Atlantic States Marine Fisheries Commission

Atlantic Striped Bass Management Board

February 2, 2017
10:00 – 11:45 a.m.
Alexandria, Virginia

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 (*J. Gilmore*) 10:00 a.m.

2. Board Consent 10:00 a.m.
   - Approval of Agenda
   - Approval of Proceedings from October 2016

3. Public Comment 10:05 a.m.

4. Review Technical Committee Report (*N. Lengyel*) 10:15 a.m.
   - Review of Projected Fishing Mortality and Recommended Data Sets for Conservation Equivalency Proposals

5. Review and Consider Approval of 2018 Atlantic Striped Bass Benchmark Stock Assessment Terms of Reference (*K. Drew*) **Action** 11:15 a.m.

6. Review and Populate the Atlantic Striped Bass Stock Assessment Subcommittee Membership (*M. Appelman*) **Action** 11:35 a.m.

7. Other Business/Adjourn 11:45 a.m.

The meeting will be held at the Westin Alexandria; 400 Courthouse Square, Alexandria, Virginia 22314; 703.253.8600

MEETING OVERVIEW

Atlantic Striped Bass Management Board Meeting
February 2, 2017
10:00 – 11:45 a.m.
Alexandria, Virginia

Chair: Jim Gilmore (NY) Assumed Chairmanship: 02/16	Technical Committee Chair: Nicole Lengyel (RI)	Law Enforcement Committee Rep: Kurt Blanchard (RI)
Vice Chair: Russ Allan (NJ)	Advisory Panel Chair: Louis Bassano (NJ)	Previous Board Meeting: October 24, 2016
Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, NMFS, USFWS (16 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from October 2016

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-in 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 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 Technical Committee Report (10:15 a.m. – 11:15 a.m.)

Background

- In October 2016, the Atlantic Striped Bass Board tasked the Technical Committee to 1) determine the percent liberalization in harvest that would increase fishing mortality (F) from the 2015 terminal year estimate of 0.16 to the FMP target F of 0.18, and 2) to recommend a preferred dataset using updated length-frequency data for states to use when preparing conservation equivalency proposals for recreational regulations.
- The Technical Committee prepared a report to address these tasks (**Briefing Materials**).

Presentations

- Technical Committee Report by N. Lengyel

5. Consider 2018 Benchmark Stock Assessment Terms of Reference (11:15 a.m. – 11:35 a.m.) Action

Background

- The Technical Committee drafted terms of reference for the upcoming benchmark stock assessment for review by the Atlantic Striped Bass Board (**Briefing Materials**).
- The Technical Committee will also review the benchmark assessment timeline.

Presentations • Review stock assessment terms of reference by K. Drew
Board Actions for Consideration • Approve stock assessment terms of reference

6. Review and Populate Stock Assessment Subcommittee Membership (11:35 a.m. – 11:45 a.m.) Action
Background • The next benchmark assessment for Atlantic striped bass is scheduled for review in 2018 • The Stock Assessment Subcommittee is repopulated prior to a benchmark assessment (**briefing materials**).
Presentations • Stock Assessment Subcommittee membership by M. Appelman
Board Actions for Consideration • Approve Stock Assessment Subcommittee membership

7. Other Business/Adjourn

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

ATLANTIC STRIPED BASS MANAGEMENT

The Harborside Hotel
Bar Harbor, Maine
October 24, 2016

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1. **Approval of agenda** by consent (Page 1).

2. **Approval of proceedings of August 2016** by consent (Page 1).

3. **Move to task the Striped Bass Technical Committee to 1), determine the percent liberalization in harvest that would increase fishing mortality (F) from the 2015 terminal year estimate of 0.16 to the FMP target F of 0.18, and 2), recommend a preferred dataset using updated length frequency data for states to use when preparing conservation equivalency proposals for recreational regulations** (Page 17). Motion by Mike Luisi; second by John Clark. Motion carried (Page 20).

4. **Move to adjourn** by consent (Page 21).

ATTENDANCE

Board Members

Terry Stockwell, ME, proxy for P. Keliher (AA)
G. Ritchie White, NH (GA)
Doug Grout, NH (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)
Bill Adler, MA (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)
Mike Armstrong, MA, proxy for D. Pierce (AA)
David Borden, RI (GA)
Mark Gibson, RI, proxy for J. Coit (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Matthew Gates, CT, proxy for D. Simpson (AA)
Lance Stewart, CT (GA)
James Gilmore, NY (AA)
Emerson Hasbrouck, NY (GA)
John McMurray, NY, proxy for Sen. Boyle (LA)
Russ Allen, NJ, proxy for D. Chanda (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)
Andrew Shiels, PA, proxy for J. Arway (AA)
Loren Lustig, PA (GA)
John Clark, PA, proxy for D. Saveikis (AA)
Roy Miller, DE (GA)
Craig Pugh, DE, proxy for Rep. Carson (LA)
Ed O'Brien, MD, proxy for Del. Stein (LA)
Mike Luisi, MD, proxy for D. Blazer (AA)
Rachel Dean, MD (GA)
Kyle Schick, VA, proxy for Sen. Stuart (LA)
Cathy Davenport, VA (GA)
Rob O'Reilly, VA, proxy for John Bull (AA)
David Bush, NC proxy for Rep. Steinburg (LA)
Chris Batsavage, NC, proxy for B. Davis (AA)
Doug Brady, NC (GA)
Martin Gary, PRFC
Derek Orner, NMFS
Wilson Laney, USFWS

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

Ex-Officio Members

Nicole Lengyel, Technical Committee Chair

Staff

Robert Beal
Toni Kerns
Katie Drew
Max Appelman
Amy Hirrlinger

Guests

Chris Wright, NMFS
Kim McKown, NYSDEC
Kevin Sullivan, NH F & G
Scott Olszewski, RI DEM
Jason McNamee, RI DEM
Jack Travelstead, CCA
David Blazer, MD DNR
Bill Goldsborough, CBF
Doug Christel, MA F & G
Joseph Gordon, PEW Trusts
Robert T. Brown, MD Watermen Assn.
Victoria M. Brown, MD Watermen Assn.
Phil Langley, MD Charterboat Assn.

The Atlantic Striped Bass Management Board of the Atlantic States Marine Fisheries Commission convened in the Stotesbury Grand Ballroom of the Bar Harbor Club, Harborside Hotel, Bar Harbor, Maine, October 24, 2016, and was called to order at 3:01 o'clock p.m. by Chairman James J. Gilmore.

CALL TO ORDER

CHAIRMAN JAMES J. GILMORE: Welcome. I'm calling the meeting to order, my name is Jim Gilmore; I'm the Administrative Commissioner from New York, and I'll be chairing the meeting today. Let's get right into it so we can get through the procedure stuff.

APPROVAL OF AGENDA

CHAIRMAN GILMORE: First, approval of the agenda, everyone got one in their briefing documents. Does anybody have any changes to the agenda? Seeing none; we'll adopt those by consensus.

APPROVAL OF PROCEEDINGS

CHAIRMAN GILMORE: Secondly, we have approval for the proceedings from August of 2016. Are there any changes to those proceedings? Seeing none; we will adopt those.

PUBLIC COMMENT

CHAIRMAN GILMORE: Before every meeting we have a session for public comment for things that are not on the agenda from our signup sheet. I have one individual who wants to make a comment prior to the full agenda, and that is Phil Langley; Mr. Langley, if you want to come up to the public microphone and make your comments, but please, keep them short.

MR. PHIL LANGLEY: Good afternoon. Before I get started, this is my first trip to Maine. I don't know what I've been missing. What a beautiful state for the people who live here in the state of Maine. Thank you for hosting this. My name is Phil Langley; I am president of Maryland Charterboat Association.

I sit on the Potomac River Fisheries Commission and the Maryland Sportfish Advisory Commission. I would like to thank you, Mr. Chair, and the board, for the opportunity to speak here this afternoon. I would like to commend you for the passion and dedication that you show in protecting our natural resources.

Addendum IV was implemented in 2015, to protect the existing spawning stocks and to ensure healthy spawning stocks in the future. Prior to 2015, most of the Chesapeake Bay summer harvest was primarily on ages 3, 4 and 5 fish. At Age 5, a large number of fish leave the Bay and enter the coastal migration.

To comply with Addendum IV reductions, the Bay states increased the minimum size from 18 to 20 inches in the summer fishery, for recreational and charter anglers. This removed Age 3 and part of Age 4 fish from the Bay fishery and left only part of Age 4 and part of Age 5 to target. With a strong 2011 year class, we saw an abundance of fish. However, most were 16 to 19.75 inches, below the legal harvest size. Most captains I've spoken with were experiencing a 20 to 1 ratio of undersized fish versus kept fish. With an assumed 9 percent mortality, this is 1.8 fish lost for each legal fish harvested. This would indicate that the charter-recreational fishery is being squeezed into part of Year 4 and part of Year 5 fish. I know the decisions made here are tough, and the results affect the livelihoods of many in all of our states. However, each species of fish affect our states differently. Striped bass to Maryland is like what lobster is to Maine.

It is a species that has an enormous impact on the Chesapeake Bay fishery. Unlike most coastal states, the Bay is limited on availability of species it has to target. With the large 2011 year class now entering the coastal migration, I hope we have accomplished the goals set forth by Addendum IV, and that the science supports that adjustment can be made to reduce the number of discards; while also lessening the economic burden experienced by the Bay states. Thank you very much for your time.

CHAIRMAN GILMORE: Thank you, Mr. Langley. Yes sir, you have a comment? Could you please state your name and affiliation?

MR. ROBERT T. BROWN: Robert T. Brown; President

of the Maryland Watermen's Association. Thank you for allowing me to speak today about rockfish mortality rates on the Chesapeake Bay and our charterboat and recreational fisheries. Changing a size limit causes an effect on the fishery that is unforeseeable at the time of implementation; by mortality rates and by handling the fish, making them more susceptible to disease and death.

For example, you would have to catch from 50 to 200 fish to catch one legal size fish in the chumming in the upper Bay. It would be far better for the fish to catch 50 fish and keep two. To me, the 20.5 reduction in the Chesapeake Bay, we were trying to be politically correct instead of a common sense approach to fish and management.

Mother Nature, on its own, limits the upper size of the fish during the migration of the spawning stock, because 95 percent of the fish 24 inches and greater migrate out of the Chesapeake Bay back to the ocean. This shortens the window of harvestable size fish 20 inches to 24 inches, a four inch window that we pretty much have.

This has caused economic hardship on our charterboat fisheries as they cannot catch their two fish per person limit during the regular season. These charterboat parties are not satisfied. Just in the last several weeks in the Tillman Island area, 12 charterboats have been surveyed for sale. Three have been sold last week.

This is putting our charterboat fishery out of business and has affected many of the families and businesses in that area. In addition, the youth of today, our future fishermen and women of tomorrow, are being disappointed, because they cannot keep the fish they catch due to the minimum size limit. I would ask the Technical Committee to strive to do additional research on this matter, as we are fishing on a recovered fishery, and our spawning stock biomass is not in jeopardy. Thank you.

TECHNICAL COMMITTEE REPORT: PERFORMANCE EVALUATION OF ADDENDUM IV

MR. GILMORE: Seeing no other public comments, we'll move right into the review of the Technical Committee Report, the Performance Evaluation of Addendum IV. Nicole Lengyel is going to give us an update. She is the new TC Chair.

MS. NICOLE LENGYEL: Good afternoon, everyone. My name is Nicole Lengyel; I work for Rhode Island DEM, Marine Fisheries Section. Today I'll be presenting a performance evaluation of Addendum IV, and regulatory measures in 2015. I'll start off by going through some Addendum IV background, just to refresh everyone's memory a little bit.

Then I'll jump right into the performance evaluation, present the results of that evaluation, and put them into context for you in the discussion. The 2013 benchmark stock assessment for striped bass showed that although the stock was not overfished and overfishing was not occurring, fishing mortality was above the target; and spawning stock biomass was below the spawning stock biomass target, which ultimately triggered management action.

This management action resulted in Addendum IV, which was approved by the board in October of 2014, with the goal of bringing F back down to the target level in 2016. This required states to implement management measures that would achieve at least a 25 percent reduction from 2013 harvest levels for ocean fisheries and a 20.5 percent reduction in harvest from 2012 levels for the Chesapeake Bay fisheries.

Addendum IV regulatory changes were implemented prior to the 2015 season. For the commercial fishery, this meant a 25 percent reduction to Amendment 6 quota allocations for the ocean fisheries. In the Chesapeake Bay the commercial quota was set at 20.5 percent less than that harvested from the Bay in 2012.

For the recreational fishery, the ocean fisheries implemented a one fish bag limit, with a minimum size of 28 inches. The Chesapeake Bay recreational fisheries implemented a suite of management options that were projected to achieve the F target. States could also implement alternative measures through the Conservation Equivalency Process.

Our preliminary analysis on the performance of Addendum IV was presented to the board in August by the Plan Review Team. They compared the 2015 harvest to the appropriate reference period and found that in the ocean fishery, although the estimated change in harvest was 29.7 percent, the actual change was a reduction of 41 percent.

In the Chesapeake Bay the estimated change was 22.1 percent, and the actual change in harvest was an increase of 53.4 percent. This prompted the board to direct the TC to investigate a little bit further and consider some of the variables that could be contributing to the discrepancies between the predicted and the observed harvest.

The Technical Committee looked at several factors; changes in size and age structure of available fish, changes in effort, and changes in the proportion of fish released alive versus total catch. Looking first at the commercial fishery for the ocean, the top table, the estimated reduction from the 2013 quota was 25 percent. The actual reduction from the 2013 quota from 2015 harvest was 50 percent. The actual reduction from 2013 harvest was 24.9 percent.

As you remember, in Addendum IV it required states to take a 25 percent reduction from the 2013 quota, not the harvest. The actual reduction of 50 percent was greater than that which was estimated due to the fact that states under harvested their commercial quota. In the Chesapeake Bay commercial fishery, the estimated reduction harvest was 20.5 percent. The actual harvest was 25.1 percent. Due to the fact that both the ocean fishery and the Chesapeake Bay fishery met the required reductions for the commercial fishery, no further analysis was conducted by the Technical Committee. Looking at recreational harvest, in the ocean fishery we estimated a 29.6 reduction. The actual change was 47 percent. In the Chesapeake Bay we calculated a 22.1 percent reduction, with the actual change being an increase of 58.4 percent.

Looking again at harvest, here we have the ocean and Chesapeake Bay recreational harvest and recreational release mortality. Here release mortality or discards is 9 percent of total releases. In the ocean fishery you can see that both harvest and dead releases decreased. In the Chesapeake Bay both harvest and dead releases increased.

The first variable that the Technical Committee looked at was size and age structure of the catch. There are two graphs here. In both these graphs you have age on the X axis, and you have proportion of the catch on the Y axis; 2015 is the red line, and then the reference year is in the blue. For both the Chesapeake Bay and the ocean fishery, you can see that Age 4 fish comprise a larger proportion of the catch than in the reference year.

Again, looking at size and age structure of the catch, this one is a little bit more complicated. For all these graphs, the X axis is fork length in inches. You have number of fish in the top two graphs, proportion of fish in the lower two graphs. Again, you have 2015 as the red line, with the reference year in blue.

You have the ocean fishery as the left two graphs, and the Bay on the right. What you want to look at is, first in the ocean fishery, and I'm going to use my pointer on this one right here. You can see that 2015 overall number of fish is decreased compared to the reference year for nearly all lengths.

Again, looking at the bottom for proportion of fish, you can see there is a slight increase in 2015 for 22 inch to 25 inch fish. This is possibly reflecting the beginning of the coastal migration of the 2011 year class. Looking on the other side of the graphs here, we have the Bay. Again, you can see that the number of fish generally increased in the 18 to 30 inch size range for the Chesapeake Bay, and that there was a shift to 20 inch fish in 2015; compared to the 18 to 19 inch in 2012.

We then looked at change in harvest patterns by wave and by mode for each state, but we saw no consistent pattern. Some states saw increases; some saw decreases, in certain waves, certain modes. The next variable we looked at were changes in effort. In the ocean fishery and the Chesapeake Bay, I'm looking at the total change in trips. These are all recreational trips in 2015 compared to the reference year.

Both fisheries experienced a decrease of 13 percent. When we look at just directed trips, where striped bass was the primary or secondary target, there was a decrease of 27 percent in the ocean fishery, and an increase of 50 percent in the Chesapeake Bay. All states in the ocean fishery had a reduced number of directed trips, with the exception of New Jersey, who had a very slight increase of 2 percent.

Again, when we looked at effort by wave and mode for each state, there was no consistent pattern. Now looking at the last variable, released alive versus total catch, here we have percent of total catch released alive in the ocean and Chesapeake Bay in 2015, compared to the reference year, both the ocean and Chesapeake Bay saw an increase in the percent of total catch released alive. This is indicating that the regulations are working, and that anglers are releasing more fish alive. Every state in the ocean and Chesapeake Bay experienced an increase in the percentage of striped bass released alive versus total catch in 2015; compared to the reference year, with the exception of Maryland, who had a very small decrease of 1 percent.

Maine, Massachusetts, Connecticut, New Jersey and North Carolina in the ocean experienced a change of less than 10 percent. For the remaining states, the percentage of total catch harvested decreased more than the percentage released. Again, indicating that anglers were releasing more fish alive.

To put this into context, again, the goal of this performance evaluation was to identify the variables that could be contributing to the differences seen in 2015 removals, compared to those that were originally estimated by the Technical Committee. We saw that the ocean recreational fishery had a larger reduction than was originally estimated by the Technical Committee. The Chesapeake Bay recreational fishery saw an increase in harvest when a decrease was expected.

We all know that size and bag limit analyses assume that effort, angler behavior, catch-per-unit-effort and the size composition and distribution of fish available to anglers, will be the same in the future. Any violation of these assumptions can lead to reductions different than those originally estimated. The TC found that the most significant variables contributing to the differences and realized harvest versus that estimated, were effort and the availability of the 2011 year class.

In regard to effort, striped bass targeted trips decreased by 27 percent in the ocean fishery, whereas, they increased in the Bay fishery. For the 2011 year class, the year class was nearly fully recruited to the Bay fishery in 2015, and the length of the 2011 year class coincided with the Bay's legal size limits.

Overall, the TC concluded that Addendum IV measures are working, and the harvest in the coastal fishery was reduced by the necessary amount. Although harvest in the Bay increased, given the availability of the 2011 year class and the increased striped bass targeting, the management measures likely did reduce harvest from what could have been taken under previous regulations. With that, I'll take any questions.

CHAIRMAN GILMORE: Do we have questions for Nicole? Rob O'Reilly.

MR. ROB O'REILLY: I wonder if the Technical Committee talked about the mismatch on the recreational fishery in terms of the years in question. In particular, we had an 8.5 hour meeting before we made this addendum active. At the time the main thought was there had been a 14 percent reduction in the Bay, and that was the reason for not choosing 2013.

But clearly, the recreational fishery was not impacted like the commercial fishery from that 14 percent reduction. In other words, no jurisdiction changed its size, its season or its possession limit. It is merely that we were under Bay wide quota from 1997 through 2013. The recreational fishery was part of that. As it turns out, the commercial fishery, I think what I saw that you presented was a little over 25 percent reduction; for the recreational fishery, a 54 percent increase; that was harvest of course. But I think if you look at 2013 and compare that to what the coast had for 2013 as well, it is about a 10

percent reduction rather than an increase. I wondered if the Technical Committee had talked about that.

MS. LENGYEL: It was noted by members of the Technical Committee that there would have been a difference had we looked at 2013 compared to 2012. You are correct that when we were developing Addendum IV, 2013 was used for the coastal fishery, but as you said, because the Chesapeake Bay had already taken a 14 percent reduction to their commercial quota in 2013, they requested to use 2012 as a reference year; and that was approved by the board. Because Addendum IV stipulates that 2012 is the reference year for the Chesapeake Bay, the Technical Committee did not analyze that year. But it was noted by some members.

MR. JOHN G. McMURRAY: One of the things that struck me, and I hadn't read this in the briefing material, but the commercial harvest or the commercial, I can't remember if it was harvest or effort, but it decreased by 50 percent or somewhere around 50 percent. Whereas, in the Bay specific, recreational effort increased 50 percent, and I'm wondering if the Tech Committee noted that and if there was any discussion on maybe that had to do with availability.

MS. LENGYEL: I believe for the commercial fishery, yes it did. There was a reduction that was off the total quota, so that was managed by the quota. In the recreational fishery, there was an increase, and that was most likely due to effort in the 2011 year class. Does that answer your question?

MR. McMURRAY: Yes, I guess it does, but I'm still not quite sure on the commercial side of things. They under fished by 50 percent, right? Did I understand that correctly?

MS. LENGYEL: No. That was the coastal fishery, not the Chesapeake Bay. The coastal fishery had to take a 25 percent reduction to Amendment 6 quotas. Ultimately, it ended up coming out to 50 percent, due to the fact that they under harvested.

MR. McMURRAY: Yes, I understand that. But I'm wondering if there was a discussion that maybe had to do with availability. I mean, the quotas are the quotas. You would think the states would meet them.

MS. LENGYEL: The Technical Committee did not discuss that. The past few years it has been consistent that they have under harvested. They under harvested in 2013, as well.

MR. MICHAEL LUISI: Thank you for your presentation, Nicole. I want to just be clear. I read in the report, and it wasn't part of the presentation. I would like to get your interpretation of performance and how that relates to success. Adding to what Rob O'Reilly had mentioned already, when you compare the 2015 catch in the Chesapeake Bay with the 2012 estimate of effort and catch; the 2012 estimate was the lowest in a 20 year time series for that comparison.

When we see numbers, an increase in harvest of 58.4 percent in the Chesapeake Bay, it kind of leads I think, board members to believe that Maryland and Virginia, Potomac River may not have contri1buted to the successful management. I stress the word success. Now, I do understand that success in my mind is understood through an evaluation of fishing mortality; which we're going to get to at some point here later this afternoon. Did the Technical Committee intentionally not make any comments regarding this performance being a basis for success?

CHAIRMAN GILMORE: Mike, I think you're right. Katie is going to do a presentation on the stock assessment. That might be a better question for her after we present that. Why don't you hold that question for a little bit? Adam Nowalsky.

MR. ADAM NOWALSKY: What were the PSEs associated with the recreational harvest estimates in the Chesapeake Bay for the years that generated this reduction, and were they substantially different from PSEs from years earlier in a time series?

MS. LENGYEL: Unfortunately, we do not have the PSE estimates in front of us at this time.

CHAIRMAN GILMORE: I think that is an "I don't know." Ritchie.

MR. G. RITCHIE WHITE: If the coastal recreational sector had just had a 25 percent reduction, would then the overall reduction have missed the target for the addendum?

MS. LENGYEL: As far as this evaluation, the Technical Committee was not evaluating whether the target of the addendum was met. It was very specific for us to just be evaluating what variables could have contributed to the differences seen between the harvest and estimated estimates. We can definitely discuss that as we get into the assessment update, but as far as this evaluation, we were just looking at the variables.

MR. MARTIN GARY: I was trying to recall the last summary slide, and I was wondering Nicole if you could go back to that for the summary for the recreational fisheries there was a paragraph that characterized the likelihood, I think, was the key word I was trying to hone in on. While you're pulling that up, I guess I'll go ahead and mention my thought is that the recreational delta increase for the Chesapeake Bay recreational fisheries was driven per your information in previous slide, by the B2s.

Is that really saying the measures likely reduced harvest from what could have been taken under the previous regulations? Is the inference there that if we hadn't changed, it's sort of a wash? I mean we may have, we likely have, we don't know by how much. Because you heard Mr. Langley and Mr. Brown and Mr. Luisi from Maryland talk a little bit about what we had to go through in the Chesapeake Bay jurisdictions. I am just trying to characterize that last bullet you have there. Again, going back to maybe the term Mr. Luisi used success. What did we achieve?

MS. LENGYEL: In terms of the last bullet on the slide that is currently up, what we were trying to say in this case, is because Maryland and the Chesapeake Bay did in fact change their management measures in 2015, although they had an increase in harvest and dead releases. Had they not changed those management measures and had the minimum size still been the 18 inches as opposed to the 20 inches, there could have been an even greater increase in harvest and dead releases.

CHAIRMAN GILMORE: Go ahead, Mike.

MR. LUISI: Thanks for a second opportunity to just provide a comment leading off of what Mr. Gary just mentioned. You know, I wanted to thank the Technical Committee for making sure to stress the point that the emergence of the 2011 year class was kind of a game changer. We were at the point when we were implementing these new measures, where we were seeing just an enormous biomass growth in the Bay, to the point where it was exploitable. I have no doubt in my mind, as I know the Technical Committee evaluated whether or not harvest reductions happened, by increasing our minimum size. I just want to read, just to strengthen the comment of the last bullet that's on the screen right there.

The actual written report that we have in our briefing materials speaks to the emergence of the 2011 year class. It reads that "the harvest in the Bay in 2015 was undoubtedly lower than it would have been, had regulations remained status quo." I just wanted to make that comment, because I believe it strengthens what was reported as kind of a likely reduction.

CHAIRMAN GILMORE: Seeing no other questions; we're going to move on to the Striped Bass Assessment Update. Sorry Doug, I missed Doug. What a faux pas. Am I fired?

MR. DOUGLAS E. GROUT: I just wanted one more clarification from the TC Chair. When you were doing your analysis to determine what was going to be needed to reduce the harvest by 25 percent. You didn't take into the consideration the fact that strong year classes were going to grow into different minimum sizes, or did you take that into consideration in your original analysis prior to the approval?

MS. LENGYEL: You are correct. That original analysis did not account for several things, effort and change

in size composition of the catch.

CHAIRMAN GILMORE: Any other questions before we move on? Thanks Tina, these guys look like they are in the witness protection program over here on the left side of the table; so that's a big help.

REVIEW THE 2016 ATLANTIC STRIPED BASS STOCK ASSESSMENT

CHAIRMAN GILMORE: Let's go move on to the Assessment Update, and Katie is going to do a presentation for that.

DR. KATIE DREW: Unfortunately, Gary Nelson couldn't be here today, because he came down sick; so I will be giving the 2016 Stock Assessment Update results for Atlantic striped bass. I'm just going to start out by going over the catch data; some of the data that were used in the assessment starting out with the catch data.

We're using MRIP estimates of harvest for the recreational catch, as well as for the amount of fish that are dead releases or die due to being released; for basically all the states from Maine down through North Carolina, but with North Carolina, of course, we're only using the ocean removals not the Albemarle Sound area removals.

For Virginia, Wave 1 estimates of harvest are included, but they have to be estimated, because MRIP is not doing dockside sampling in Virginia north during Wave 1. We use reported commercial harvest from the states that are harvesting, as well as, again, North Carolina, the ocean only removals.

We estimate commercial dead discards from tagging and MRIP data. We acknowledge that there are some missing catch data in this assessment. Catch from the major rivers like the Hudson River and the Delaware River, where MRIP does not cover that recreational, basically freshwater portion. We know there is catch harvest happening there that we're not capturing, as well as unreported catch like poaching and under reporting that we also know is going on; but we don't have a good handle on. These are total coastwide landings split commercially and recreationally. For the time series, you can see the beginning of the recreational time series in 1982 and the beginning of the commercial time series back in the late 1940s. Recreational harvest has really grown quite a bit; whereas, commercial harvest has mostly stayed steady over the last 20 years or so, due to the use of a commercial quota system to control commercial harvest.

If we look at the coastwide removals broken down into commercial harvest and discards in the dashed lines, and recreational harvest and discards in the solid lines, you can see that they are relatively similar commercial. The recreational dead releases are really what have shown a significant drop in recent years, although it has stabilized a bit.

In 2015, the recreational harvest made up about 45 percent of the total removals, recreational discards or the release mortality made up about 25 percent of total removals. Commercial harvest was 20 percent, and the commercial discards were about 10 percent. Overall, all of these sources of removals accounted for about a 27 percent decline in 2015 compared to 2014.

The model uses three separate fleets to account for some of the spatial dynamics of striped bass in their fisheries. We have here a commercial dead discard fleet, an ocean fleet that includes harvest from Delaware and New York River areas, as well as a Chesapeake Bay fleet. You can see that the Bay and the ocean about equally split, making up approximately 45 percent of total removals, and the commercial discards account for the last 10 percent.

If we look at total catch composition by age, you can really see the emergence of that strong 2011 year class, which is the solid black bar on the right hand side of these graphs. It starts showing up in 2012 when they would be one year olds, and then moving more and more into the catch, and making up more and more of that catch.

Compared to some of the earlier strong year classes in 2001 and 2003, which you can see have basically moved their way almost out of the fishery at this point. It is really the lack of the strong year classes

coming through that has caused part of the decline in SSB that we're seeing. If we just look at the overall catch-at-age composition, these graphs are probably kind of hard to see.

But I think the important part for these three graphs is really the expansion of the age classes that we've seen through the recovery of this stock; that in the early part of the time series at the front of the graph, you are catching only a very narrow age range. But even in the Chesapeake Bay, which is dominated by those younger ages, you're still seeing an expansion of the age classes that are present in the fishery in the most recent years.

The same thing for the ocean catch, as well as more buildup in the plus group and the commercial discards; all of which are signs of a recovered population. I'm going to go over some of the index data that we use to tune the model. The distribution of the indices, you can see we've got a number of different indices.

Young-of-year are indicated in pink, and sort of light aqua is the Age 2 plus or the older fish. We updated all of these indices with the most recent years of data. The New York young-of-year index has changed. If you will recall, they had to petition to change their young-of-year index due to funding and personnel consideration; so that the way that it is calculated now is slightly different. Here are the adult indices or the Age 2 plus indices of abundance, with fishery dependent indices, the MRIP CPUE, and the Virginia pound net on the left, and the fishery independent indices on the right; which for the most part do show a consistent decline in the most recent years. Here are your recruitment indices, so these are young-of-year and Age 1 indices. You can see the strong 2011 year class in here, as well as the New York and New Jersey areas saw a strong 2014 signal for that region's young-of-year signal.

I'm just going to go over a brief description of the model that we use. It's a forward projecting statistical catch-at-age model, which is estimating recruitment every year as well as fully recruited fishing mortality for these three different fleets, as well as catch selectivity. The shape of the selectivity curve for the different fleets for different regulatory periods, with the implementation of new regulations in 2015, we likely would expect the selectivity of these fisheries to change.

Unfortunately, the model didn't really have enough data to estimate that so there was almost no difference in the results, including 2015 as a separate selectivity period compared to lumping it in with the earlier selectivity period. That may change as we move forward under the new regulations and add more years of data.

We also estimate the catchability coefficients and the selectivity for the indices. Again, the data are split into three fleets based on region with the Chesapeake Bay, the coast or the ocean fishery, and the commercial discards. We can't really separate the commercial discards into ocean versus Bay because of the way they're estimated and the data that go into that.

They have to kind of be their own separate fleet. This improves the estimates of selectivity, because they are working on different sections of the population and allow us to provide sort of a partial F for how much that fleet is contributing to the total fishing mortality. We do use age specific natural mortality. This was one of the changes in the most recent benchmark, so that Age 1 has the highest natural mortality down to Age 7 plus, which has the lowest.

This is the estimate of total fully recruited fishing mortality over time. You can see the 2015 value is where the Bay was at 0.06, the ocean was at 0.12, and the commercial discard was 0.01. Basically, all fleets saw a decrease in fishing mortality in 2015 compared to 2014. This is the plot of recruitment, where you can see our lowest subpar recruitment years from about the mid-2000s.

With the stronger 2011 year class and potentially a stronger 2014 year class, although there is not really enough data to let the model have a good handle on what recruitment really was in this most recent year. Here are the estimates of Age 1 plus abundance and Age 8 plus abundance. Again, you see that uptick from the 2014 year class potentially at the end there,

but total abundance of the older spawning stock continues to decline.

There is a tiny bit of the projection going forward that suggests we may see a little bit more abundance in the younger year classes, but again, not much of a change in abundance in the 8 plus. This is total female spawning stock biomass, with the threshold there on the graph; so we are just about at the threshold. Although the decline has been slower than in some of the initial projections suggested from the earlier models, it still continues.

This is female spawning stock numbers, so total number of fish rather than biomass of fish; and you can see this has declined faster than the total biomass. The decline in biomass is being slowed somewhat by the growth of the females that are surviving, but the total number of females is dropping faster.

If we look at the retrospective analysis, we can see that there is a slight positive retrospective pattern where we are overestimating F and underestimating SSB. The more interesting thing about it is recently, these patterns have really tightened up, so that these most recent couple of years is a lot closer together than they are to the past and that the past were to each other.

Potentially, this pattern is improving to a certain extent that we're getting tighter and closer together, maybe the data are better, maybe there is something that we've managed to handle with the modeling that is making the model perform better. It is hard to say exactly, but the most recent years are showing a much less bias than later years.

In terms of status of the stock, the SSB is above the threshold, at least the point estimate is. There is about a 40 percent chance, due to the uncertainty in these estimates that it is below the threshold. But the point estimate is above the threshold, meaning the stock is not overfished. It is still below the target.

In terms of F, the F is below both the target and the threshold, indicating overfishing is not occurring and the Addendum IV measures worked. We are below the target for F. The solid line is the trajectory from this assessment; the dotted line is on the screen, but you really can't see it, which is the trajectory from the 2015 assessment update. They are virtually identical.

We also did a set of projections looking at constant catch. Number 1, if we maintain this level of catch that we saw in 2015 through from 2015 all the way through to 2018, what happens to SSB and what happens to fishing mortality? You can see under a constant catch, this is SSB relative to the threshold.

SSB increases and the probability of being overfished decreases. Right now, we are at about a 40 percent chance of being overfished, meaning a 40 percent chance that we're below our SSB threshold. That declines to about a 20 percent chance in 2018 if we maintain constant catch. On this graph we are showing in black the original assessment results.

There has been some concern or interest in adjusting these estimates for the retrospective pattern. A small retrospective pattern, I believe the average of the last five years was applied to this. You should always take this with a grain of salt though, because as we showed, retrospective patterns are not constantly over time, and they can change from year to year.

This is kind of an average retrospective correction. That doesn't mean that going forward, we can expect to see this retrospective pattern continue or continue at this magnitude. This is comparing SSB to the target. SSB will continue to increase slightly with a constant catch scenario, but the probability of being below the target is close to 100 percent; even over the next three years.

If we maintain constant catch, this is F relative to the F threshold, and the probability of overfishing, that is the probability of F being above the F threshold, will remain very low under current catch scenario. Relative to the target, we will only have at most a 20 percent chance of being above the target if we maintain constant catch over the next three to four years. We also did some scenarios looking at a constant F case, so rather than look at keeping

landings constant, if we keep fishing mortality constant, what happens?

Looking at F equals to 0.16, that is the F in the terminal year. If you do that, you can see SSB will increase slightly, and slightly stronger. But again, you'll see that we have here, we put them on two graphs just to combine them just to make your life a little more difficult. The dashed lines are the probabilities of being below the target, which again will remain significantly high for SSB; so will continue to remain below the target.

But the probability of being below the threshold will drop over time, if you maintain the 0.16. If you maintain the F target or 0.18, that increase in SSB is slowed, and there is almost no change in the probability of being below the target and below the threshold. It remains at about 40 percent chance of overfishing in the near future, if we fish at the F target. With that, I will take any questions.

MR. WHITE: Katie, it looks like we're in okay position, given that we have a constant catch at the 2015 level, about 3 million fish. New Hampshire just received their preliminary results from NOAA on our 2016 catch. New Hampshire went from 2015, 56,297 fish to 213,362. We went up by a factor of four, if these results end up being permanent.

I wouldn't suggest that New Hampshire will be representative of the coast, but I've heard that the state of Maine had an extremely good year. My understanding is the Commonwealth of Massachusetts had a very good year. My question is if the constant catch is not maintained and we go up by a factor of 2, 3 maybe 4. Then what are the chances of SSB falling below the threshold?

DR. DREW: They will be higher. I can't tell you exactly how much higher, but the TC did a very limited set of projections. If the board is interested in seeing some additional projections, we can do those and show you guys some actual hard numbers on this. Obviously, these projections are based on even a small increase, you can see here even a small increase of 0.02, in terms of fishing mortality, really arrests any benefit that we're getting from the 2011 year class moving into the SSB.

I will be honest; I'm not surprised to hear that the coastal fisheries, the ocean fisheries are now seeing the benefits of the 2011 year class, as they start to move out into those fisheries. You're probably going to have the same results that Maryland and the Bay saw, which is that it is not going to reflect the estimated reductions anymore as they become more available.

MR. O'REILLY: You partially answered something I was wondering about, Katie. With the constant catch, that indicates that you've adjusted for the 2011 year class up until it is fully recruited, is that correct?

DR. DREW: Yes. The constant catch projections do assume that the selectivity of these fisheries remain the same, but then it applies kind of that selectivity to the available population and knows that it's taking out what component of each of those year classes is it taking out to go forward.

MR. GROUT: That was partially my question, because what was seen, at least in New Hampshire, was primarily, it looked like something that was from the 2014 year class. Not to say that there wasn't 2011 year class in there, but a large part of that catch was all discarded 2014 year class. My question is, we're saying that there has been a four-fold increase in catch, but the majority of that is based on a 9 percent discard mortality rate. It's not like you're harvesting all those fish, that's just catch. Will that have less of an impact?

DR. DREW: Obviously, so it depends on, I haven't looked at the new MRIP numbers yet. If you're talking about an increase in B2s or released alive, then obviously, only 9 percent of those go into the model, so that would have less of an impact. But if it is coming from the harvest side, then you're going to have more of an impact.

CHAIRMAN GILMORE: Marty Gary. Rob's trying to sneak in. Okay, that was your hand, Rob, go ahead. Well actually, let me get to Tom Fote first. I'll come back to you, Rob.

MR. THOMAS P. FOTE: I'm happy that New Hampshire saw four-fold increase in their catch or figures this year, but I guarantee you that were not the case in New Jersey. When we get 70 degree water, 75 degree water this summer, which is about the hottest I've seen it ever off the coast of New Jersey.

We were still warm in the middle of October that we've seen no real fish inside yet. We haven't seen any striped bass along the coast yet in New Jersey. Now, something could change dramatically in December, but we are definitely not going to be four-fold; we're going to be a lot less. The catch has been down dramatically from what I've seen.

CHAIRMAN GILMORE: Rob, did you have a question?

MR. O'REILLY: I do. Katie, when was the first time that the statistical catch-at-age model was used? Was that 2010 or so, is that roughly when that started, do you know?

DR. DREW: Yes it was. The most recent 2013 peer reviewed acceptance was the second iteration of that model. The previous one in the mid-2000s ish, I believe, is the first time it was used.

MR. O'REILLY: My question is on the retrospective, and making sure that I understood what you said about the variability. Since the statistical catch-at-age model has been used, is the pattern in retrospective bias very similar, or have there really been changes on an annual basis or inner annual basis? I would expect the pattern to be that it is overestimating F in the terminal year and underestimating the spawning stock biomass. With all those lines, I'm not sure what your conclusion was.

DR. DREW: Yes, the pattern has always remained the same as you said that we underestimate SSB and overestimate F, which is a change from most of our species, where usually you see it the other way around; where you underestimate F and overestimate SSB.

But what we've noticed recently, as we've been adding more years of data, is that there seems to be a divergence in the extent of this pattern; that is you remove a couple of years and they all stay very close together. But then you start pulling off more years, and they diverge further. You can see more of a split in the two patterns, which is kind of new, and we're not really sure what is causing that. But basically what it's saying is that the most recent years of data, as we add on, are a lot closer and tighter together and have a lower degree of bias than adding on those years to older data, and we're not really sure why.

CHAIRMAN GILMORE: Mike, I've got a placeholder for your question on success. Do you want to ask that now or do you want to ask something different? Well, go ahead and ask both.

MR. LUISI: Well the question I had for Katie was, and it just relates to what is to come. I know that we have a benchmark assessment planned. I wonder if you could give us some thoughts on what the timeline for that benchmark is, and when you would expect to have results of that available for the board. After that, Mr. Chairman, I might have a follow up.

DR. DREW: We are anticipating this to be completed and peer reviewed in 2018. Right now, we are not on the SARC schedule. There are two parts to this answer. Number one, in theory, if everything goes according to plan, in 2018 probably we will have the results either for the August or for the October board meeting. If we're not on the SARC, then we can tailor that schedule. We would go through an ASMFC organized peer review, which is a little more flexible in terms of timing.

Having said that, one of the major components that we expect to change for this analysis will be the MRIP re-estimation of effort, and right now the timeline does allow us to incorporate those new data as they are released in 2018; and any kind of calibration factors that we need to recalibrate some of the most recent years. However, if that schedule changes, then we may have to come back to you guys and ask what you want to do, in terms of -- obviously, MRIP is expecting significant changes in magnitude to the landings based on the new effort estimates.

There will probably be an impact on the assessment, and on past assessment results. We'll have to deal with the question of if that timeline gets disrupted, does the board want to continue with the striped bass timeline, or does the board want to wait on that issue until that is resolved? That is kind of a worst case scenario, but that is what we're looking at right now.

MR. LUISI: I appreciate that, Dr. Drew, and I kind of anticipate there being some considerable challenges as MRIP unfolds and we begin to look at that; as far as the assessment. I guess my follow up question is a little broader in scope, and maybe it's more for the board or for you, Mr. Chairman, to consider.

But it's a question that has been posed to me time and time again over the last year. That question is what are our next steps? Are we planning to do anything with this recent information, this recent assessment update that has just been reported out on? Because the way I see it, especially, if there is any delay in the benchmark assessment, we're looking at 2020 before we would implement any new management measures.

Currently, we're operating under Addendum IV. You've heard time and time again from stakeholders from Maryland and other places where the impacts that we have felt are pretty severe and tremendous regarding the squeeze, which was referred to earlier by Phil Langley, having only a very few fish accessible to our fishermen. We're operating under Addendum IV, which had objectives and goals. The one objective was to reduce fishing mortality to the target. I think, based on this analysis and the report that we just received; we can put a check next to that objective. We've reduced fishing mortality, not just to the target but beyond the target. In the report in our materials, it actually indicated that projections would show that by 2018 that fishing mortality, if we maintained our approach, would even be reduced even further to 0.14 from 0.16.

The second objective in Addendum IV was to preserve and protect the 2011 year class. I would say that we've done that. I would say that for all intents and purposes, whatever we could have done to protect that year class in the Chesapeake Bay, we've done. I mean, we just heard testimony from states where they're seeing three and four-fold increases in available fish in areas where they haven't been in the past.

Here we are, we've accomplished the objectives of Addendum IV. We have a fishing mortality rate in the terminal year of 2015 that is lower than the target. What are the next steps? Where are we going to go from here? I have a suggestion as to what those next steps are, and if you want to continue, I would be happy to offer those suggestions at another point in time, Mr. Chairman, if you would rather continue with questions.

But that is the broader question to the board. This is the last opportunity that I'm aware of that we'll have any type of assessment update to base any type of management changes on, between now and when the benchmark is complete, which is who knows when into the future? I'll leave the question at that and look for any guidance or feedback from other board members.

CHAIRMAN GILMORE: My understanding of this is when we went down this road, the idea was that we would essentially put the reductions in and that it would essentially go for a three year period. When we got to the 2018 assessment, then we would see if we had met those goals and if they were, I guess sticking for lack of a better word.

Now we're in the second year, and I guess we have different opinions of that. Yes, we're below the mortality target, and it looks like we're on a right trajectory. But I think from Katie's presentation we're still not out of the woods yet. There is a lot of good news coming out of it, but there is still – you know the idea was to go for those three years.

I've had other questions from other commissioners and folks about well, because of that overage in the effort in the Bay, wasn't there any payback or adjustment measure, and I said no that was the same thing. If we saw exceedance, we were sticking on the three year plan to see if this was going to work or not.

It appears it is working and it's good news, but at this point if we're going to do any kind of changes I think that would be up to the board. Let me go around and get a few more comments on that; and if you want to propose something Mike, I'll come back to you. John McMurray.

MR. McMURRAY: For 2015, we're above threshold, but we're still below target, correct? There is a 40 percent chance of accuracy.

DR. DREW: Yes, for SSB we are barely above the threshold, with a 40 percent chance of being below.

MR. McMURRAY: But your projections are rosy based on the analysis of that abundance 2011 year class, and the 2015 as well; I imagine figured into that. My question really is, nobody has really brought up 2016 yet and probably there is a reason for that. It was terrible. I know that came in pretty late, and it probably wasn't figured into your analysis.

But I think, around the table, we should keep that in mind. When you look at the space of 10 years at those young-of-the-year indices, and then you look at the prior two decades two that. We're not looking at the same sort of production that we had. We maybe want to be a little cautious here moving forward, with that in mind.

MR. FOTE: I always like to remind people when we do the regression analysis, probably next year, the 2015 will actually look better than it does right now. That is the way the regression analysis also has been done over the years, that usually comes out better. I am also looking at, if you look at just the last six years instead of the last ten years, we have two year classes that are the fourth and the eighth highest.

Now I'm not proposing anything, but let's always look at figures honestly and not just pick out what we basically look at. I'm just looking at what's going on right now. I mean, yes, New Jersey actually has a good year from what I understand right now. It's looking like it is going to be higher than normal.

I think part of the thing is that we know in the Chesapeake Bay when you have extreme droughts like this, it is really not spawning stock biomass, it's water conditions and the environmental conditions that affect that young of the year when it come to this type of year. Am I wrong, through the Chair to Mike?

DR. DREW: Yes, I would agree that I think the TC would agree that environmental conditions certainly have a strong effect on recruitment. It is not solely spawning stock biomass, but spawning stock biomass is an important contributor to that recruitment, but definitely environmental conditions affect it as well.

MR. CLARK: I just want to follow up on some of the points that Mike Luisi was making. We have seen real pain to a lot of sectors, due to these reductions. I was just curious, based on the reduction you showed in the fishing mortality, if you can calculate how much things could possibly be liberalized and still stay below that 0.18? If you would look at that, it doesn't seem like a huge bit of difference there. You were showing that there was a difference in the recovery time from that; but what are we looking at in terms of harvest, if you move 2.18 from the 0.16?

DR. DREW: Those figures are in the report, but I don't have them in this presentation; or at least we didn't calculate what the predicted harvest would be for the difference between 0.16 and 0.18, but the harvest change would be small. I think the larger issue would be, especially with the recreational fishery, of being able to come up with a management measure that would give you such a small change.

MR. CLARK: Just a quick follow up. Could you estimate it in like a percentage term; how much you would be looking at in a change in the harvest?

DR. DREW: We could. I don't have that number in front of me right now.

CHAIRMAN GILMORE: Other questions for Katie? Okay, seeing none; Mike, do you want to offer up something?

MR. LUISI: I absolutely understand and appreciate

this board's interest in preserving and conserving this resource. I can't say enough about how important it is. I think you've heard time and time again from me and from stakeholders from our state and from the Chesapeake Bay region the importance of striped bass to not only our commercial, but our recreational and charter industries, as well.

John's question to Katie just a second ago alluded to the fact that if we were to move from 0.16 to 0.18, it would be a small tick, maybe a 5 to 8 percent liberalization, in terms of numbers. Maybe that's what it would be. I don't have the number to refer to in front of me. But what I'm thinking about and what I'm looking at, is the fact that perhaps just that very small change could be something that saves a few of the fishermen in my state.

A half an inch in minimum size could mean a lot to our fleets, our charterboat and recreational fleet; more so the charterboat community. I've been thinking about this and thinking about what we could do as a next step. I would hate to leave the board meeting here today having had this information, maybe not having all the information available to us.

I've thought about that maybe a potential tasking of the TC, and that tasking would be for two things. The first one would be for the TC to determine what that percent liberalization would be that would result in an increase in fishing mortality from 0.16 to 0.18. That is our fishing target. That is where we have intended, when we decided to make that the target. That's where we should be.

If we were over the target, we would be thinking potentially about reductions to get to the target. I would like to see what that means, as far as overall catch increase. How much is it? What percentage is it, and whether or not it is something that we could consider as a board maybe liberalizing catch into the future?

The second point would be a second task to the TC to recommend a new dataset, a preferred dataset using updated length frequency data for states to use when preparing potentially conservation equivalency proposals for recreational regulations. All of us have the opportunity in a given year to consider conservation equivalency proposals as modifications to our recreational regulations as it results from stakeholder engagement and stakeholder involvement.

The previous time period that we used to calculate the reductions for Addendum IV, I believe, was 2011 through 2013. Well, we now have some new information, and I think having a recommended dataset from the TC for us to use to explore alternative recreational management measures would be helpful. Those are the two tasks. I would look to the board to support that moving forward, for potentially a report at our February meeting.

CHAIRMAN GILMORE: Let me just ask Katie. In terms of workload for the TC, how much effort would this be and would this be taking away from the next assessment? I mean, that's the only concern is it is a workload issue. That request, what do you think it would involve for work for the TC?

MS. LENGLYEL: The TC could certainly do any analysis that the board tasks us with, but I would remind the board that following this meeting, the Technical Committee was planning on getting started on the 2018 benchmark stock assessment. Our next agenda item was to actually work on the terms of reference for that assessment and bring those to the board at the next board meeting. That would certainly impact our timeline, how much I can't really say, but it definitely will slow things down a little bit.

CHAIRMAN GILMORE: Okay, so let's go around for some reactions to Mike's proposal; any questions on that?

MR. McMURRAY: I'm not sure what you're recommending. Are you suggesting we don't have a threshold of fishing mortality at all; we just fish at the target F?

MR. LUISI: No, John. What I'm suggesting is that we currently are 0.02; we're underneath the fishing mortality target. When we took the reductions that we did in Addendum IV, the analysis of 2015

indicates that we overshot the target. The way I view that is it is kind of like a little cushion in what we have available to us, as far as management action to fish at the target. Fishing at the target is not a risky thing; it is the target for a reason.

I feel like we may have an opportunity to explore and just have that conversation once we're informed about what are we really talking about as far as additional catch? Maybe that little bit of additional catch could go a long way over the next few years, in helping with some of the hardships that folks have faced based on that. I'm not suggesting at all about removing the threshold. We're lower than where I think we could be, and there is a little cushion there that we might be able to exploit.

MR. CLARK: I would just like to speak in support of the ideas that Mike just put forward. I think we're talking about a small increase. Once again, these reference points, as we know, are very conservative to start with. I think what's Mike is asking could probably be figured out pretty quickly. I would like to see us proceed in that direction.

MR. MICHAEL ARMSTRONG: I very much appreciate what's going on in the Bay, although I look at the data, and I really want to talk more to you guys about it. I see and I hear the charter guys talking. But I see you catching the same number of fish as you did last year. The harvest is the same. The number of caught and release are more. I'm struggling to see the difficulty that this has created.

I'm very open to the explanation. What really worries me; it is a fool's errand to be messing around in the hundredths spot on an assessment. We're kidding ourselves if we think there is a difference between 0.16 and 0.18. But to Katie's point, we're talking 0.02 is 2 or 3 or 4 percent increase; something like that. What management measure are we going to take that we're going to craft to get 4 percent more catch? That is my concern.

MR. O'REILLY: Well, it is about a 12 percent difference if you just look at one fishing mortality rate 0.16 up to 0.18. That is 12 percent difference; I don't know what that translates to number of fish. I think it is a good idea. I think you have to appreciate that from 1997 until 2013, Chesapeake Bay was under a Bay wide quota. We were very used to making these fine point adjustments the best we can. I think we neared that quota one time. I want to say 2003. But if the harvest control model called for reductions, we took reductions. I think that, in general, we fish on a resident stock, and the way the whole system was set up and has been lost, it was on the 18 to 28 inch components. One inch even might make a big difference, may not be that much fish; but I do think it's worth us being able to see that.

In fact, everyone from our advisory boards to the charter groups to everyone else is very aware of the way management went over that time period. It is a big awakening to them to see that we're not able to make even modest changes. I certainly support it, and I have another question if you want to come back to me later, Mr. Chair, which does not relate to this issue.

MR.WHITE: I share Mike's comments. I think that this would be a kneejerk reaction. I think that, as you said, when we put these measures in place it was supposed to be for three years. I guess my concern would be, if any changes would be made, and I certainly would not support that; that the coast should be the ones that benefit.

The coast made the cut here. The Bay, as Mike said, caught the same amount of fish. If it weren't for the coast, we wouldn't be in compliance with the plan. For that, I think it is not worth risking Technical Committee's time having that impact the stock assessment work. I would oppose this.

MR. MARK GIBSON: I agree with a lot of the sentiments that Mike Armstrong spoke to. Looking at Figure 9 in the assessment report, which I think shows the partial Fs. It shows if you look at the partial Fs in that draft that the one for the Bay is flat. It hasn't come down. The partial F for the ocean, for the coast, came down substantially from the reference year and the commercial discards, as well.

If we're talking about whether Addendum IV achieved its objectives or not, I think it did partially,

but not completely. I do think we would be tinkering around with management measures that would be very unlikely to precisely achieve the small increment we're talking about. I don't know whether we're talking about an addendum here or working within what we have.

But I think the technical people should be focused on the benchmark assessment and some of the good ideas they have about proceeding with multiple stocks within the overall assessment and regional calculations and so on; and not tinkering around with what we've done, which looks to me like we've only partially been successful.

CHAIRMAN GILMORE: I think what we're discussing right now is simply to task the TC to get some additional data. I think, based upon the spread we have right now, we're probably going to have to do this in the form of a motion; but let me get a few more comments before we get into that.

MS. RACHEL A. DEAN: I think if I learned anything from the plenary session this morning, I learned that sometimes ahead of what the science is seeing is what the fishermen are seeing. As I'm thinking about that, you know I don't think that Mr. Brown or Mr. Langley would make this trip to Maine, although it is absolutely beautiful here, if they weren't seeing something that might indicate that something else is going on. I certainly understand Mike's comments about the numbers aren't really changing. The fishing didn't change. But there are certainly thoughts there that there is something happening. Again, I don't think that these gentlemen would be here if not. I think the second thing that I learned this morning, and that was probably from the first couple years of ASMFC, was the comment about the watermen from Maryland who addressed the fishermen from Massachusetts and said, you're looking at the mothers; and he said, well, you're looking at the babies.

I can certainly understand that but I want to promise this board that Maryland did what they could, because we know that we're stewards of what goes out into that ocean. I think now that the shoe might flip as we look at that 2011 stock going out onto the coast, and we might be looking at a different set of data in 2016.

All that we would really like to ask is that we could task the Technical Committee with possibly looking at those numbers, just so that we can take it back to our fishermen and say, well there might be a possibility here that we could save what it is that you came to ask for; and that is really to save your businesses.

MR. KYLE SCHICK: I'm not interested in a blame game competition, but for over two decades, the Chesapeake Bay region has managed and kept within their quotas; except for I think we came close one year, and this was on the back of our fisheries that we've done this. Now here we come around and all of a sudden now it's the Bay's fault, and if anything needs to be done it needs to be done in the Bay.

I say, you know, it was the overfishing on the coast that has caused the issue that we're trying to solve today. I think we deserve at least an opportunity to show our fishermen that maybe an inch size would make a difference, or wouldn't make a difference. I think it is worth looking into.

MR. FOTE: We're not going to do a blame game and you blame the coast. I basically look at the fact that when we look at the mortality rate as the Chesapeake Bay catch, we also used the producing areas of the Hudson River and Delaware River, and they get no credit for that in the plan or that mortality rate goes to the Chesapeake Bay.

You get the bonus of counting those fish in from the Hudson and the Delaware, since we don't have a spawning area anymore since Amendment 6, I think it was. My concerns here, as you know, I was not supporting you going to one fish; I didn't think it was necessary. As the projections are going to see, we're going to have plenty of spawning stock biomass in 2017. But again, I don't approve of kneejerk reactions no matter which way it goes.

I didn't approve this that we went to one fish; because it was a 25 year or 20-year span that we had the same regulations, which seemed to be working.

We had some projections that we might do something in 2017. We basically did that. It puts me in a difficult spot because I don't support kneejerk reactions. I think if the action is to go, it has to go on both sides of this. At this time, I can't support a separate action just for the Chesapeake Bay and not the coast.

MR. NOWALSKY: I'm not sure how I feel sitting here today about an increase or a decrease in access, but what I do know is that what initiated this action a short time ago was a very small tick in F above the F threshold. That very small tick above meant something. Again, I don't disagree with the earlier speakers that we may not be able to quantify it. With the retrospective pattern that suggested that F is generally overestimated, and that the SSB is generally underestimated. There were questions at that time.

But that small tick was enough for us to take significant management action. What is being suggested today is that a tick under the F target now, just take a look at what that could potentially mean. I don't know what my answer would be, but I would like to see what that would mean in terms of potential action for us. I would support that evaluation at this time.

MR. TERRY STOCKWELL: For the first time since I've been coming to Striped Bass Board, I can report that I didn't get a single complaint this year. To me, that is good news. It has finally taken some time for some fish to work their way into the pipeline and make it into the Gulf of Maine here.

From this piece of geography, I support staying the course on the cusp of having an assessment, and make whatever adjustments are necessary at the time. If the assessment indicates we should increase, be it the ocean fishery or the Bay fishery, I would be 100 percent supportive at that time.

CHAIRMAN GILMORE: I think we've gone around the table now, so Mike, just as I said before. I think we're going to need a motion on this, because it seems to be pretty well split here. If you could maybe propose a motion in terms of what you would want the TC to do for us, then we'll discuss it and have a vote on that.

MR. LUISI: I sent it to Max, I sent the motion via e-mail to Max, so maybe while they're working to get that up, if it would be okay, Mr. Chairman I could add a couple additional thoughts. I appreciate everybody's concern and thought on this. But what I do want to say is that I don't consider this any type of kneejerk reaction. It is a reaction.

It is a reaction to new information. That new information and the potential reaction are unknown. We don't know what. That is why we're asking the question of the TC, is to provide a thorough look at what is being asked of them, so that the board can have an opportunity with all of the information in front of them to make a decision as to whether or not we do anything or not.

I think saying right now that a small increase in harvest, while it may translate to something small in nature that I feel could potentially help the fishermen in my state. I think by making that decision without knowing what the numbers are and what we would be looking at is premature to make the decision to not move forward, given that we don't have all of the in information. I have to make one more comment.

CHAIRMAN GILMORE: Just before you go, Mike, can I get a second to this before? John Clark.

MR. LUISI: If you would like, I can read that into the record. I move to task the Striped Bass Technical Committee to one, determine the percent liberalization in harvest that would increase fishing mortality from the 2015 terminal year estimate of 0.16 to the FMP target F of 0.18, and two, recommend a preferred dataset using updated length frequency data for states to use when preparing conservation equivalency proposals for recreational regulations.

DR. DREW: Just to clarify. You just want the percent increase in catch; you're not interested in a bag or size limit or management changes that would be required to get to that point. You just want to know

how much additional catch could be taken.

MR. LUISI: That would be what I would be looking for as far as a percentage. Then if we had a new dataset to use, we could calculate our own recreational measures that would fit within each of the states; if we were to choose so and if the board were to allow for that liberalization to take place. But again, that is for a future discussion and a decision at another time.

Today's request was simply to get the information so that we can look at it and do an analysis, and decide at a later date whether or not we would make that change. Mr. Chairman, I do want to just make one more point. It was mentioned just a little while ago that it was the coastal reduction that made 2015 a successful year, as far as how it translated into catch. I have to disagree.

We managed the Chesapeake Bay quota for 20 years. We based that quota on exploitable stock biomass. As the 2011 year class grew, and got into the wheel house for fishing to happen on it, we increased the size limit by 2 inches. The quota in 2015 would have been tremendously higher than what it was in the previous years because of that 2011 year class.

Therefore I say, while maybe the catch may have been similar to the previous year, 2015 was reduced from 2014. But it had a very, very large potential. I have to disagree that the Chesapeake Bay wasn't a part of the successful nature of meeting the objectives of Addendum IV, and reducing fishing mortality. On the coast now, we have to remember we no longer are evaluated based on Chesapeake Bay catch, it's a coastwide F, and we contributed significantly.

CHAIRMAN GILMORE: We've got a lot of comments on this already, so if there are some new things you want to add on, let me go around one more time. Emerson.

MR. EMERSON C. HASBROUCK: I have a question for commission staff. It was mentioned before that there might be some impact in terms of the work to be done in the timeline on the next assessment. What would be the impact of this? How much time is it going to take staff to take a look at this? Realistically, are we pushing back the timeline for the assessment at all by looking into this?

MS. LENGYEL: I can't answer how much time exactly it will take, but it could potentially push back what we wanted to achieve at the next meeting, which was bring the board a draft version of the terms of references for approval.

MR. McMURRAY: I'm trying to figure out what's going on here. Harvest was up almost 55 percent in the Bay states, where it was supposed to be decreased by 20.5 percent. I think, during your presentation, recreational fishing effort was up 50 percent. Coastal states on the other hand went down to one fish, and our decrease was 47 percent, I think.

Now we're considering a request from the states that overfished to do an analysis so they could catch more fish. It doesn't make sense here. Nobody is discussing well, maybe we should look at the regulations that they had in place that allowed them to go 54 percent over. Instead we're considering this. I don't really understand how the conversation even got here.

CHAIRMAN GILMORE: Other questions or comments around that haven't spoken yet? Okay, Rob O'Reilly.

MR. O'REILLY: I'll try and respond to that a little bit, just a little help. We're talking about the 54 percent, but we're not talking about fishing mortality rate. We have a coastwide fishing mortality rate. We have three fleets, but we haven't ascribed an F for the Chesapeake Bay. But you realize that we had the 2011 year class among us.

For example in Virginia, the amount of discards went up from 250,000 in 2014 to 800,000 in 2015. That all counts as removals, because you take the 9 percent. Unless we have an F specific to Chesapeake Bay, we're left with what we started with in this addendum, which is a coastwide fishing mortality rate.

The other thing is, you have to realize how low is low? I'll just speak for Virginia. The recreational fishery went from 1.7 million pounds down to about 130,000 pounds by 2012 or so. Everything is relative to the position you're in. Now we understand that well there already are 2011 year class fish out on the coast, and there is going to be more.

That is the migration schedule. If we take this next year and do the same thing, it's going to look a lot different. But I think, overall, unless you're willing to consider anyone that this is a coastwide situation, and it is for fishing mortality rate; then you're nibbling at something that doesn't exist.

CHAIRMAN GILMORE: Any other question or comments from people who haven't spoken yet. I know you've got your hand up, Mike. I'll come back to you. Actually, I would like to go to the audience to see if there are any comments from the public; Arnold Leo.

MR. ARNOLD LEO: Arnold Leo, I think. I represent the fishing industry of the town of East Hampton, and I've been a very long time participant in the management process for striped bass. From the point of view that I've developed, we're looking at simply colossal, historically speaking, a colossal stock of striped bass, which is basically in a terrifically healthy condition.

Except now with the spawning stock biomass, it's sort of hovering around where it was determined that it should be. But I think we're being awfully finicky or a little bit too concerned with the very fine points of management. With this situation of this huge stock and these fishing mortality rates and the spawning stock biomass being pretty much where they wanted to be.

That we can't be flexible in our approach to management when we have a traditional user group, which is actually going out of business due to management actions and would benefit greatly by a slight loosening of the regime that was put on us with I think it was Amendment 4. I just wanted to speak in favor of Mr. Luisi's motion.

CHAIRMAN GILMORE: Any other public comment? Go ahead, sir.

MR. ROBERT T. BROWN: Robert T. Brown; President of Maryland Watermen's Association. What we don't realize here, if you go look back at our fishing practices we had over the years and years ago, the amount of fish that we used to harvest at that time compared to what we catch now. It's not a drop in the bucket.

We don't want to go back there, and we don't want to go back to a spawning class of 1982. Our spawning stock that we have right now is more than adequate. All we're asking for right now is not saying that we can go to a 0.18, but just to look at it through the Technical Committee and let's look and see what exactly it would do.

Because our fishery, especially our charterboat fishery is in real dire need, as well as the rest of our fishery is also suffering with that 20.5 cut. The only reason we got that cut at that time that 20.5 and that 25 percent on the coast was because the benchmark was changed. When you all adjusted the benchmark up that took us out of where we were between the target and the threshold. That is what put us where we were at. Since then, we have abided by it, have taken the cut, and this cut hurts; and I thank you.

CHAIRMAN GILMORE: Thank you, Mr. Brown, any other public comment? Seeing none; we're back to the board. Mike, I think you had your hand up. Oh you're done. Does anybody else want to make a comment? Russ Allen.

MR. RUSS ALLEN: Just cause I can. You know, I've heard a lot of talk around your board. I don't think anything that comes out of this change; this motion will change anybody's mind on how they want to vote on a motion that may come up at the next meeting. But I still think it's a process we need to do. We would do it for any other species. We would do it if it was flipped over the other way.

I just think it's time to sit back, let the Technical Committee do their job, let the board analyze what they have to say, and then move forward. We're not

talking that this would happen on such a quick pace that we're changing regulations in the middle of next year. You still have to go through the addendum process if we want to, and things of that nature. I would like to see you call the question pretty soon, because I've got a boat ride later.

CHAIRMAN GILMORE: Well, it's all Terry's fault, he raised his hand before, and that's why we're going to go over. I'm going to call the question now. I think we beat this one pretty well to death. I'll give you two minutes to caucus, because I think we might need that. Then we'll call the question.

Okay are you ready for the vote? All those in favor of the motion; please signify by raising your right hand. Eight in favor; all opposed, seven opposed, null votes, abstentions. Motion carries eight to seven; eight to six, sorry. Okay, moving along to our last item of business. Max is going to make a couple of comments on this before we talk about it. We should be pretty quick. Go ahead, Max.

CONSIDER ADVISORY PANEL REQUEST TO SUBMIT COMMENT TO THE MAFMC ON ITS DRAFT SQUID CAPACITY AMENDMENT

MR. MAX APPLEMAN: Very briefly, so this agenda item was requested to be on this meeting's agenda. Basically, the Mid-Atlantic Council is drafting a Squid Capacity Amendment. Some of the options that are proposed for the draft amendment are going to affect squid harvest in and around the Nantucket Sound area.

Since squid are a primary prey item for striped bass, the AP has a lot of interest in those options being considered, and they noted at their last conference call meeting that they would like the board or the AP or something along those lines to submit comment to the Mid-Atlantic Council on that draft amendment.

As I understand it, the draft amendment is not going to be released for public comment or public hearing until spring of 2017. That timeline could also change and there still seems to be a lot of discussion going on about what is actually going to be in that draft amendment.

Talking with the board chair before this meeting, we thought it might be appropriate to postpone this to the next meeting, or until more information comes available regarding that draft amendment. Of course, I continue to track the progress of that and keep the board Chair and the AP Chair in the loop.
CHAIRMAN GILMORE: Just for clarification on that, I think the way it was presented that it thought that the AP would comment directly. It would be, if we get to the point when we actually have measures under that amendment that the AP would then come back to the board and then propose comments that the board would then decide to approve or disapprove, in terms of commenting back to the Mid-Atlantic Council. John, if you wanted to add something to that, go ahead.

MR. McMURRAY: The issue that the AP discussed was A, the lack of availability for striped bass in the rips on Nantucket and Martha's Vineyard, and whether or not that had to do with the aggregation of squid boats off of Martha's Vineyard and Nantucket. They also discussed bycatch. There were a number of reports of striped bass bycatch discards, floating discards and scup and black sea bass, as well.

Part of the squid capacity amendment that the council is doing now, currently includes alternatives for buffer zones that squid fleet would have to fish outside several described buffer zones in the document. We didn't know that when we had the AP call, until Max brought it up. Frankly, I should have been the one that brought it up, but Max did. The document is still being created. It looked like, for a little while, those alternatives might not be in the document, but now it does look like they are1.

I don't think that now is really the right time for us to comment on it. But I do think we need to be aware of it, and we need to, when the draft amendment does become public, which I think it is projected to early next year, probably within the first two months; that we should have staff take a look at it and maybe have another AP meeting, and maybe have it on the agenda for the following meeting.

CHAIRMAN GILMORE: Okay, John, we will definitely consider it. Okay Eric, go ahead.

MR. ERIC REID: It is quarter to five; I've been in the squid business since 1983, so about 9:30 tonight I'm going to be done with my comments, if that's okay with you. I have no problem talking about this at a later time. But the Mid-Atlantic Council hasn't even had a committee meeting yet. I don't believe it's going to be early next year.

Maybe it's going to be late next year; maybe it's going to be the following year. But this thing is in its infancy; to the point where the inshore fishery right now is being discussed as a time, not an area, which is kind of an interesting thing to define inshore by time. But Mr. Chairman, maybe two meetings from now we can talk about this.

ADJOURNMENT

CHAIRMAN GILMORE: Thanks, Eric, and maybe I won't be Chairman then, good. With that being said, is there other business to come before the Striped Bass Board? Seeing none; I will take a motion to adjourn. It's seconded by everybody, and now I want to go to Terry Stockwell who has this fabulous announcement he's going to make to us; and I got done on time right, Terry, I saved you.

(Whereupon the meeting adjourned at 4:46 p.m. on October 24, 2016.)

Atlantic States Marine Fisheries Commission

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MEMORANDUM

January 13, 2017

To: **Atlantic Striped Bass Management Board**

From: **Atlantic Striped Bass Technical Committee**

RE: **Percent Liberalization in Harvest (0.16 to 0.18) and Dataset Recommendation for Conservation Equivalency Proposals**

In October 2016, the Atlantic Striped Bass Board (Board) tasked the Technical Committee (TC) to 1) determine the percent liberalization in harvest that would increase fishing mortality (F) from the 2015 terminal year estimate of 0.16 to the FMP target F of 0.18, and 2) to recommend a preferred dataset using updated length-frequency data for states to use when preparing conservation equivalency proposals for recreational regulations. The following represents the work completed by the TC to address these two tasks.

Task 1

Methods:
The two projection scenarios examined were:

1. Project population starting in 2015 through 2017 using preliminary removals for 2016 and fishing mortality (F) of 0.18 (i.e., F target) in 2017. Estimate total removals in 2017.
2. Project population starting in 2015 through 2017 using constant F of 0.156 in 2015 and F of 0.18 in 2016 and 2017. Estimate total removals in 2016 and 2017.

For Scenario 1, error in F and starting abundances for 2015 was assumed. For Scenario 2, only error in starting abundances was assumed. Projections were made for the uncorrected and retrospective bias-corrected estimates of F and spawning stock biomass (SSB), and 10,000 runs were made for each scenario.

Results:
Preliminary 2016 removals are estimated at 3,557,510 fish[1] which is an 18% increase in removals from 2015 (3,017,358 fish). According to the projection model (Tables 1-2), the number of harvested fish that it would take to increase F from 0.156 in 2015 to 0.18 (target F) in 2017 ranges from 303,800 fish (Scenario 2, without retrospective bias correction) to 341,186 fish (Scenario 1, with retrospective bias correction), a 10 - 11% increase in removals from 2015 (Table 3), but a reduction of approximately 6% from preliminary 2016 estimates of removals.

Discussion:
Although projections indicate harvest could increase in 2017 relative to 2015 numbers, all of the scenarios result in 2017 removals that are less than the preliminary 2016 removals.

According to the projections in Scenario 1, F increased to 0.19 in 2016 which is above the F target (0.18) indicating that current recreational and commercial regulations may result in an F of 0.18 or greater in 2016 and 2017. Also, the 2016 removals estimate for Scenario 1, although preliminary, is higher than that estimated via a constant F of 0.180 in Scenario 2. In other words, if the final 2016 removals estimate is lower than that used for Scenario 1, it is still likely that F will be estimated above the F target in 2016.

The TC also stresses that although the assessment is very good, it may not be able to distinguish between fishing mortality point estimates of 0.16 and 0.18. In other words, the upper and lower bounds of the confidence intervals for both F estimates would essentially overlap.

[1] Preliminary removals for 2016 were estimated via the sum of the 2016 preliminary MRIP harvest and dead discards estimate (A+B1+9% of B2's; waves 2-5), the 2015 wave 6 harvest and dead releases estimate from the Mid-Atlantic (wave 6 for 2016 has not been released yet), the 2015 Virginia wave 1 harvest estimate, the preliminary 2016 commercial landings estimates (except 2015 commercial landings were substituted for New York and Virginia because final 2016 landings are expected to be significantly higher for those states), and the 2015 commercial discards estimate.

Table 1. Scenario 1; preliminary 2016 removals estimate. Results of 2016 fishery independent surveys are not accounted for in the 2016 and 2017 stock status projections (F and SSB). Removals are in number of fish. *median value

No Retrospective Bias-Correction						
Year	Removals	F	*Estimated Removals	*SSB (mt)	Probability F is above the threshold	Probability SSB is below the threshold
2015	3,017,358	0.156		58,886	0.021	0.411
2016	3,557,510	0.194		58,754	0.175	0.407
2017		0.180	3,329,752	58,677	0.058	0.417
Retrospective Bias-Correction						
Year	Removals	F	*Estimated Removals	*SSB (mt)	Probability F is above the threshold	Probability SSB is below the threshold
2015	3,017,358	0.148		61,622	0.011	0.244
2016	3,557,510	0.190		61,752	0.140	0.218
2017		0.180	3,358,416	61,466	0.058	0.233

Table 2. Scenario 2; constant F of 0.156 for 2015 and F of 0.18 for 2016 and 2017. Results of 2016 fishery independent surveys are not accounted for in the 2016 and 2017 stock status projections (F and SSB). Estimated removals are in number of fish. *median value

No Retrospective Bias-Correction				
Year	F	*Estimated Removals	*SSB (mt)	Probability SSB is below the threshold
2015	0.148	3,017,230	58,847	0.417
2016	0.180	3,270,465	57,902	0.481
2017	0.180	3,321,030	58,478	0.436
Retrospective Bias-Correction				
Year	F	*Estimated Removals	*SSB (mt)	Probability SSB is below the threshold
2015	0.156	3,017,230	61,471	0.254
2016	0.180	3,318,723	60,310	0.307
2017	0.180	3,332,337	60,595	0.277

Table 3. Percent liberalization in harvest that would increase fishing mortality (F) from the 2015 terminal year estimate of 0.16 to the FMP target F of 0.18. Removals are in number of fish. *model-based estimate. ^based on 2016 preliminary removals estimate; 3,557,510 fish (see footnote above).

Scenario	2015 Removals	2017* Removals	Change in Removals	Percent Change in Removals From 2015	Percent Change in Removals From 2016^	Retrospective Bias
1	3,017,358	3,329,752	312,394	+10%	-6.4%	No
		3,358,416	341,186	+11%	-5.6%	Yes
2	3,017,230*	3,321,030	303,800	+10%	-6.6%	No
		3,332,337	315,107	+10%	-6.3%	Yes

Task 2

In November 2014, the TC set criteria for the development of conservation equivalency (CE) proposals (M14-110). The TC acknowledges that 2011-2013 data are no longer appropriate for CE proposals due to the emergence of the 2011 year class in the catch data and the change in size-frequency of the current population. The TC discussed that a length-based projection model would be the best approach for states to use to address variability concerns, and is interested in pursuing the development of the model. However, until such a model is developed, the TC recommends states use the most recent three years of size-frequency data for preparing CE proposals unless a state can justify using less data. For example, the sample size from the most recent two years (or one year) may be sufficient. States should explicitly state its justification for using less than the most recent three years of data within the CE proposal.

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MEMORANDUM

January 13, 2017

To: **Atlantic Striped Bass Management Board**

From: **Atlantic Striped Bass Stock Assessment Subcommittee**

RE: **Draft Terms of Reference for the 2018 Atlantic Striped Bass Benchmark Stock Assessment and Assessment Timeline**

The next Atlantic striped bass benchmark stock assessment is scheduled to be completed in the fall of 2018. The Atlantic Striped Bass Stock Assessment Subcommittee has recommended the Board consider the following terms of reference for the assessment and peer-review panel:

Terms of Reference for Stock Assessment Process:

1. Investigate all fisheries independent and dependent data sets, including life history, indices of abundance, and tagging data. Discuss strengths and weaknesses of the data sources.

2. Estimate commercial and recreational landings and discards. Characterize the uncertainty in the data and spatial distribution of the fisheries. Review new MRIP estimates of catch, effort and the calibration method if available.

3. Use an age-based model to estimate annual fishing mortality, recruitment, total abundance and stock biomass (total and spawning stock) for the time series and estimate their uncertainty. Provide retrospective analysis of the model results and historical retrospective. Provide estimates of exploitation by stock component and sex, where possible, and for total stock complex.

4. Use tagging data to estimate mortality and abundance, and provide suggestions for further development.

5. Update or redefine biological reference points (BRPs; point estimates or proxies for B_{MSY}, SSB_{MSY}, F_{MSY}, MSY). Define stock status based on BRPs by stock component where possible.

6. Provide annual projections of catch and biomass under alternative harvest scenarios. Projections should estimate and report annual probabilities of exceeding threshold BRPs for F and probabilities of falling below threshold BRPs for biomass.

7. Review and evaluate the status of the Technical Committee research recommendations listed in the most recent SARC report. Identify new research recommendations. Recommend timing and frequency of future assessment updates and benchmark assessments.

Terms of Reference for External Peer Review:

1. Evaluate the thoroughness of all fisheries independent and dependent data sets, including life history, indices of abundance, and tagging data. Evaluate the strengths and weaknesses of the data sources.

2. Evaluate the methods used to estimate commercial and recreational landings and discards. Evaluate the uncertainty in the data and spatial distribution of the fisheries. Evaluate new MRIP estimates of catch, effort and the calibration method if available.

3. Evaluate the methods and models used to estimate annual fishing mortality, recruitment, total abundance and stock biomass (total and spawning stock) for the time series and evaluate their uncertainty. Evaluate retrospective analysis of the model results and historical retrospective. Evaluate estimates of exploitation by stock component and sex, where possible, and for total stock complex.

4. Evaluate estimates of mortality and abundance derived from tagging data, and provide recommendations for further development of the tagging models.

5. Evaluate the choice of reference points and the methods used to estimate them. Recommend stock status determination from the assessment, or, if appropriate, specify alternative methods or measures.

6. Evaluate annual projections of catch and biomass under alternative harvest scenarios. Projections should estimate and report annual probabilities of exceeding threshold BRPs for F and probabilities of falling below threshold BRPs for biomass.

7. Review and evaluate the status of the Technical Committee research recommendations listed in the most recent SARC report. Identify new research recommendations. Recommend timing and frequency of future assessment updates and benchmark assessments.

8. Prepare a peer review panel terms of reference and advisory report summarizing the panel's evaluation of the stock assessment and addressing each peer review term of reference. Develop a list of tasks to be completed following the workshop. Complete and submit the report within 4 weeks of workshop conclusion.

2018 Atlantic Striped Bass Benchmark Stock Assessment Timeline

Meeting Description	Meeting Dates and Deadlines
States to submit metadata on available sex data	✓
Data Workshop Planning Call/Webinar - Discuss Data Needs & TOR's	✓
SAS conference call – reference point guidance	✓
Board Approval of TOR's	February 2017
SAS conference call – model brainstorming	March 2017
Initial Data Submission for Assessment through 2016	June 15, 2017
SAS conference call – model brainstorming (cont.)	July 2017
Data Workshop	August 2017
Assessment/Modeling Workshop I	Nov/ Dec 2017
Updated data submission for Assessment through 2017	May 2018
Last day for final 2017 data submission	June 15, 2018
Modeling Workshop II	July 2018
Final SASC call/webinar to approve stock status determination	2nd week of Sept. 2018
All Draft Report components due to staff	1st week of Oct. 2018
Draft report distributed to TC	2nd week of Oct. 2018
Call/Webinar with TC to discuss assessment findings & approve report	Last week of Oct. 2018
Stock Assessment Report due to external peer-review panel	2nd week of Nov. 2018
Review	1st week of Dec 2018

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MEMORANDUM

January 13, 2017

To: **Atlantic Striped Bass Management Board**

From: **Max Appelman, Fishery Management Plan Coordinator**

RE: **Review and Populate the Atlantic Striped Bass Stock Assessment Subcommittee**

The Atlantic Striped Bass Stock Assessment Subcommittee (SAS) is repopulated prior to each benchmark stock assessment. ASMFC staff and the Atlantic Striped Bass Technical Committee reviewed potential members and recommend the following state, federal and academic representatives for SAS membership:

Michael Celestino, New Jersey Department of Environmental Protection

Justin Davis, Connecticut Department of Energy & Environmental Protection

Katie Drew, Atlantic States Marine Fisheries Commission

Edward Hale, Delaware Division of Fish & Wildlife

Hongsheng (Hank) Liao, Old Dominion University

Gary Nelson, Massachusetts Division of Marine Fisheries

Alexei Sharov, Maryland Department of Natural Resources

Gary Shepherd, NOAA Fisheries

John Sweka, U.S. Fish and Wildlife Service

Cc: Atlantic Striped Bass Technical Committee