

Atlantic States Marine Fisheries Commission

American Eel Management Board

*May 21, 2013
2:45 - 5:15 p.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*) 2:45 p.m.
2. Board Consent 2:45 p.m.
 - Approval of Agenda
 - Approval of Proceedings of February 2013
3. Public Comment 2:45 p.m.
4. Review and Populate Advisory Panel Membership (*K. Taylor*) **Action** 2:55 p.m.
5. Consider FMP Review and State Compliance (*K. Taylor*) **Action** 3:00 p.m.
6. Proposed American Eel Endangered Species Act Listing Update (*K. Taylor*) 3:10 p.m.
7. Law Enforcement Committee Report 3:15 p.m.
 - Maine Elver Fishery Enforcement (*P. Keliher*)
 - Update on Eel Enforcement Issues (*M. Robson*)
8. Draft Addendum III for Final Approval **Final Action** 3:30 p.m.
 - Review of Draft Addendum III (*K. Taylor*)
 - Advisory Panel Report
 - Technical Committee Report (*B. Chase*)
 - Law Enforcement Committee Report (*J. Fessenden*)
9. Other Business/Adjourn 5:15 p.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

May 21, 2013
2:45 – 5:15 p.m.
Alexandria, Virginia

Chair: Terry Stockwell Assumed Chairmanship: 5/12	Technical Committee Chair: Brad Chase (MA)	Law Enforcement Committee Representative: Fessenden/Marston/Hurd
Vice Chair: Tom O'Connell	Advisory Panel Chair: Vacant	Previous Board Meeting: February 20, 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 February 20, 2013 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 on an issue. 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. Review and Populate Advisory Panel Membership (2:55 – 3:00 p.m.) Action

Background

- At the February Board meeting an application to nominate Mari-Beth DeLucia, a Senior Fisheries/Aquatic Biologist with The Nature Conservancy, was included with the meeting material but not approved by the Board (**Briefing CD**)

Presentation

- Advisory Panel Nomination by K. Taylor

5. Consider FMP Review and State Compliance (3:00 - 3:10 p.m.) Action

Background

- State Compliance Reports are due on September 1st (**Briefing CD**)
- The Plan Review Team reviewed each state report and compiled the annual PRT Report and FMP Review (**Supplemental Material**)

Presentation

- Overview of FMP Review Report by K. Taylor

Board actions for consideration

- Approve 2012 FMP Review and State Compliance

6. Proposed American Eel Endangered Species Act Listing Update (3:10 – 3:15 p.m.)

Background

- American eel were petitioned for listing as threatened under the Endangered Species Act (ESA) in April 2010. USFWS published a positive 90 day finding on the petition in September 2011, stating that the petition may be warranted and a status review will be conducted. The organization that initially petitioned to list American eel filed a lawsuit in August 2012 against USFWS for failure to comply with the statues of the ESA, which specifies a proposed rule based on the status review be published within one year of the receipt of the petition. A Settlement Agreement has been approved by the court. It requires USFWS to publish a 12-month finding by September 30, 2015. **(Briefing CD)**

Presentation

- Overview of Settlement Agreement by K. Taylor

7. Law Enforcement Committee Report (3:15 – 3:30 p.m.)

Background

- The state of Maine has submitted an update on recent enforcement actions taken during the 2013 elver fishery season **(Briefing CD)**.
- At the February Board meeting the Board tasked the LEC with discussing comprehensive eel enforcement issues on all life stages.

Presentation

- Maine Elver Enforcement Update (*T. Stockwell*)
- Update on Eel Enforcement Issues (*M. Robson*)

8. Draft Addendum III for Final Approval (3:30 – 5:15 p.m.) Final Action

Background

- The Board accepted the 2012 American Eel Stock Assessment for management use in May 2012. The stock assessment report found that American eel stocks were depleted. The Board initiated the development of Draft Addendum III in August 2012 with the goal of reducing mortality on all life stages of American eel.
- At the February Board meeting the Board approved Draft Addendum III for Public Comment. **(Briefing CD)**.
- The public comment period was open from March 20 – May 2. A total of 13 public hearings were held. **(Supplemental Material)**

Presentation

- Overview of the options and public comment summary by K. Taylor
- Advisory Panel Report by AP Chair; Technical Committee Report by B. Chase; Law Enforcement Report by J. Fessenden.

Board actions for consideration

- Select management options and implementation dates.
- Approve final document.

9. Other Business/ Adjourn

DRAFT

DRAFT

DRAFT

DRAFT

DRAFT

DRAFT

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

**Crowne Plaza Hotel Old Town
Alexandria, Virginia
February 20, 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.

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1. **Approval of Agenda by Consent** (Page 1).
2. **Approval of Proceedings of October 23, 2013** by Consent (Page 1).
3. **Move for the board to approve Draft Addendum III for public comment with the changes and corrections as noted at today's meeting** (Page 10). Motion by Pat Augustine; second by Bill Adler. Motion tabled (Page 15).
4. **Move to add Subsection 3C under Option 4 for Section 4.1.2, yellow eel fishery, to include a 2002 to 2011 time series option for quota development** (Page 10). Motion by Tom O'Connell; second by Dennis Abbott. Motion carried (11).
5. **Move to temporarily table the original motion until all the additions and corrections have been submitted and then have one single approval of the document** (Page 10). Motion by Pat Augustine; second by Dennis Abbott. Motion carried on Page 15.
6. **Move to amend Section 4.1.2, commercial fishery management options, yellow eel fisheries, by adding an Option 6, a two-week closure. This option would require that each state close its yellow eel fishery for two consecutive weeks in September through October. The closure must occur after the estimated start of each state's silver eel migration. All gear targeting yellow eels must be removed from the water during this two-week closure** (Page 12). Motion by John Clark; second by Rob O'Reilly.
7. **MOTION REWORDED: Motion to amend Section 4.1.2, commercial fishery management options, yellow eel fisheries, by adding an Option 6; a two-week closure. This option would require that each state close its yellow eel fishery for two consecutive weeks and the closure must occur after the estimated start and before the end of each state's silver eel migration. All gear targeting yellow eels must be removed from the water during this two-week closure.** Motion carried (Page 16).
8. **Move to amend Section 4.1.2, Option 3, to include a Suboption A for status quo; a Suboption B for a one-half inch by three-quarter inch four-by-four cull panel; and Suboption C would be the one-half by one inch four-by-four cull panel** (Page 16). Motion by A.C. Carpenter; second by Louis Daniel. Motion carried (Page 16).
9. **Move to replace in 4.1.3, Option 2, amending the language to read "any gear type other than baited traps and pots as opposed to the original language included in the document"** (Page 17). Motion by Mitchell Feigenbaum; second by John Clark. Motion carried (Page 17).
10. **Move to add an option to allow a glass eel fishery coastwide** (Page 17). Motion by Louis Daniel; second by Mitchell Feigenbaum. Motion defeated (Page 20).
11. **Move to add Option 3 under Section 4.2, recreational fisheries, same language as Option 2 with the addition of one sentence following "25 fish per angler creel"; add "licensed party and charterboats would be limited to 25 fish per person multiplied by the number of passengers the vessel is authorized to carry"** (Page 21). Motion by Rick Bellavance; second by Pat Augustine. Motion was defeated (Page 23).

INDEX OF MOTIONS (cont'd)

12. **Move in Section 4.1.1 to develop Option 7 a maximum size limit for glass eels that will; a, allow no more than 5 percent of pigmented eels; or, b, create a minimum size for pigmented eels that will allow no more than 5 percent of glass eels** (Page 25). Motion by Mitchell Feigenbaum; second by Tom McElroy. Motion carried (Page 26).
13. **Move to add to Option 4 in Section 4.1.1 that would require a trip-level hail system for fishers that will include reporting all sales or movement of eels** (Page 26). Motion by Mitchell Feigenbaum; second by Rep. Walter Kumiega. Motion carried (Page 27).
14. **Move to reinsert into Section 4.1.1 Suboption 3C and Suboption 3D** (Page 27). Motion by Mitchell Feigenbaum; second by A.C. Carpenter. Motion carried as amended (Page 29).
15. **Move to amend to delete 3D from the main motion** (Page 29). Motion by Dennis Abbott; second by Rep. Walter Kumiega. Motion carried (Page 29).
16. **Move to approve Draft Addendum III for public comment as amended** (Page 29). Motion by Pat Augustine; second by Bill Adler. Motion carried (Page 30).
17. **Move that the board approve nominations for Sam Veach and Jimmy Livingston to the American Eel Advisory Panel** (Page 30). Motion by Pat Augustine; second by Bill Adler. Motion carried (Page 30).
18. **Move that the Eel Board send a request to the Policy Board directing the Executive Director to send a letter to the Chairs of the Maine Legislature's Joint Standing Committee on Marine Resources. The letter shall describe Atlantic States Marine Fisheries Commission's compliance criteria and clearly lay out what level of increased effort within the glass eel fishery, licenses or gear, would put Maine out of compliance for the 2013 season. The letter should also state what the impact is to a state being found out of compliance** (Page 31). Motion by Ritchie White; second by Tom McElroy. Motion carried (Page 31).
19. **Adjournment** by Consent (Page 31).

ATTENDANCE

Board Members

Rep. Walter Kumiega, ME (LA)	Leroy Young, PA, proxy for J. Arway (AA)
Patrick Keliher, ME (AA)	Mitchell Feigenbaum,, PA, proxy for Rep. Vereb (LA)
Terry Stockwell, ME, Administrative proxy	Loren Lustig, PA (GA)
Willis Spear, ME, proxy for S. Train (GA)	Roy Miller, DE (GA)
Doug Grout, NH (AA)	David Saveikis, DE (AA)
G. Ritchie White, NH (GA)	John Clark, DE, Administrative proxy
Dennis Abbott, NH, proxy for Sen. Watters (LA)	Russell Dize, MD proxy for Sen. R. Colburn (LA)
Dan McKiernan, MA, proxy for P. Diodati (AA)	Thomas O'Connell, MD (AA)
William Adler, MA (GA)	Bill Goldsborough, MD (GA)
Jocelyn Cary, MA, proxy for Rep. Peake (LA)	Kyle Schick, VA, proxy for Sen. Stuart (LA)
Mark Gibson, RI, proxy for R. Ballou (AA)	Cathy Davenport, VA (GA)
Rick Bellavance, RI, proxy for Rep. Martin (LA)	Rob O'Reilly, VA, proxy for J. Travelstead (AA)
Bill McElroy, RI (GA)	Louis Daniel, NC (AA)
David Simpson, CT (AA)	Sen. Ronnie Cromer, SC (LA)
Lance Stewart, CT (GA)	Ross Self, SC, proxy for R. Boyles, Jr. (AA)
James Gilmore, NY (AA)	Patrick Geer, GA, proxy for S. Woodward (AA)
Pat Augustine, NY (GA)	Jim Estes, FL, proxy for J. McCawley (AA)
Russ Allen, NJ, proxy for D. Chanda (AA)	Derek Orner, NMFS
Tom Fote, NJ (GA)	Jaime Geiger, USFWS
Adam Nowalsky, NJ, proxy for Asm. Albano (LA)	A.C. Carpenter, PRFC

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

Ex-Officio Members

Joe Fessenden, Law Enforcement Committee Rep.

Staff

Robert Beal
Toni Kerns

Mark Robson
Kate Taylor

Guests

Kelly Denit, NOAA
Corey Hinton, Passamaquoddy Tribe, DC
Mari-Beth DeLucia, The Nature Conservancy
Kim Marshall, NMFS

Mick Walsh, NMFS
Wendy Morroson, NMFS
Stewart Michels, DE DFW
John Pedrick, Harrisburg, PA

The American Eel Management Board of the Atlantic States Marine Fisheries Commission convened in the Presidential Ballroom of the Crowne Plaza Hotel Old Town, Alexandria, Virginia, February 20, 2013, and was called to order at 1:15 o'clock p.m. by Chairman Terry Stockwell.

CALL TO ORDER

CHAIRMAN TERRY STOCKWELL: Good afternoon, everyone. Welcome to the American Eel Board. I'm Terry Stockwell, the current chair. I call the meeting to order.

APPROVAL OF AGENDA

CHAIRMAN TERRY STOCKWELL: The first issue on our agenda is approval of the agenda. Are there any changes or additions? Mitchell, do you have a change or addition?

MR. MITCHELL FEIGENBAUM: Yes, I just wanted to add to the agenda a very brief discussion about the status of the COSEWIC Report in Canada. I would like to make a suggestion that it is an area where we can improve coordination with our Canadian colleagues. If you could add that to the agenda, I would appreciate it.

CHAIRMAN STOCKWELL: Without objection we will add that to other business. Are there any other issues concerning the agenda? Without objection we will consider it approved.

APPROVAL OF PROCEEDINGS

CHAIRMAN TERRY STOCKWELL: The proceedings from October 23, 2012; are there any corrections or additions? Seeing none and without objection we're going to approve the proceedings.

PUBLIC COMMENT

CHAIRMAN TERRY STOCKWELL: Public comment on items that are not on the agenda; and I want to assure the public that you will have full opportunity to comment on the agenda items at the end of the period. I have got four folks I know that want to comment. First I will start off with Pat Keliher.

MR. PATRICK C. KELIHER: My name is Pat Keliher, a fellow commissioner, but I am here as commissioner of the Department of Marine Resources. As you know, the state of Maine last year had a very valuable fishery for glass eels. It topped out at a value of nearly \$40 million. The economic drivers of this fishery have now spread to the Maine

Legislature where there are five bills pending. I would like this board to consider giving some guidance on compliance to the legislature. Mr. Chairman, I guess I'm requesting that this issue may be taken up as a new agenda item as well.

MR. G. RITCHIE WHITE: Mr. Chair, is this something you would want to dispense with now or do you want to take it up in other business?

CHAIRMAN STOCKWELL: No, let's add this to other business. I have Doug; you're up.

MR. DOUGLAS B. HUNTLEY: My name is Doug Huntley. I work at Delaware Valley Fish Company. Figure 1 of my attachment shows the actual biomass estimates from the stock assessment model. During the last 15 years, eel biomass has steadily increased 41 percent to 1,846 metric tons. Since 1900 the total U.S. biomass has averaged 3,311 metric tons and today we are at 56 percent of 112-year average.

The number of fishermen and overall effort has been decreasing since the seventies. Vast areas of the American Eel range have virtually no commercial pressure. The benchmark 2012 Canadian study of marine maritime waters showed only 6 percent was being fished. Just look at South Carolina and Georgia with 5,220 miles of tidal shoreline and essentially no commercial harvest, and it is obvious that large areas in the U.S. are also unfished nurseries.

Delaware Valley Fish shares the goal of increasing eel biomass, but we have to address the principal population constraint, which in the case of American eel that only spawns in the Atlantic Ocean is access to habitat. If you don't allow young elvers into a watershed, of course, eel in that watershed is going to die out because there is no new eel to replenish the older eels migrating out.

The stock assessment used an 8-year average life. Dr. Karin Limburg noted in your May meeting the sad state of American eel in New York today and the impact on the Onondaga Indians. This condition isn't because of overfishing. It is because of access to habitat. The harvest data for the 15 years ending 2011 showed the average fishing harvest from the entire state of New York to be only 4,800 pounds a year, which can be carried by a single pickup truck.

New York has over 54,000 square miles, 7,600 fresh lakes, ponds and reservoirs and over 70,000 miles of rivers and streams. Biomass is down because we're not letting young eels get into the habitat and not

from overfishing. Maryland DMR reported that prior to the Conowingo Dam, approximately 1 million pounds of American eel were commercially harvested from just the Susquehanna River. Now there is nothing.

That is two-thirds of the entire U.S. average annual harvest from 1980 to 2011. In 2007 Fish and Wildlife performed an exhaustive multi-year, multi-million dollar study that showed the importance of young-of-year recruitment and access to habitat. The stock assessment, my Figure 3, showed 25 years of stable to increasing young-of-year recruitment in fishing-independent surveys.

In May Commissioner A.C. Carpenter noted that the Chesapeake Region was having an off-the-scales record glass eel surveys. The scientific evidence clearly demonstrates that when a dam is removed, eels today repopulate that habitat. Figure 4 shows stable independent yellow eel indices over the last 25 years. The industry understands that all dams can't be removed, but we would like plans addressing the underlying issue.

Since the biggest driver to population is habitat, and in the case of American eel access to and from habitat, we encourage the use of eel scaling mats and inexpensive PVC piping to allow elvers to scale dam walls as used in Canada; controlled trapping of elvers below high dams and release above such as in Canada; supervised trapping of migrating silver eels above dams and release below the turbines such as in Europe; and measurable goals for eel repopulation in areas currently blocked watersheds.

Along these lines, Dr. Wilson Laney of Fish and Wildlife has highlighted some good work that North Carolina Power has been doing on the Roanoke Rapids Rivers System, demonstrating the benefit of the first two strategies, resulting in over a million eels getting upstream within the first three years. The stock assessment shows the current eel population at 56 percent of its 112-year historical average after a 41 percent steady increase in biomass during the last 15 years. Drastic fishing cutbacks are simply not warranted. Thank you very much.

CHAIRMAN STOCKWELL: At this point I'm going to turn things over to Kate and she is going to walk us through Draft Addendum III for Public Comment.

DRAFT ADDENDUM III FOR PUBLIC COMMENT

REVIEW OF DRAFT ADDENDUM III

MS. KATE TAYLOR: You all received a copy of Draft Addendum III for public comment in the briefing material. The statement of the problem in the addendum is that the American eel benchmark stock assessment has found that the coast-wide stock of American eels has declined in recent decades and the stock was declared depleted. However, no overfishing determination could be made through the stock assessments.

Although commercial fishing landings and efforts have declined from a high level in the 1970's and 1980's, with the exception of the current glass eel fishery, the current levels of fishing effort may still be too high given the additional stressors affecting the stock such as habitat loss, passage mortality and disease, as well as potentially shifting oceanographic conditions.

Therefore, the stock assessment recommended that fishing on all life stages of eels, particularly the young of the year and in-river silver eels migrating to the spawning grounds could be particularly detrimental to the stock, especially if other sources of mortality could not be readily controlled.

In response to the stock assessment, in August the American Eel Management Board initiated the development of this addendum with the goal of furthering eel conservation and reducing mortality throughout all life stages. Given that high catches in the past could have contributed to the current depleted status, the plan development team concurs that it is prudent to reduce mortality on all life stages while also enhancing and restoring habitat.

This approach the plan development team points out is further justified in light of the public interest in eel population and conservation demonstrated by two recent petitions to list American eel under the Endangered Species Act in the last decade. The draft addendum contains proposed recommendations on habitat and proposed monitoring requirements as well as recommendations for commercial and recreational fisheries' management options.

To meet the goal of reducing mortality on all life stages with regard to the habitat, it is recommended that ASMFC focus efforts on understanding the habitat requirements for American eels, engage in the

relevant regulatory agencies to increase or improve upstream and downstream eel passage and encourage habitat restoration through the states.

Specifically this addendum proposes a number of items for completion by the technical committee or a stock assessment subcommittee. These include the development of quantifiable eel habitat enhancement goals; the development of material to support states petitioning the Federal Energy Regulatory Commission for fish passage provisions in the hydropower relicensing and licensing process, as well as assessing non-FERC impoundments for eel passage and developing recommendations to increase passage through these impounds. Based on these actions, the next recommended step by the plan development team is the development of a timeline and a target for the amount of habitat to open up through the creation of fish passage.

It is also recommended that the potential impacts caused by water withdrawals, water diversions and agricultural use on eel populations be evaluated. The draft addendum contains a number of proposed monitoring requirements. These are modifications to some of the currently conducted state monitoring programs and a few additions as well for yellow and silver eel and young-of-the-year surveys.

These can be found in Table 1 of the documents. Additionally, where possible, the American Eel Technical Committee and plan development team recommends the identification of areas where multiple life stage surveys can be conducted. Ideally these surveys would target glass eel emigration and silver and yellow eel emigration in the same system in order to be able to track recruitment, age, growth, survival and mortality. This was also one of the recommendations of the stock assessment.

For the fisheries-dependent surveys, states should be required to implement mandatory reporting of catch and effort applicable only to the commercial sector of the fishery. The plan development team and the technical committee have discussed the need to improve harvest data for eels caught under commercial permits and kept for personal use and not sold.

There is concern that this practice may be underreported especially in New England where some commercial permit holders save eels as bait for the commercial striped bass fishery. The plan development team recommends that states and jurisdictions implement strategies within their

reporting system to recover data on eels harvested for personal use.

The final recommendation under the monitoring program is that marine agencies should work with their inland counterparts to standardize the reporting effort on inland water eel populations. Under the commercial fisheries management measures, there are options for the glass eel fishery, the yellow eel fishery and the silver eel fishery.

Under the glass eel fishery's options it is recommended that all catch be graded on the boat or streamside and that bycatch is returned to the waters where the fish are harvested. Getting into the options, Option 1 is the status quo. Option 2 is a closure, and this would either be an immediate closure or a delayed closure.

The recommendation by the plan development team for the delayed closure is for five years. However, the board may specify another timeframe. Option 3 is the development of a glass eel quota. Under this option glass eels harvested by states with a fishery will regulated annually through a quota system. There are two options for allocation under the quota.

Under the first suboption a glass eel quota will be allocated based on the average landings from 1998 to 2011. This period was chosen by the plan development team as it includes reliable harvest data from recent years. Under this option the annual quota would be set at 5,563 pounds with 98 percent allocated to Maine and 2 percent allocated to South Carolina. That would be 5,463 pounds to Maine and 100 pounds allocated to South Carolina.

If a jurisdiction exceeds its allocation, the amount in excess of its annual quota will be deducted from the jurisdiction's allowable quota in the following year. There is also an option under the quotas for a harvest reduction. Under the harvest reduction option, the annual quota for all states would be reduced between 25 and 50 percent or another percentage specified by the board.

However, the plan development team does not recommend a reduction of over 50 percent. Again, the baseline used for determining the quota reduction would the 1998 to 2011 period. Under the 25 percent option Maine would be allocated 4,098 pounds and South Carolina would be allocated 75 pounds. Under the 50 percent option Maine would be allocated 2,732 pounds and South Carolina would be allocated 50 pounds.

The plan development team points out that under the quota options a small tolerance of harvest of pigmented eels should be considered because this is to be expected. However, the plan development team recommends that the maximum be 5 percent of the catch by number or volume.

There are also options for dealer restrictions. Under Option 4 there would be a requirement for a trip-level hail ticket system for dealers to help ensure accurate reporting of glass eel harvest. The plan development team believes that this system will be essential for quota monitoring accuracy given the sharp increase in market value and rise in illegal harvest.

A cap or a reduction in the number of glass eel dealers would also help address the underreporting problem by preventing people without a long-term interest in the fishery from entering. For the commercial yellow eel fishery, Option 1 is the status quo. Under Option 2 states and jurisdictions would be required to adopt a new minimum size limit for all yellow eel fisheries.

The plan development team points out that size limits are difficult to enforce prior to harvest unless the gear selects for a certain size. However, they recognize that the potential benefit is not substantial for the size options that are given, which are an increase to either 8, 9, 10, 11 or 12 inches.

However, the plan development team is concerned about the development of fisheries on small yellow eels and sees the inclusion of options to increase the minimum size as a means to prevent this fishery from further developing. There have been reports of new dealers offering to buy pigmented eels of larger size than glass eels.

New fisheries that target pigmented juvenile eels in Maine and South Carolina and are presently legal size in other states could create significant enforcement challenges and undermine regional conservation efforts. Table 6 in the document shows the small benefits that would be associated with minimum size increases.

Under Option 3 states and jurisdictions would need to implement gear restrictions in the commercial yellow eel fisheries. The benefit of effective gear restrictions is that small eels are not landed, thus eliminating the need for the harvesters to handle the fish and for enforcement officials for having to measure the fish, which is very difficult. It is likely that the gear restrictions will not protect out-

migrating silver eels because silver eels don't actively pot.

No gear requirements are sought to exclude larger eels from pots at this time because only a low number of silver eels are caught in these fisheries. Also, since there is a size overlap between yellow and silver eels, the smaller silver eels would not likely be protected by gear restrictions since males are commonly shorter than females.

Another consideration in requiring gear modifications is the cost to the fishermen in modifying their existing gear. Any gear restrictions that are instituted should be monitored for enforcement. Under Option 4, which is the coast-wide quota, the quota allocations can be found in Table 8 of the documents,

Under this option states and jurisdictions with the yellow eel fishery will be regulated through an annual quota system. Under the first suboption of the yellow eel quota system, the allocation is based on the average landings from 1980 to 2011. This period was chosen by the plan development team as it includes a range of years that captures a more productive time in the fishery as well as years for which reliable data is available.

Under this option the annual quota coastwide would be set at a little over 1.3 million pounds, and the allocation is specified in Tables 8 and 9. Again, if a jurisdiction exceeds its allocation, the amount in excess of the annual quota would be deducted from the jurisdiction's allowance the following year.

The other option that the plan development team looked at was the allocations based on average landings from 1990 to 2011. Again, this period was chosen as it includes current years for which reliable data is available. Under this option the annual quota would be set at just over 1 million pounds; and again refer to Tables 8 and 9 for the state-by-state quota allocation breakdown.

The plan development team recommends that since the state of South Carolina has no reported landings during this time period, but the state does issue yellow eel permits for a pot fishery, that their recommended minimum quota be set at 2,000 pounds. The third option under the coast-wide quota allocation is a reduction of 20, 30, 40 and 50 percent from the two base years that are used; the 1980 to 2011 or the 1990 to 2011.

The last management measure under the yellow eel fisheries is states and jurisdictions will be required to

implement dealer reporting requirements; and cross-referencing between the dealer and fishery trip-level reporting should be conducted to ensure accuracy. Under the silver eel fisheries management measures, Option 1 is to maintain the status quo.

Option 2 is to initiate gear restrictions. Under this option states and jurisdictions would be required to implement no take of eels during the fall from fyke nets, pound nets and weirs. The time of out migration for silver eels is given in Table 10 of the documents. The goal of this option is to reduce or phase out the harvest of silver eels.

During the out-migration period, there will be a prohibition on the landings of eels from the gears specified above. The states or jurisdictions would be required to evaluate when the majority of the out migration occurs and submit that information to the technical committee and for board approval. If the out-migration period cannot be determined, then the prohibition on landings would occur from September 1st through December 31st.

Moving on to the recreational management options, Option 1 is the status quo. Option 2 is a reduction in the recreational bag limit. Given the interest to have all fishery sectors contribute to the conservation measures for American eel and the expectation that a recreational daily limit of 50 eels is excessive, this option proposes that all states would limit their daily bag limit to 25 fish per day per angler.

Most eels caught recreationally are for use as bait, especially for striped bass, and the harvest from the recreational fishery is believed to eel. The board will be considering today to approve this document for public comment. If it is approved, then it would go out for public hearings and the board would be considering it for final management measures in May. Thank you, Mr. Chairman.

CHAIRMAN STOCKWELL: Thank you, Kate. Questions only for Kate? Doug.

MR. DOUGLAS GROUT: Kate, I saw in the monitoring requirements that we have a table that includes a number of surveys that aren't directed at eels. One of those was a New Hampshire survey, which is a fyke net survey that is directed at smelt. We actually had only been funding that based on a five-year hundred percent federally funded grant.

We are more than willing to provide the information and continue it as long as we have funding, but I was a little bit concerned about the required aspect of it

since it is not directed at it. Is there some way that we could have like a two-tiered thing, things like the elver survey which would be required to be implemented and then the other surveys that are directed more at other species and we're providing the information being not required?

MS. TAYLOR: The plan development team did discuss that. We pointed out that those surveys where the primary target is not American eels and American eels are only caught as bycatch; and there is a line that a substitute survey may be required to be implemented if that survey is discontinued. We could add in language there to make that change. The plan development team was split on this issue.

MR. GROUT: I would kind like to have some kind of language like that; one to, first of all, put in that table this is a smelt fyke net survey; and the surveys that aren't directed at eels wouldn't be a compliance criteria. We will keep it as long as we can and we will be glad to give you the information we have.

CHAIRMAN STOCKWELL: Good pick, Doug, thanks. John.

MR. JOHN CLARK: I think the plan development team did an excellent job with this. I just had one question about the glass eel options, particularly the option that calls for closing glass eel fisheries. The position of ASMFC since this management started was that all eel harvest is pre-spawning harvest and, therefore, we didn't have any justification to close one fishery as opposed to another. I was just curious as to why this came up. There is clearly not any new scientific evidence that I'm aware of that would suggest there was some extraordinary benefit from doing so. Thank you.

MS. TAYLOR: The plan development team tried to present options for all life stages of American eel. There was considerable concern by the plan development team and the technical committee over the potential for increased illegal poaching and unreported harvest of American eels and how that might influence the stock.

REPRESENTATIVE WALTER KUMIEGA: Did the committee discuss or consider the efficiency in the elver fishery of dip nets versus fyke nets when you were talking gear restrictions?

MS. TAYLOR: No, they did not discuss the efficiency of the gears that are mentioned in the document.

MR. A.C. CARPENTER: Mr. Chairman, I've got a couple of questions here. Table 5 in the document says that it is the expected increase in yield per recruit associated with a change of the minimum size limit for yellow eels, but the text indicates that it is changing the minimum size and implementing a maximum size limit for the harvest. Is there any information on what the maximum size limit was supposed to be that generated these numbers on this table?

MS. TAYLOR: I'm sorry; could you clarify the question?

MR. CARPENTER: Okay, on Page 20 of the document, in the narrative just before Table 5, the sentence says that the relative increases in egg production as a result of changing the minimum size limit and implementing a maximum size limit for the harvest; so that is a two-part combination, but the table only shows the minimum size, and I'm assuming that there is some maximum size limit that is a third column that didn't get put in here or is there?

MS. TAYLOR: The maximum size limit is discussed later on in the document. Using both a minimum and a maximum size limit or the creation of a slot limit was believed to be very difficult for enforcement and you would have to have a very narrow slot limit in order to have significant increases and the change in eggs per recruit.

MR. CARPENTER: So if I understand the answer right, then the implementation of a maximum size limit did not contribute to the numbers of the percent reduction in Table 5, so maybe it needs to be taken out of the text.

MS. TAYLOR: Yes, that is correct; and thank you for catching that.

MR. CARPENTER: Mr. Chairman, I'm having trouble with the narrative under Option 3 on Page 21 and the Table 7. The four lines on Page 21 says the escape panels reduce the percentage of the yellow eel harvest of eels less than 8 and 9 with the total length of harvest by eel pots by 50 percent and 40.04 percent. If I look at Table 7, I can't find the 50 percent for the 8-inch eel but the 9-inch eel is showing a 44.04 percent. Which number am I supposed to be looking at there?

MS. TAYLOR: That is a typo; the correct value there should be the 44.04 and not 40.04. The table reflects the correct value and the text does not.

MR. CARPENTER: All right, continuing with the next sentence, it says that the escape panels reduce the percentage of yellow eels less than 11 and 12 inches; but in the table it stops at 11 inches. Is that supposed to be 10 and 11 or is there a line missing from the table?

MS. TAYLOR: The data that we had available was only for up to 11 inches, so it should only read 11 inches. We were hoping to be able to get the 12 inches in there. As the recommendation, we wanted to look all of the values that were recommended from 8 to 12 inches. The 12 should be removed, which is why the plan development team recommendation is for the 10 or 11 inches.

MR. CARPENTER: And then again the percentages at the top of the next page is 46.39 and I don't find that anywhere in the table. I do find the 43.26 as the average, but the text doesn't refer to that.

MS. TAYLOR: This analysis was conducted by other members of the plan development team so I will confer with them to make sure.

MR. CARPENTER: Just see if they're supposed to match.

MS. TAYLOR: Yes. I am confident that the table – we extensively went over the table to make sure that we understood that, and so I'll double check to make sure that all the numbers match the table.

MR. CARPENTER: And one last problem I'm having is reconciling Table 8 and Table 9. Let me first ask on Table 9, if there is a minus percentage, does that mean that is the reduction; if it is a positive number, does that mean it is allowed to increase or is it backwards to that?

MS. TAYLOR: No, you had it correct the first time. The minus numbers are showing the percent reduction from the 2011 average harvest from 2009 to 2011. The positive numbers are showing what the increase would be or what the change would be. For all of the states, with the exception of Maryland – under the first option I should point out from 1980 to 2011 there was an increase in the amount of quota relative to their average harvest from 2009 to 2011. Maryland was the only state that had a decrease in quota and that was 62 percent.

Under the option for the 1990 to 2011 harvest quota allocations, New York and Maryland both had decreases in what their quota allocation would be as compared to the 2009 and 2011 options. The

remaining states would have an increase in their quota allocations relative to the 2009 and 2011 harvest.

MR. CARPENTER: So if I'm interpreting this right, we all need to move to Connecticut and get a 12,139 percent increase in our landings? Okay, we will be right up. On the silver eel, the copy of the document I have has an Option 1 and an Option 3. There is no Option 2 except the one that read earlier or there is no Option 3?

MS. TAYLOR: That was a typo; it should go Option 1 and Option 2.

MR. ROB O'REILLY: Kate, my question is just exploratory. On Page 17 is Suboption 3A, which leads into the glass eel quota. I noticed that neither South Carolina nor Maine have a survey for glass eels from what the earlier table indicates. I am wondering of the idea behind an historical average of 14 years for probably a very volatile life stage of American eel. And it may be somewhere in the document, but without seeing any of the data going back to 1998, it is difficult to see what the trend might be, but I wondered whether the plan development team talked about recent years and what maybe was behind having a 14-year time series as opposed to maybe looking at some current information. That is Part 1.

Part 2 is was any effort data available for the plan development team to look at so there could have been catch per harvester, some type of effort stream that would have told everyone how the 5,000-plus value that you looked at finally for that average period, how that looked in series of years or along that time series of 1998 to 2011. They're really just sort of trying to find out a little bit more.

MS. TAYLOR: Both Maine and South Carolina do conduct glass eel surveys. For the data that was used to determine the quota allocation, the 14-year period, 1998 to 2011, was chosen because that was the years for which the most accurate data was available. All the data that was available, the plan development team felt comfortable was using.

The plan development team did not feel comfortable using the 2012 estimates as they represented a significant increase from previous years' landings and may not be representative of the time series. The effort was not accounted for. This was just based on landings. I can tell you that the number of licenses that Maine and South Carolina have issues for their

glass eel fisheries has decreased throughout the time series.

MR. O'REILLY: Yes, I do see it. I was looking at the bottom half of Table 1, Maine and South Carolina, so I do see in the upper half you do have surveys. I'm just wondering with a 14-year basis for this type of life stage how thorough a discussion there really was. It is not as if it is the yellow eel life stage. The stability is much less. That is the way it turned out so I appreciate the information.

MR. ROSS SELF: Kate, my questions are probably a little simpler. Relating back to the section on habitat, habitat is mentioned a couple of times in that section and specifically issues associated with access to habitat or fish passage at facilities. My question is were there other habitat issues identified or were the habitat issues discussed primarily associated with access to habitat above blockages or dams or impediment to migrations?

MS. TAYLOR: There were brief discussions on other impacts to eel habitat, although these were the ones that the technical committee and the plan development team felt were most pressing based on the recommendations from the stock assessment and were their priorities.

MR. SELF: One comment associated with that section, too, is the addendum specifically identifies the Atlantic Fish Habitat Partnership as a potential partner in trying to deal with these habitat issues.

As those animals penetrate further and further inland, they're going to encounter other fish habitat partnerships that would probably be very open to working with the commission on trying to develop ways of improving the stock or improving access to areas.

I think there is like 18 of those things approved nationwide. The ones that come to mind specifically in my neck of the woods are the Southeast Aquatic Resource Partnership and the Reservoir Fisheries Habitat Partnership. I'm confident they would be very open to working with the commission on these issues.

MR. RUSS ALLEN: Mr. Chairman, I just wanted to reiterate Doug's concerns in Table 1. New Jersey also has a survey that is listed there that we actually are beginning in a couple of weeks that is going to last two years, and that is all we have the funding for. I don't want to see us get tied down with that survey. We'd love to be able to continue it and provide that

data, and we will provide the data for the two years. I'm with Doug on that and maybe somehow we could have a separate table that shows surveys that are being conducted and not mandatory. That is pretty tough for us.

MS. TAYLOR: Are you referencing the River Herring Electro-Fishing Survey or which one are you referencing?

MR. ALLEN: Yes, the River Herring Survey.

MR. RICK BELLAVANCE: I have a question for Kate and then a comment regarding the recreational bag limit. Kate, I noticed in Table 8 the quota allocations from both time series for Rhode Island are the same number. I was just curious why that might be.

MS. TAYLOR: Do you mean for the 1980 to 2011 versus the 1990 to 2011 average?

MR. BELLAVANCE: Yes, that's right, those two averages are the same for both time series; is that just coincidence?

MS. TAYLOR: I apologize; that is an mistake. The 1980 to 2011 average should actually be 38,056 pounds as opposed to the 55,000 pound quota allocation. That number is correct for 1990 to 2011.

MR. BELLAVANCE: Okay, I like that time series better, I guess. In regards to the recreational bag limit, I think that 25 eels per person for a recreational fisherman is probably sufficient, but I can think of one scenario in my personal business that might make that a challenge. I use eels quite a bit for bait for striped bass.

There are times when I pick up my clients up on Block Island and I may be steaming across Block Island Sound with my pot of eels that I am going to use for all of those fishermen, and it may be more than 25 and I'm by myself. You could ask enforcement or if this board thinks that there may be a reason to implement some sort of a charter or headboard exemption to that.

CHAIRMAN STOCKWELL: Why don't you hold that thought until we get through the rest of the questions? Mitchell.

MR. FEIGENBAUM: Kate, am I correct that the various egg-per-recruit data that you have enclosed showing how different slots or different size limits

would change eggs per recruit; that comes from Dave Cairns SLYME Model; is that correct?

MS. TAYLOR: Yes, that is correct, and it was updated by Laura Lee.

MR. FEIGENBAUM: Did the plan development team confer with Dave Cairns during the creation of the document about his work on the SLYME Model since 2008?

MS. TAYLOR: Laura Lee updated that table and I am not sure if she discussed it further with Dave.

MR. FEIGENBAUM: My final question is during Mr. Huntley's remarks, he commented about – he identified the Atlas of Fishing Areas in Canada, and in fact Dr. Cairns is the author of that study as well. Did the plan develop team have an opportunity to review the work that work?

MS. TAYLOR: Are you referring to Dave's work?

MR. FEIGENBAUM: Dave's work; the Fishing Atlas.

MS. TAYLOR: Many of the plan development team members were also on the technical committee and also on the stock assessment subcommittee and that information was reviewed during the stock assessment process.

MR. FEIGENBAUM: Was there any discussion about extending that work into the U.S.?

MS. TAYLOR: We have been contact with Dave as he has been developing that work, and there has been discussion to try to extend it. That was one of the habitat recommendations. The very first habitat recommendation is to build on some of the work that Canada DFO has been conducting and try to extend it down into the U.S.

MR. CLARK: Just to follow up on that, Mitch, Dave Cairns' grad student had contacted us and several other states, and we gave him all our eel data for the Atlas for the U.S. Waters about two years ago.

CHAIRMAN STOCKWELL: Are there any other questions from the board to Kate? How about from the audience? Okay, seeing none; Kate, the advisory panel report.

ADVISORY PANEL REPORT

MS. TAYLOR: At the request of the board, the AP was solicited for comments during the development of this document. One comment was submitted by an AP member. The member recommended that the moratorium for glass eel harvested be forwarded for public comment and also that the 50 percent reduction under the yellow eel commercial measures be forwarded for public comment as well. This member noted that a 50 percent reduction in yellow eel harvest would still allow the fishermen and bait dealers a possession limit far greater than needed for their supply. Thank you, Mr. Chairman.

MR. FEIGENBAUM: Kate, when is the last time the AP has met?

MS. TAYLOR: This discussion was conducted by e-mail. The last time the AP met was for a conference call during the development process of Addendum II, which was in September of 2008.

MR. FEIGENBAUM: And does the AP have a chairman right now?

MS. TAYLOR: The AP does not have a chairman right now. During the process of soliciting comments for the development of this document, a chairmanship request was put forth and we received a number of nominations.

CHAIRMAN STOCKWELL: Any additional questions? Okay, Kate, you're up for the technical committee report.

TECHNICAL COMMITTEE REPORT

MS. TAYLOR: Brad Chase could not be here today due to previous commitments that he had. The technical committee was solicited for their input on the development of the addendum, specifically the monitoring requirements. We had a lengthy conference call where the states discussed the current monitoring requirements, what their states are currently doing, what they hope to do if funding were available and what would be realistic.

That is presented in the monitoring table program recommendations in the documents. The technical committee has previously weighed in on their recommendations for the commercial glass, silver and yellow fisheries. The technical committee would reiterate that although the information available for the 2012 stock assessments did not identify a relationship between the glass eel recruitment and

adult catch and survey data, the technical committee still recommends precautionary management of fisheries targeting the glass eel stage given the depleted status of the stock.

Additionally, for the yellow eel fisheries the technical committee still recommends decreasing fishing effort and mortality on the yellow eel phase as possible. For the silver eel fisheries the technical committee strongly recommends that greater protection of mature silver eels is the best way to maximize the conservation potential of management actions. Thank you, Mr. Chairman.

CHAIRMAN STOCKWELL: Questions for the technical committee report? Seeing none; we have a report from the Law Enforcement Committee. Mark.

LAW ENFORCEMENT COMMITTEE REPORT

MR. MARK ROBSON: The Law Enforcement Committee had an opportunity to discuss the draft addendum and issues surrounding it at our last meeting in the fall. In fact, there had been some previous discussions about the status of glass eel harvest prior to that in our spring meeting.

I've provided a letter or a memorandum to the board regarding the discussions that the Law Enforcement Committee had and just very briefly we focused on two areas; glass eel harvest and then also the yellow eel situation. With regards to the current draft addendum, we fully support including all of the options that are currently in the document for glass eel from a prohibition down to the quotas.

Obviously, as you can see in the memorandum, there has been quite a bit of discussion among our group about some of the problems that we are seeing in the glass eel harvest particularly as it relates to the economic value of that harvest, the fact that it is limited to a couple of states and its rather difficult situation as far as enforceability or enforcement of harvest and export.

With regards to yellow eel, I think there was some discussion at the board meeting about how feasible it was to actually have minimum sizes or measure yellow eels. We all grant that it is not an easy thing to measure an eel that is squirming around, but there are minimum size requirements in place. It is a feasible enforcement mechanism to have a minimum size.

In fact, in looking at officers being asked to address management options that include protecting certain sizes, both mechanisms of using mesh size or gear specifications to control minimum size and also having a minimum size limit itself we feel are necessary and useful because they allow officers to really address that conservation method at all phases of the fishery; both at the gear level out on the water and then at the docks with regard to minimum size. We look forward to providing additional comments as this draft goes out to public comment. Thank you, Mr. Chairman.

CHAIRMAN STOCKWELL: Questions for the Law Enforcement Committee? Seeing none; we are going to move on to perfecting the draft addendum for public comment. I have spoken to a number of you who have some issues you would like to either add, delete or edit. It might be helpful to get a motion on the board to work from. Is anyone willing to bite the apple? Pat.

BOARD DISCUSSION AND ACTION FOR DRAFT ADDENDUM III

MR. PATRICK AUGUSTINE: **Mr. Chairman, move for the board to approve Draft Addendum III for public comment with the changes and corrections as noted at today's meeting.** Will that do it, Mr. Chair?

CHAIRMAN STOCKWELL: It is a good start and we will see where the board goes. Motion made by Pat Augustine and seconded by Bill Adler. Tom.

MR. THOMAS O'CONNELL: I had hoped to be able to have an opportunity to present another option under the yellow eel quota for the board's consideration, whether or not that could be amended to this motion.

CHAIRMAN STOCKWELL: I am hoping that you will do so.

MR. O'CONNELL: Okay, I gave some language to staff so maybe they can try to merge it; the reason being, as Kate had mentioned, the two long-term time series that will establish the baseline for yellow eel quota development puts Maryland as the only state as a pretty substantial reduction in harvest from its current levels.

If a 20 percent reduction was taken, that would be on top of an 8 to 17 percent reduction that we would already begin with, because the longest time series

doesn't reflect our current fishery. I would hope that the board would be open to a quota baseline that would not substantially impact the state's current level of harvest, recognizing there needs to be a balance with that as well as historical landings.

My idea was **to move to add Subsection 3C under Option 4 for Section 4.1.2, yellow eel fishery, to include a 2002 to 2011 time series option for quota development.** We have a 30 year and we have a 20 year and this would be a ten-year option that could go out for public comment.

CHAIRMAN STOCKWELL: Seconded by Dennis Abbott. Bob.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Mr. Chairman, just procedurally I think it may be easier for this board rather trying to amend and add things to the motion made by Mr. Augustine, if that motion is either tabled or voluntarily withdrawn or something, but I think that may just trip the board up procedurally. It sounds like you have got a number of motions for changes for the document. One sort of wrap-up motion to approve the document as modified today may be procedurally a little bit easier for you.

CHAIRMAN STOCKWELL: The easiest way to untangle it is good with me. Pat.

MR. AUGUSTINE: Mr. Chairman, that is great advice so **I will move to temporarily table this motion until all the additions and corrections have been submitted and then go for one single approval of the document.**

CHAIRMAN STOCKWELL: Seconded by Dennis. **Is there any objection? All right,** let's start untangling things. John.

MR. CLARK: Mr. Chair, I submitted a motion to Kate before about adding an option to the yellow eel harvest control measures. The motion I wanted to make essentially regards having an option for a closed season in the fall for the yellow eel fishery. There would be a two-week closure –

DR. LOUIS DANIEL: Well, I think just a suggestion, maybe, that we would take these one at a time; go ahead and vote on the motion on the floor and then moved to the next one so that we're not adding them all and then voting on them and then having people discuss them haphazardly all throughout. Maybe if you vote on this and then go to the next one; that would be easier I think.

CHAIRMAN STOCKWELL: I thought we had moved it ahead. To the motion on the board, we're going to back up some. Discussion on the motion on the board. Mitchell.

MR. FEIGENBAUM: Well, I would just speak up in favor of the motion. I think anything that we put in this document that gives the public another option to consider and weigh is only helpful.

CHAIRMAN STOCKWELL: Are there any other comments to the motion on the board? Seeing none; is there any objection to the motion on the board? **Seeing none; the motion carries.** Kate.

MS. TAYLOR: Just for clarification, the addition of the 2002 to 2011 average to base the quota on; would the board like to see the potential 20 to 50 percent reductions on top of that 2002 to 2011 time period or just that 2002 to 2011 time period? The other two periods both have the percent harvest reductions in other options.

MR. THOMAS FOTE: I think we need to be consistent; so if we're going to do it for the other two, we need to do it for the third option.

MR. O'CONNELL: Yes, that was the intent of the motion.

CHAIRMAN STOCKWELL: Is everybody clear? Okay, A.C.

MR. CARPENTER: I thought we had started another motion; if you wanted to bring that back first. Mine is not related to that one.

CHAIRMAN STOCKWELL: Okay, John, your motion.

MR. CLARK: Yes, I had written it down. Do you want me to just wait until it is up there or should I just start yakking?

CHAIRMAN STOCKWELL: I'm doing such a good job here I don't know if it makes a difference.

MR. CLARK: Okay, as I said, what I would like see added is an option that would allow for a closed yellow eel season in the fall. I would ask for like a two-week rolling closure. It could be done by state. I thought it would be a good idea to do it in coordination with the estimated time of the glass eel emigration from the state.

I know from on-board sampling we have seen not a lot, but there is a percentage of silvering eels that do pot up during this time of the year. Not only would we be reducing harvest of yellow eels, but we'd also be taking some pressure off of silvering eels. The other things that I think are good about this, I think it would be a lot easier to enforce.

As the Law Enforcement Committee mentioned, the size limits, not that they can't be done, but they would be difficult to enforce. I know one of the concerns has been that this is something that as soon as the two weeks is over, that this catch could be made back up by fishing harder. The way I have seen the fishery operation, I don't think that is really that viable an objection because most of these guys, they have to keep their eels alive so they have limited capacity to store eels. They only have so many pots.

As the issue has come up very often recently, we know that bait is a real issue also for them. For those reasons, I think this would be a good way to reduce yellow eel harvest at the time where most of the fishing is going on if we decided that we wanted to take an action to reduce yellow eel harvest. It would also be the easiest to enforce. Thank you.

CHAIRMAN STOCKWELL: Thank you for your rationale. We do need a second. Seconded by Rob. Doug.

MR. GROUT: If this motion passes, could we have the technical committee evaluate what the effect of this would be on the eel population and just put it as information within the document?

MS. TAYLOR: This option is similar to another option that is contained in the document under the silver eel fishery's management measures and that is for the gear restrictions. However, the gear restrictions for silver eel fisheries was just for the benefit of the out-migrating silver eels and only was applying to the fyke nets, the pound nets and the weirs.

Pots were not included in that. Under this option, the plan development team began to look at what the impact would be and it was determined by the plan development team that the -- or it was known by the plan development team that the out migration occurs at different times for different systems.

The plan development team recommended under this option that the states evaluate when the majority of the out migration for their silver eels is occurring and that be the proposed timeframe when the

implementation of the no takes would occur. If the out-migration period could not be determined, then the timeframe would be September 1st to December 31st.

It would most likely be difficult for the technical committee to evaluate what the impacts would be for a two-week period as the states would have to identify what period that would be and propose that to the technical committee and then do the evaluation and that might take a significant amount of time.

MR. O'REILLY: Well, would you believe me if I told you I thought the motion the motion had been seconded. My hand was up for discussion. I don't mind seconding the motion at all, but there is going to be some temperature effects there. Kate really addressed the question I had. I know there was a discussion last meeting about a similar situation and how that would be addressed, so that was really the question I had.

MR. WILLIAM A. McELROY: Mr. Chairman, a concern that I have would be for our charterboat industry. They use eels in the fall as a pretty significant of their bait supply. If there was a two-week closure; would be that a possession closure as well, or would those charterboat fishermen be allowed to obtain eels from an area that was open and have them in that two-week closure? Thank you.

CHAIRMAN STOCKWELL: Do you have an intent, John?

MR. CLARK: Yes, this was just a fishing – what I'm proposing is just pots out of the water. If your state was closed for two weeks, you wouldn't be getting commercial eels, but it wouldn't have anything to do with possession for recreational purposes.

CHAIRMAN STOCKWELL: Other comments to the motion on the board? Okay, I'm going to read it into the record and then call the question: **Move to amend Section 4.1.2, commercial fishery management options, yellow eel fisheries, by adding an Option 6, a two-week closure. This option would require that each state close its yellow eel fishery for two consecutive weeks in September through October. The closure must occur after the estimated start of each state's silver eel migration. All gear targeting yellow eels must be removed from the water during this two-week closure.** Motion by Mr. Clark and seconded by Mr. O'Reilly. Mitchell.

MR. FEIGENBAUM: I had submitted to the table a motion to put in a similar option, although my option suggested that the seasonal closure – that what we put out to the public does not specify two weeks. It just says a closure during the migration period. I had suggested that it be timed to the end of the migration simply because I had heard a lot of comments from technical committee members who felt that – and John addressed the point by having a closure at the beginning of the season, there is a concern it is just going to be made up for at the end of the season.

I thought by having the closure at the end of the migrating period, we least overcome that concern by the technical committee. John has addressed it and I'm not suggesting – and I think John has addressed it effectively. On the other hand, knowing that concern by the technical committee is out there, I would suggest what I hope would be taken as a friendly amendment that we just put the question to the public that the option would require that each state close its yellow eel fishery for some period of time between – some period of time during the fall migration.

Just give the public as well as our other committees more to chew on because they have specified that concern. This kind of proposal was made several times in the past and for reason it continuously is resisted by the technical committee members on the grounds that I just suggested. I think by just widening the option a little bit more, we would have a better chance of getting the kind of feedback that would be productive.

CHAIRMAN STOCKWELL: So are making a motion to amend?

MR. FEIGENBAUM: I am. **I would suggest that this option would require that each state close its yellow eel fishery for some period of time during the fall or some period of time after the estimated start of the state's silver eel migration – yes, for some period of time after the estimated start; so just taking out – just replacing at some period of time; replacing that for in September through October and the closure must – I hope that is clear.**

CHAIRMAN STOCKWELL: You read it and tell me if that is what you want.

MR. FEIGENBAUM: I think it should be silver eel migration and not the – the start of the silver eel migration.

CHAIRMAN STOCKWELL: Okay, is there a second on the motion to amend? Seconded by Bill Adler. Discussion on the motion to amend.

MR. PATRICK GEER: I really think you need to have some concrete time period. You can't just leave it open. I like the idea of letting a state choose some time in the fall; but by just saying closed for some period of time, some states might close for one day. If you say a two-week period; a two-week closure I would support – I think up there it says two straight weeks. I think you need to have a concrete period of time. I don't think you should leave that open.

MR. GROUT: Mr. Chairman, I agree. You can't give the public something to provide comment on unless you have something. If you want to have a potential for a range of time periods of the closure, maybe we should put in suboptions to say closure for two weeks, a month, and give some suboptions for the public to actually bite on.

An open period of time; again, my concern about this whole motion up here is we have to have some of kind of evaluation and analysis. If the analysis can't be done, you need to put that in the document so that the managers can evaluate their vote for or against this particular motion, the same way that public needs to have that kind of information. I would oppose this motion unless there is some kind of a minimum closed season and a maximum closed season or some options for the public to choose from.

MR. LEROY YOUNG: I agree with Doug. The thing I'm having trouble with, whether it be this motion or all the motions or all the different options in the document, if I was the public and if I didn't know what the effect of the options would be either on the fishery or more importantly on the population, how would I know how to comment at all. I think that applies to myself and the rest of us here. That is the thing I'm struggling with the most.

MR. AUGUSTINE: Mr. Chairman, I'm just confused in what is the value of the first two weeks of the migration versus the last two weeks of the migration. That basically is what Leroy is saying, of what value; is it greater, more likelihood that you will protect more animals at the beginning or do we capture them at the end? Maybe those are two separate options, but I think we have to describe what is the advantages of each of those?

MR. CARPENTER: I think the original motion, as I read it, gives you the option of the first two weeks, the last two weeks or the middle two weeks as long it

is between September and October. I'm not sure that the substitute motion is even needed.

MR. FEIGENBAUM: It certainly wasn't my – the way I suggested that language was not artful. Of course, I accept the comments that you need to give something concrete for the public to chew on. I will withdraw the motion.

MR. CLARK: Terry, just to explain a little to Pat, the reason I had specified after the start of the silver eel out migration is because silver eels, typically it is a process. It is not like they just silver overnight. During that time, when they are starting to leave and are silvering, we see them in our pots. We do catch some.

The thinking here was it is helping silver eels and it is reducing yellow eel harvest. In terms of evaluation, I figured because states such as Delaware where we are keeping good records of our catch, we'd be able to evaluate after a few years the effect of a closure like this. It is hard to predict beforehand how much of an effect it will have, but I think we would be able to evaluate it eventually. Thank you.

MR. CARPENTER: John, I think based on what you just said, if you added a few words where it says "after the estimated start of each state's silver eel migration"; "and before the estimated end." You have then bracketed that two-week period in there not necessarily by the calendar, but you've got it by the calendar and by what your data is actually showing.

CHAIRMAN STOCKWELL: Before we start wordsmithing the original motion, let's dispense with the one on the board. Doug.

MR. GROUT: I thought I heard the maker of the motion withdraw. Now, you may have had discussion on this enough that you might have to take a vote to get it out of it, but it depends on how you want to handle it. If you're going to accept the withdrawal, then maybe check with the seconder if it is okay or we can just dispense with this vote right now.

CHAIRMAN STOCKWELL: What is the will of the board? Bill, are you willing to withdraw the motion? **Without objection the motion to substitute is withdrawn and we're back to the main motion.** Ritchie.

MR. WHITE: I guess I would like to see the wording added that was discussed about the technical committee doesn't have the ability to evaluate this. I

guess I would like to see that on any motion that we add to this document so we don't give the public the sense that the technical committee can do it; and they give input thinking that the technical committee will evaluate it.

CHAIRMAN STOCKWELL: A.C., was the verbiage that you have suggested incorporated in the motion?

MR. CARPENTER: It was but then it was taken off after you asked to dispense with the last motion. If the maker and the seconder can accept that as a friendly addition, I think we can move forward.

CHAIRMAN STOCKWELL: It should be in there now. Rob.

MR. O'REILLY: What Ritchie just indicated, I think probably Leroy was right about the idea that we don't have the right amount of details for the public and maybe it is just a paragraph here or there after these options to indicate things such as will this augment spawning potential; will this possibly reduce exploitation or fishing mortality rate; you know, just what these measures do and maybe even down to a point by saying that this alone will not accomplish those types of objectives.

I think we have a motion right now that is one of those; and if you want words such as the technical committee cannot adequately determine impacts from this type of motion, I think that's fine, too, but a little descriptive paragraph – it is in the document. The document goes through the problem statement; the document goes through the status of the stock; but by the time you get to the options, I think if the public can see exactly what is proposed here, what the benefits are, that would be a big change.

CHAIRMAN STOCKWELL: Are there any further comments to the motion on the board?

MR. YOUNG: I don't know if this is possible, but if it could even be what is the relative benefit both within an option and across the options of these – not just this but everything else, if the technical committee could at least do that, I think it would be helpful.

CHAIRMAN STOCKWELL: Just side-barring here with Kate, in her words there is really no way if we don't have the information to be able to do that. Tom.

MR. FOTE: If we can't evaluate what is the benefit of doing this, then we should basically simply state that these are options we're considering not knowing what the consequences of those actions are. Do we want to put things in the document where we stand that we can't go – because usually we can say we're going to the technical committee to give us what is going to happen.

If we can't do that, then we need another way of handling this, because we're sending it out to the public with caveats now that says – so they say why are we doing something we don't know if there is any benefit. What you're basically saying is we know there are benefits but we can't show you what it is and that is a whole different story from what we're saying right now.

I think that is a better way of handling it. Otherwise, I don't feel comfortable sending this out to the public because we're going to say the technical committee does this and that. We have options we are including, we don't know what the quantitative benefits will be, but we know there will be some benefit, because that is really what you're saying here. I'm not sure if that is what we know. We're going on iffy ground here and I'm trying to figure out how do we get past this iffy ground.

CHAIRMAN STOCKWELL: Pat.

MR. AUGUSTINE: Mr. Chairman, to that point, Delaware has said they have kept records for years and they've seen this changing occur and appearing in their traps. Now, do you have any data that might substantiate the point that we would see a savings or it would have a positive impact on the stock as an example to be included in this document? Would that be logical to support what we're trying to do here? I understand Tom's point, but again maybe you have something to support it.

MR. CLARK: Are you talking about seeing eels that are silvering in pots? We have sampled a few of them over the years. From on-board sampling, I have seen some in pots that I wasn't sampling. I don't have good numbers of the percentages each year. As I said, I just threw that part in because the fall is when the bulk of the harvest occurs.

Yellow eels as they are turning into silver eels will still pot up, so those are ones that could be going out. We can't evaluate beforehand. Just from what I've seen of the fishery, I do believe that having pots out of the water for two weeks, as I said, it would down the harvest because they wouldn't be able to make up

that two weeks just because of the way it is prosecuted and the way they can only hold so many eels at a time.

MR. AUGUSTINE: Just a follow-on to that, Mr. Chairman, I don't know if Mr. Feigenbaum might have access to some of that information. He has been in the fisheries for 20-some-odd years and he has a good handle on what is going on there. He might have a suggestion and you might want to ask him, Mr. Chairman.

CHAIRMAN STOCKWELL: He is shaking his head no. I'm going to move this along. Does anybody else have a burning desire to comment to the motion on the board? Before I read it back into the record; is there anyone in the audience who wants to comment on it?

MR. MARTY BAUW: My name is Marty Bauw. I haul probably about 70 percent of all the eels in the United States on the east coast. Does anybody consider the cost of pulling pots out and putting pots back in the water? If you do it in this time period of September, the last two weeks of September, nobody is going to put their pots back in October; only the smaller crowd maybe; but the boys that we offer them two or three thousand pots, they will not do that.

I believe even – seeing all the years I harvest, the 700,000 pounds last year, looking at every one of them, I see they're half silvers and quarter silvers, as we call them in Europe. I see them in March. I see them in April. How can you determine that you're only going to actually pull the pots out in two months and think you're going to release all these – let all these eels go.

You have one of the best conservation programs already in the United States and that is nature. The way you fish silver eels, you don't have no boundaries really in the Chesapeake or the Delaware River, everything. You're already supplying the glass eel business already with a good source. You did it pot fishing and pot fishing don't catch no silver eels.

But I would just say about the closure rate, I think you really got to consider – because nobody talks about the fishermen. The rate of conservation already started last year; the shortest of bait, shortest of fishermen. The conservation has already started and this year it will be even worse because there is no bait. Before you put that motion in, I think you

should really consider the fishermen as well of what they're going through. Thank you.

CHAIRMAN STOCKWELL: Anyone else in the audience? Mitchell, you have got the final word.

MR. FEIGENBAUM: Okay, the way the motion reads now, it saying September through October. I suspect very strongly that in the south there might be states where the migration doesn't even take place until October or November. In light of Mr. Bauw's comments, it is also correct that it would be pretty harsh on a fisherman to time any closure to the middle of the fall season.

I think if we took out the words – if it said this option would require that the state close it yellow eel fishery for two consecutive weeks at some point – just taking out the words “September through October”; for two consecutive weeks and the closure must occur at the estimated start and before the end would give the state the flexibility to time the two-week closure to the beginning of the fall season or the end, which would at least remove the disruption to the fisherman of going into the water, coming out of the water and then going back in. I see John shaking his head so I guess I'm proposing that as a friendly amendment, just to wordsmith that language.

MR. DENNIS ABBOTT: Mr. Chairman, we have been talking about this for 20 minutes or so and however long it has been is irrelevant. I appreciate the effort in what we're trying to achieve; but if we don't have any technical data of what this is going to do, in my opinion it shouldn't go in the document, and it surely shouldn't go in the document with some wording that we haven't had the opportunity to look at this because it makes us look foolish that we are putting something in the document for consideration that we haven't given proper consideration to. I can't see how we can support this.

DR. JAIME GEIGER: Mr. Chairman, I totally agree with Dennis. I think we're trying to put stuff in – again, I don't want to paraphrase what Dennis said. He said it much more eloquently than I can. I think we're going down a bad trail here. Although I respect what John is trying to do, I think it is good for conservation; but on the other hand if our folks can't quantify the benefits, why are we doing this. This is a public hearing document. Let's not lose sight of what the prime objective is of what we're trying to do. Thank you, Mr. Chairman.

MR. CLARK: **I would accept removing September to October, but that's fine.**

CHAIRMAN STOCKWELL: Rob, as the seconder.

MR. O'REILLY: That is fine, and at a minimum – since we know how this started, at a minimum I would hope that there would be information for the public hearing document that could be responded to. I can't jump on the quantitative – quantitatively, maybe it takes some information before we know as this happens, but I don't think everything in the plan is going to be quantitative. I think the public might like to see this idea.

CHAIRMAN STOCKWELL: Well, we have beat this idea to death and I'm not sensing a consensus, so I am going to ask you to caucus and we're going to have a vote after I read it. **Move to amend Section 4.1.2, commercial fishery management options, yellow eel fisheries, by adding an Option 6; a two-week closure. This option would require that each state close its yellow eel fishery for two consecutive weeks and the closure must occur after the estimated start and before the end of each state's silver eel migration. All gear targeting yellow eels must be removed from the water during this two-week closure.** Motion made by Mr. Clark and seconded by Mr. O'Reilly.

(Whereupon, a caucus was held.)

CHAIRMAN STOCKWELL: Have folks had a chance to caucus? Those supporting the motion on the board, please indicate so; those opposed; any abstentions; any null votes. **The motion carries 11; 5; 1.** All right, we're making great progress. A.C.

MR. CARPENTER: **Mr. Chairman, I would like to move to amend Section 4.1.2, Option 3, to include a Suboption A for status quo; a Suboption B for a one-half inch by three-quarter inch four-by-four cull panel; and Suboption C would be the one-half by one inch cull panel;** again the four-by-four inch size. If I get a second, I would like to speak to the motion.

CHAIRMAN STOCKWELL: Seconded by Louis. A.C., is this the motion reflected correctly?

MR. CARPENTER: Yes, I think this is the motion. My reason for this is that I think the difference between the half by half and the half by one that have been analyzed is too great. We have a good market for what we call "trotline" bail that does prefer a little bit smaller eel. I think that this interim number will possibly get us there.

I realize that there is no wire that is made on a half by three-quarter, but that doesn't preclude the idea of a plastic panel being manufactured that could be put in there. As far as the discussions that we have had about the ability to evaluate this, we don't have any experimental evidence to evaluate, but this is a case where common sense tells you that the savings will be greater than that with the half by half and less than that with the half by one. That is my rationale and I think it moves us in the direction that we need to go. I would like to add it as a section for the public to comment about.

MR. FEIGENBAUM: Having gone through the public process during the last addendum, I am in support of this motion. I would just point out that basically every single individual in the fishing community feels that the only practical way to implement a size limit of any type is through this kind of approach where you make the gear do the work for you. I believe that this approach will be widely supported by the public. I would vote in favor of this motion.

CHAIRMAN STOCKWELL: Other comments to the motion on the board? Doug.

MR. GROUT: Just so I'm clear on this, essentially what we're doing here is adding a third option of a half by three-quarters because Option 3 was originally a one by one-half inch option. We're just having an option in between, a third option in between. Okay.

CHAIRMAN STOCKWELL: Other board comments? Any comments from the audience? Is there any objection to the motion on the board? **Seeing none; the motion carries.** Further amendments or edits? Mitchell.

MR. FEIGENBAUM: I believe this one is also low-hanging fruit. In Section 4.1.3, there is an option that says – Kate, maybe you can help me – it is where you talk about the seasonal closure. It is not a seasonal closure, but you're saying that during the fall there should be no take of eel from fyke nets, pound nets and weirs. In some conversation with Commissioner Keliher from Maine he indicated that some fishermen actually get around that kind of language by designing a net that doesn't fall into those three categories but nonetheless targets a silver eel.

I think the language should be just changed to any gear type other than a baited trap. I believe it is your Option 3 – it is 4.1.3, Option 3. It says, "During the out-migration period, there will be a prohibition on

landing eels from the gears specified above.” Under this option, states and jurisdiction would be required to implement no take of eels during the fall from the following gears, and then you list fyke nets, pound nets and weirs; so instead of that saying jurisdictions would be required to implement no take of eels during the fall from non-baited traps. It is just a language change to capture the true intention of what you’re doing here.

CHAIRMAN STOCKWELL: This measure was under the considered but rejected options.

MS. TAYLOR: For the silver eels, the plan development team specifically specified these gear types. There was potential they thought for other gears to be modified to do that, but this was the recommendation that they discussed.

MR. FEIGENBAUM: Okay, then I would include that. I don’t see from my document where the silver – I guess then I’m saying that option should be back in there with the wording as amended. Right now where are the silver recommendations?

MS. TAYLOR: The silver eel recommendations, as you pointed out, are in Section 4.1.3. It is the gear restrictions for no take of eels during the fall from fyke nets, pound nets and weirs.

CHAIRMAN STOCKWELL: It says the following options are not mutually exclusive and can be implemented in combination; Option 1, status quo; Option 3, gear restrictions.

MS. TAYLOR: That was a typo; it should read Option 1 and Option 2.

CHAIRMAN STOCKWELL: Is there a second to the motion?

MR. FEIGENBAUM: Yes, so it is in there.

CHAIRMAN STOCKWELL: Seconded by John.

MR. FEIGENBAUM: Yes, number 3 is supposed to be 2.

MR. CARPENTER: I don’t disagree with this, but we have baited pots. We don’t have baited traps so can that be pots/trap because there – yes, what is a net trap is what I’m getting at.

MR. FEIGENBAUM: I have no problem with that. I’m addressing a specific concern brought up by Commissioner Keliher that people are using some

type of non – they’re trying to target silver eels that are migrating, which is the number one concern of our technical committee and I think most of the people in this room to protect silver eels. If we are suggesting a ban on fyke nets and weirs, then we can’t have a mechanism in there that allows as fisherman to sneak around the system. However the language has to be, I’m totally comfortable with it

CHAIRMAN STOCKWELL: We have got a second by Mr. Clark. Other comments to the motion on the board? Seeing none; are there comments from the audience? Doug.

MR. GROUT: Just again to clarify it; is this a motion to include a third option. We have status quo and then there is an option for gear restrictions that specifically identify fyke nets, pound nets and vents, and this would be one that would be a third option that would be broader or is this motion to replace what is currently in Option 3 here? Is this an additional option or is this replacing the existing Option 3?

MR. FEIGENBAUM: Yes, it is the latter. Is just changing the language in the existing Option 3, which should be called Option 2.

CHAIRMAN STOCKWELL: Any other comments to the motion on the board? Move to replace in 4.1.3 Option 2, amending the language to read “any gear type other than baited traps and pots as opposed to the original language included in the document. Motion made by Mr. Feigenbaum and seconded by Mr. Clark. Is there objection to the motion on the board? Seeing none; the motion carries. Louis.

DR. DANIEL: I think I may have missed something or let something get by me. **In Section 4.1.1, I want to add an option to develop a glass eel fishery coastwide, if I can get a second.**

MR. FEIGENBAUM: I’ll second that motion.

CHAIRMAN STOCKWELL: Okay, a motion by Dr. Daniel to develop a glass eel fishery coastwide; seconded by Mr. Feigenbaum. Discussion on the motion on the board. Bob.

EXECUTIVE DIRECTOR BEAL: I think we need to perfect that. I don’t think the motion is to develop it. I think it is to add an option to include the development of.

CHAIRMAN STOCKWELL: Are you good with that, Louis?

DR. DANIEL: Yes, I will just say the allowance instead of the development. In 1999 there was a size limit implemented. I don't why or how that happened that basically eliminated a glass eel fishery for everybody but Maine and South Carolina, and I'm hearing a \$40 million fishery. I can catch eels. I can catch glass eels so I want to have that same opportunity. I think if we're going to go out there, we might as well see how it plays. If it doesn't pass, that is fine, too; but I'm going to try.

CHAIRMAN STOCKWELL: Mitchell, are you good with the perfected language?

MR. FEIGENBAUM: Yes, in fact, I think the language could be perfected even further by saying move to add as an option to have the technical committee report on the consequences. I'm okay with the amended language, but on the record I want it to be clear that I share our executive director's observations that the language does need to be perfected.

CHAIRMAN STOCKWELL: And that is going to be bucket load of work for the technical committee in the limited period of time they have between now and the spring.

MR. FEIGENBAUM: Well, I would point out that I believe that Kate received a letter from someone in the public urging that the glass eel fishery be expanded or closed. We have heard from the Law Enforcement Committee that one of its biggest concerns is the fact that you have a fishery in some states but not the other is creating more opportunities for the illegal activities. I want to be very clear on the record that I am not recommending that the glass eel fishery be expanded coastwide. I'm supporting a motion that it be something that the public be permitted and invited to comment upon.

MS. TAYLOR: You had mentioned a request for the technical committee to comment on this as well?

MR. FEIGENBAUM: Consistent with the comments of other board members, I think that any option that goes to the public needs to be addressed by the technical committee as to what the consequences would be. It's Mr. Daniel's motion; it is not my motion. I'll let him address the language that he would like to see in it.

MR. ROY MILLER: Mr. Chairman, if this motion goes through for a vote and is not withdrawn, I intend to vote against it. I think if we drop back in time ten or fifteen years, there were arguments at the compelling arguments at the time for instituting minimum size limits of six inches in many states. Many states, including Delaware, chose to do so.

A lot of it had to do with enforcement. There were probably conservation benefits as well. I think this is just a giant step backward that would require my state to go back to the general assembly and more or less tell them to forget about what we told you ten to fifteen years ago; we now retract that. It is just a bad move all the way around. Thank you.

MR. O'REILLY: I was going to comment on the technical committee analysis and where that would lead and the value of that doesn't seem very certain to me right now. I think a couple of meetings in a row I've asked about the glass eels in terms of the indices and where that ranks in the assessment. I think each time I have been told it is getting closer, it is going to have utility for the future. I am not sure why the technical committee would spend time trying to address impacts related to this motion if it passes.

DR. DANIEL: I am just not convinced that there would be a substantive impact. Based on the natural mortality rates that we know occur in that life stage, I think it is something to be considered. When we look at the value of a fishery, it is extraordinary. I am not convinced and if somebody has convincing evidence that it would have a negative impact on the eels, then that is cool. I have not seen any information to suggest that it is.

We're sitting there watching these things dry up in these fields when the flooded impoundments are drained and you could harvest them with a rake, and we're talking huge amounts of money. It is like catching larval fish. The Ms are 0.9999. Vote it up or down, but I felt absolutely compelled to bring it to the table.

MR. FOTE: I'm trying to remember whether it was the states that basically decided to put in the minimum six-inch size limits on their own and basically just said they didn't want glass eel fisheries. I don't even remember the commission outlawing the glass eel fishery at all. I think it was the states. Massachusetts always had a six-inch size limit on theirs and they had it before the glass eel, and then New Jersey wound up going the same way because we couldn't pass a regulation that would allow for the harvest of glass eels.

I don't think it was the commission ever told us we couldn't harvest glass eels. I think before we put that option in, just look at the document. I don't think there is a history where commission did that. It was the states on their own basically doing it. At this time I think any state that wanted a glass eel fishery could open it up anyway. I think that is where it is; it is really the states' decisions not to do that that put on by the state legislators or by Divisions of Fish and Wildlife. I don't think it was the commission that did it.

MR. McELROY: This is a difficult issue. I know in my state there have been many people that have come to me and said how come some state has access to a lucrative fishery and most of the states don't? I don't think that we need to try to say to Maine that they can't do what they have been doing, but by the same token to say that the rest of us can't – I know it creates an enforcement problem in Rhode Island.

Because it is such a lucrative fishery, there have been documented cases of poaching in Rhode Island that ends up going into market. It almost seems to me like it is a sense of fairness. Unless there is some scientific evidence that says collecting glass eels in one area is harmless and it is harmful in another area, I have trouble with equality in trying to suggest that two states are allowed and thirteen states aren't. Thank you.

MR. WHITE: Mr. Chair, I think we have kind of gotten off track as to the purpose of this document. I thought this document is to address a depleted stock and expanding harvest clearly does not do that. There clearly is an issue with fairness with one state harvesting the majority of that size eels that is getting harvested, but there are options in this document that will severely limit that and change that. I can't support this and I think it clearly sends the wrong message to the public as to what direction we're going.

MR. FEIGENBAUM: Well, Ritchie. I think those are really good comments and it is a very fair point. As I said before, in seconding this motion my thought was that we need to talk about this. Tom made some great observations a minute ago, and I saw Kate shaking her head one way and other people shaking their head another way.

There is something that is very unclear here and we're certainly not doing our responsibility as a commission if we just leave it hanging out there. It is quite possible – I don't know what the language of Amendment 1 is. I only know the history of this

commission on the matter of eels since 2003, but perhaps we need a motion to say no state may have a glass eel fishery.

If Tom's comments are correct, what prevents North Carolina's legislature from creating a glass eel fishery on its own next week if in fact our current management plan doesn't prohibit it? Like I said before, I seconded the motion because this is a matter that can't just be swept under the rug. Maybe today is not the time.

Maybe this is not the point in time where we need to have this conversation as a commission, but there might be a real serious idiosyncrasy in the rules here that we might have a glass eel fishery in New Jersey and North Carolina if those legislators deem it appropriate, and it might be that our existing document doesn't prohibit it. Now, maybe it does; and if that is the case, then I think this is something to be explored in the future.

MS. TAYLOR: The original fishery management plan requires that all states and jurisdictions maintain existing or more conservative American eel commercial fisheries' regulations, including gear specifications for all life stages; and states with minimum size limits shall retain those minimum size limits unless otherwise approved by the American Eel Management Board. Tom was correct that there was never the requirement put in place for the minimum by the commission, but rather the states at the time of implementation of the FMP all had those minimums in place already with the exception of South Carolina and Maine.

MR. CLARK: I was just going to say this is kind of ironic because, of course, the instigation for the plan in the first place was the boom in the glass eel fishery in the mid-nineties. My recollection is when the plan was passed, that Maine and a few of the other states made good cases that they would manage their glass eel fisheries well. I think several states that did have glass eel fisheries when the plan was passed, like New Jersey and Connecticut, have eliminated those glass eel fisheries since then. I know, New Jersey, didn't you have problems with people shooting at each other, Russ.

MR. AUGUSTINE: I want to make it easy; I want to table this motion to the May meeting and remand it to the technical committee to present a white paper that would give us some direction as to which way to go. We've spent 20 minutes or 25 minutes on this issue and we have gotten nowhere. We have got a document in front of us, as Mr. White had pointed

out, that we're heading in a direction of a clear-cut management plan that is going to reduce and give us better management tools. Again, we're off the main path; so either that or withdrawal of the motion, I'm not sure.

CHAIRMAN STOCKWELL: If your intent is to postpone it until the May meeting, it wouldn't be going out for public comment, which means it wouldn't be part of this document. We have had significant board discussion on it and I think we should vote it up or down. Anyone from the audience wish to comment? Back to the board for final comment; I know there is no consensus. The motion is to add an option to allow a glass eel fishery coastwide. Motion by Dr. Daniel and seconded by Mr. Feigenbaum.

MR. GROUT: Could I ask for a roll call vote, Mr. Chairman?

CHAIRMAN STOCKWELL: You surely can.

(Whereupon, a caucus was held.)

CHAIRMAN STOCKWELL: Is everybody ready? Go ahead, Kate.

MS. TAYLOR: Maine.

MAINE: Yes.

MS. TAYLOR: New Hampshire.

NEW HAMPSHIRE: No.

MS. TAYLOR: Massachusetts.

MASSACHUSETTS: No.

MS. TAYLOR: Rhode Island.

RHODE ISLAND: Yes.

MS. TAYLOR: Connecticut.

CONNECTICUT: No.

MS. TAYLOR: New York.

NEW YORK: No.

MS. TAYLOR: New Jersey.

NEW JERSEY: No.

MS. TAYLOR: Pennsylvania.

PENNSYLVANIA: No.

MS. TAYLOR: Delaware.

DELAWARE: No.

MS. TAYLOR: Maryland.

MARYLAND: No.

MS. TAYLOR: District of Columbia – (No Response) Potomac River Fisheries Commission.

POTOMAC RIVER FISHERIES COMMISSION: Abstain.

MS. TAYLOR: Virginia.

VIRGINIA: Yes.

MS. TAYLOR: North Carolina.

NORTH CAROLINA: Yes.

MS. TAYLOR: South Carolina.

SOUTH CAROLINA: Abstain.

MS. TAYLOR: Georgia.

GEORGIA: No.

MS. TAYLOR: Florida.

FLORIDA: Yes.

MS. TAYLOR: U.S. Fish and Wildlife Service.

U.S. FISH AND WILDLIFE SERVICE: No.

MS. TAYLOR: National Marine Fisheries Service.

NATIONAL MARINE FISHERIES SERVICE: No.

CHAIRMAN STOCKWELL: **The motion fails five, eleven to two.** Jaime.

DR. GEIGER: Mr. Chairman, on Page 9 there is a statement that lays out from the plan development team a variety of recommendations to be completed. I believe this board and the commission initiated an MOU with the Great Lakes Fisheries Commission dealing with American Eel.

This would be very beneficial to the Great Lakes Fisheries Commission who have the vested interest in conservation of American eel within those jurisdictions. It also offers the opportunity to coordinate closely with our Canadian partners as well. I would just add if the staff could prepare some language to basically allow us to complete that MOU between the Atlantic States Marine Fisheries Commission and the Great Lakes Fisheries Commission. Bob Beal, you may want to speak more on that.

EXECUTIVE DIRECTOR BEAL: Actually, I had met with the executive director of the Great Lakes Fisheries Commission about a week and a half ago. We both agreed in principle that the document is essentially ready to go. The key elements from their commission perspective as well as our commission perspective seem to be in the document, so I think we can just correspond again with the Great Lakes Fisheries Commission to make sure everything is complete and then I think we're in the position to sign on to that document.

DR. GEIGER: Okay, and then, Mr. Chairman, if we could just add a sentence or two to those six or seven recommendations on Page 9, I think that would be very beneficial. Thank you.

CHAIRMAN STOCKWELL: Duly noted. Rick.

MR. BELLAVANCE: **Mr. Chairman, I would like to make a motion to add an Option 3 under 4.2, recreational fisheries. I would like to make an Option 3 that basically states exactly what Option 2 is with the addition of one sentence. Right after the words "25 fish per angler day", I would like to add "licensed party and charterboats would be limited to 25 fish per person multiplied by the number of passengers that vessel is authorized to carry for-hire." Right after the words "25 fish per day per angler creel", I would like to add the sentence that says, "Licensed party and charterboats would be limited to 25 fish per person multiplied by the number of passengers that vessel is authorized to carry for-hire."** I think right before "25 fish/angler creel", you could put the sentence following, and then you add that "license party and charterboats would be limited to 25 fish" – yes, that's right.

CHAIRMAN STOCKWELL: Are you seconding it, Pat?

MR. AUGUSTINE: Plus a comment to the motion.

CHAIRMAN STOCKWELL: Okay, a motion made by Mr. Bellavance; seconded by Mr. Augustine.

MR. AUGUSTINE: To the point, Mr. Chairman, it sounds right. I have worked on a charterboat, but I've then I've worked on a partyboat. Some partyboats are authorized to carry a hundred passengers. If on a day they're carrying 40 passengers and the captain is authorized to carry the vessel's capacity of passengers, he could multiply 25 times 100 or 2,500 eels.

With that clarification, I'm not sure how we could change the language other than suggesting the number would be based on the number of passengers on the vessel. That would be more realistic. When we run a six-pack, you will end up with 25 times six, that is what you've got. This other way is just too large a number.

CHAIRMAN STOCKWELL: So are you proposing a not to exceed amount?

MR. AUGUSTINE: Friendly amendment if Rick would want to entertain that.

MR. BELLAVANCE: I think adding that sentence or adding that part would actually make it redundant of Option 2. Currently under Option 2 we would be allowed to have 25 eels per person for how many people are on the boat.

What I'm trying to get at is the folks that steam from their port to another area to pick up clients, what are they going to do in that meantime when they would have six passengers on board or thirty passengers at some point during that trip but not necessarily when they leave the dock. That is what I'm trying to get a solution to. Option 2 would actually probably already do what you're suggesting, Pat. This is a way to address that problem when the passengers aren't necessarily on the boat at the beginning of the trip but they are later on.

MR. AUGUSTINE: Clarification, Mr. Chairman, before you get started. How would enforcement deal with that if they were to intercept the vessel going from one port to another to pick up passengers? When you say, well, you've got 2,500 eels on board and you only have your captain and two mates, how would you interpret that? He is in possession of the eels; would he be illegal and would he be ticketed? That is my concern.

COLONEL JOSEPH FESSENDEN: It is going to depend on, Pat, how the regulation is written. I think

Option 2 deals with the issue, so I don't see any reason to change it; but Mr. Bellavance's issue is real that he has got, so he wants an exception for that and it is reasonable to having this exception made for charter and partyboats.

MR. WHITE: Mr. Chairman, I could support this if you added some kind of language that the vessel would be in an active charter that day. In other words, a captain and a mate decided they're going to go out fishing on their own for the day could take way more eels than if six passengers were going to be on board, and this would allow that – so some kind of wording such that that boat has to be engaged in an active charter with a certain amount of people that day.

MR. BELLAVANCE: I'm not opposed to that. I don't think that scenario would really present itself because at 25 eels per person, if I was going out with my mate to fish recreationally, that is plenty, so I don't think there would be scenario where I would want to carry 200 eels with me with just my mate. To avoid any complications, I would be certainly willing to suggest that we could do something where we know we're on a charter, we're going to a specific destination and we can make that clear to enforcement.

MR. FOTE: We went through this a long time ago when we set a possession limit. I will give you an example. Surf fishermen do it a little differently than party and charterboats. Basically they will run to a tackle store and buy their eels. With gas prices nowadays going close to five dollars a gallon in some areas, what one guy does is he goes out and picks up 200 eels and he buys 200 eels. He is not harvesting those eels.

He is buying those 200 eels and he has a receipt for those 200 eels he purchased. That is one of the ways we talked about it years ago. If you purchased the eels and you're carrying for three or four people, then you're fine. The same way with the party and charterboat, if you're purchasing the eels for their customers and they had a receipt, because I imagine there is no party or charterboat that is actually potting the 400 eels or the 500 eels for themselves. They're out buying it.

If they have a receipt for the eels they purchased, then law enforcement will look at that receipt and see where the date was time-stamped. Now, if it was purchased three months ago and they've got the same receipt; that could a problem. But if it is a receipt within the last couple of days – because we went

around and around on this when we first started proposing those bag limits and people kind of forget.

And that is one of the ways we looked at it; if you had a receipt and you had purchased the eels, then it wasn't required because it is talking about harvesting. It is the same when you looked at the gear restrictions and you said nets only, I made sure it was only for the commercial side and not the recreational side because somebody might want to hook and line an eel for their personal consumption in those closed areas during the closed months. That is the way I think we deal with it now.

MR. CARPENTER: It is beginning to sound to me like you actually need not an addition to 4.2. You need a 4.3 to deal with commercial charterboat operations and rules that will apply to them or surf fishermen that have purchased a number of eels. I'm beginning to believe that is the way around this is to have a whole new Section 4.3 dealing with charterboats that specifies how they have to operate, to include their customers.

MR. O'REILLY: I'm along those lines. It sounds more like a boat limit that needs to be there for the customer, some type of possession limit for the vessel. Of course, it is not always going to be commercial. In some states that is still a recreational enterprise. The second thing I wanted to just kind of throw out there is the harvest from the recreational fishery is believed to be low.

What I don't know specifically is how this type of practice, either the motion on the board or what is in the document, would achieve some type of reduction for a depleted stock. Even though overfishing hasn't been specified, that is the indication. I really don't know how this practice might vary from what is going on right now. Back to the boat or the vessel, it seems clear there has to be something allotted for that industry.

DR. DANIEL: My comments were in line with Tom's. I just bring up the point that in North Carolina I don't know of anybody that harvests more than an eel or two, and it would be by hook and line. The recreational fishermen don't pot – not very many pot eels. In North Carolina there really wouldn't be a limit.

You could carry as many eels as you wanted to go fishing as long as you had a receipt for those eels. I don't know how that situation is up where you are, Rick; but I would think that if you're buying those eels and you have a receipt, this doesn't even pertain.

If I'm wrong there, let me know because that is the way we have always handled it in North Carolina.

MR. GROUT: The way I see this little conundrum is under Option 2 it looked like we were talking about a harvest limit, but I think the reason we put such a high limit in was because people might possess those eels while they're recreationally fishing for other fishermen. Really, isn't what we're looking here is for some kind of possession limit for either recreational fishermen to have 25 in their possession. If they have harvested it, that is fine; but they may have bought have it as a possession; and then have some kind of possession limit for party/charters in a separate section, as A.C. suggested here. As I said, I don't think there are many people that harvest more than 25 or 50 per day.

MS. TAYLOR: It was the intention of the plan development team that this option was only applying to recreational harvest and not possession that was otherwise legally bought and there were records for. It was just for the specific harvest for recreational.

CHAIRMAN STOCKWELL: Additional comments? Any comments from the audience? Back to the board – Adam.

MR. ADAM NOWALSKY: Mr. Chairman, I want to echo the sentiments here that what we're really talking about is a section that specifically defines X number of fish per angler creel where creel is that harvest of, which is very different from the possession. The possession doesn't just limit in the case of charter and headboats to just when they're transiting the fishing grounds. They likely have a pretty good pile of bait back at the dock as well.

With regards to the issue that Tom alluded to, yes, you've got anglers that go to the store, stop at the bait-and-tackle store in the morning and pick up bait for the number of people on the boat, so there is really a recreational possession limit that the individual states deal with. This document, as I read it, talks specifically about X number of eels as a creel, which is harvest, which isn't possession, and quite frankly at this point I don't really see the relevance of this at the point.

I understand the concern that the term of X number of fish per creel is going to turn into possession limits in the individual states. I think the states are going to have to come up with some way to do it or we're going to have to offer some guidance to them, but I just don't see the merits in changing this section as it is currently written.

CHAIRMAN STOCKWELL: Closing thoughts from the board? Okay, I'll read the motion: Move to add Option 3 under Section 4.2, recreational fisheries, same language as Option 2 with the addition of one sentence following "25 fish/angler creel"; add "licensed party and charterboats would be limited to 25 fish per person multiplied by the number of passengers the vessel is authorized to carry." Motion made by Mr. Bellavance; seconded by Mr. Augustine. Let's take a minute to caucus and move the question.

(Whereupon, a caucus was held.)

CHAIRMAN STOCKWELL: Okay, to the motion on the board, those who support it, please indicate so; those who are opposed; any abstentions. **The motion fails one to seventeen.** A.C.

MR. CARPENTER: Mr. Chairman, I would like to offer a motion to add a Section 4.3 to the document that would clarify possession of eels would require a receipt of purchase for any recreational fishing activity that is possessing eels. What I'm getting at here is I think that what we have there in Option 2 clearly handles the situation of somebody fishing, how many can you have if you're catching eels.

I don't know anybody that is going to catch more than one or two eels, but I think we do need a section – and I don't have the language specifically in this motion yet – that clarifies the party/charter recreational fishery where you have evidence to prove that you purchased the eels would be exempt from the limits imposed under Section 4.2.

CHAIRMAN STOCKWELL: Okay, A.C., would you be agreeable to delete the first that would clarify possession of eels? It is almost –

MR. CARPENTER: Yes, let me try again. Add a Section 4.3 that would exempt the creel limits of Section 4.2 for any person in possession of eels that can produce a receipt of purchase.

CHAIRMAN STOCKWELL: Does that capture what you want?

MR. CARPENTER: I think that is getting as close as I can do it at this late in the afternoon.

CHAIRMAN STOCKWELL: Point well made. Motion made by Mr. Carpenter; seconded by Mr. Bellavance. Tom.

MR. FOTE: Again, problematic. One guy goes and picks up eels for five people. He has one receipt. He now walks down and he gives out the eels to the guys who are on the beach who are in their campers for a week and somebody is going to check. I think we need to leave this up to the law enforcement in that state as to how they basically enforce the possession limits and how they enforce creel limits. I think law enforcement is smart enough – I know Rob Winkle and now the new one will be able to come up with out in New Jersey how we handle this. We shouldn't be micromanaging law enforcement through a method like this. It is different in every state and there are different fisheries how they promulgate.

Again, this is a creel limit so the only thing that is going to be effective, if you are taking a party boat and you're out there fishing strictly for eels, then you can no longer possess more than whatever the bag limit of eels, but otherwise we should not – you know, because they've got to purchase them somewhere so somebody is buying them.

If you want to restrict at the point of purchase that you can't sell more than 25, that is a whole different ballgame. But what you're doing here is helping to penalize a fisherman that is trying to save gas money and actually pick up more eels from either a party boat, charterboat or a beach fisherman doing it by pulling together.

MR. DAVID SIMPSON: I think what we're discussion here is the difference between possession and take and how we word regulations. I think it would be great to have something in the document to get comment on how we should deal with that. If we take it at that level; I think we would do well and we'll come back and decide how we want to handle this. Ultimately it does require a lot of law enforcement latitude. That is gist of it; take versus possession.

REPRESENTATIVE KUMIEGA: More or less what they said; this is a state law enforcement issue and we should leave it out of the document.

CHAIRMAN STOCKWELL: My sense is we could really address the issue you're trying to resolve, Rick, by putting a qualifier in there that we're talking about the difference between a creel limit and a possession limit, and that can be embodied into that section. Adam.

MR. NOWALSKY: Mr. Chairman, that was the point exactly that rather than specifically providing a directive right now with regards to producing a

receipt, I think the important part right now is providing information in this document to the public that differentiates between the possession and the harvest thereof.

Whether it has to be as another section or just a paragraph of explaining text, I fully support putting that in there at this point. I wouldn't support going so far as to the detail that we have in this motion.

CHAIRMAN STOCKWELL: Okay, my suggestion to the board is that we withdraw this motion and trust Kate to embody the appropriate language into this section for public comment. Is that agreeable to the board?

MR. CARPENTER: Agreeable by the maker.

CHAIRMAN STOCKWELL: And is it agreeable to the seconder, Rick? Rick, are you agreeable to withdrawal of this motion and trust Kate to put the appropriate language into the public document?

MR. BELLAVANCE: Yes, that's fine, I appreciate all the help.

CHAIRMAN STOCKWELL: Okay, who else wants to add what? Mitchell.

MR. FEIGENBAUM: Okay, with regard to Section 4.1.1 – and before making a motion, I would like to just address the question to Kate. Kate, in your comments leading into the recommendations for the glass eel fishery, it says it is recommended that all catch be graded on the boat or streamside and that any bycatch is returned to the waters where fish were harvested.

Under the glass eel harvest options, a small tolerance of harvest of pigmented eels should be considered along with a maximum size. I know that there was a lot of discussion at the plan development team about this issue. This is actually a fairly significant issue from a conservation standpoint.

What we have seen – and this was acknowledged by all the plan development team members – that what would have traditionally been glass eel fisheries have in recent years morphed into glass eel fisheries that also include the take of year one pigmented eels. I know that this language was the plan development team's way of saying that they would like to put a stop to that and yet it is not presented as an option. I am wondering how is the public going to comment on this proposal if it is not stated as an option.

Therefore, I would like to make – unless you have a different suggestion, I would like to make the following motion; **develop Option 7, I think it would be – I have lost track of the numbers – develop a maximum size limit for glass eels that will; a, allow no more than 5 percent of pigmented eels; or, b, create a minimum size for pigmented eels that will allow no more than 5 percent of glass eels.**

The reason I put it in the suggestion for B is because South Carolina – we have talked a lot today about South Carolina’s glass eel fishery. But for everybody’s information, the fact is that South Carolina does not really have very much of a glass eel fishery. South Carolina has a pigmented eel fishery. We ought to get the facts on the table so that when we go out to the public, the public can be properly informed as to what is going on.

If you go back into the history of how these fisheries were justified, we all know that the natural mortality of a glass eel is 99.999, as I think Louis suggested earlier, but that is not necessarily the case with a pigmented eel. I think that it would do us all a really great service to let the public know that we’re not allowing the glass eel fishery to become a pigmented eel fishery.

If a state like South Carolina wants to allow pigmented eels to be taken, then they should not have a glass eel fishery; because really you’re now mixing life stages of the life cycle to the potential detriment of the resource. So Option 7, a maximum size limit for glass eels that will, a, allow no more than 5 percent; or, b, create – yes, that is properly written. Thank you.

CHAIRMAN STOCKWELL: Before I ask for a second, it is my understanding that the technical committee doesn’t have a definition of a pigmented eel and what would the maximum size limit be for glass eels?

MR. FEIGENBAUM: Well, this is a question that the plan development team talked about. The plan development team was confident that this could be implemented, and the proof is the following. First 20 years Maine had a glass eel fishery. No dealer, no consumer in the world was interested in a pigmented eel. During that time through very simple screening methods, fishermen as well as dealers ensured that only glass eels were traded, and there might have been a very small tolerance or a small amount of pigmented eels that were sufficiently small that they went through the mesh just like the glass eel.

It is only in the last two years that we have had a pigmented eel. I kind of feel like the plan development team has told this group it would like to do this. It put it in the document, and then it just didn’t do that final step of the analysis of saying how to define when in fact it can be done. There are certain mesh sizes that correspond with what has traditionally been harvested as a glass eel. For us to leave this out of the document I think would be a great disservice.

MS. TAYLOR: You are correct; the plan development team is very concerned about the development of a pigmented eel fishery. In talking with the states and law enforcement, in the glass eel catch there is going to be some amount of pigmented eels that were occurring. The plan development team discussed what limit should be – you know, or even including this language in the document, it went in and then out and then back in again.

They discussed anywhere from a 1 to 5 percent tolerance. Ultimately it was the plan development team’s consensus that they are very supportive to not encourage the development of a pigmented eel fishery, but they do recognize that there is going to be some pigmented eels in the catch with the way the fishery is prosecuted. That is why that recommendation was considered in there. You are correct that the pigmented eels – the glass eels are what are the highest value; but as the price increases, the pigmented eels could be targeted more.

EXECUTIVE DIRECTOR BEAL: I think before this discussion goes much further, you probably should try to see if there is a second to the motion.

CHAIRMAN STOCKWELL: Is there a second to the motion on the board? Seconded by Bill McElroy. Discussion on the motion on the board? Mitchell.

MR. FEIGENBAUM: I’m just going to go back to one point. This suggestion is in the document. It is just not identified as an option. Putting aside for the moment my Part B; my Part A is already in the document as a plan development recommendation. The question is where does that recommendation fall in terms of the options.

MR. CLARK: Just for clarification, Mitch, most of these pigmented eels, are they young of the year that have just fully pigmented or are you talking about year-old eels?

MR. FEIGENBAUM: Year-old eels.

COLONEL FESSENDEN: By definition in Maine, an elver is less than six inches and that is why we see some of the pigmented eels being harvested because of the definition. If we had a four inch or a smaller eel size, then you probably would see less of them. That is how we do it, and that is why you see them. We actually have people that harvest them and try to purge the feed out of the eel. They put them in five-gallon buckets and put them in coolers. I am not sure how effective it is, but they go to that extreme.

CHAIRMAN STOCKWELL: Other comments from the board? Walter.

REPRESENTATIVE KUMIEGA: I think this probably makes sense. If we don't put this out as an option, this is something that probably has to be adopted by the states that do allow elver fishing. Assuming they are allowed to continue, it would be a conservation measure, I think.

CHAIRMAN STOCKWELL: Other board comments? Anybody from the audience wish to comment? Back to the board, the motion is in Section 4.1.1 develop Option 7 a maximum size limit for glass eels that will; a, allow no more than 5 percent of pigmented eels; or, b, create a minimum size for pigmented eels that will allow no more than 5 percent of glass eels. Motion by Mr. Feigenbaum; seconded by Mr. McElroy. Take just a minute to caucus.

(Whereupon, a caucus was held.)

CHAIRMAN STOCKWELL: Okay, to the motion on the board, those in support please indicate so; those opposed; any abstentions. **The motion carries fifteen, zero, three.** Anything else to be added to this? Mitchell.

MR. FEIGENBAUM: Option 5 under 4.1.1, again this is the glass eel section. It says require a trip-level hail system for dealers, and I would like to propose a **motion that Option 5 add – Option 4, thank you – that it says a trip-level hail system for dealers and fishers that will include reporting all sales or movement of eels.**

My comment to that is that this is the way glass eels – this is a key component of how glass eel fisheries is managed and enforced in Canada. All fishermen must make a daily hail of their catch. All dealers must make a daily report of their purchases. Both the fishermen and the dealers must make a daily report of the movement of all eels.

If we want to take seriously all of the concerns about law enforcement and about poaching and about how we're going to control this fishery, I am not suggesting that this motion would solve the problems, but it is an appropriate first step. We need to demonstrate to the public that we take seriously the concerns about illegal activities. To allow a \$40 million fishery to take place when we hear that there is so much illegal activity supposedly taking place, it seems almost negligent not to require daily reporting by both fishermen and dealers.

CHAIRMAN STOCKWELL: Before I ask for a second, I am going to ask you to make sure this is your intent if you read the motion on the board, please.

MR. FEIGENBAUM: Yes, that reflects my intent of how this motion should read. I think this is something that should be discussed by the public.

CHAIRMAN STOCKWELL: Okay, is there a second to the motion on the board? Seconded by Walter. A.C.

MR. CARPENTER: Would that more properly be a Suboption 4A for the dealer and a Suboption 4B for the fisher?

MR. FEIGENBAUM: I would not oppose it being drafted that way. I would be agreeable to presenting it to the public as an A and a B and let the public comment on both options.

CHAIRMAN STOCKWELL: An A or a B or a combination of A and B?

MR. FEIGENBAUM: I think it should be presented as A and B.

MR. GROUT: Mr. Chairman, just so I'm clear, this is under Section 4.1.2?

MR. FEIGENBAUM: Yes.

MR. GROUT: There already is an Option – the Option 4 is the dealer reporting requirement. Also in the particular option, it suggests that there already is fishery trip-level reporting, because after it says under this option states and jurisdictions with a commercial yellow eel fishery will require to implement dealer reporting requirements.

It says cross-referencing between dealer and fishery trip-level reporting should be conducted to ensure accuracy. I am assuming that the plan development

team has some knowledge, since you put that in here, that there is already occurring trip-level reporting I know of fisheries harvesters. I know there is in our state, so is that the case in all states?

CHAIRMAN STOCKWELL: Doug, I believe Mitchell's motion was specific to Option 4 of the glass eel only.

MR. GROUT: Oh, only of the glass eel so this is a different section we're talking about?

CHAIRMAN STOCKWELL: Correct; this is Section 4.1.1, Option 4. It would be adding fishers to the dealers.

MR. GROUT: Okay, thank you for that clarification.

CHAIRMAN STOCKWELL: Comments from the board? Comments from the audience? The motion is move to add to Option 4 in Section 4.1.1 that would require a trip-level hail system for fishers that will include reporting all sales or movement of eels. Motion by Mr. Feigenbaum; seconded by Representative Kumiega. Is there any objection to the motion on the board? **Seeing none; the motion carries.** How many more do you have?

MR. FEIGENBAUM: **I move to reinsert in Section 4.1.1 Suboption 3C and Suboption 3D. I don't have to do the language because the language is in here on Page 36.** These were options that were considered by the plan development team but rejected.

As I have been reminded about 200 times this week, the purpose of this plan document is not to establish the final rules for this fishery, but it is to send out to the public for their comment so that this board can consider those comments in the future. We're going to be going to the state of Maine and conducting public meetings and needless to say there is going to be hundreds and hundreds of people showing up at those meetings.

CHAIRMAN STOCKWELL: Is there a second to the motion before we go into the rationale?

MR. FEIGENBAUM: It should say Suboption 3C and Suboption 3D.

CHAIRMAN STOCKWELL: And if we get a second to your motion here, I am going to ask you at this point in the afternoon to explain to the board what these subsections are. Is there a second? Seconded by A.C. Go ahead, Mitchell.

MR. FEIGENBAUM: Okay, the plan development team is suggesting a glass eel quota. We're going to be going to the state of Maine and suggesting a glass eel quota. That quota will be based, according to the plan development team, on some historical average or based on current landings.

The plan development team had suggested that we calculate the average landings in the past but exclude the 2012 harvest year because it was a banner year. The analogy is that when I look at the stock assessment, I could tell everyone in this room that but for the 30 high years of catches that took place in the seventies and eighties, our catches and our stock biomass today is at the historical average.

I'm saying just take out those 20 years of super-high catches and then there is no problem. There is no problem in the eel fishery based on where we are now. The problem was in the seventies and eighties, but those were statistical aberrations. 2012 was a high year, but it wasn't a statistical aberration. In 1998 we say glass eel catches of a very similar level.

I know as Mr. Sheldon has assured me 1996 also had catches of that average. The 2012 catches corresponded with the highest glass eel recruitment that our young-of-the-year surveys have picked up since the young-of-the-year surveys have been in place. All that this motion is saying is that if we're going to consider quotas based on traditional harvest or past harvests or averages of things that took place in the past, let's be statistically honest and include the high years.

We didn't pull out the two lowest years; why pull out the two highest years? Again, I'm not asking anyone to vote to allow a particular quota or a particular harvest level, but let's be honest to the public and acknowledge that 2012 was a high year, but we also had the high recruitment, and let the public weigh in. Let's not cherry-pick the statistics in order to – let's not cherry-pick the statistics. I'm not doing that when I discuss the stock assessments. I would appreciate if this commission would not allow the plan development team to do that in making proposals.

CHAIRMAN STOCKWELL: Kate, could you provide the rationale for why 2012 was not included?

MS. TAYLOR: At the time the addendum was being developed, after the initiation by the board last August, the 2012 numbers were not available. As we went forward with the development of the addendum, that information was still being cross-checked and

only preliminary data was available. That data is still considered preliminary.

The state of Maine is still waiting for some dealer reporting. The South Carolina landings are confidential. The plan development team did not think it was appropriate to use this time series without the accurate data and also that 2012 was not representative of what the normal fishing history had been.

It had originally thought that Option 3D, which was using the current landings as the basis for the glass eel quota, which would set that quota at a little over 20,000 pounds for Maine and about 1,500 pounds for South Carolina, was far exceeding what the historical quota had been or what the historical landings had been and was not in line with the goals of the addendum. The use of the historical average from 1998 to 2012; again the plan development team just didn't think it was appropriate to use the 2012 data in the allocation.

MR. O'REILLY: I had a similar question about the data and its availability, and it wouldn't seem that the yellow eel data is going to be fully available by a certain point; I don't know. I know it usually runs late on the commercial data. However, if it can be available, it should be used. I'm also going to ask on 3C the plan development team has 1998 to 2012. If you come down a couple of lines, it says 1996 to 2012; probably just a typo, maybe?

But, on the whole premise that you're going to use fourteen years, then the fifteenth year should be there. I realize there is no effort data to sort of ground this time series or to truncate it into a trend. And short of that, I think I would probably hear from someone that 2012 is not out of bounds if you look far back enough into the production here. Again, if the data are available, I think this option should go forward.

MR. CARPENTER: I am going to speak in favor of the motion. If it does pass, I would say that Table 2 should reflect back to 1998 as well.

MS. TAYLOR: The plan development team was also trying to narrow the scope of the management options. We reviewed the public comment that was received during the development of Draft Addendum II and there were a number of management options there. The public comment that was received specified that the management options – there were almost too many management options that were contained or the management options were confusing

and it was hard to differentiate between one option or the other. That is why the plan development team was trying to narrow its focus and present the options that would be clear to the public.

REPRESENTATIVE KUMIEGA: I think the biggest reason to include this would be to balance out some of the years where the price for elvers was abysmal. I don't even know how low the numbers were, but most of the low years that are included in this average are because the effort was not there.

There were times when it just really wasn't worth harvesting elvers. It wasn't worth the work so people didn't fish the average. Yes, I guess last year was a banner year, but it was partially because of effort and partially because of the run, but it does balance out poor years because of the lack of effort.

MR. GROUT: Mr. Chairman, I certainly have a lot of concerns about Option 3D, which uses just one year to base our quota on. Personally I'm going to oppose this motion.

CHAIRMAN STOCKWELL: Are there other board members that wish to comment? Mark.

MR. MARK GIBSON: I certainly would support the 3C option. Just eyeballing the time series, the bar graph in Figure 2, I guess it is, the 2012 high but it is not outrageously high compared to the variability in the rest of the values. I think I would agree with Doug that 3D shouldn't be in there, a single value, which it does happen to be the highest of the time series is probably not the way to go. I think this motion could be improved by eliminating the 3D option.

MR. FEIGENBAUM: I respectfully disagree with the last two comments because Option 1 is status quo. Status quo involves no cap. 3D is inherently more conservation minded than Option 1, so 3D is still setting up a situation where Maine can accomplish something – you know, this commission can accomplish something to promote eel conservation, so I would urge those last two comments to just please reconsider and realize that 3D actually represents a cap.

In that regard, it becomes a greater conservation measure than we have in place and it is a greater conservation than one of the options that is already on the table. I'm only asking that we put it out to the public to comment. Of course, there will be a lot of discussion in May about what we actually vote on.

All we're asking now is for this to be considered for public comment.

CHAIRMAN STOCKWELL: I suspect there will be a lot of comment. Anyone in the audience wish to comment? Back to the board; Rob.

MR. O'REILLY: I probably should have specified suboption. I share the sentiments of those who think 3D – despite the fact that the public can look at anything, I think probably it would be better just to send out 3C. That is what my comments were concerning, and that is the one I supported. I would agree it would be a better motion with just 3C.

REPRESENTATIVE KUMIEGA: Mr. Chair, I would agree with that. In order to save the motion, I would suggest that the mover withdraw or modify it to pull 3D and pass 3C, which I think is a good option. 3C is better than nothing.

MR. ABBOTT: Yes, I agree with the representative next to me. I think that what we probably should do is make a motion to amend by deleting 3D.

MR. FEIGENBAUM: I will follow the guidance of my fellow commissioners and suggest to amending the motion to only recommend the reinsertion of Option 3C and deleting 3D off the table.

CHAIRMAN STOCKWELL: Because we have had extensive debate, Dennis, are you willing to make the motion to delete 3D?

MR. ABBOTT: **I make a motion that we delete 3D from the main motion.**

CHAIRMAN STOCKWELL: A motion made by Mr. Abbott; seconded by Walter. Kate.

MS. TAYLOR: Just for clarification, the board would like to see Suboption 3A, which is the historical average from 1998 to 2011 –

CHAIRMAN STOCKWELL: Twelve.

MS. TAYLOR: The 1998 to 2011 is currently in the document; would you like to see in place of that the 2012 numbers or in addition to that? Would you also like to see the harvest reductions proposed, which is 25 and 50 percent, on that second baseline allocation years in addition to the first ones proposed?

CHAIRMAN STOCKWELL: I'm seeing a lot of nodding heads. On the motion to amend, is there any opposition to the motion to amend. The motion is

move to amend to delete 3D from the main motion. Motion by Mr. Abbott; seconded by Representative Kumiega. Is there any opposition to the motion to amend? **The motion carries without any opposition.**

Back to the main motion; the main motion is a motion to as amended to reinsert into Section 4.1.1., Subsection 3C. Motion by Mr. Feigenbaum; seconded by Mr. Carpenter. Is everybody clear on the motion? Is there any opposition to the motion on the board? **Seeing none; the motion carries.** Anything else to add, amend or tinker with? Okay, Bill.

MR. WILLIAM A. ADLER: Do you need a motion to move this to public hearing or do you need a motion to make the changes and bring it back?

CHAIRMAN STOCKWELL: We have a postponed motion and we need to bring that back on then move it forward as amended.

MR. ADLER: All right, I will make that motion to move it off the table and bring it back. Is that what you want?

CHAIRMAN STOCKWELL: It is right up on the board now. Is there any objection to the motion on the board? Okay, I have been retrained here. Is there any objection to taking the tabled motion off the table? Okay, seeing none, **move to approve Draft Addendum III for public comment as amended. Motion by Mr. Augustine; seconded by Mr. Adler.** I am going to ask you all to caucus and have a vote because of the nature of this motion.

(Whereupon, a caucus was held.)

MR. GEIGER: Mr. Chairman, when does staff think the amended motion would be completed or finalized?

MS. TAYLOR: The requests are mostly adding analysis that has already been conducted and just adding further years, so it should not take too long and just to clarify some of the language. I would expect the draft to be ready within two weeks.

CHAIRMAN STOCKWELL: Okay, to those who support the motion on the board, please indicate so; any opposed or abstain. **It was unanimous; the motion carried 17, zero, zero.** We have got three more items of business. One is to review and populate the advisory panel membership. Kate.

POPULATE ADVISORY PANEL MEMBERSHIP

MS. TAYLOR: Mr. Chairman, there have recommendations for the advisory panel, and that is for Sam Veach, a commercial fisherman from New Jersey, and Sam Livingston, a commercial fisherman from South Carolina.

MR. AUGUSTINE: Mr. Chairman, **I move that the board approve to add to the advisory panel Mr. Sam Veach, New Jersey commercial fisherman, and Mr. Sam Livingston from South Carolina, commercial fisherman, to the American Eel Advisory Panel.**

CHAIRMAN STOCKWELL: Motion made by Mr. Augustine and seconded by Mr. Adler.

MR. SELF: Mr. Chairman, I think the nominee from South Carolina is Jimmy Livingston and not Sam Livingston.

MS. TAYLOR: You are correct.

CHAIRMAN STOCKWELL: Are there any comments to the motion on the board. Okay, the motion is to move the board approve nominations for Sam Veach and Jimmy Livingston to the American Eel Advisory Panel. Motion by Mr. Augustine and seconded by Mr. Adler as corrected. Are there any objections to the motion on the board? **Seeing none; the motion carries.**

MR. FEIGENBAUM: Mr. Chairman, I will just quickly point out that this commission has for at least four or five and really more years than that been talking about coordination efforts in eel management with our Canadian counterparts. I was happy to hear earlier that we would be moving forward on the memorandum of understanding with the Great Lakes Commission.

However, I would point out further that the Great Lakes Commission really only represents a part of Canada, a certain region. I can share with my fellow commissioners that from the Canadian perspective in the U.S. you would have ASMFC and the Great Lakes Commission working together in conjunction with the Canadians and therefore really pretty much all of the areas where our species ranges would be represented.

But in Canada, as I think everyone who is familiar with the eel file knows, there is a rather significant

split of opinion and interests between the folks in the Great Lakes and the folks in the Maritime Region. Without trying to upset any apple carts, I just would like this group to consider the fact that our efforts to increase coordination and cooperation with Canada should in fact be expanded and go further than just the memorandum of understanding.

In that regard, I'm happy to report that on June 11th, June 12th and June 13th of this year pretty much the entire Canadian Eel Community will be represented at a meeting in I believe it will be Ottawa. What is going to take place is that the Department of Fisheries and Oceans is going to be reviewing the COSEWIC Report that some of you may know was issued within the past six months.

Geralt Shih Poo will be running that meeting. Geralt, for those of you who may have forgotten, was a peer reviewer of the American Eel Stock Assessment of this body, both this current stock assessment as well as the previous one. This is going to be an absolutely high-level, blue-ribbon panel of just the absolute top scientists in Canada.

Dr. Castleman will be there, Dr. Cairns will be there. As many of you know, these are the two gentlemen who authored the book. "Eels on the Edge" that got so much of the conversation going that brings us to the point where we're so sensitive to eel management. I am personally very confident that group will be extending an invitation to ASMFC for some of our scientists to attend.

I know that Laura Lee has worked with our Canadian counterparts many times. I sure hope that if in fact that invitation is forthcoming, that the commission will find in its limited budget the limited means necessary to send one of our representatives to that meeting so they can both offer information that stems from our efforts and also to receive information from that meeting that they can bring back to this commission.

MR. CARPENTER: I had noticed another application that had been filed, but I also noticed an irregularity with it, so I assume that is why we didn't take it up. Thank you.

CHAIRMAN STOCKWELL: We have one last piece of unfinished business concerning Pat Keliher's request. Ritchie.

OTHER BUSINESS

MR. WHITE: Mr. Chair, I would like to make a motion for Commissioner Keliher. **Move that the Eel Board send a request to the Policy Board directing the Executive Director to send a letter to the Chairs of the Maine Legislature's Joint Standing Committee on Marine Resources. The letter shall describe Atlantic States Marine Fisheries Commission's compliance criteria and clearly lay out what level of increased effort within the glass eel fishery, licenses or gear, would put Maine out of compliance for the 2013 season. The letter should also state what the impact is to a state being found out of compliance.**

CHAIRMAN STOCKWELL: Motion made by Mr. White; seconded by Mr. McElroy.

MR. WHITE: Just to talk to the motion, earlier in the day I expressed concern about interfering in a state's affairs, but I think this clearly is different and we're not recommending anything. All we're doing is providing information and clarification, so I think there is a big difference.

REPRESENTATIVE KUMIEGA: I would just like to say as one of the Chairs of that committee, I would really appreciate this. We have a number of freshmen legislatures who aren't familiar with the Atlantic States process or don't have the history to make informed decisions on this. Having a letter from the Executive Director will be very helpful.

CHAIRMAN STOCKWELL: Are there other comments from the board? Okay, is there any objection to the motion? **Seeing none; the motion carries.**

ADJOURNMENT

I hope there is no other business to come before the Eel Board; because if so, it is too late. This meeting is adjourned.

(Whereupon, the meeting was adjourned at 4:20 o'clock p.m., February 20, 2013.)



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmf.org

MEMORANDUM

May 6, 2013

TO: American Eel Management Board

FROM: Tina Berger, Public Affairs Specialist

SUBJECT: **Non-traditional Stakeholder Nomination**

Please find attached for your consideration an application to fill a non-traditional stakeholder seat currently available on the American Eel Advisory Panel. Jake Kritzer, with Environmental Defense, stepped down from the panel last year. The two other non-traditional stakeholders on the panel are Tim Brush, representing the hydropower industry, and Eric Helm Buehl, an environmental advocate with the Delaware Inland Bays Program. While we did not send out a formal solicitation to fill Mr. Kritzer's seat, we received the attached nomination form from Mari-Beth DeLucia, a Senior Fisheries/Aquatic Biologist with The Nature Conservancy in New York.

Enc.

M2013-31

AMERICAN EEL ADVISORY PANEL

Bolded names await approval by the American Eel Management Board
Bolded and italicized name denotes Advisory Panel Chair

May 6, 2013

Maine

David Allen (rec)
22 Allen Lane
Washington, ME 04574
Phone: (207)845-2704
Email: maineeagle@pivot.net
Appt Confirmed 11/10/04
Appt Reconfirmed 11/07

Patricia Bryant (glass eel harvester)
74 Duck Puddle Road
Nobleboro, ME 04555
Phone/FAX: (207)563-5611
Phone (eve): (207) 563-3365
Email: pbeelandurchins@yahoo.com
Appt. Confirmed 5/10/05
Appt Reconfirmed 5/10

New Hampshire

Vacancy (comm/trap)

Massachusetts

John Henry (dealer/fisherman)
9 Cedarwood Road
Gloucester, MA 01930
Phone: (978)281-3275
FAX: (508)282-7408
Appt. Confirmed: 5/21/97
Appt. Reconfirmed 10/1/01
Appt Reconfirmed 11/05
Appt Reconfirmed 5/10

Connecticut

Steve Lewis (rec/non-eel angler)
654 Cypress Road
Newington, CT 06111
Phone: (860)667-2515
Appt. Confirmed: 5/21/97
Appt. Reconfirmed 10/1/01
Appt Reconfirmed 10/05
Appt Reconfirmed 5/10

New York

Vacancy (rec/pot for bait eels)

New Jersey

Sam Veach (comm.)
Route, 49
P.O. Box 536
Tuckahoe, NJ 08250-0536
Phone (day): (609) 425-0807
Phone (eve): (609) 628-4538
SBVeach@aol.com
Appt Confirmed 2/20/13

Pennsylvania

John Pedrick (rec)
936 Langstroth Lane
Bensalem, PA 19020-5763
Phone (Day): (215)633-6777
Phone (cell): (215)817-3929
Email: jjpedrick@verizon.net
Appt Confirmed 8/9/12

Mitchell Feigenbaum (buyer/exporter)
17 Weirwood Road
Radnor, PA 19087
Phone (day): (215)859-0428
Phone (eve): (610)964-8465
FAX: (610)277-4051
Email: feigen15@yahoo.com
Appt. Confirmed: 8/17/04
Appt Reconfirmed 8/07

Delaware

Robert Piascinski (comm/pot/adult)
253 Shaws Corner Road
Dover, DE 19904
Phone: (302)735-1668
Appt. Confirmed: 5/21/97
Appt. Reconfirmed 10/1/01
Appt Reconfirmed 10/05
Appt Reconfirmed 5/10

Maryland

Robert H. Evans (comm./pot)
5527 Muddy Creek Road
Churchton, MD 20733
Phone(Day): 443/336-3000
Phone(eve): 410/956-3327

AMERICAN EEL ADVISORY PANEL

Bolded names await approval by the American Eel Management Board
Bolded and italicized name denotes Advisory Panel Chair

May 6, 2013

Appt. Confirmed 5/10/05
Appt Reconfirmed 5/10

William R. Legg (comm./pot)
110 Rebel Road
Grasonville, MD 21638
Phone (eve): (410)310-4072
Phone (eve): (410) 820-5841
Appt. Confirmed 8/17/05
Appt Reconfirmed 5/10

Virginia

Warren M. Cosby Jr. (comm/fyke &
gillnet/aquaculture)
9321 Turkey Hill Lane
New Kent, VA 23124
Phone: (804)932-4735
Appt. Confirmed: 5/21/97
Appt. Reconfirmed 10/1/01
Appt Reconfirmed 10/05
Appt Reconfirmed 5/10

Vacancy (comm/pot, fyke
& gillnet)

North Carolina

Robert Hutchinson (comm/pot/intl exp.)
2692 Whichards Beach Road
Chocowinity, NC 27817
Phone: (919)946-2514
Appt. Confirmed: 5/21/97
Appt. Reconfirmed 10/1/01
Appt. Reconfirmed 3/22/06
Appt Reconfirmed 5/10

Marius Sietse Bouw (dealer)
P.O. Box 217
Arapahoe, NC 28510
Phone (day): (252) 249-1242
Phone (eve): (252) 670-6300
Email: liveeels@hughes.net
Appt. Confirmed: 5/10

South Carolina

Jimmy Livingston (comm/fyke net)

670 Anderson Lane
Cordesville, SC 29434
Phone (day): (843) 761-1407
Email: Livingtees1@homesc.com
Appt Confirmed 2/20/13

Florida

Vacancy (dealer/aquaculture/intl exp.)

PRFC

James I. Trossbach (comm/pot)
46377 Drayden Road
Drayden, MD 20630
Phone (day): (301)481-8906
Phone (eve): (301)994-3577
Appt Confirmed 11/10/04
Appt Reconfirmed 11/07

At-Large Seats

Tim Brush (hydropower)
Normandeau Associates
917 Route 12, #1
Westmoreland, NH 03467
603-355-2333
603-355-2332 fax
tbrush@normandeau.com
Appt. Confirmed: 10/21/97
Appt. Reconfirmed 10/1/01
Appt. Confirmed 8/05

Eric Helm Buehl (environmental)
16529 Coastal Highway
Lewes, DE 19958
Phone (day): (302)645-7325
Phone (eve): (410)364-5553
FAX: (302)645-5765
Email: habitat@inlandbays.org
Appt. Confirmed 8/17/05

Mari-Beth DeLucia (environmental)
The Nature Conservancy
22 patterson Street
Port Jervis, NY 112771
Phone: (914)714-4669
Email: mdelucia@tnc.org



ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

This form is designed to help nominate Advisors to the Commission's Species Advisory Panels. The information on the returned form will be provided to the Commission's relevant species management board or section. Please answer the questions in the categories (All Nominees, Commercial Fisherman, Charter/Headboat Captain, Recreational Fisherman, Dealer/Processor, or Other Interested Parties) that pertain to the nominee's experience. If the nominee fits into more than one category, answer the questions for all categories that fit the situation. **Also, please fill in the sections which pertain to All Nominees (pages 1 and 2). In addition, nominee signatures are required to verify the provided information (page 4), and Commissioner signatures are requested to verify Commissioner consensus (page 4). Please print and use a black pen.**

Form submitted by: Mari-Beth DeLucia State: NY
(your name)

Name of Nominee: Mari-Beth DeLucia

Address: 22 Patterson St.

City, State, Zip: Port Jervis, NY 12771

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 914-714-4669

Phone (evening): 914-714-4669

FAX: _____

Email: mdelucia@tnc.org

.....
FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

- 1. American eel
- 2. _____
- 3. _____
- 4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes _____ no X

If "yes," please list them below by name.

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Bluefish

Trout

Flounder

Yellow perch

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years
2. Is the nominee employed only in commercial fishing? yes _____ no _____
3. What is the predominant gear type used by the nominee? _____
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? _____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years
2. Is the nominee employed only in the charter/headboat industry? yes _____ no _____
If "no," please list other type(s) of business(es) and/occupation(s): _____

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? _____ years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no _____

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? ¹² _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____

If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

SEE ATTACHED

Nominee Signature: Mari-Beth DeL

Date: 1/4/13

Name: Mari-Beth DeLucia
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

State Director

State Legislator

Governor's Appointee

I am the Senior Fisheries/Aquatic Ecologist with The Nature Conservancy in New York. We employ a non-confrontational approach to conservation and work cooperatively with fishermen, governments, indigenous communities and people around the world to ensure that fish stocks are well managed and can support sustainable fisheries.

Some of my qualifications for the American eel AP seat include the following:

- I hold an M.S. in Natural Resource Management and over the last seven years I've been working on diadromous fish conservation with a focus on American eel. I was the co-investigator on a three-year American eel abundance and biomass study in Upper Delaware basin, (NY, NJ and PA). Results from this study were included in the recent eel stock assessment.
- Currently, through my liaison seat on the Delaware River Basin Fish and Wildlife Management Cooperative, I'm assisting the Coop with completing the American Shad Habitat Plan as required under Amendment III.
- I've been a member of the Atlantic Coast Fish Habitat Partnership's Science and Data Committee since its inception and I am one of the primary authors of the Species/Habitat Matrix.
- I'm a member of the IUCN Anguillid Species Specialist Subgroup; this group intends to complete a conservation assessment for Anguillid eels worldwide this year.

Thank you for your consideration,
Mari-Beth DeLucia

2012 American Eel
Compliance Reports

THE AMERICAN EEL 2012 STATE COMPLIANCE
REPORTS HAVE BEEN REMOVED FROM THIS
DOCUMENT DUE TO FILE SIZE RESTRICTIONS

CONTACT [ASMFC](#) IF YOU WOULD LIKE TO
RECEIVE THE COMPLIANCE REPORTS

FILED

APR 24 2013

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

Clerk, U.S. District & Bankruptcy
Courts for the District of Columbia

<hr/>		
CENTER FOR ENVIRONMENTAL)	
SCIENCE ACCURACY AND)	
RELIABILITY,)	CASE NO. 1:12-cv-1311-EGS
)	
Plaintiff,)	STIPULATED SETTLEMENT
)	AGREEMENT
v.)	
)	
KEN SALAZAR, in his official capacity as)	
Secretary of the United States Department)	
of the Interior; DAN ASHE; the UNITED)	
STATES FISH AND WILDLIFE)	
SERVICE,)	
)	
Defendants.)	
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Plaintiff Center for Environmental Science, Accuracy and Reliability (“Plaintiff”), and Ken Salazar, Dan Ashe, and the United States Fish and Wildlife Service (“Defendants”), by and through their undersigned counsel, state as follows:

WHEREAS, on April 30, 2010, the U.S. Fish and Wildlife Service (“Service”) received a petition from Plaintiff requesting that the Service list the American eel (*Anguilla rostrata*) (“American eel”) as a threatened species pursuant to the Endangered Species Act (“ESA”), 16 U.S.C. § 1531 *et seq.*;

WHEREAS, on September 29, 2011, the Service published a 90-day finding pursuant to 16 U.S.C. § 1533(b)(3)(A) in which the Service found that the petition presented substantial information indicating that the listing of the American eel as threatened throughout all or a significant portion of its range may be warranted, and initiated a status review of the species;

WHEREAS, under 16 U.S.C. § 1533(b)(3)(B), the Service is required “[w]ithin 12

months after receiving a petition that is found [] to present substantial information indicating that” listing may be warranted, to issue a determination known as a “12-month finding” in which the Service determines whether listing is not warranted, warranted, or warranted but “precluded by pending proposals to determine whether any species is an endangered species or a threatened species”;

WHEREAS, on August 7, 2012, Plaintiff filed this action to compel the Service to publish a 12-month finding on the American eel pursuant to 16 U.S.C. § 1533(b)(3)(B);

WHEREAS, the parties, through their authorized representatives, and without any admission or final adjudication of the issues of fact or law with respect to Plaintiff’s claims, have reached a settlement that they consider to be a just, fair, adequate, and equitable resolution of the disputes set forth in Plaintiff’s complaint;

WHEREAS, the parties agree that settlement of this action in this manner is in the public interest and is an appropriate way to resolve the dispute between them;

NOW, THEREFORE, the parties hereby stipulate and agree as follows:

1. On or before September 30, 2015, the Service shall review the status of the American eel and submit to the Federal Register a 12-month finding as to whether listing the American eel as a threatened or endangered species is (a) not warranted; (b) warranted; or (c) warranted but precluded by other pending proposals, pursuant to 16 U.S.C. § 1533(b)(3)(B).

2. Either party may seek to modify the deadline specified in Paragraph 1 for good cause shown, consistent with the Federal Rules of Civil Procedure. In that event, or in the event that either party believes that the other party has failed to comply with any term or condition of this Settlement Agreement (“Agreement”), the parties shall use the dispute resolution procedures specified in Paragraph 3 below.

3. The Order entering this Agreement may be modified by the Court upon good cause shown, consistent with the Federal Rules of Civil Procedure, by written stipulation between the parties filed with and approved by the Court, or upon written motion filed by one of the parties and granted by the Court. In the event that either party seeks to modify the terms of this Agreement, including the deadline specified in Paragraph 1, or in the event of a dispute arising out of or relating to this Agreement, or in the event that either party believes that the other party has failed to comply with any term or condition of this Agreement, the party seeking the modification, raising the dispute, or seeking enforcement shall provide the other party with notice of the claim. The parties agree that they will meet and confer (either telephonically or in person) at the earliest possible time in a good-faith effort to resolve the claim before seeking relief from the Court. If the parties are unable to resolve the claim themselves, either party may seek relief from the Court. In the event that Defendant fails to meet a deadline and has not sought to modify it, Plaintiff's first remedy shall be a motion to enforce the terms of this Agreement. This Agreement shall not, in the first instance, be enforceable through a proceeding for contempt of court.

4. No party shall use this Agreement or the terms herein as evidence of what does or does not constitute a reasonable timeline for issuing a 12-month finding under 16 U.S.C. § 1533 in any other proceeding regarding the Service's implementation of the ESA.

5. Defendants agree that Plaintiff is the "prevailing party" in this action, and agrees to pay Plaintiff's reasonable attorneys' fees and costs pursuant to section 11(g) of the ESA, 16 U.S.C. § 1540(g). Defendant therefore agrees to settle all of Plaintiff's claims for costs and attorneys' fees in this matter for a total of \$8,000. A check will be made payable in that amount

to Brownstein Hyatt Farber Schreck, and sent via certified mail, return receipt requested, to: 1350 I Street NW, Suite 510, Washington, D.C. 20005. Defendant agrees to submit all necessary paperwork for the processing of the attorneys' fee award to the Department of the Treasury's Judgment Fund Office, pursuant to 16 U.S.C. § 1540(g)(4), within ten (10) business days of receipt of the order approving this Agreement.

6. Plaintiff agrees to accept payment of \$8,000 in full satisfaction of any and all claims for attorneys' fees and costs of litigation to which Plaintiff is entitled in this matter through and including the date of this Agreement.

7. Plaintiff agrees that receipt of this payment from Defendants shall operate as a release of Plaintiff's claims for attorneys' fees and costs in this matter, through and including the date of this Agreement.

8. The parties agree that Plaintiff reserves the right to seek additional fees and costs incurred subsequent to this Agreement arising from a need to enforce or defend against efforts to modify the underlying schedule outlined in Paragraph 1 or for any other continuation of this action. By this Agreement, Defendants do not waive any right to contest fees claimed by Plaintiff or Plaintiff's counsel, including the hourly rate, in any future litigation or continuation of the present action. Further, this Agreement as to attorneys' fees and costs has no precedential value and shall not be used as evidence in any other attorneys' fees litigation.

9. No provision of this Agreement shall be interpreted as, or constitute, a commitment or requirement that Defendants take action in contravention of the ESA, the Administrative Procedure Act ("APA"), or any other law or regulation, either substantive or procedural. Nothing in this Agreement shall be construed to limit or modify the discretion accorded to the Service by the ESA, the APA, or general principles of administrative law with

respect to the procedures to be followed in making any determination required herein, or as to the substance of any final determination. To challenge any final rule or final agency action issued in accordance with this Agreement, Plaintiff will be required to file a separate action. Plaintiff reserves the right to challenge substantive decisions made by Defendant pursuant to Paragraph 1, above, and Defendants reserve the right to raise any applicable claims or defenses.

10. Nothing in this Agreement shall be interpreted as, or shall constitute, a requirement that Defendants are obligated to pay any funds exceeding those available, or take any action in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any other applicable appropriations law.

11. The parties agree that this Agreement was negotiated in good faith and that this Agreement constitutes a settlement of claims that were denied and disputed by the parties. By entering into this Agreement, the parties do not waive any claim or defense.

12. The undersigned representatives of each party certify that they are fully authorized by the party or parties they represent to agree to the Court's entry of the terms and conditions of this Agreement and do hereby agree to the terms herein.

13. The terms of this Agreement shall become effective upon entry of an order by the Court approving the Agreement.

14. Upon approval of this Agreement by the Court, all counts of Plaintiff's complaint shall be dismissed with prejudice. Notwithstanding the dismissal of this action, however, the parties hereby stipulate and respectfully request that the Court retain jurisdiction to oversee compliance with the terms of this Agreement and to resolve any motions to modify such terms. *See Kokkonen v. Guardian Life Ins. Co. of Am.*, 511 U.S. 375 (1994).

Respectfully submitted this 23rd day of April, 2013.

/s/ Ryan A. Smith

David Bernhardt, (DCB 991472/DC Court #24475)

Ryan A Smith, (DCB/DC Court #985586)

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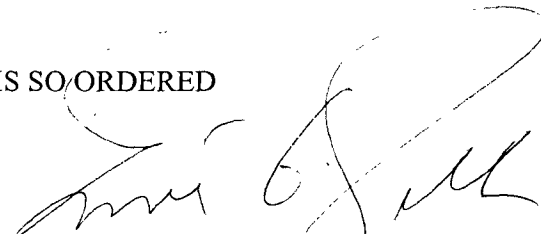
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PURSUANT TO STIPULATION IT IS SO ORDERED

Date: 4/23/13



Honorable Emmet G. Sullivan
United States District Judge

To: American Eel Board
From: Terry Stockwell, Chairman
Date: May 1, 2013
Subject: 2013 Maine Elver Fishery Enforcement Update

The 2013 Maine Elver Fishery has been the subject of continued public and media interest. This memo serves to provide the American Eel Board with a summary report of recent actions taken by the Maine Department of Marine Resources (DMR) to enforce the ASMFC American Eel Fishery Management Plan. At the height of demand in 2012, Maine elver fishermen were earning as much as \$2,600 a pound, and DMR estimates that the 2012 catch was worth approximately \$40 million. This fishery is now Maine's second most valuable fishery and provides necessary employment in some of Maine's poorest counties. However, these high prices resulted in an increase of illegal fishing throughout New England and licensing conflicts within the State of Maine.

Under the ASMFC American Eel Fishery Management Plan, Maine is limited to 744 licenses and 1,242 pieces of gear. In 2013, DMR issued 433 licenses, authorizing their holders up to 550 pieces of gear. Additionally, the Penobscot Nation was authorized to issue 48 licenses, for up to 56 pieces of gear; the Houlton Band of Maliseet Indians was authorized to issue up to 16 licenses for up to 16 pieces of gear; the Aroostook Band of Micmacs was authorized to issue 8 licenses for up to 16 pieces of gear; and the Passamaquoddy Tribe was authorized to issue up to 200 licenses, for up to 226 pieces of gear. In total, the State of Maine has currently authorized 705 licenses and 864 pieces of gear, and is therefore in compliance with ASMFC license and gear limitations.

Despite the limitation in state law to 200 licenses and 226 pieces of gear, the Passamaquoddy Tribe issued 575 licenses and authorized 601 pieces of gear. After receiving their licensing list, DMR only validated the first 150 of the Passamaquoddy licenses. DMR then notified dealers of the validated licenses, and advised them that purchasing from harvesters not on the validated list constitutes purchase from an unlicensed harvester. Further, when Maine Marine Patrol encounters Passamaquoddy license holders beyond the validated 150 licenses, they have been writing summonses for unlicensed fishing.

At the same time Commissioner Keliher authorized \$60,000 of supplemental Marine Patrol overtime and the hiring of a Marine Patrol special investigator to focus on eel dealer reporting violations. Additionally, DMR submitted emergency legislation to "Enact Measures To Improve Enforcement Mechanisms in the Elver Industry". This bill was signed into law by Governor LePage on April 23, 2013.

In summary it:

- 1) Specifies that the fines are \$2,000 for most of the elver violations, which may not be reduced or waived by the court
- 2) Makes those violations within the elver fishery that are not currently criminal, criminal
- 3) Adds a requirement that a person provide photo ID to marine patrol or another approved individual upon request
- 4) Creates prohibitions on making or receiving payment for elvers in any form other than check
- 5) Adds the authority for the Commissioner to share landings information with Marine Patrol for the purpose of enforcing reporting requirements

As a result of these new measures, ticketed violations are down compared with the same period last year, and Maine has remained in full compliance with the ASMFC American Eel FMP

Atlantic States Marine Fisheries Commission

DRAFT ADDENDUM III TO THE FISHERY MANAGEMENT PLAN FOR AMERICAN EEL FOR PUBLIC COMMENT



ASMFC Vision Statement:

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

March 2013

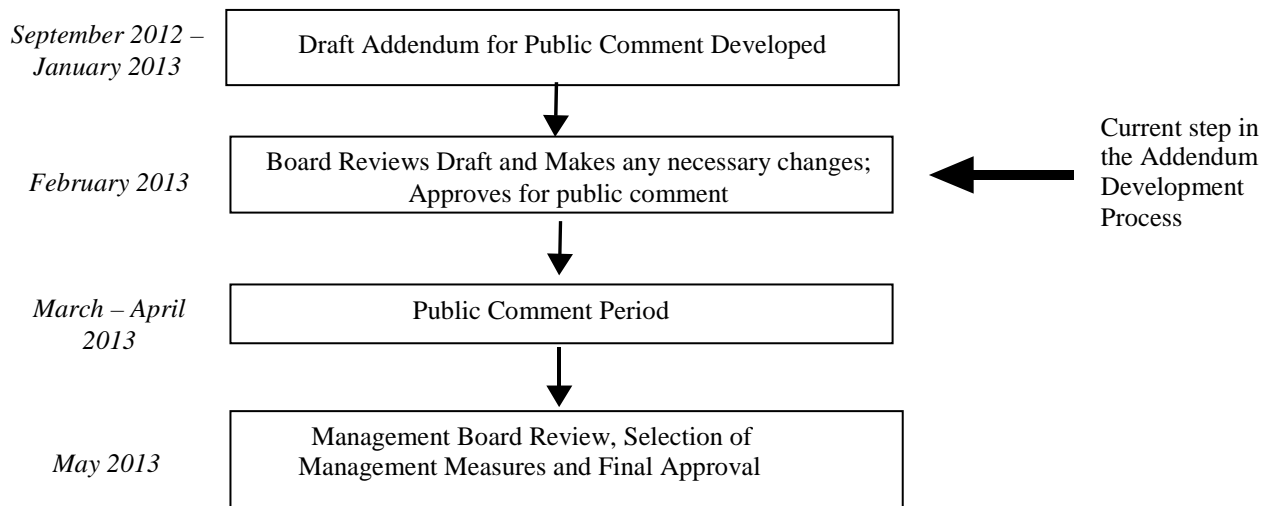
PUBLIC COMMENT PROCESS AND TIME LINE

The public is encouraged to submit comments regarding this document at any time during the public comment period. Regardless of how they were sent, comments will be accepted until 11:59 P.M. (EST) on May 2, 2013. Comments received after that time will not be included in the official record. The American Eel Management Board will use public comment on this Draft Addendum to develop the final management options in Addendum III to the American Eel Fishery Management Plan.

You may submit public comment in one or more of the following ways:

1. Attend public hearings in your state or jurisdiction.
2. Refer comments to your state's members on the American Eel Management Board or Advisory Panel, if applicable.
3. Mail, fax or email written comment to the following address:

Kate Taylor
Senior FMP Coordinator
1050 North Highland Street
Suite 200A-N
Arlington, Virginia 22201
comments@asmfc.org (Subject line: American Eel)



EXECUTIVE SUMMARY

The Commission's American Eel Management Board initiated the development of Draft Addendum III with the goal of reducing mortality and increasing conservation of American eel stocks across all life stages. The draft addendum was initiated in response to the 2012 Benchmark Stock Assessment, which found that the American eel population in U.S. waters is depleted. The stock is at or near historically low levels due to a combination of historical overfishing, habitat loss and alteration, productivity and food web alterations, predation, turbine mortality, changing climatic and oceanic conditions, toxins and contaminants, and disease.

This Draft Addendum includes a range of options suggested by the American Eel Plan Development Team, including possible moratoria or quota allocation on glass, yellow, and silver eel harvest; reductions in eel catch and effort for all life stages; seasonal closures; habitat recommendations; and future monitoring requirements.

Specifically, the management options under consideration are:

Commercial Glass Eel Fisheries

- Option 1 – Status Quo
- Option 2 – Closure of Glass Eel fisheries
- Option 3 – Glass Eel Quota
- Option 4 – Reporting Requirements
- Option 5 – Pigmented Eel Tolerance

Commercial Yellow Eel Fisheries

- Option 1 – Status Quo
- Option 2 – Increase Minimum Size Limit
- Option 3 – Gear Restrictions
- Option 4 – Coastwide Quota
- Option 5 – Reporting Requirements
- Option 6 – Two Week Fall Closure

Commercial Silver Eel Fisheries Measures

- Option 1 – Status Quo
- Option 2 – Seasonal Closure

Recreational Fisheries Measures

- Option 1 – Status Quo
- Option 2 – Reduce Bag Limit (25 fish/day bag limit)
- Option 3 – Party/Charter Boat Exemption

For more detailed information on the proposed management options, please refer to the full draft Addendum. The public is encouraged to submit comments regarding this document at any time during the public comment period, which closes 11:59 P.M. (EST) on May 2, 2013.

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1. STATEMENT OF THE PROBLEM

The 2012 American Eel Benchmark Stock Assessment found that the coastwide stock has declined in recent decades and the stock was declared depleted. Additionally, the prevalence of significant downward trends in multiple surveys across the coast is a cause for concern. In response the American eel Management Board initiated the development of Draft Addendum III with the goal of furthering eel conservation and reducing mortality throughout all life stages.

1.1. BACKGROUND

American eel (*Anguilla rostrata*) inhabit fresh, brackish, and coastal waters along the Atlantic from the southern tip of Greenland to Brazil. American eel eggs are spawned and hatch in the Sargasso Sea. After hatching, leptocephali—the larval stage—are transported by ocean currents to the coasts of North America and the upper portions of South America. After ocean drift, metamorphosis transforms leptocephali into glass eel. In most areas, glass eel enter nearshore waters and begin to migrate up-river, although there have been reports of leptocephali found in freshwater in Florida. Glass eel grow in fresh, brackish, and marine waters, becoming yellow eel. Eel reach the silver eel life stage upon nearing sexual maturity. Silver eel migrate to the Sargasso Sea, completing sexual maturation en route, where they spawn and die.

Yellow eel can metamorphose into a silver eel (termed *silvering*) from three years old and up to twenty-four years old, with the mean age of silvering becoming greater with increasing latitude. Environmental factors (e.g., food availability and temperature) may play a role in the triggering of silvering. Additionally, males and females differ in the size at which they begin to silver. Males begin silvering at a size typically greater than 14 inches and females begin at a size greater than 16-20 inches (Goodwin and Angermeier 2003). Actual metamorphosis is a gradual process occurring in the summer and fall; a drop in temperature appears to trigger the final events of metamorphosis, which lead to migratory movements under the appropriate environmental conditions.

Juvenile eel and silver eel make extensive use of freshwater systems, but they may migrate to and from or remain in brackish and marine waters. Therefore, a comprehensive eel management plan and set of regulations must consider the various unique life stages and the diverse habitats of American eel, in addition to society's interest and use of this resource.

American eel occupy a significant and unique niche in the Atlantic coastal reaches and tributaries. Historically, American eel were very abundant in East Coast streams, comprising more than 25 percent of the total fish biomass. Eel abundance had declined from historic levels but remained relatively stable until the 1970s. More recently, fishermen, resource managers, and scientists postulated a further decline in abundance based on harvest information and limited assessment data. This resulted in the development of the ASMFC Interstate Fishery Management Plan (FMP) for American Eel.

The goals of the FMP are:

- Protect and enhance the abundance of American eel in inland and territorial waters of the Atlantic states and jurisdictions, and contribute to the viability of the American eel spawning population; and
- Provide for sustainable commercial, subsistence, and recreational fisheries by preventing over-harvest of any eel life stage.

In support of this goal, the following objectives were included in the FMP:

- Improve knowledge of eel utilization at all life stages through mandatory reporting of harvest and effort by commercial fishers and dealers, and enhanced recreational fisheries monitoring.
- Increase understanding of factors affecting eel population dynamics and life history through increased research and monitoring.
- Protect and enhance American eel abundance in all watersheds where eel now occur.
- Where practical, restore American eel to those waters where they had historical abundance but may now be absent by providing access to inland waters for glass eel, elvers, and yellow eel and adequate escapement to the ocean for pre-spawning adult eel.
- Investigate the abundance level of eel at the various life stages necessary to provide adequate forage for natural predators and support ecosystem health and food chain structure.

1.2. STATUS OF THE STOCK

The Benchmark American Eel Stock Assessment was completed and accepted for management use in May 2012. The assessment indicated that the American eel stock has declined in recent decades and the prevalence of significant downward trends in multiple surveys across the coast is cause for concern. The stock is considered depleted, however no overfishing determination can be made at this time based solely on the trend analyses performed. The ASMFC American Eel Technical Committee and Stock Assessment Subcommittee caution that although commercial fishery landings and effort have declined from high levels in the 1970s and 1980s (with the recent exception of the glass eel fishery), current levels of fishing effort may still be too high given the additional stressors affecting the stock such as habitat loss, passage mortality, and disease as well as potentially shifting oceanographic conditions. Fishing on all life stages of eels, particularly young-of-the-year and in-river silver eels migrating to the spawning grounds, could be particularly detrimental to the stock, especially if other sources of mortality (e.g., turbine mortality, changing oceanographic conditions) cannot be readily controlled.

1.3. STATUS OF THE FISHERY

The American eel fishery primarily targets yellow stage eel. Silver eels are caught during their fall migration as well. Eel pots are the most typical gear used; however, weirs, fyke nets, and other fishing methods are also employed. Glass eel fisheries along the Atlantic coast are prohibited in all states except Maine and South Carolina (see Appendix 1 for

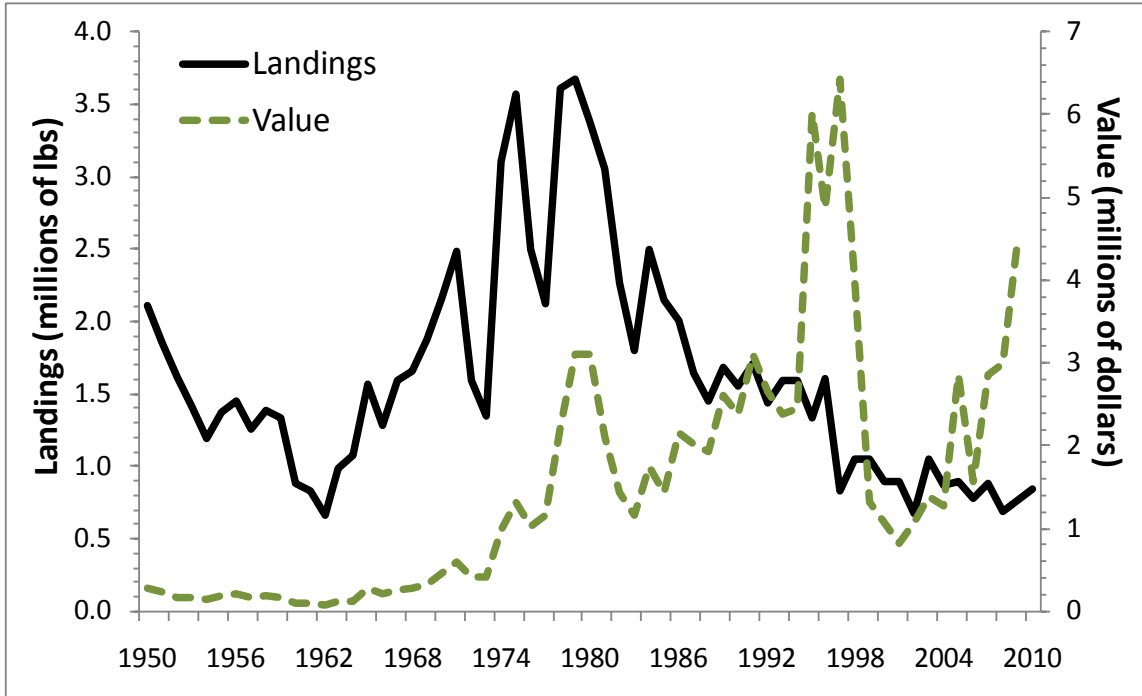


Figure 1. Total commercial landings of American eels and value in 2010 dollars along the U.S. Atlantic Coast, 1950–2010.

current regulations for all American eel fisheries). In recent years, Maine is the only state reporting significant glass eel and elver harvest. Harvest has increased the last few years as the market price has risen to over \$2,000 per pound. Although yellow eels were harvested for food historically, today’s fishery sells yellow eels primarily as bait for recreational fisheries. Glass eels are exported to Asia to serve as seed stock for aquaculture facilities.

From 1950 to 2010, U.S. Atlantic coast landings ranged from approximately 664,000 pounds in 1962 to 3.67 million pounds in 1979 (Figure 1). After an initial decline in the 1950s, landings increased to a peak in the 1970s and 1980s in response to higher demand from European food markets. In most regions, landings declined sharply in the 1990s and 2000s following a few years of peak landings. The value of U.S. commercial American eel landings as estimated by NOAA Fisheries has varied from less than a \$100,000 (prior to the 1980s) to a peak of \$6.4 million in 1997 (Figure 1). Total landings value increased through the 1980s and 1990s, dropped in the late 1990s, and increased again in the 2000s. For current commercial and recreational regulations for American eel by state, please see Appendix I.

2. HABITAT RECOMMENDATIONS

To meet the goal of reducing mortality on all life stages ASMFC should focus efforts on understanding habitat requirements for American eels, engaging the relevant regulatory agencies to increase or improve upstream /downstream eel passage, and encouraging habitat restoration. Specifically the Technical Committee and Plan Development Team have recommended the following items for completion:

1. Development of quantifiable eel habitat enhancement goals through the creation of a coastwide eel habitat GIS database. The goal of the database would be the generation of coastwide, regional, state, and watershed maps that would quantify the amount of available habitat relative to historical habitat and identify major barriers to eel migration. This information would allow the ASMFC to prioritize eel habitat enhancement programs at coastwide, regional, and state scales. Efforts should be coordinated with existing GIS efforts already underway in Canada (see: <http://www.dfo-mpo.gc.ca/Library/345546.pdf>). Potential funding and coordination with the Atlantic Fish Habitat Partnership should be considered. This project is considered a high priority item and should be completed either prior to the start of the next benchmark stock assessment or in conjunction with the stock assessment.
2. The American Eel Technical Committee should work with other appropriate ASMFC committees to develop materials to support states or jurisdictions interested in making recommendations to the Federal Energy Regulatory Commission (FERC) for upstream and downstream fish passage provisions for American eels in the hydropower licensing and relicensing process. A list of FERC requirements in coordinating with the states in the hydropower licensing and relicensing process is included in Appendix IV.
3. Work with states and jurisdictions to develop a list of non-FERC licensed dams and other impoundments which impact eel movements and migration. The Nature Conservancy recently completed an online, interactive inventory of dams from Maine to Virginia (see: The Northeast Aquatic Connectivity and Assessment of Dams) which could be adapted to meet this goal. An evaluation should be conducted on each general type of impoundment to assess the potential for eel passage without assistance (i.e. no eel passage constructed) or determine what type of eel passage for each type of impoundment would be most beneficial for all, or specific, life stages. The recommendations from the workshop proceedings (in preparation) from the ASMFC American Eel Passage Workshop held in Gloucester, MA, March 2011 should be a useful document to assist in the completion of this task. Additional recommendations on eel passage are found in Appendix III.
4. Based on #1 – 3, all states and jurisdictions should develop a timeline and target for 1) the amount of habitat to open up through creation of fish passage or dam removal, where feasible and/or 2) the amount of habitat to enhance to increase survival for all, or specific, life stages.
5. The Technical Committee should assess and provide recommendations related to other potential impacts caused by water supply and withdrawal operations, water diversions, and agricultural water use.
6. The American Eel Technical Committee and Stock Assessment Sub-committee should increase coordination with the ASMFC Fish Passage, Habitat, and FERC Guidance Committees. The state marine fisheries agencies should also encourage increased communication and collaboration with their inland fisheries agencies counterparts where applicable. The Commission should also continue the development of a Memorandum of Understanding between the Great Lakes Fisheries Commission, U.S. Fish and Wildlife Service, and NOAA Fisheries in order to reduce mortality on eels throughout their range, as well as improving access to suitable habitat.

3. MONITORING PROGRAM

3.1 CURRENT MONITORING REQUIREMENTS

3.1.1 Fisheries Independent Data Collection

Annual fishery-independent surveys for young-of-year American eel were mandated by ASMFC in 2001. Each participating jurisdiction shall deploy appropriate gear to capture young of the year over an eight-week period. A variety of gear types are available for use, and states should use the gear most suitable to the habitat and geography within their jurisdiction. The timing and placement of the young-of-year sampling gear will coincide with those periods of peak onshore migration of young-of-year. The locations selected will be those previously shown to catch young-of-year American eel and should provide as wide a geographic distribution as possible. Standard stations and procedures will remain fixed. At a minimum, the gear will be set so that they are operational during periods of rising or flood tides occurring at nighttime hours. The entire catch of young-of-year will be counted, with weekly sub-sampling of 60 eels for length and weight.

3.1.2 Fisheries Dependent Data Collection

Under the FMP states must report on directed commercial harvest, by month, including pounds landed by life stage, gear type, and catch per unit effort (CPUE). Additionally, states must collect biological data from a representative sub-sample of the commercial catch, if available, to evaluate sex and age structure (for yellow/silver eels), length and weight. States must also report on the estimated percent of harvest going to food versus bait.

3.2 PROPOSED MONITORING PROGRAM

Monitoring programs should be implemented to maximize the collection of the most useful data for monitoring the annual health of the stock, as well as to provide both statistically valid and scientifically rigorous information for stock assessment analysis. Additionally, the design of a new program will need to take into consideration the priorities of state monitoring programs as well as available funding and personnel.

3.2.1 Fisheries Independent Surveys

The 2012 American Eel Benchmark Stock Assessment made the following recommendations with regard to coastwide fisheries independent sampling:

1. Recommend states collect biological information by life stage including length, weight, age, and sex of eels caught in fishery-independent sampling programs; at a minimum, length samples should be routinely collected from fishery-independent or fisheries-dependant surveys.
2. Encourage states to implement surveys that directly target and measure abundance of yellow- and silver-stage American eels, especially in states where few targeted eel surveys are conducted.
3. A coast-wide sampling program for yellow and silver American eels should be developed using standardized and statistically robust methodologies.
4. Continue the ASMFC-mandated young-of-the-year surveys; these surveys could be particularly valuable as an early warning signal of recruitment failure.

3.2.1.1 Annual Young-of-Year Abundance Survey

States and jurisdictions currently conducting young-of-the-year surveys, as specified in Table 1, will be required to maintain these surveys. The requirements of the annual young-of-the-year survey will remain as specified under Section 3.1.1 of the FMP. As funds and/or personnel become available it is recommended that states/jurisdictions consider implementing young-of-the-year monitoring programs as specified in Table 1.

3.2.1.2 Annual Yellow Eel Survey

States and jurisdictions currently conducting yellow eel surveys, as specified in Table 1, will be required to maintain these surveys. As funds and/or personnel become available it is recommended that states/jurisdictions consider implementing the yellow eel monitoring programs as specified in Table 1.

3.2.1.3 Annual Silver Eel Survey

States and jurisdictions currently conducting silver eel surveys, as specified in Table 1, will be required to maintain these surveys. As funds and/or personnel become available it is recommended that states/jurisdictions consider implementing the silver eel monitoring programs as specified in Table 1.

3.2.1.4 Multiple Life Stages Survey

Where possible, the American Eel Technical Committee recommends the identification of areas where multiple life stage surveys can be conducted. Ideally the survey would target glass eel immigration and silver/yellow eel emigration in the same system in order to track recruitment, age, growth, survival, and mortality.

3.2.2 Fisheries Dependant Surveys

States and jurisdictions are required to continue commercial monitoring programs, including mandatory monitoring (harvester or dealer) of catch and effort, applicable only to the commercial sector of the eel fishery. To increase accuracy of reporting, dealer and/or harvester landing catches must report to the state of landing monthly or more frequently, if possible. States with more conservative reporting requirements in place will be required to maintain them. States and jurisdictions may continue to petition the Management Board for *de minimis* status (met if commercial landings are less than 1% of the coastwide total), which exempts them from additional fishery dependent monitoring requirements, per Section 4.4.2 of the FMP.

The American Eel Plan Development Team and Technical Committee have discussed the need to improve harvest data for eel caught under commercial permits and kept for personal use and not sold. There is concern this practice may be underreported especially in New England where some commercial permit holders save eels as bait for the commercial striped bass fishery. Under this addendum states and jurisdictions are recommended to implement strategies within their reporting system to recover data on eels harvested for personal use. This could be accomplished by updating current reporting criteria or implementing a special-use permit. A related reporting gap likely exists for recreational eel potting, however the

coast-wide magnitude is expected to be lower. Where feasible, states and jurisdiction are encourage to also investigate strategies for improving recreational harvest data on eels kept for personal use.

Additionally, this draft addendum recommends that the state marine agencies work with their state inland counterparts, where applicable, to standardize reporting of trip-level landings and effort data that occur in inland waters on diadromous populations of eels.

Table 1. Proposed Fisheries Independent Monitoring for American Eel

State	System	Monitoring Program	Targeted Life Stage				Information Collected
			G	E	Y	S	
Maine	West Harbor Pond	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
	Sebasticook River (Benton Falls)	Irish Elver Ramp ^{^A}		X	X		length, weight, count, EV
New Hampshire	Lamprey River	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
	Squamscott, Oyster, and Winnicut	Fyke net			X		length, weight, count, EV
Massachusetts	Acushnet, Parker, and Jones Rivers	Sheldon/Irish Elver Trap ^{*^}	X				count, length, weight, pigment stage, EV
	6 Coastal Rivers	Bycatch survey ^{*^}			X		length, weight, count, EV
Rhode Island	Gilbert Stuart	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
	Annaquatucket River	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
	Narragansett Bay	Trawl Survey [^]			X		length, weight, count, EV
	Narragansett Bay	Seine Survey [^]			X		length, weight, count, EV
Connecticut	Ingham Hill	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
	Farmill River	Electrofishing survey ^{^A}			X		length, weight, count, EV
New York	Carmans River	Fyke net [^]	X				count, length, weight, pigment stage, EV
	Hudson River	Striped Bass Survey ^{*^A}		X	X		length, weight, count, EV
	Hudson River	Alosine Survey ^{*^A}		X	X		length, weight, count, EV
	Western Long Island	Seine Survey ^{*^}		X	X		length, count, EV
New Jersey	Patcong Creek	Fyke net [^]	X				count, length, weight, pigment stage, EV
	tributary of Delaware River/Bay	River Herring electrofishing survey [*]			X		length, weight, count, EV
	Delaware River	Striped Bass Seine Survey ^{*^A}			X		length, weight, count, EV
Pennsylvania	non-tidal DE River	Small mouth bass survey [^]		X	X		count
Delaware	Millsboro	Fyke net [^]	X				count, length, weight, pigment stage, EV
	Delaware River	Trawl survey ^{^A}		X	X		length, weight, count, EV

State	System	Monitoring Program	Targeted Life Stage				Information Collected
			G	E	Y	S	
Maryland	Turville Creek	Irish Elver Ramp ^{^A}	X				count, length, weight, pigment stage, EV
	Bishopville	Irish Elver Ramp	X				count, length, weight, pigment stage, EV
	Sassafrass River	Pot Survey ^{^A}			X		length, weight, count, EV
	Chesapeake Bay	Juvenile Striped Bass Survey ^{*^A}			X		length, weight, count, EV
	Corsica River	Trap Survey ^{^A}				X	length, weight, count, EV
PRFC	Clarks Millpond (Coan R.)	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
	Gardys Millpond (Yeocomico R.)	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
DC	Potomac River	Electrofishing survey [^]			X		length, weight, count, EV
	Potomac River	Pot Survey [^]			X		length, weight, count, EV
Virginia	James	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
	York	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
	Rappahannock	Irish Elver Ramp [^]	X				count, length, weight, pigment stage, EV
	Inland Waters	Electrofishing survey ^{**^A}			X		length, weight, count, EV
North Carolina	Beaufort Bridge	Net Survey ^{^**}	X				count, length, weight, pigment stage, EV
	Estuarine Trawl Survey	Trawl Survey ^{^A}			X		length, count, EV
South Carolina	Goose Creek	Fyke net [^]	X				count, length, weight, pigment stage, EV
	Lower Edisto, Combahee, Ashley, Cooper Rivers and Upper Winyah Bay	Red Drum electrofishing survey ^{*^A}			X		length, weight, count, EV
	PeeDee, Edisto, Savannah Rives	Juvenile Am. Shad electrofishing survey ^{*^}			X	X	length, weight, count, EV
Georgia	Altamaha	Pot Survey			X		length, weight, count, EV
Florida	Guana River Dam	Dip Net Survey [^]	X				count, length, weight, pigment stage, EV

*Survey is primarily targeting another species and collects information on American eels caught as bycatch. The survey is conducted either as required by separate ASMFC FMP or at the discretion of the state. Under this addendum collection of data on bycaught eels is not a compliance requirement. However, if the state discontinues the survey it is recommended that a similar survey be implemented, as possible, to continue data collection.

** Survey is currently conducted by the inland or freshwater division in the state. G = Glass Eel E = Elver Eel Y = Yellow Eel S = Silver Eel

[^] Survey currently conducted. A = Survey used in 2012 American Eel Stock Assessment. EV = Environmental Variables, as specified under Section 3.1.1 of the FMP

4. MANAGEMENT OPTIONS

It is important to emphasize that the 2012 American Eel Stock Assessment was a benchmark or baseline assessment that synthesized all available fishery-dependent and independent data yet was not able to construct eel population targets that could be related to sustainable fishery harvests. This is not an uncommon result of baseline stock assessments. The development of sustainable population and fishery thresholds will be an essential goal of future stock assessment. Despite the absence of fishery targets derived from population models, it is clear that high levels of yellow eel fishing occurred in the 1970s and 1980s in response to high prices offered from the export food market (Figure 1). For all coastal regions, peak catches in this period were followed by declining catches in the 1990s and 2000s, with some regions now at historic low levels of harvest. Given that high catches in the past could have contributed to the current depleted status the PDT believes it is prudent to reduce mortality on all life stages while enhancing and restoring habitat. This approach is further justified in light of the public interest in eel population conservation demonstrated by two recent petitions to list American eel under the Endangered Species Act.

4.1 COMMERCIAL FISHERY MANAGEMENT OPTIONS

The American Eel Stock Assessment recommended that mortality should be reduced on all life stages. Therefore the management options proposed below are not exclusive of one another and, in order to maximize the conservation benefit to American eel stocks, may be implemented in combination. If new regulations are implemented by the Management Board, these regulations will replace Section 4.2.1 of the FMP. States/jurisdictions shall maintain existing or more conservative American eel commercial fishery regulations, unless otherwise approved by the American Eel Management Board. The implemented provisions will be considered a compliance requirement and are effective either upon adoption of the Addendum or as specified by the ASMFC. Management measures also include all mandatory monitoring and annual reporting requirements as described in Section 3. For current commercial regulations by state refer to Appendix I.

4.1.1 Glass Eel Fisheries

The following options apply to the glass eel fisheries that currently operate in Maine and South Carolina (Table 2). For all other jurisdictions, states are required to maintain existing or more conservative measures at the time of implementation of the American Eel FMP. These measures restrict the development of glass eel fisheries in the remaining states and jurisdictions. The following options are not mutually exclusive and can be implemented in combination.

Option 1 – Status Quo

Under this option the current regulations for glass eel fisheries will remain in place.

Option 2 – Closure of glass eel fisheries

Under this option no glass fisheries will be allowed to operate within state and jurisdictional waters.

Sub-Option 2a – Immediate closure

Under this sub-option all glass eel fisheries will close upon final approval of the addendum.

Sub-Option 2b – Delayed closure

Under this sub-option the glass eel fisheries will be closed within five years after final approval of the addendum or at another timeframe specified by the Management Board.

Table 2. Harvest (in pounds) and value of the glass eel fishery in Maine and South Carolina from 2007 - 2012. **South Carolina landings are confidential.* ^ *2012 data is preliminary.*

Year	Maine		South Carolina	
	Landings	Value	Landings*	Value
2007	3,713	\$1,287,485	No activity reported	
2008	6,951	\$1,486,355	No activity reported	
2009	5,119	\$519,559	No activity reported	
2010	3,158	\$584,850	<500	<\$100,000
2011	8,584	\$7,653,331	<500	<\$500,000
2012^	20,755	\$38,574,146	<1,000	<\$2,000,000

Option 3 – Glass eel quota

Under this option glass eel harvest for states and jurisdictions with a glass eel fishery will be regulated annually through a quota system. Examples for quota management are described in the following sub-options.

Sub-option 3a – Historical Average (1998 – 2012)

Under this sub-option, glass eel landings will be managed through a quota system, with allocation based on the average landings from 1998 – 2012. This period was chosen as it includes reliable harvest from recent years. However, the American eel Plan Development Team (PDT) expressed concern about using 2012 harvest data as the landings were not representative of the historic operation of the fishery given the recent spike in demand for glass eels.

Under this sub-option, the annual quota would be set at 6,567 pounds, with 97% (6,373 pounds) allocated to Maine and 3% (194 pounds) allocated to South Carolina (Tables 3 and 4; Figures 2 and 3). If a jurisdiction exceeds its allocation, the amount in excess of its annual quota will be deducted from the jurisdiction’s allowable quota in the following year.

Sub-Option 3b – Harvest Reductions

Under this option the annual quota for all states and jurisdictions would be reduced between 25% and 50%, or another percentage specified by the Management Board

but the Plan Development Team does not recommend a reduction over 50%. The baseline used for determining the quota reduction would be the 1998 – 2012 harvest average. Under the 25% option, Maine would be allocated 4,780 pounds and South Carolina would be allocated 145.5 pounds. Under the 50% option Maine would be allocated 3,187 pounds and South Carolina would be allocated 97 pounds (Tables 3 and 4; Figure 2 and 3).

Table 3. Estimated value for Maine under quota management based on the historical average (Sub-Option 3a) and a 25% and 50% harvest reduction (Sub-Option 3b). Estimated value based on 1) \$100 per pound, 2) \$1,000 per pound and 3) \$2,500 per pound price for glass eels. *Difference refers to the difference between allocation and the average harvest from 2010 – 2012 (10,284 pounds).

	Allocation	Difference*	Estimated Value		
			\$100/pound	\$1000/pound	\$2500/pound
Sub-Option 3a - Quota	6,373	-38%	\$637,300	\$6,373,000	\$15,932,500
Sub-Option 3b - 25%	4,780	-53%	\$477,975	\$4,779,750	\$11,949,375
Sub-Option 3b - 50%	3,187	-69%	\$318,650	\$3,186,500	\$7,966,250

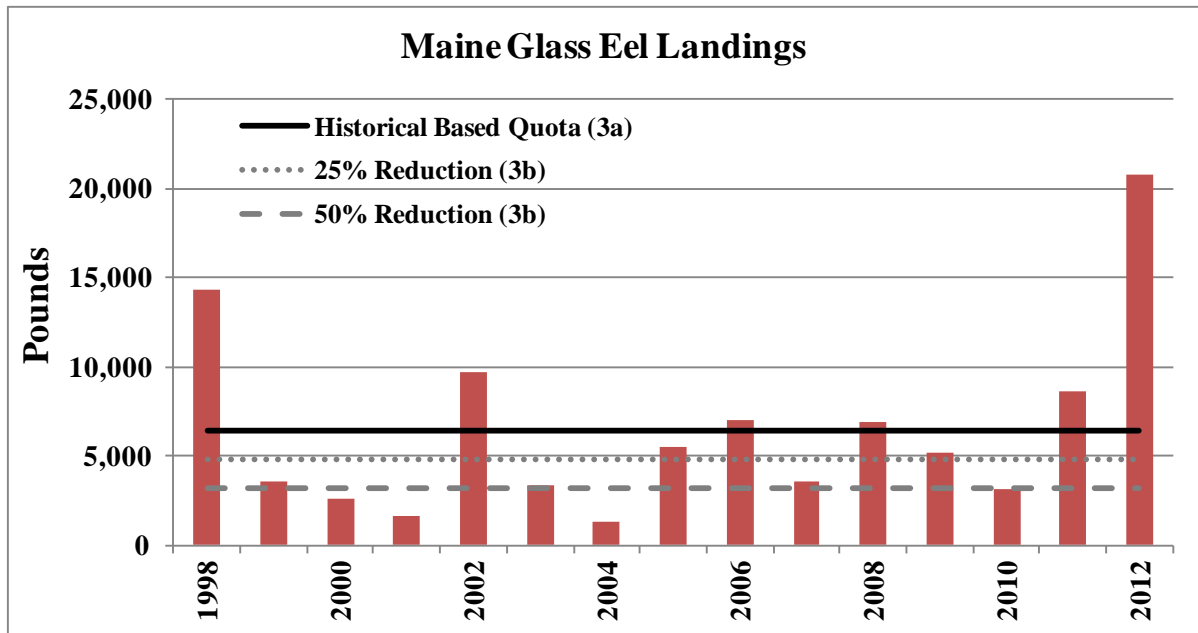


Figure 2. Maine glass eel landings and quota alternatives, in pounds.

Table 4. Estimated value for South Carolina under quota management based on the historical average (Sub-Option 3a) and a 25% and 50% harvest reduction (Sub-Option 3b). Estimated value based on 1) \$100 per pound, 2) \$1,000 per pound and 3) \$2,500 per pound price for glass eels. **South Carolina glass eel landings are confidential.*

	Allocation	Difference*	Est. Value		
			\$100/pound	\$1000/pound	\$2500/pound
Sub-Option 3a - Quota	194	-	\$19,400	\$194,000	\$485,000
Sub-Option 3b - 25%	145.5	-	\$14,550	\$145,500	\$363,750
Sub-Option 3b - 50%	97	-	\$9,700	\$97,000	\$242,500

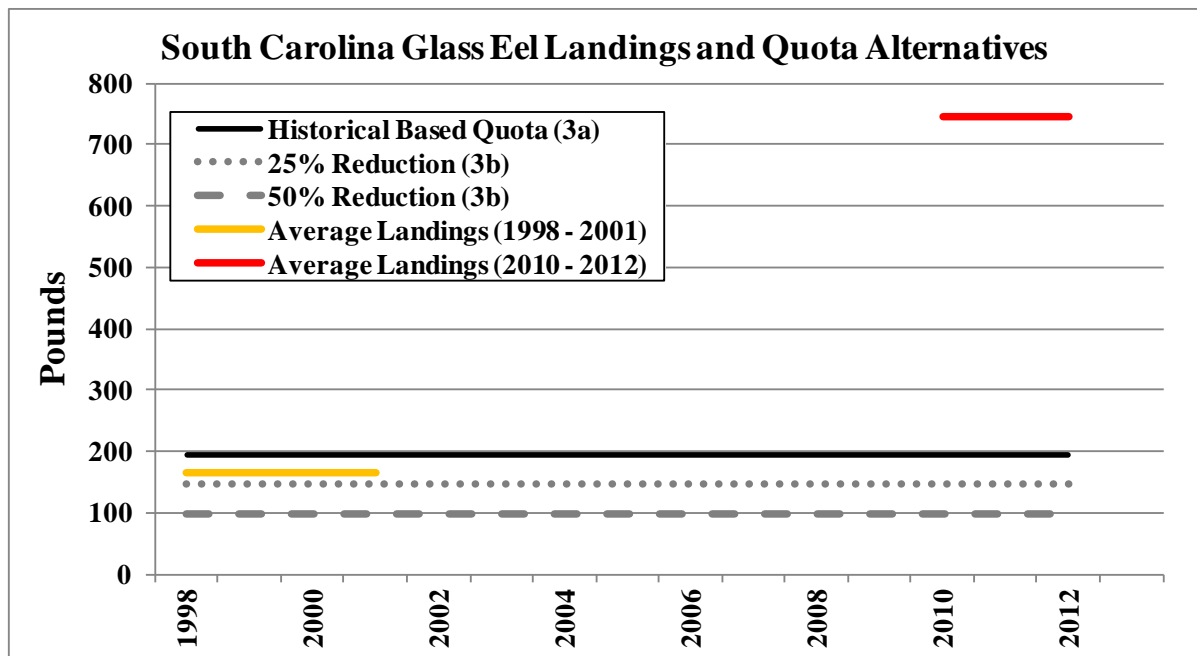


Figure 3. South Carolina glass eel landings (1998 – 2001 and 2010 – 2012 averages) and quota alternatives, in pounds.

Option 4 – Dealer Requirements

Under this option states with a glass eel fishery would be required to implement a trip level ticket system for harvesters and dealers in order to ensure accurate reporting of glass eel harvest. The American Eel Plan Development Team believed this system would be essential for quota monitoring accuracy given the sharp increase in market value and rise in illegal harvest. A cap or reduction in the number of glass eel dealers, or alternatively increased dealers license requirements, would also help address the underreporting problem by preventing people without a long-term interest in the fishery from entering.

Option 5 – Pigmented eel tolerance

An increase in harvest of pigmented eels has been observed in recent years during the glass eel fishery. Glass eels generally become pigmented as the season progresses and water temperatures increase, although there may be other factors that affect this pigmenting process (Haro and Krueger 1988). The pigmentation provides disruptive coloration and countershading for the eels, which presumably reduces predation and increases survivorship. Under the FMP, states must maintain current or more conservative fishing regulations. While the glass eel fishery is a traditional fishery, the pigmented eel fishery represents the development of a new fishery.

Therefore, under this option, for states with a commercial glass eel fishery, only a small tolerance (maximum of 25 pigmented eels per pound of glass eel catch) of pigmented eels would be allowed. States would have the option to propose other restrictions (e.g. mesh size requirements) to meet the goal of minimizing the development of a pigmented eel fishery, which would require review by the Technical Committee and approval by the Board. It has been observed that catches are predominately either glass eels or pigmented eels (i.e. the catch is not a mixture of both pigmented and glass eels). States may choose to. It is also recommended that all catch be graded on the boat or streamside and that any bycatch is returned to the waters where the fish were harvested.

4.1.2 Yellow Eel Fisheries

Currently commercial yellow eel fisheries operate in all states with the exception of Pennsylvania and the District of Columbia. The following options are not mutually exclusive and can be implemented in combination.

Option 1 – Status Quo

Under this option the current regulations for yellow eel fisheries will remain in place.

Option 2 – Increase Minimum Size

Under this option states and jurisdictions would be required to adopt a new minimum size limit for all yellow eel fisheries. Size limits are difficult to enforce prior to harvest, unless the gear selects for a certain size. Harvesters would be required to sort their catch and discard eels smaller than the size limit.

The American Eel Stock Assessment Subcommittee (SASC) has used the Sequential Life-table and Yield-per-recruit Model for the American Eel, known as *SLYME*, to describe the effects of growth and mortality on the American eel population by age class from the time that glass eel arrive at the coast to the time that adult eel spawn. Originally developed by David Cairns (Canada DFO) for the August 2000 meeting of the International Council for Exploration of the Seas (ICES) Working Group on Eels, the SASC has applied this model to evaluate the relative impact of varying fishing mortalities on egg production (eggs per recruit, EPR) and the relative increases in egg production as a result of changing the minimum size limit and implementing a maximum size limit for harvest (See *Silver Eel Management Options*). It is generally accepted that American eel in the northern portion of

the species' range are larger than eel in the southern end of the range. However, the SASC has determined that there is not enough information to develop regional or state specific maximum sizes for the coast.

The American Eel Plan Development Team (PDT) recognizes that the potential Eggs-Per-Recruit increase is not substantial for the size options given (< 1%, Table 5). However the PDT is concerned about the development of fisheries on small yellow eels and sees the inclusion of options to increase the minimum size as a means to prevent this fishery from further developing. The glass eel fisheries have long targeted the newly recruited young-of-the-year eel to sell to the Asian market for eel culture. In 2011-2012 the ASMFC Eel Technical Committee received reports of new dealers offering to buy pigmented eels of larger size (age-1+) than glass eels. New fisheries that target pigmented juvenile eels in Maine and South Carolina and presently legal sizes (>6 inches) in other states could create significant enforcement challenges and undermine regional conservations efforts. This option would also meet the overall goal of reducing mortality on all life stages and has potential to increase future yield in commercial fisheries. The PDT recommends 10 to 11 inch minimum size limit. Additionally, the PDT requests that the Law Enforcement Committee comment on the need for consistent size regulations between the commercial and recreational fisheries.

Table 5. Expected increase in Eggs-Per-Recruit with the associated change in minimum size for yellow eels.

Minimum Size (inches)	% Change Eggs Per Recruit
8	0
9	0.0113
10	0.0113
11	0.262
12	0.262

Table 6. Percent of the fishery (by number) for New Jersey, Delaware, Maryland, and Florida that would be illegal under the proposed increases in minimum size.

Size Limit	NJ	DE	MD	NC	FL
8"		0%	0%	0%	
9"	0%	2%	1%	0%	
10"	1%	9%	3%	1%	
11"	3%	24%	14%	7%	0%
12"	6%	44%	34%	36%	0%

Option 3 – Gear Restrictions

Under this option states and jurisdictions would need to implement gear restrictions in their commercial yellow eel fisheries. The benefit of effective gear restrictions is that smaller eels

are not landed, thus eliminating the need for harvesters to handle these fish or enforcement having to measure fish. It is likely that the gear restrictions will not protect out-migrating silver eel because silver eels don't actively pot. No gear requirements are sought to exclude larger eels from pots at this time because only a low number of silver eels are caught in pot fisheries. Also since there is size overlap between yellow and silver eels the smaller silver eels would not likely be protected by gear restrictions (males are commonly shorter than females). Another consideration in requiring gear modifications is the cost to the fishermen to modify existing gear. Any gear restrictions that are instituted should be monitored for effectiveness.

The size of eels that are retained in pots depends on a number of variables but the principal one is the size of the mesh. Requiring the use of escape panels of the appropriate mesh size for a targeted minimum length (correlated to girth) could control the size of eels retained in eel pots. Maine, Maryland, Potomac River Fisheries Commission, and South Carolina have a mesh size requirement of ½ x ½ inch mesh or an escape panel constructed of ½ x ½ inch mesh. Florida and New York (marine) currently require mesh of 1 x ½ inches. North Carolina and Virginia require escape panels. Their escape panels are constructed of 1 x ½ inch wire mesh and must be at least 4 x 6 inches (North Carolina) and 4 x 4 inches (Virginia). Georgia requires pots to be constructed of 1 ½ x ½ inch mesh.

Sub-option 3a – Status Quo

Under this sub-option states would be required to maintain their current mesh size restrictions.

Sub-option 3b – ¾ by ½ inch minimum mesh size

Under this sub-option states would be required to implement a restriction on the mesh size used in eel pots. States would have to require, at a minimum, the use of a 4 by 4 inch escape panel constructed out of mesh size of at least ¾ by ½ inch mesh. The implementation of this sub-option should allow for smaller eels to escape. However, there is no information on harvest reductions of smaller yellow eels this sub-option would achieve.

Sub-option 3c – 1 by ½ inch minimum mesh size

Under this sub-option states would be required to implement a restriction on the mesh size used in eel pots. States would have to require at a minimum the use of a 4 by 4 inch escape panel constructed of a mesh size of at least 1 by ½ inch mesh.

In North Carolina, Hutchinson (1997) demonstrated a reduction in the percentage of small yellow eels harvested using escape panels (1 x ½ inch, Table 7). Escape panels (1 x ½ inch) reduced the percentage of yellow eels less than 9 and 10 inches in total length harvested from eel pots by 31% and 43%, respectively, when compared to eel pots constructed of ½ x ½ inch mesh (no escape panel). Escape panels (1 x ½ inch) reduced the percentage of yellow eels less than 11 and 12 inches in total length harvested from eel pots by 45% and 37%, respectively, when compared to eel pots constructed of ½ x ½ inch mesh (no escape panel).

Implementing an escape panel (1 x ½ inch) requirement would reduce the number of small yellow eels (less than 10 inches) harvested coast wide. Refer to Table 6 for the percent of catch, for states with available data, by size.

Table 7. Reduction in the percentage of small yellow eels harvested using escape panels (1 x ½ inch, n = 3,957) and no escape panels (n=8,105) (Hutchinson 1997).

Inches	% of catch no escape panel	% of catch with escape panel	Reduction in eels harvested at the given sizes
Less than 8	-	0.03%	
Less than 9	0.16%	0.11%	31%
Less than 10	1.25%	0.71%	43%
Less than 11	13%	7%	45%
Less than 12	58%	36%	37%
12 to 31	42%	64%	-

Option 4 – Coastwide Quota

Under this option yellow eel harvest for states and jurisdictions with a yellow eel fishery will be regulated annually through a quota system. Examples for quota management are described in the following sub-options.

Sub-option 3a – Historical Average (1980-2011)

Under this sub-option, yellow eel landings will be managed through a quota system, with allocation based on the average landings from 1980-2011. This period was chosen as it includes a range of years that captures a more productive time in the fishery as well as years for which reliable data is available.

Under this sub-option, the annual quota would be set at 1,481,529 pounds, with allocation and change from current landings specified in Table 8. If a jurisdiction exceeds its allocation, the amount in excess of its annual quota will be deducted from the jurisdiction’s allowable quota in the following year. The states of New Hampshire and South Carolina have minimal reported landings during this time period. The PDT recommends a minimum quota set at 2,000 for these two states to provide a small quota that would be sufficient to cover any directed or bycaught landings. Quota transfers between states may be considered.

Sub-option 3b – Historical Average (1990-2011)

Under this sub-option, yellow eel landings will be managed through a quota system, with allocation based on the average landings from 1990-2011. This period was chosen as it includes the most current years for which reliable data is available.

Under this sub-option, the annual quota would be set at 1,117,734 pounds, with allocation and change from current landings specified in Table 9. If a jurisdiction exceeds its allocation, the amount in excess of its annual quota will be deducted from

the jurisdiction's allowable quota in the following year. The minimum allocated quota was fixed at 2,000 pounds; if a state's proposed quota under any of the sub-options was less than this amount it was automatically set at 2,000 pounds. This provides those states a quota that would be sufficient to cover any directed or bycaught landings without creating an administrative burden. Quota transfers between states may be considered.

Sub-option 3c – Current Average (2002-2011)

Under this sub-option, yellow eel landings will be managed through a quota system, with allocation based on the average landings from 2002-2011. This period was chosen because it is based on landings which more accurately reflect the current distribution of the fishery.

Under this sub-option, the annual quota would be set at 859,309 pounds, with allocation as specified in Table 10. If a jurisdiction exceeds its allocation, the amount in excess of its annual quota will be deducted from the jurisdiction's allowable quota in the following year. The minimum allocated quota was fixed at 2,000 pounds; if a state's proposed quota under any of the sub-options was less than this amount it was automatically set at 2,000 pounds. This provides those states a quota that would be sufficient to cover any directed or bycaught landings without creating an administrative burden. Quota transfers between states may be considered.

Sub-Option 3d – Harvest Reductions

Under this option states and jurisdictions the annual quota would be reduced by 20, 30, 40, and 50%. The baseline used for determining the quota reduction could be one of the following:

1. 1980 – 2011 harvest average
2. 1990 – 2011 harvest average
3. 2002 – 2011 harvest average

Under this sub-option, the annual quota could be set between 432,654 and 1,186,023 pounds, with allocation as specified in Tables 8, 9, and 10. If a jurisdiction exceeds its allocation, the amount in excess of its annual quota will be deducted from the jurisdiction's allowable quota in the following year. The minimum allocated quota was fixed at 2,000 pounds; if a state's proposed quota under any of the sub-options was less than this amount it was automatically set at 2,000 pounds. This provides those states a quota that would be sufficient to cover any directed or bycaught landings without creating an administrative burden. Quota transfers between states may be considered.

Option 5 – Reporting Requirements

Under this option states and jurisdictions with a commercial yellow eel fishery will be required to implement a trip level ticket system for dealer and harvester reporting. The PDT believed this system will be essential for quota monitoring. Cross referencing between dealer and fishery trip level reporting should be conducted to ensure accuracy.

Table 8. Proposed quota allocations, in pounds, by state under Sub-Options 3a and 3d. The proposed quota listed under Sub-Option 3a is based on that states average harvest from 1980 to 2011. The proposed quotas listed under Sub-Option 3d show the 20%, 30%, 40%, and 50% reductions from the Sub-Option 3a quota. Also shown is the recent harvest by state (average landings from 2009 – 2011) for comparison. The fishery is not currently managed by a quota. Note: The minimum allocated quota was fixed at 2,000 pounds; if a state’s proposed quota under any of the sub-options was less than this amount it was automatically set at 2,000 pounds.

	Sub-Option 3a and 3d Proposed Quota Allocations					Recent Harvest (Average 2009-2011)
	3a	3d - 20% reduction	3d - 30% reduction	3d - 40% reduction	3d - 50% reduction	
Maine	28,519	22,816	19,964	17,112	14,260	6,755
New Hampshire	2,000	2,000	2,000	2,000	2,000	99
Massachusetts	10,257	8,206	7,180	6,154	5,129	621
Rhode Island	6,485	5,188	4,539	3,891	3,242	3,673
Connecticut	9,790	7,832	6,853	5,874	4,895	221
New York	57,034	45,627	39,924	34,220	28,517	15,761
New Jersey	169,512	135,610	118,659	101,707	84,756	119,447
Delaware	130,274	104,219	91,192	78,164	65,137	72,972
Maryland	282,622	226,098	197,835	169,573	141,311	484,138
PRFC	208,982	167,186	146,287	125,389	104,491	48,543
Virginia	365,664	292,531	255,965	219,398	182,832	92,945
North Carolina	178,643	142,914	125,050	107,186	89,322	82,270
South Carolina	2,000	2,000	2,000	2,000	2,000	18
Georgia	8,743	6,994	6,120	5,246	4,372	103
Florida	21,010	16,808	14,707	12,606	10,505	14,571
Total	1,481,529	1,186,023	1,038,270	890,517	742,765	48,543

Table 9. Proposed quota allocations, in pounds, by state under Sub-Options 3b and 3d. The proposed quota listed under Sub-Option 3a is based on that states average harvest from 1990 to 2011. The proposed quotas listed under Sub-Options 3d show the 20%, 30%, 40%, and 50% reductions from the Sub-Option 3b quota. Also shown is the recent harvest by state (average landings from 2009 – 2011) for comparison. The fishery is not currently managed by a quota. Note: The minimum allocated quota was fixed at 2,000 pounds; if a state’s proposed quota under any of the sub-options was less than this amount it was automatically set at 2,000 pounds.

	Sub-Option 3b and 3d Proposed Quota Allocations					Recent Harvest (Average landings from 2009-2011)
	3b	3d - 20% reduction*	3d - 30% reduction	3d - 40% reduction	3d - 50% reduction	
Maine	24,576	19,660	17,203	14,745	12,288	6,755
New Hampshire	2,000	2,000	2,000	2,000	2,000	99
Massachusetts	6,632	5,306	4,642	3,979	3,316	621
Rhode Island	8,569	6,855	5,999	5,142	4,285	3,673
Connecticut	5,942	4,753	4,159	3,565	2,971	221
New York	12,527	10,021	8,769	7,516	6,263	15,761
New Jersey	133,591	106,873	93,514	80,154	66,795	119,447
Delaware	132,100	105,680	92,470	79,260	66,050	72,972
Maryland	314,432	251,546	220,102	188,659	157,216	484,138
PRFC	155,912	124,729	109,138	93,547	77,956	48,543
Virginia	221,539	177,231	155,077	132,923	110,770	92,945
North Carolina	83,357	66,686	58,350	50,014	41,679	82,270
South Carolina	2,000	2,000	2,000	2,000	2,000	18
Georgia	2,000	2,000	2,000	2,000	2,000	103
Florida	13,756	11,005	9,630	8,254	6,878	14,571
Total	1,117,734	894,987	783,614	672,240	560,867	48,543

Table 10. Proposed quota allocations, in pounds, by state under Sub-Options 3c and 3d. The proposed quota listed under Sub-Option 3c is based on that states average harvest from 2002 to 2011. The proposed quotas listed under Sub-Options 3d show the 20%, 30%, 40%, and 50% reductions from the Sub-Option 3c quota. Also shown is the recent harvest by state (average landings from 2009 – 2011) for comparison. The fishery is not currently managed by a quota. Note: The minimum allocated quota was fixed at 2,000 pounds; if a state’s proposed quota under any of the sub-options was less than this amount it was automatically set at 2,000 pounds.

	Sub-Option 3c and 3d Proposed Quota Allocations					Recent Harvest (Average 2009-2011)
	3c	3d - 20% reduction	3d - 30% reduction	3d - 40% reduction	3d - 50% reduction	
Maine	14,358	11,486	10,051	8,615	7,179	6,755
New Hampshire	2,000	2,000	2,000	2,000	2,000	99
Massachusetts	3,073	2,458	2,151	2,000	2,000	621
Rhode Island	2,360	2,000	2,000	2,000	2,000	3,673
Connecticut	2,000	2,000	2,000	2,000	2,000	221
New York	7,001	5,601	4,901	4,201	3,501	15,761
New Jersey	125,607	100,485	87,925	75,364	62,803	119,447
Delaware	104,854	83,883	73,398	62,912	52,427	72,972
Maryland	335,105	268,084	234,574	201,063	167,553	484,138
PRFC	87,010	69,608	60,907	52,206	43,505	48,543
Virginia	87,627	70,102	61,339	52,576	43,814	92,945
North Carolina	74,969	59,975	52,479	44,982	37,485	82,270
South Carolina	2,000	2,000	2,000	2,000	2,000	18
Georgia	2,000	2,000	2,000	2,000	2,000	103
Florida	9,528	7,622	6,670	5,717	4,764	14,571
Total	859,309	688,647	603,316	517,985	432,654	48,543

Option 6 – Two Week Fall Closure

Under this option, states and jurisdictions would be required to close their directed yellow eel pot/trap fishery for two consecutive weeks between September 1st and October 31st. The state or jurisdiction may specify when the closure occurs, however it must occur after the estimated start of each state’s silver eel migration. All eel pots/traps, as defined by the state, must be removed from the water during this two week closure. A limited fall closure will result in a reduction in yellow eel landings as most American eels are landed in the fall. Refer to Table 11 for estimates of average monthly harvest by state. Although silver eels have a low susceptibility to eel pots, the dominant eel fishing gear, a limited fall closure will also allow more silver eels to escape to spawn. Time of out migration for silver eels is given in Table 12.

Table 11. Percentage of commercial yellow eel harvest, by state, for the months of September, October, and November that was caught in pots or traps. All percentage calculations are based on the average harvest from all gears from 2009 – 2011.

	September	October	November	Average Harvest from 2009 – 2011 for All Gears
Maine	5%	0%	0%	6,755
New Hampshire	10%	0%	0%	99
Massachusetts	4%	3%	0%	621
Rhode Island	19%	21%	2%	3,573
Connecticut	24%	17%	0%	221
New York	10%	17%	3%	15,761
New Jersey	23%	27%	6%	119,447
Delaware	21%	30%	8%	72,972
Maryland	9%	19%	8%	484,138
Virginia	21%	30%	12%	92,945
North Carolina	13%	38%	24%	82,270
South Carolina	0%	0%	0%	18
Georgia	0%	0%	0%	103
Florida	0%	0%	11%	14,571
Total				893,491

4.1.3 Silver Eel Fisheries

Option 1 – Status Quo

Under this option the current regulations will remain in place.

Option 2 – Seasonal Closure Restrictions

Under this option states and jurisdictions would be required to implement no take of eels during the fall from any gear type other than baited traps/pots (e.g. fyke nets, pound nets and

weirs). These gears may still be fished, however no retention of eels is allowed. These gears specified have the highest rate of capture of silver eels. It is believed that most silver eels do not respond to baited traps/pots. Time of out migration for silver eels is given in Table 12. The goal of this option is to reduce or phase out the harvest of silver eels as well as reduce pressure on yellow eels. Refer to Table 13 for the average commercial harvest by month and state. If the outmigration period cannot be determined then prohibition on landing eels from the gears specified above will occur from from September 1st through December 31st. If adopted, the PDT recommends that all states implement a closure from September 1st to December 31st in order to provide the greatest conservation benefit.

Table 12. Expected or known periods of silver eel out-migration by state and jurisdiction. Black shading indicates periods of silver eel out-migration.

State	Sep	Oct	Nov	Dec
ME				
NH				
MA				
RI				
CT				
NY				
NJ				
PA	UNKNOWN			
DE				
MD				
DC				
PRFC				
VA				
NC	UNKNOWN			
SC	UNKNOWN			
GA	UNKNOWN			
FL	UNKNOWN			

Table 13. Percentage of commercial yellow eel harvest, by state, for the months of September, October, November, and December that was caught in gears other than pots or traps. All calculations based on the average harvest from 2009 – 2011.

	September	October	November	December	Average Harvest from 2009 – 2011 for All Gears
Maine	0.00%	0.00%	0.00%	0.00%	6,755
New Hampshire	0.00%	0.00%	0.00%	0.00%	99
Massachusetts	0.00%	0.00%	7.73%	0.00%	621
Rhode Island	0.00%	0.07%	14.47%	0.00%	3,573
Connecticut	0.00%	0.00%	0.00%	0.00%	221
New York	1.33%	0.83%	3.66%	0.17%	15,761
New Jersey	0.12%	0.65%	0.27%	0.05%	119,447
Delaware	0.00%	0.00%	0.00%	0.00%	72,972
Maryland	0.00%	0.01%	0.17%	0.00%	484,138
Virginia	0.07%	0.28%	0.10%	0.16%	92,945
North Carolina	0.00%	0.02%	0.00%	0.00%	82,270
South Carolina	0.00%	0.00%	0.00%	0.00%	18
Georgia	0.00%	0.00%	0.00%	0.00%	103
Florida	0.00%	0.00%	0.00%	0.00%	14,571
Total					893,491

4.2 RECREATIONAL FISHERIES

Although recreational harvest of eel is believed to be low compared to commercial harvest, reductions in all sectors are warranted given the depleted nature of the stock. The following options are not mutually exclusive and can be implemented in combination. Additionally, if the commercial minimum size limit changes under Option 2 of Section 4.2.1, the American Eel Plan Development Team requests that the ASMFC Law Enforcement Committee comment on the need for consistent size regulations between the commercial and recreational fisheries.

Option 1 - Status Quo

There is currently a 50 fish per day per angler creel limit in place under the FMP. Two jurisdictions (Maryland and D.C.) have a lower creel limit in place. Two states (Georgia and Florida) do not have any possession limits in place due to the fact that no recreational fishery is known to occur. While recreational harvest of American eels has been anecdotal in South Carolina with most fish released, the state recently passed legislation enacting a 50 eel per day per angler creel limit with a six inch size minimum restriction.

Option 2 - Reduce recreational bag limit

Given the interest to have all fishery sectors contribute to conservation measures under Addendum III, and the expectation that a recreational daily bag limit of 50 eels is excessive, this option proposes to required all states and jurisdictions to reduce the daily recreational bag limit to 25 fish per day per angler creel. This measure would also apply to crew members involved in party/charter (for-hire) employment, for bait purposes during fishing. The current size limit as specified under the FMP in six inches. Most eels caught recreationally are for use as bait, especially for striped bass. Harvest from the recreational fishery is believed to be low.

Option 3 – Party/Charter (For-Hire) Exemption

Under this option, party/charter (for-hire) activities would be exempt from the 25 fish per day bag limit. Crew members involved in for-hire employment would still be subject to the current 50 fish per day bag limit and six inch size minimum for bait purposes during fishing, as specified under the American Eel FMP.

5. IMPLEMENTATION SCHEDULE

States must implement the provisions of this Addendum not later than the following dates:

- XX-XX-XXXX: States must submit detailed plans to implement this Addendum for approval by the American Eel Technical Committee (TC).
- XX-XX-XXXX: The Technical Committee presents their findings regarding the implementation plans to the Management Board.
- XX-XX-XXXX: States with approved management programs shall begin implementing Addendum.

6. LITERATURE CITED

Goodwin, K.R., and P.L. Angermeier. 2003. Demographic characteristics of American eel in the Potomac River drainage, Virginia. *Transactions of the American Fisheries Society* 132(3):524–535.

Haro, A.J., and W.H. Krueger. 1988. Pigmentation, size, and migration of elvers (*Anguilla rostrata* (Lesueur)) in a coastal Rhode Island stream. *Canadian Journal of Zoology* 66(11):2528–2533.

Hutchinson, 1997. Evaluation under commercial fishing conditions the effectiveness of the mandated eel pot grading panel on the North Carolina American eel. North Carolina Department of Environment, Health, and Natural Resources, Division of Marine Fisheries Grant Program. Grant No. FRG-95-105. Contract No. M-6028.

Appendix I. Commercial American Eel Regulations by state or jurisdiction

State	Size Limit	License/ Permit	Reporting	Seasonal/ Time Closure	Gear Restrictions	Area Restriction	Other
ME	6"	Specific license	At end of season. Harvester reporting. Pounds/month, pots fished, and days fished.	Coastal and inland yellow eel fishery - None. Inland weir fishery - July 15 - Nov 15	Coastal yellow eel fishery limited to pot or hoop nets. An eel pot is a cylindrical or rectangular trap with funnels that is baited. It is 50 cubic ft or less in volume and made of wire or slatting no smaller than ½ inch square measure. A hoop net is a stationary cylindrical net fitted with mesh measuring ½ inch or greater stretch measure, has a max diameter of 6 ft, and is 18 ft or less in length from the cod end to the hoop that forms the mouth; it may have wings/leads attached to the mouth.		
	6"	Specific license	End of season. Harvester reporting. Pounds/month, pots fished, and days fished.		Inland Yellow Eel fishery limited to pots only. An eel pot is a cylindrical or rectangular trap with funnels that is baited. It is 50 cubic ft or less in volume and made of wire or slatting no smaller than ½ inch square measure (same as for coastal waters).		
	6"	Specific license	At end of season. Harvester reporting. Pounds/month, days fished, and pounds/weir/day.		Inland silver eel fishery Limited to eel weir, a structure placed in a river, stream or brook, designed to entrap migrating fish, that exceeds more than 1/3 of the wetted width of the channel. If constructed of netting, the min mesh shall not be larger than 3/8-bar mesh (3/4 in stretch mesh); if constructed of metal/wood, the slat or vertical bars shall have a min, unobstructed opening of not less than ½ in.		
	None	Specific license	At end of season. Total pounds/month, pounds/net by month. Dealer reporting.	Open season - noon March 22 through noon May 31; closed periods - Tues noon to Wed noon and Sat noon to Sun noon	It is unlawful for a person to fish for or take elvers by any method other than by dip net, elver fyke net or Sheldon eel trap. License holders are issued for one or two pieces of gear.	Middle 1/3 of waterway cannot be blocked	Lottery system for elver licenses not renewed or revoked in the previous year. License capped.
NH	6"	General commercial saltwater license and wholesaler license.	Monthly reporting with daily information. Pounds landed, hours or days fished. Harvester reporting.	None		downstream portions of fishways are closed October 2 - June 14	50/day for bait. Gear restrictions in freshwater.
MA	6"	General commercial license. Specific endorsement for eels. Registration for dealers with purchase record requirement	Trip level harvester reporting (pounds/pot/night) submitted monthly.		No person shall take or attempt to take eels by any contrivance other than by nets, pots, spears, or angling.		Nets, pots, spears, and angling only. No nets or traps in coastal rivers from February 15th through June 15th with mesh openings < 1/8 inch. Each of 52 coastal towns has its own regulations.

State	Size Limit	License/ Permit	Reporting	Seasonal/ Time Closure	Gear Restrictions	Area Restriction	Other
RI	6"	Commercial fishing license.					
CT	6"	Commercial license.	Harvest recorded daily, reported monthly to DEP, including catch and effort data. Dealer reporting.	From April 1st to June 15th (inclusive), fyke, trap and pound nets shall not be used in the main body of the Connecticut River.	Fish pots or fish traps shall be not more than 72 inches in length, width, or height. Scap nets or scoop nets may have a mesh of any size, except that for the taking of American shad such nets shall have a mesh size of not less than five inches when stretched.		In the marine district a commercial fishing license is not required to take, for personal use only, eels by the use of: (1) cast nets; (2) minnow traps not more than 20 inches long and 15 inches in diameter; (3) scoop or scap nets not more than 36 inches in diameter; (4) umbrella nets not more than 4 feet in length by 4 feet in width; (5) seines not more than 30 feet in length; and (6) not more than 2 eel pots.
NY	6"	Commercial harvester license and dealer license.	Trip records, harvester and dealer, reported at end of season		It shall be unlawful to use eel traps or pots in the waters of the marine and coastal district for commercial purposes with mesh sizes smaller than 1 inch by 1/2inch unless such pots contain an escape panel that is at least 4 inches square with a mesh size of 1 inch by 1/2 inch located so that the panel is on a side, but not at the bottom of the trap or pot. Eel pots shall not be more than 6 feet long, nor more than 12 inches in diameter if round, nor more than 12 inches square if in square form. The aperture or mouth of any eel pot shall be not more than 2 inches in its greatest diameter. Fixtures or wings of any kind attached to or used in connection with eel pots is prohibited. An eel weir shall consist of not to exceed two wings or leaders fastened to an eel trap; no eel trap shall have attached thereto more than one weir; the length of each weir shall be determined by the department; and the use of weirs of a greater length than specified in the license is prohibited. Eel weirs and eel pots shall not be constructed, set or used in any manner so as to unduly obstruct the natural flow of water or interfere with the free passage of boats. The use of eel weirs, the lengths of which are less than three eighths of an inch apart, is prohibited. All fish, except eels, taken in an eel weir or an eel pot, shall be immediately returned to the water.	The taking, possessing, sale or exposure for sale of eel from the Harlem R., East R., Hudson R., and its tributary waters upstream from the river to the first falls or barrier impassable by fish, from the Federal dam at Troy south to the Battery, NY City, Lake Ontario and the St. Lawrence R. and their tributaries upstream to the first barrier impassable by fish is prohibited, except that eels may be possessed only less than 14 inches in length and greater than 6 inches in length, for use or sale as bait.	
NJ	6"	License required.	Mandatory daily trip level and dealer transaction reporting. Miniature fyke net (eel pot) license holders required to report monthly.		Pot diameter not to exceed 16 inches if cylindrical or 201 square inches in cross section if any other configuration. Mesh no smaller than 3/16 inch bar inside measurement.	Commercial eel fishing is restricted to tidal waters.	Use of two pots is permitted for taking killifish or eels for bait, without a license, provided they are not sold or used for barter

State	Size Limit	License/ Permit	Reporting	Seasonal/ Time Closure	Gear Restrictions	Area Restriction	Other
PA	NO COMMERCIAL FISHERY						
DE	6"	A commercial eel fishing license is required to take and sell 25 or more eels per day or to fish more than two eel pots per day.	Harvesters report monthly on catch by area, effort and weight		"Commercial eel fishing gear" shall include the following items: (1) A fyke net or hoop net of a diameter not exceeding 30 inches when more than 1 such net is being fished by a person; (2) Eel pots when more than 2 such pots are being fished by a person; (3) Any seine net with a mesh size of less than 1 inch and greater than 100 feet in total length; and (4) A minnow trap when more than 2 such traps are being fished by any person. It shall be unlawful for any person to fish, set, place, use or tend any fish pot in the tidal waters of this state unless said fish pot has two escape vents placed in the parlor portion of said pot which complies with one of the following minimum sizes: 1.375 inches by 5.75 inches; or a circular vent 2.5 inches in diameter; or a square vent with sides of 2 inches, inside measure. Pots constructed of wooden lathes must have spacing of at least 1.375 inches between one set of lathes.	It shall be unlawful to fish for eels for the purpose of initially selling such eels in nontidal waters within the State unless authorized to do so by the Department.	(h) "Noncommercial eel fishing gear" shall include the following items: (1) A fyke net or hoop net of a diameter not exceeding 30 inches when only 1 is in use by a person; (2) Eel pots when 2 or less pots are being fished by a person; (3) A seine net less than or equal to 100 feet in length; (4) A cast net; (5) A lift net or umbrella net less than or equal to 5 feet in diameter; (6) A dip net less than or equal to 3 feet in diameter; (7) Spear, arrow or gigs; (8) A minnow trap when less than 2 are being fished by a person; (9) Hooks and lines when an individual places, sets or tends 3 or less separate lines with any 1 line having no more than 3 hooks attached (double and treble hooks counted as 1 hook).
MD	6"	Licensed required.	Monthly reporting with daily information (lbs. landed, gear type, and amount by area)		An eel pot shall be constructed of wire having a mesh size not less than ½ inch square when the wire mesh is unstretched. 7. An eel pot constructed with mesh smaller than ½ inch by ½ inch shall have an escape panel installed in an exterior wall of the retention chamber made of ½ inch by ½ inch mesh measuring at least 16 square inches.	Commercial fishing is prohibited in non-tidal waters.	Limited entry exists for new commercial fisherman.
DC	NO COMMERCIAL FISHERY						
PRFC	6"	License required.	Each commercial fisherman is required to file daily harvest reports for each gear type used.		No eel pot shall exceed ten (10) feet in length or have a mesh size less than ½ inch by ½ inch.		

State	Size Limit	License/ Permit	Reporting	Seasonal/ Time Closure	Gear Restrictions	Area Restriction	Other
VA	6"	A license is required to harvest finfish for commercial purposes by fish or eel pots, and there are several license categories, each with a fee depending on the number of pots fished.	All registered commercial fishermen and holders of seafood landing licenses are required to report daily harvest to VMRC monthly.		The minimum mesh size allowed in eel pots is ½-inch by ½-inch. Rectangular, square, or cylindrical eel pots must contain at least one unrestricted 4-inch by 4-inch escape panel consisting of ½-inch by 1-inch mesh.	The use of any type of fixed fishing device, fish pot, or eel pot in an area extending 250 yards from either span of the Chesapeake Bay Bridge Tunnel is unlawful.	Bait limit of 50 eels/day.
NC	6"	Standard Commercial Fishing License for all commercial fishing		Seasonal closures.	Mesh size restrictions on eel pots.		Bait limit of 50 eels/day.
SC	None	License for commercial fishing and sale. Permits by gear and area fished.	Monthly reporting, regardless whether fish were caught or not	Fyke nets shall be set only between sunset and sunrise, and all such nets shall be removed from such waters between sunrise and sunset	Dip net or fyke net only. Any permitted dip net can only be operated by the permittee without any mechanical assistance. Maximum of 10 fyke nets may be set per license holder. Fyke nets with wings not exceeding ten (10') feet in length and fourteen (14') feet in depth; with the distance from throat to cod end not to exceed twenty (20') feet. Maximum bar mesh for any portion of the nets shall not exceed one-eighth (1/8 ") inch square; and all fyke nets must be set with the cod end upstream from the wings.	Nets may not be set within 200 feet of another net	Limited entry in glass eel fishery. Capped at 5 licenses.
	6"			Pots and baskets not to exceed two (2') feet in diameter and four (4') feet in length with bar mesh of not less than one-half (1/2 ") inch square and throat opening not to exceed two (2") inches in any direction. Each such pot or basket shall be tagged and marked in accordance with Section 50-5-110, Section 50-19-2910, and Section 50-19-2920, with the cost of each tag being one (\$1.00) dollar.			
GA	6"	Personal commercial fishing license and commercial fishing boat license. Harvester/dealer reporting.					Gear restrictions on traps and pots. Area restrictions.
FL		Permits and licenses.	Trip level submitted monthly				Gear restrictions.

* For specifics on licenses, gear restrictions, and area restrictions, please contact the individual state.

Appendix II. Recreational regulations for American eel.

State	Size Limit	Possession Limit	Other
ME	6"	50 eels/person/day	Gear restrictions. License requirement and seasonal closures (inland waters only).
NH	6"	50 eels/person/day	Coastal harvest permit needed if taking eels other than by angling. Gear restrictions in freshwater.
MA	6"	50 eels/person/day	Nets, pots, spears, and angling only; mesh restrictions. Some of the 52 coastal towns have local regulations.
RI	6"	50 eels/person/day	
CT	6"	50 eels/person/day	
NY	6"	50/eels/person/day	Additional length restrictions in specific inland waters.
NJ	6"	50 eels/person/day	
PA	6"	50 eels/person/day	Gear restrictions.
DE	6"	50 eels/person/day	Two pot limit/person.
MD	6"	25/person/day limit	Gear restrictions.
DC	6"	10 eels/person/day	Five trap limit.
PRFC	6"	50 eels/person/day	
VA	6"	50 eels/person/day	Recreational license. Two pot limit. Mandatory annual catch report. Mesh size restrictions on eel pots.
NC	6"	50 eels/person/day	Gear restrictions. Non-commercial special device license. Two eel pots allowed under Recreational Commercial Gear license.
SC	None	None	Gear restrictions and gear license fees.
GA	None	None	
FL	None	None	Gear restrictions.

** For specifics on licenses, gear restrictions, and area restrictions, please contact the individual state.

Appendix III – Fish Passage Recommendations for American eel

The fragmentation of habitat and blockage of upstream and downstream migrations is a major area of concern for American eels. Traditional fish passage is not effective for upstream migration of juvenile American eels, presumably due to velocity barriers. While low-head weir and pool fishways may allow juvenile eel passage, it is likely that most Denil and Alaskan Steeppass ladders are not passable. Eel Passage structures often vary in design via substrate type, slope and length. However, eel passage is relatively new practice in the US, and additional investigation is needed on standard design criteria and quantitative metrics of passage success. Eel passage structures should only be deployed after evaluating the potential for eels to pass the present impediment and the possibility of removing the impediment. If an eel passageway is necessary, the design should initially focus on the size range of eels below the impediment and the specific location where an eel pass can suitably attract eels. With this information, designs can progress towards selecting water supply for the eel pass, the choice of having a monitoring tank, and structural dimensions for the eel pass and associated hardware. Recently some strides have been made in upstream eel passage structures (see ASMFC 2011 American Eel Passage Workshop Proceedings, *in prep.*). With these considerations, the PDT recommends that each jurisdiction actively seeks opportunities to improve upstream eel passage through obstruction removal and deployment of eel passage structures.

Downstream passage of out migrating eels is seen as more difficult than upstream migrations issues, as the results of passage through a hydroelectric project can often be mortality of mature, fecund individuals. Downstream mortality rate is often highly variable and is depended on dam configuration, turbine type, and operational conditions. Generally turbine strikes positively relate to eel length, putting larger female silver eels at particular high risk. Light barriers, louver screens, high flow bypass and generation shut downs during predicted migration windows have all shown promise but there are few quantitative studies showing the level of effectiveness. Important gains in eel survival and recruitment could be realized through widespread reductions in downstream passage mortality of silver eels. The PDT recommends that each jurisdiction identify opportunities to work within the FERC review process and with non-FERC dam owners to improve downstream eel passage.

Appendix IV. Current State Fish Passage Considerations.

FERC Guidelines

Under section 401(a)(1) of the Clean Water Act (CWA), the FERC may not issue a license for a hydroelectric project unless the State water quality certifying agency has issued water quality certification for the project or has waived certification. Certification (or waiver) is required in connection with any application for a Federal license or permit to conduct an activity which may result in a discharge into U.S. waters. Any conditions of the certification become conditions of the license.

Section 18 of the Federal Power Act states that the Commission shall require construction, maintenance, and operation by a licensee of such fishways as the Secretaries of Commerce or the Interior may prescribe. The Commission's policy is to reserve such authority in a license upon the request of either designated Secretary.

Pursuant to section 10(j)(1) of the FPA, the Commission, when issuing a license, includes conditions based on the recommendations of Federal and State fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act, for the protection and enhancement of fish and wildlife and their habitat affected by the project.

The Commission makes a preliminary determination of whether the recommendations are consistent with the FPA or other applicable law. If there is a preliminary inconsistency determination, the agency in question is invited to meet with the Commission staff to try to resolve the matter prior to action on the license application

For example:

On August 31, 1999, Northeast Generation Services Company (NGS)¹ filed an application for a single new license, pursuant to sections 4(e) and 15 of the Federal Power Act (FPA),² for the continued operation and maintenance of the existing 105.9-megawatt (MW) Housatonic Project. The Housatonic River flows southward 149 miles through western Massachusetts and Connecticut before reaching Long Island Sound. The watershed drains some 2,000 square miles consisting of rugged terrain in the north, and rolling hills and flat stretches of marshland in the south.

FWS made 28 recommendations in this proceeding, of which the Commission staff preliminarily determined that five were not consistent with the FPA or other applicable law. Based on comments filed by Interior and others on the Draft EIS, and additional staff analysis, it was determined that three of the five recommendations are not within the scope of section 10(j), and the Final EIS recommends that they be included in the license. The two remaining inconsistencies are Interior's recommendations to operate the Falls Village and Bulls Bridge developments in a run-of-river mode year-round. The EIS found that year-round run-of-river operation would disadvantage recreational users and businesses associated with whitewater boating, and would cost NGS about \$108,000 in lost generation. The EIS recommended that these developments be operated in run-of-river mode during the spring, and in peaking mode from July through March to benefit the whitewater-

boating community and reduce economic impacts to NGS. This issue was however mooted by Connecticut DEP's water quality certification, which requires run-of-river operation at these developments year round.

The Licensee shall, in a manner approved by the U.S. Fish and Wildlife Service (Service) and the Department, design, construct, operate, maintain and monitor the effectiveness of upstream and downstream American eel passage facilities. The Licensee shall implement the American eel passage effectiveness monitoring plan when the facilities are placed in operation. The Licensee shall, in a manner approved by the Service and the Department, design, construct, operate, maintain and monitor the effectiveness of upstream and downstream anadromous fish passage facilities that are capable of excluding the passage of sea lamprey. The Licensee shall implement the anadromous fish passage effectiveness-monitoring plan when the facilities are placed in operation.

The Licensee shall, in a manner approved by the Service and the Department, develop a plan to assess the impact on the littoral-zone community due to impoundment fluctuations associated with normal operations (excluding emergency or maintenance draw downs). The assessment will analyze impacts on aquatic resources such as fish, mussels, wetlands and wildlife that inhabit the littoral-zone of Lake Lillinonah. The results of the assessment will be presented in a report and submitted to the Department and the Service. If the Department and the Service determine that significant adverse impacts occur during normal operations, the Licensee will implement corrective actions to mitigate the impacts.

Maine

Permitting Agency: Maine Dept of Environmental Protection

<http://www.mainelegislature.org/legis/statutes/38/title38ch5sec0.html>

Initial Approval: (38 §636. Approval criteria)

The department shall make a written finding of fact with respect to the nature and magnitude of the impact of the project on each of the considerations under this subsection, and a written explanation of their use of these findings in reaching their decision.

B. Whether the project will result in significant benefit or harm to fish and wildlife resources. In making its determination, the department shall consider other existing uses of the watershed and fisheries management plans adopted by the Department of Inland Fisheries and Wildlife and the Department of Marine Resources

D. Whether the project will result in significant benefit or harm to the public rights of access to and use of the surface waters of the State for navigation, fishing, fowling, recreation and other lawful public uses

Minimum Flow Requirements if Hearing is Sought: (38 §840. Establishment of water levels)

4. Evidence. At the hearing, the commissioner shall solicit and receive testimony, as provided by Title 5, section 9057, for the purpose of establishing a water level regime and, if applicable, minimum flow requirements for the body of water. The testimony is limited to:

- A. The water levels necessary to maintain the public rights of access to and use of the water for navigation, fishing, fowling, recreation and other lawful public uses;
- C. The water levels and minimum flow requirements necessary for the maintenance of fish and wildlife habitat and water quality

New Hampshire

Permitting Agency: NH Dept of Env. Services

http://des.nh.gov/organization/divisions/water/dam/permit_dam.htm

No guidelines for fish passageways: See

<http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-L-482.htm>

Statute regarding inspection and erection of dams: See

<http://www.gencourt.state.nh.us/rsa/html/L/482/482-9.htm>

Massachusetts

Massachusetts

Permitting Agency: Massachusetts Division of Marine Fisheries

Authorization and management of fish passage for sea-run fish: M.G.L Chapter 130, Sections 1 and 19.

Fishway Construction Permit: 322 CMR Sections 7.01 (4(f)) and (14(m)).

Rhode Island

Permitting Agency: Dept. of Env. Management

<http://www.dem.ri.gov/>

Impact Minimization: Rhode Island's Freshwater Wetlands Act (R.I. Gen. Laws Section 2-1-18 et seq.) and Water Pollution Act (R.I. Gen. Laws Section 46-12-1 et seq.) require the Director to protect freshwater wetland values and water quality, respectively. It is important for the dam owner to recognize the Director's responsibilities under these laws and to plan his/her repair projects to minimize any negative impacts to freshwater wetlands and water quality values. In particular, the dam owner must:

(A) Minimize the impacts from lowering the water elevation in a reservoir during a repair project, such as by installing a temporary cofferdam. This is necessary to reduce detrimental impacts to fish and wildlife associated with the wetland environment and to reduce loss of aquatic vegetation that serves as wildlife habitat. In the event that a dam owner is unable to install controls to maintain water in the reservoir to assist in protecting fish and wildlife habitat, the dam owner must specifically inform the Director of this situation and document in writing why water is not proposed to be maintained upstream of the dam during the repair activity. Efforts must be made to avoid drawdowns between April 15 to July 1, and to avoid significant drawdowns between October 15 and March 15.

<http://www.dem.ri.gov/pubs/regs/regs//compinsp/dams07.pdf>

Connecticut

Permitting Agency: Dept. of Energy and Env. Protection

www.ct.gov/deep

Permits for Construction: (b) The commissioner or his representative, engineer or consultant shall determine the impact of the construction work on the environment, on the safety of persons and property and on the inland wetlands and watercourses of the state in accordance with the provisions of sections 22a-36 to 22a-45, inclusive, and shall further determine the need for a fishway in accordance with the provisions of section 26-136, and shall examine the documents and inspect the site, and, upon approval thereof, the commissioner shall issue

a permit authorizing the proposed construction work under such conditions as the commissioner may direct.

New York

Permitting Agency: Dept of Env. Conservation

www.dec.ny.gov/

6.1.1 §608.8 Standards

The basis for the issuance or modification of a permit will be a determination that the proposal is in the public interest, in that:

(c) the proposal will not cause unreasonable, uncontrolled or unnecessary damage to the natural resources of the state, including soil, forests, water, fish, shellfish, crustaceans and aquatic and land-related environment. (<http://www.dec.ny.gov/regs/4438.html>)

For existing dams, when they are inspected: Conditions causing or requiring temporary or permanent adjustment of the pool level include: Requirements for recreation, hydropower, or water fowl and fish management (p. 27,

http://www.dec.ny.gov/docs/water_pdf/damguideman.pdf)

Pennsylvania

Permitting Agency: Dept. of Env. Protection, Bureau of Waterways and Engineering

http://www.portal.state.pa.us/portal/server.pt/community/waterways_engineering/10499

Requirements for Permit: (d) An application for a permit shall be accompanied by information, maps, plans, specifications, design analyses, test reports and other data specifically required under this chapter and additional information as required by the Department to determine compliance with this chapter.

(x) *Impacts analysis.* A detailed analysis of the potential impacts, to the extent applicable, of the proposed project on water quality, stream flow, fish and wildlife, aquatic habitat, Federal and State forests, parks, recreation, instream and downstream water uses, prime farmlands, areas or structures of historic significance, streams which are identified candidates for or are included within the Federal or State wild and scenic river systems and other relevant significant environmental factors. If a project will affect wetlands the project description shall also include:

(<http://www.pacode.com/secure/data/025/chapter105/chap105toc.html>)

Reviewing Permit: (b) In reviewing a permit application under this chapter, the Department will use the following factors to make a determination of impact:

(4) The effect of the dam, water obstruction or encroachment on regimen and ecology of the watercourse or other body of water, water quality, stream flow, fish and wildlife, aquatic habitat, instream and downstream uses and other significant environmental factors.

(5) The impacts of the dam, water obstruction or encroachment on nearby natural areas, wildlife sanctuaries, public water supplies, other geographical or physical features including cultural, archaeological and historical landmarks, National wildlife refuges, National natural landmarks, National, State or local parks or recreation areas or National, State or local historical sites

§ 105.121. *Fishways.*

Upon the request of the Fish and Boat Commission, the permittee shall install and maintain chutes, slopes, fishways, gates or other devices that the Fish and Boat Commission may require under 30 Pa.C.S. § § 3501—3505.

§ 105.244. Protection of fish life.

A low flow channel and habitat improvement device will be required when, in the opinion of the Fish Commission, it is necessary to provide satisfactory channel for maintenance of fish.

New Jersey

Permitting Agency: Dept. of Env. Protection

<http://www.state.nj.us/dep/>

For new dams: (d) No person may construct a dam in any waterway of this state which is a runway for migratory fish, without installing a fish ladder or other approved structure to permit

the fish to pass the dam in either direction (see N.J.S.A. 23:5-29.1).

1. This provision is applicable to dams of any size.

2. The Department will determine whether a stream is currently a runway for migratory fish, during the review of the dam permit application. Applicants should consult the Division of Fish and Wildlife in this matter prior to finalizing the application.

(<http://www.nj.gov/dep/damsafety/docs/standard.pdf>)

Delaware

Permitting Agency: Dept. of Natural Resources and Environmental Control

<http://www.dnrec.delaware.gov>

No guidelines for new dams or fish passageways

Maryland

Permitting Agency: Dept of the Environment

<http://www.mde.state.md.us>

For existing dams: 5. Pool levels are sometimes adjusted for recreation, hydropower, or waterfowl and fish management. (p. 47,

<http://www.mde.state.md.us/programs/Water/DamSafety/GuidelinesandPolicies/Documents/www.mde.state.md.us/assets/document/damsafety/MD%20Dam%20Safety%20Manual%201996.pdf>)

Dam in a Recreational Park: The Lake Waterford Dam was repaired in 1993. A new principal pipe spillway along with a concrete ogee spillway were installed to safely pass the 100-year storm. In addition a cement bentonite slurry wall was installed and a fish passage was constructed to access the upstream spawning areas.

No guidelines for new dams or fish passageways

Virginia

Permitting Agency: Dept. of Conservation and Recreation, Virginia Soil and Water Conservation Board

http://www.dcr.virginia.gov/stormwater_management/index.shtml

No guidelines for new dams or fish passageways: See

http://www.dcr.virginia.gov/dam_safety_and_floodplains/documents/dsregs.pdf

North Carolina

Permitting Agency: Dept. of Env. and Natural Resources

<http://portal.ncdenr.org>

For existing dams: 5. Pool levels are sometimes adjusted for recreation, hydropower, or waterfowl and fish management.

(http://portal.ncdenr.org/c/document_library/get_file?uuid=6968a202-c971-40ef-9efb-40883a9f9bd8&groupId=38334)

No other guidelines for new dams or specifically concerning fish passageway.

South Carolina

Permitting Agency: Dept. of Health and Env. Control, <http://www.scdhec.gov/>

No guidelines for new dams or fish passageways.

Georgia

Permitting Agency: Dept of Natural Resources, <http://www.gadnr.org/>

No guidelines for new dams or fish passageways.

Florida

Permitting Agency: Dept. of Env. Protection -

<http://www.dep.state.fl.us/water/mines/damsafe.htm>

No guidelines for new dams or fish passageways.