubes mounted in the well reserve tanks for both sections. These well reserve tanks are also equipped with an automatic on/off valve technology that allows the water to be called from the well when a certain level has dropped automatically. With the general geographic location being the Southeast USA along with the well-insulated building the water temperature for maximum growth rate could be efficiently maintained.
- The water is distributed back to the raceway tanks via a common pipe manifold situated on the wall at the end of the tanks, with a separate valve to each tank for maintenance.
- A flow of 31,500 gal/hour (per section or 63,000 gal/hour total) will give an exchange rate on 3 to 5 times/hour which is more than enough to maintain self-cleaning in the raceway tanks and maintain an adequate oxygen-level in the tanks with the supersaturated water from the oxygen cones.
- In addition to the raceway tanks there are 2 larger 5,000 usable gallon tanks which are tied into the system. They will be very useful for preparation of fish prior to shipment, as they need to cool down and be empty of feed. Utilizing them as deprivation tanks would be best use.
- In addition to the main tank room and the advanced water treatment room there is an office area, a residential area, a feed room, a mechanical room, an electrical room and a laboratory room. The entire building has been recently renovated.
- There is also an additional large 7,000 gal tank on the property which is not tied into the system.

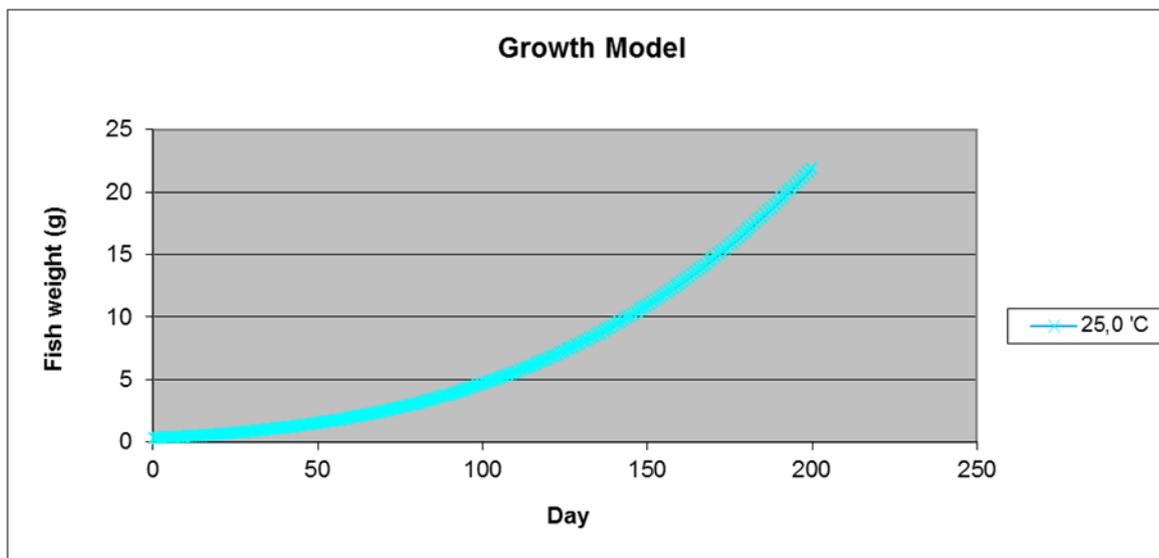


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Eel growth and performance

- Eels are pretty social and hardy fish, and can be stocked quite dense in the raceway tanks. Stocking densities on 250 kg/m³ or 2 lbs. /gal are often seen in eel farming.
- It is estimated that eel juveniles have an oxygen demand on 300 mg/kg/hour.
- Growth figures: 0.3-1 grams = 3.75 % 1-3 grams = 2.00% 3-6 gram
- Estimated growth time from Glass-eels up to 9 Inches (20 gram) in average are about 190 days. In a group of fish are always a quick, mean and a slow growing group. This means that it is safe to say that one 1/3rd can be harvested at 5 month, another group can be harvested at 7 month and the rest can be harvested within 10 month.
- There is a large mobile stainless steel grading machine in the main tank room that could grade the eels on a bi-weekly bases.
- A well-managed RAS eel farm can expect a weaning rate of 80-90 %.



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Summery

With a minor upgrade of the monitoring system and new oxygen flow meters, an updated feeding system, an emergency generator and spare blowers it is my best knowledge that it is safe to stock the plant with valuable glass eels.

With a yearly input of 750 lbs. of glass eel in it is my impression that a production of 750,000-800,000 9 inch juveniles (20-25 grams) safely can be achieved with the proper management.

The farm can hold and produce any size of eel, as eels do not require any exercise, or have space limitations. As a grow-out unit it will be able to feed around 110,000 lbs. per year with an estimated production of 95,000 lbs. per year.

With best regards

Arne Baekgaard

Project Manager

Inter Aqua Advance A/S

