

PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
ATLANTIC STRIPED BASS MANAGEMENT BOARD

The Westin Crystal City
Arlington, Virginia
April 30, 2019

Approved August 8, 2019

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1. **Approval of Agenda** by Consent (Page 1).
2. **Approval of Proceedings of February 2019** by Consent (Page 1).
3. **Move to accept the 2018 Striped Bass Stock Assessment and Peer Review Report for management use** (Page 16). Motion by Jim Gilmore; second by Ritchie White. Motion carried (Page 16).
4. **Main Motion**
Move to initiate an addendum to achieve the fishing mortality target or lower within one year (Page 27). Motion by Rob O'Reilly; second by John McMurray. Motion substituted.
5. **Motion to Substitute** (Page 28).
Move to substitute to initiate an addendum to address the overfishing status of striped bass and implement measures to reduce F back to the F target. Task PDT to develop options that would reduce F to the target that would include:
 - **Minimum fish size for the coast and a minimum fish size for Chesapeake Bay.**
 - **Slot limit that would prohibit harvest of fish over 40 inches.**
 - **Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality.**
 - **A provision that states could use seasonal closures in conservation equivalency proposals.**
 - **Apply needed reductions equally to both commercial and recreational sectors.**
 - **Apply needed reductions to the recreational sector only.**Motion by Doug Grout; second by Justin Davis. Motion amended.
6. **Motion to Amend**
Move to amend to delete "Apply needed reductions to the recreational sector only" from the substituted motion (Page 41). Motion by Tom Fote; second by Andy Shiels. Motion carried (Page 41).

Motion to Substitute as Amended
Move to substitute to initiate an addendum to address the overfishing status of striped bass and implement measures to reduce F back to the F target. Task PDT to develop options that would reduce F to the target that would include:
 - **Minimum fish size for the coast and a minimum fish size for Chesapeake Bay**
 - **Slot limit that would prohibit harvest of fish over 40 inches.**
 - **Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality.**
 - **A provision that states could use seasonal closures in conservation equivalency proposals.**
 - **Apply needed reductions equally to both commercial and recreational sectors**
7. **Move to Amend**
Move to add the following option: Apply needed reductions proportionally based on total removals in 2017 to both commercial and recreational sections (Page 41). Motion by Emerson Hasbrouck; second by Steve Train. Motion carried (Page 44).

8. **Motion to Substitute as Amended**

Move to substitute to initiate an addendum to address the overfishing status of striped bass and implement measures to reduce F back to the F target. Ask PDT to develop options that would reduce F to the target that would include:

- **Minimum fish size for the coast and a minimum fish size for Chesapeake Bay.**
- **Slot limit that would prohibit harvest of fish over 40 inches.**
- **Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality**
- **A provision that states could use seasonal closures in conservation equivalency proposals.**
- **Apply needed reductions equally to both commercial and recreational sectors.**
- **Apply needed reductions proportionally based on total removals in 2017 to both commercial and recreational sectors**

Motion carried (Page 46).

Main Motion as Substituted

Move to initiate an addendum to address the overfishing status of striped bass and implement measures to reduce F back to the F target. Task PDT to develop options that would reduce F to the target that would include:

- **Minimum fish size for the coast and a minimum fish size for Chesapeake Bay.**
- **Slot limit that would prohibit harvest of fish over 40 inches.**
- **Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality.**
- **A provision that states could use seasonal closures in conservation equivalency proposals.**
- **Apply needed reductions equally to both commercial and recreational sectors.**
- **Apply needed reductions proportionally based on total removals in 2017 to both commercial and recreational sectors**

9. **Main Motion**

Move to initiate an Amendment to the Atlantic Striped Bass Fishery Management Plan to address the needed consideration for change on the issues of fishery goals and objectives, empirical/biological/spatial reference points, management triggers, rebuilding biomass, and area specific management. Work on this amendment will begin upon the completion of the previously discussed addendum to the management plan (Page 46). Motion by Mike Luisi; second by John Clark. Motion postponed until 2019 Summer Meeting.

10. **Motion to Amend**

Move to amend to add reallocation of commercial quota between states (Page 47). Motion by Mike Luisi; second by John Clark. Motion postponed until 2019 Summer Meeting. Motion by Craig Pugh; second by Eric Reid. Motion postponed.

11. **Move to postpone consideration of the initiation of an amendment until the summer 2019 meeting (Page 47). Motion by Adam Nowalsky; second by Russell Dize. Motion carried (Page 48).**

12. **Move to forward the Block Island Transit Zone letter to NOAA Fisheries (Page 49). Motion by Tom Fote; second by Justin Davis. Motion carried (Page 49).**

13. **Motion to adjourn by consent (Page 49).**

ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)	Tom Fote, NJ (GA)
Steve Train, ME (GA)	Adam Nowalsky, NJ, proxy for Sen. Andrzejczak (LA)
Sen. David Miramant, ME (LA)	Andy Shiels, PA, proxy for T. Schaeffer (AA)
Doug Grout, NH (AA)	Loren Lustig, PA (GA)
G. Ritchie White, NH (GA)	John Clark, DE, proxy for D. Saveikis (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)	Roy Miller, DE (GA)
Mike Armstrong, MA, proxy for D. Pierce (AA)	Craig Pugh, DE, proxy for Rep. Carson (LA)
Raymond Kane, MA (GA)	Mike Luisi, MD, proxy for D. Blazer (AA)
Rep. Sarah Peake, MA (LA)	Russell Dize, MD (GA)
Jason McNamee, RI (AA)	Phil Langley, MD, proxy for Del. Stein (LA)
David Borden, RI (GA)	Rob O'Reilly, VA, proxy for S. Bowman (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)	Steve Bowman, VA, proxy for B. Plumlee (GA)
Justin Davis, CT (AA)	Sen. Monty Mason, VA (LA)
Bill Hyatt, CT (GA)	Chris Batsavage, NC, proxy for S. Murphey (AA)
Sen. Craig Miner, CT (LA)	Jerry Mannen, NC (GA)
Jim Gilmore, NY (AA)	Martin Gary, PRFC
Emerson Hasbrouck, NY (GA)	Derek Orner, NMFS
John McMurray, NY, proxy for Sen. Kaminsky (LA)	Mike Millard, USFWS
Heather Corbett, NJ, proxy for J. Cimino (AA)	Bryan King, DC

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

Ex-Officio Members

Nicole Lengyel, Technical Committee Chair	Kurt Blanchard, Law Enforcement Representative
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Staff

Robert Beal	Jessica Kuesel
Toni Kerns	Caitlin Starks

Guests

Bill Anderson, MD DNR	Don Frei, NOAA OLE	Dan Ryan, DOEE
John Ballo, VA Saltwater Sportfishing	Kathryn Frens, NOAA	Monica Schenemann, Potomac River
Dave Bard, ECS NOAA	John Gans, TRCP	Dave Sikorsky, CCA MD
Mike Bednarski, VA DGIF	Joseph Gordon, PEW	Tom Sminkey, NOAA
Karl Blankenship, Bay Journal	Ken Higgins, NY RFHFA	Ron Southwick, NVA DGIF
Robert Brown, MD Watermen	Des Kahn, Newark, DE	John Sweka, USFWS
Steve Cannizzo, NY RFHFA	Catherine Krikstan, ECS/NOAA	Joe Targel, NY RFHFA
John Carmichael, SAFMC	Rob Latour, VIMS	Jack Travelstead, CCA
Joe Cimino, NJ DEP	Arnold Leo, E. Hampton, NY	Mike Waine, ASA
Josey Cline, ASA	Mike Lightfoot, Twin River	Scott Ward, DC
Allison Colden, CBF	Dee Lupton, NC DMF	Kate Wilke, TNC
Genevieve Croker, Delmarva Fisheries	Rep. Jay McCreight, ME	Phil Zalesak, SMRFO, Inc
Mark Cusumano, NY RFHFA	Katie Moore, USCG	Rene Zobel, NH F & G
Raymond Curiale, NY	R. Newberry, Delmarva Fisheries	
Jeff Deem, VMRC	Patrick Paquette, MSBA	

The Atlantic Striped Bass Management Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia; Tuesday, April 30, 2019, and was called to order at 10:10 o'clock a.m. by Chairman Michael Armstrong.

CALL TO ORDER

CHAIRMAN MICHAEL ARMSTRONG: Good morning everyone. I would like to call to order the Striped Bass Board. I'm Mike Armstrong from Massachusetts your Chair. We have lots to do today. I would encourage everyone to be succinct, non-redundant, and I think we can do a lot of good things today.

APPROVAL OF AGENDA

CHAIRMAN ARMSTRONG: Every Board so far has ended early. I think that should be our goal. Everyone has an agenda; are there any changes, amendments, additions? Seeing none; I see approval by consent.

APPROVAL OF PROCEEDINGS

CHAIRMAN ARMSTRONG: You have seen the proceedings from the February meeting; any changes? They will be approved by consent.

PUBLIC COMMENT

CHAIRMAN ARMSTRONG: At this point we have a few people signed up for public comment. With the reminder, public comment should be brief and aimed at things that are not on the agenda today. There may be opportunity to speak to motions et cetera later on, so please keep your comments to things concerning striped bass that are not on the agenda. Monica Schenemann.

MS. MONICA SCHENEMANN: Good morning everyone! Good job on pronouncing my name, by the way. Yes, I'm Monica Schenemann and I'm the President of the Potomac River Working Waterman's Association. We're a group of Virginia/Maryland Watermen and women who work on the Potomac.

We also have members who do not necessarily work on the water; but they appreciate what we do, providing seafood to the public. I just wanted to take the opportunity to thank each of you for working to the best of your abilities to manage our fisheries for future generations. May God grant you the wisdom you need today to make some difficult decisions regarding some gap variances. Thank you for your time.

CHAIRMAN ARMSTRONG: Mike Lightfoot.

MR. MICHAEL LIGHTFOOT: Thank you very much for listening to us. I'm Mike Lightfoot as you said. I'm a commercial waterman in Virginia, and with Potomac Striped Bass Quota. I also represent our Twin Rivers Watermen's Association, and I'm a member of the Virginia Watermen's Association. We appreciate the focus on different options on reducing the mortality, and reducing the overfishing. We also appreciate the focus on the recreational side; which catches a big portion of the fish, and the recognition that the commercial sector is just a small portion, 10 percent or less coastwide of what's caught. We appreciate all of your efforts and we look forward to some good results, thank you.

CHAIRMAN ARMSTRONG: Robert Brown.

MR. ROBERT T. BROWN: Robert T. Brown, President of the Maryland Watermen's Association. I would like to thank you all for listening to me today; and hope we have a good deliberation here today. I just want to talk to you for just a minute or so just about our tagging system that we use in the Chesapeake Bay in the northern portion of it.

On our rockfish we are issued a certain amount of tags every year; according to our quota. Each fisherman gets his individual tags which are numbered with the state on it, so they can be tracked wherever they may go. What other state you may ship fish to; they can be traced back to the person who catches them.

Also, besides that when we get these tags, once we catch a fish we have to tag it immediately.

Once we tag them we have to take them in to a check-in station. They are counted, and the weight is taken on them to make sure that we are very accurate on what we do. At the end of the season if we haven't used up all our tags, we have to return those tags in as we are accountable for them.

I'm just reminding you all of this to show you how our regulations are very tight on the commercial men in the state of Maryland; and it's like that pretty much up and down the Bay, with a few different pieces into it. I would like to thank you very much for your time.

2018 ATLANTIC STRIPED BASS BENCHMARK STOCK ASSESSMENT

CHAIRMAN ARMSTRONG: Thank you for your comments. That is all the folks we have signed up. Moving along, we're going to an action item; ultimately to consider acceptance of the Striped Bass Benchmark Stock Assessment. The first presentation will be by Mike; an overview of the assessment.

OVERVIEW

MR. MIKE CELESTINO: I have a very short presentation; just a recap of the presentation I gave in February, to largely set the stage for Dr. Latour's presentation. We'll start this presentation the way we like to start all of these presentations, with a huge thank you to the entire Assessment Team; the Technical Committee, the Stock Assessment Subcommittee, the Tagging Subcommittee.

It won't be possible to thank all these people enough for all the work that they did to get us through the assessment. In February I talked about the bridge building process and so forth that we had gone through. We started with the 2013 SAW-57 Stock Assessment Model; and updated that with calibrated MRIP data, and made a variety of other changes that are displayed on the slide.

Really quickly of course, bringing in the calibrated MRIP data was one of the larger data

changes that we had made. We extended the plus group from Age 13 to 15. We removed the commercial dead release fleet; and were able to portion those fish into their respective Chesapeake and coastal fleets. We developed a revised methodology for estimating commercial dead discards. We made a number of index changes. We removed several indices; the Northeast Fisheries Science Center Trawl, the Virginia Pound Net Index. We brought in some new indices; CHESMAP Trawl Index, Delaware 30 Foot Trawl Index. We were able to incorporate some age composition information into what were formally age-aggregate indices.

As an example, the MRIP Index Catch per Angler, we have age composition information associated with that Index; and the Connecticut Trawl Index, we were also able to bring in some age composition information. We also were able to develop a single unified young-of-the-year index for the Chesapeake Bay; incorporating the Maryland and Virginia young-of-year indices.

We updated the female maturity ogive, and the terminal year of the model is 2017. The Stock Assessment Subcommittee and Gary Nelson in particular, put a great deal of effort into a two-stock migration model. This model involved two stocks, the Chesapeake stock, in which fish could move from the Chesapeake into the ocean region, and it jointly modeled the Hudson River/Delaware River stocks, set the Hudson River/Delaware River stocks.

They would mix in a common ocean region. The Peer Review Panel didn't think that model was quite ready to provide management advice; and I suspect Dr. Latour's presentation will go into some of their deliberations and reasons for that. We are using again the same model that was reviewed in 2013 to provide management advice.

That statistical-catch-at-age model incorporates the changes that I outlined in the first or second slide. The catch-at-age model provides information on recruitment, fishing mortality, selectivity, catchability. It provides abundance-

at-age female spawning stock. I'll show some of those results now.

First a recap on our reference points, we maintain for this assessment the same definitions that had been used previously. Our threshold definition is female spawning stock biomass; as estimated in the model from 1995. Fishing mortality reference point is the fishing mortality that gets us to that SSB level over the long term.

The target is defined as 125 percent of the threshold; and there is an analogous F reference point that gets us there over the long term. In terms of actual point values, on the left we have the Addendum IV reference point values. Female spawning stock biomass in 1995 was estimated at just under 58,000 metric tons.

After incorporation of the calibrated MRIP data and a variety of other changes that we've incorporated into the model, the new estimate is quite a bit higher; it's just over 91,000 metric tons. As I described earlier, the associated F reference points are the fishing mortalities that get us those SSB levels over the long term.

The next slide shows model estimates of recruitment. The horizontal line shows the time-series-average recruitment. We've highlighted in blue several strong year classes in recent years; and the plot does show the Y axis is in millions of Age 1 fish. The plot shows a period of very low recruitment from the early eighties through the mid-nineties; a period of higher recruitment for the mid-nineties through the early two thousands, then a period of low but variable recruitment since the early two thousands. It does illustrate several strong year classes; the 2011, 2014, and 2015 year classes are fairly strong year classes. The next plot is the time series of fishing mortality. The horizontal line shows the threshold level; fishing at that level over the long term should get us to the 1995 level of SSB.

Then you can see from the plot the terminal year 2017 fishing mortality is above the threshold.

The next plot is female spawning stock biomass; a horizontal line shows again the threshold that by definition is our 1995 level of SSB. The terminal estimate, 2017's estimate is below the threshold. With that I would be happy to take any questions.

CHAIRMAN ARMSTRONG: Any questions? I have one, Mike. We saw this previous; it was termed preliminary, but in fact this is now official and there are no changes since what you gave last time, correct?

MR. CELESTINO: Correct.

CHAIRMAN ARMSTRONG: Okay, just making sure. Rob.

MR. ROB O'REILLY: I was just wondering. The impact of the recalibrated MRIP, so for example I know with summer flounder the comments were that it definitely scaled up the spawning stock biomass. Do we get the same impression here? I think that the idea was that there was overall an average of maybe 260 percent difference; as the average over the older MRIP. But I guess more important is what did the revised MRIP do to the spawning stock? How did that figure in?

MR. CELESTINO: Yes thank you for that question. We did see scaling up of abundance quite a bit. In our bridge-building process to sort of help us diagnose the impact of incremental data changes, including the new calibrated MRIP data that change alone scaled up abundance and female spawning stock biomass by quite a bit. It made sense intuitively to us if we were catching more fish than we were initially aware of, there had to be more fish in the population. We did see an increase in abundance and spawning stock as a result of the calibrated MRIP data.

CHAIRMAN ARMSTRONG: Emerson.

MR. EMERSON C. HASBROUCK: Thank you Mike for your presentation. Mike, during your presentation you said that the model provided

partial F's for each fleet; and that the model was based on two fleets. Is that correct?

MR. CELESTINO: Yes.

MR. HASBROUCK: What were the two fleets that were modeled; and do you have the partial F's related to those two?

MR. CELESTINO: Thank you for that question. Yes, the two fleets were the Chesapeake Fleet, and that incorporates commercial and recreational fisheries combined and their associated dead releases; and a coastal fleet, everything except for Chesapeake Bay. It also incorporates commercial and recreational catches. In this presentation I don't have the partial F's. I think we can probably pull that up for you if you would like to see it. I don't have that in this presentation; but we can probably get that for you.

CHAIRMAN ARMSTRONG: Ray.

MR. RAYMOND W. KANE: Mike, going back to that slide you showed us the MRIP reports on recreational fishing and commercial landings; and you do the tag with commercial landing. You know so many tags are sent out, so many come back. How is bycatch mortality considered in the commercial industry beyond the tagging program? Are vessels different gear types that catch striped bass and discard them dead? How is that accounted for?

MR. CELESTINO: Thank you for that. We have gear-specific discard mortality rates. I can get those for you. It ranges from very low for things like pound net to very high to things like staked gill nets. We look at the proportion of tag returns proportionally across those different gear types and apply those gear-specific mortalities to the ratio of dead discards based on those tag returns.

MR. KANE: Follow up. Once again we're talking about tag returns. I'm talking about gear types; not tag returns, not vessels that are permitted to land, commercial vessels that are permitted, you

know that have tags. I'm talking about gear types that might interact with striped bass. How is that accounted for, their dead discards, how is that accounted for in the stock assessment?

MR. CELESTINO: As best I can recall we are assuming that those are proportional to the tag return; so we're assuming that what we see in those fisheries based on our tag returns is proportional across all of the fisheries. It's just an assumption we have to sort of make; and Dr. Drew would like to add to that.

DR. KATIE DREW: We do assume sort of a non-reporting rate for those tags; based on other studies that we've done to figure out what's the rate of reporting from those different fisheries that indicate how many people are actually reporting those tags to us. Then we scale up by kind of an estimate of how many people are not reporting those tags to us.

But I think also, so the other thing that we looked at for this assessment is we did look at the Northeast Fisheries Science Center Observer Program data. We did go through and look at what are the estimates of commercial discards coming from vessels that actually carry observers on them; and the estimates were very similar in terms of trend and generally in terms of magnitude.

But, they were lower than what we were estimating with our tag-based methods and that's partly because the Observer Program really only has good sampling data for the gillnets and for the otter trawls, and we know a lot of the fisheries that direct on striped bass are things like pound nets that aren't well covered by the Observer Program, as well as hook and line fisheries. The fact that we had similar numbers coming out of the Observer Program, where we don't have to rely on the tag-based method, and is similar to our tag-based method, gave us more confidence in the results that we are seeing from the tag-based method.

CHAIRMAN ARMSTRONG: One more follow up.

MR. KANE: Once again though, we know about the lack of observer coverage in the commercial fleet over the years. But thank you very much.

CHAIRMAN ARMSTRONG: I have John McMurray and then John Clark.

MR. JOHN G. McMURRAY: Mike, I noticed we took out the Northeast Trawl Survey from the assessment process. What was the reason for that?

MR. CELESTINO: We felt it had very low proportion of positive tows.

MR. McMURRAY: That trawl survey generally takes place offshore outside of three nautical miles, correct?

MR. CELESTINO: Correct.

MR. McMurray: Okay thank you.

CHAIRMAN ARMSTRONG: John Clark.

MR. JOHN CLARK: Thanks again for the amazing work on this assessment. I've got kind of a follow up about the discard question. The target fishing mortality from this assessment and the previous one both seem very low for a species with a life history of the striped bass. Was there any thinking that there could be sources of mortality that are not being picked up; that for example discard mortality could be higher than we're estimating?

MR. CELESTINO: Thank you for that question. Our discard mortality rates or estimates, across whether it's in the commercial sector by gear or in the recreational fishery across the entire fishery is an average, so in some cases we know it's going to be lower, and in some cases we know it's going to be a little higher given angling behavior or water temperature or salinity, those kinds of things. It's perfectly conceivable that yes it's going to be higher or lower in certain circumstances. Our best estimate is sort of a global average.

CHAIRMAN ARMSTRONG: Any more questions for Mike? Emerson.

MR. HASBROUCK: If nobody else has a question I'll come back around if it is okay, Mr. Chairman. Relative to my question before about partial F's and I understand your response. But we know what the removals are by the recreational fishery and the commercial fishery. Did the model provide any information about what F is for the recreational fishing industry overall and the commercial fishing industry overall; including discards?

MR. CELESTINO: Because of the way the fleets are constructed, they combine commercial and recreational fleets. We don't have independent estimates of that. One of the suggestions that review panels in the past, not necessary this Review Panel, but from the 2013 panel they did make that suggestion of sort of breaking fleets out by sector. But we haven't done that for this implementation. To your earlier question, we do have the partial F's. In general you can see that Chesapeake F is generally lower. Coastal fleet is higher. They showed similar trends; high in the early part of the time series, a low through the mid to late eighties, and then a generally increasing trend from early to mid- nineties through the present.

PEER REVIEW REPORT

CHAIRMAN ARMSTRONG: Thank you Mike, right now I would like to hand off to Rob Latour to give the Peer Review Report.

DR. ROB LATOUR: Good morning. It's been a while since I've been before the Board of any of the species; so some familiar faces. It's good to see some new. Welcome. I guess I have the envious job this morning of being the messenger about the Peer Review. In general I would say it was a very positive and constructive peer review.

As you know, striped bass were on the calendar for benchmark assessment in 2018. The benchmark assessment was put together by the Stock Assessment Subcommittee, the Tagging

Subcommittee, and the Technical Committee as a whole. They did the heavy lifting for many months; and then the external peer review consisted of a Chair and three members of the Center of Independent Experts.

The emphasis of the review was strictly on the science. The fundamental charge we were given involved whether or not the modeling and the results could be used to form the basis for management advice. We were implored to recommend an acceptance or a non-acceptance to elements of the model put forth.

Background material can be found on the Northeast Fisheries Science Center's website for the SAW/SARC process. You'll find the summary report that I authored of the review; and then the Independent Peer Review Summary Reports, as well as all the associated assessment documentation and supporting material therein.

My role as Chair came about, for those of you who don't know me, I'm a professor at the Virginia Institute of Marine Science. I'm also a member of the Mid-Atlantic SSC. The companion species for this review that took place last November was summer flounder; which is jointly managed of course here and the Mid-Atlantic Council, but we generally have an SSC member chair the review for the Council who has a vested interest in those species.

My role came to be as Chair largely because of that position. The panelists were from the CIE, Dr. Robin Cook, who actually was a reviewer for the striped bass assessment the last time it went through review. It was nice to have some continuation there. John Casey from SEFIS retired as a consultant now and Yan Jiao from Virginia Tech also an SSC member of the Mid-Atlantic.

We met last November in nice warm Woods Hole. I'll spend a few moments here in the beginning kind of outlining the focus of the discussions and deliberations regarding the material put forth by the Stock Assessment Subcommittee. I'm sure as you know there was

a huge effort put forth by the team to develop a very innovative, in my opinion one of a kind, stock assessment model that took into consideration stock structure. Explicitly it broke the annual time step into periods; so there was a seasonal element to it. It considered things spatially as well two regions; the coastal ocean versus the Bay. In the catch-at-age-modeling framework, herein noted as the 2 SCA model, the 2-stock model, and to be fair and honest most of our discussion with the team was revolving around this model. It was really intriguing, very innovative. I would say the group as a whole was very supportive.

But, as many new innovative models come online there are lots of questions, there are lots of research interests, and there are lots of academic concerns when a model comes into its infancy like that. There were just too many uncertainties for the Panel to suggest that it should be accepted for management advice, but that being said; I'll go over here in a little bit a lots of discussion lots of guidance that we gave for the group to move forward.

I'll highlight two things. Simultaneous with this massively new structure the Stock Assessment Subcommittee also attempted to redefine the reference points to be stock specific for the SSB the spawning stock biomass reference points there was a Delaware SSB reference point and a Chesapeake Bay reference point, and three fishing mortality reference points, two for the Bay stock one for Delaware. I'll talk about that a little bit in a second.

Part way through the meeting when it was clear the Panel was not going to accept the two-stock model as Mike has described, the Team brought forward a revised version of the traditional statistical-catch-at-age model, the same model in principle that was used for SARC-57, the most recent peer review.

They did incorporate some new structural modifications and some advancement based on that SARC 57 peer review, which I think provide you with some of the same management options

or opportunities as the two-stock model might have gained. We were able to view that in a little bit more contracted period.

Part of the impetus for the two-stock model was this notion that we have Bay versus Coastal fisheries, and the Panel was very strongly wanting to recommend against this idea of spatial reference points, and so I highlight it here for your benefit. That should not be synonymized with spatial management. Spatial management is certainly viable; and certainly something I think you have the freedom and flexibility to consider, especially with the revised SCA model.

But this idea that you can have a stock, a single biological entity be experiencing overfishing in one region and not experiencing overfishing in another region simply because it moved, based on the season of the year or the age it might have achieved. It's sort of not biologically meaningful; because cumulative F or the total fishing mortality experienced by a stock or members of the population should be what determines an overfishing target, overfishing threshold, and the overall reference point framework that you're familiar with.

There are some infinite ways you can partition F across different regions, different time periods and things like this. I want to draw a distinction between spatial reference points and spatial management. Spatial reference points, are what the Panel suggested are not necessarily meaningful. Spatial management that is changing regulations in one region, changing regulations in another region is certainly within bounds; because that's a total accumulative F over that biological entity of that stock. It's not really fair of us as a Peer Review Panel to whirl in, come in and say we don't accept your model, and send you home without any guidance, right? We spent a lot of the meeting going through questioning the group about aspects of this two-stock model, and I list here some of the ideas of some of the recommendations. We strongly supported continued innovative development of this model; we think it has potential to, with

refinement, become one that would pass a Peer Review Panel and thus be the basis for management advice.

But just a flavor of some of the things that were discussed were simulation testing. These are I realize technical things, but testing different effects of various assumptions regarding movement. The movement ecology of striped bass is extraordinarily complicated and not well understood; yet this model has explicit emigration patterns and movement patterns in it, so there is lots of uncertainty there.

There may be advancements with the tagging data to bring things into a spatial framework; further explanation of some of the tagging data to help with time-varying estimation, further exploration of whether or not this biological reference point for a two-stock model concept with mixing is estimable, in a very general sense. When applied the output for the two stocks wasn't all that different; that seemed curious to us.

With all this model complexity and structure embedded, why were the results generally the same for the Delaware stock and the Chesapeake Bay stock? That seemed peculiar to us. Some other assumptions about selectivity, weaknesses of data, stock composition, not to bore you with the technical things, but this was I think a very good faith-based effort to provide constructive feedback for the group moving forward on things that we thought would be beneficial moving this model forward.

The rest of my presentation is pretty boring. I just thought in the interest of transparency I would go through each of the terms of reference associated with what became in the evaluation of the single-stock-traditional SCA model. I'll give you the highlight. We accepted virtually everything. I thought the group did a very good job.

There weren't a lot of major criticism or comments moving forward. We think that the group responded very nicely to the SARC 57

recommendations and made some significant advancement. They did a nice job on Terms of Reference 1, collating all the life history data, all the fisheries independent data, the surveys as Mike described, the data sources, talking about M.

All those data were nicely put together and served as a good starting point. Striped bass are not data poor. Landings, this is probably the most notable advancement. There has been some discussion already this morning about reconfiguring the single-species model to have only two fleets; that is the Bay fleet with its discards, its recreational component and its commercial component, and then the non-bay or coastal fleet with its recreational, commercial, and discards.

This is, I think, something that gives you the opportunity to think about spatial management, again not with spatial reference points. MRIP was here, it's here to stay. We're seeing hundreds of percents increase in the new calibrated data. This is not anything new to everybody here. Mike talked about it already. But in general the group did a nice job characterizing the landings data. This sort of highlights some of the additional commentary regarding the modeling components; the two-stock model now accepted, single stock model accepted, Bay Fs as you saw a moment ago are generally lower than ocean Fs. The SSB pattern was low in the eighties, peaked in 2003, and declined steadily since 2010, leading to the 2017 SSB estimate being on par with that of 1992 timeframe which was when the resource was declared restored. Scientifically speaking, estimates of uncertainty were fairly low; which is a good thing, good precision.

The major diagnostic of these models is this retrospective pattern; and so the team did a retrospective analysis where they peeled off a year of data and re-estimated everything and went back several years in time. There was a hint of a pattern; but it was certainly not egregious by any means, and the hint of a pattern might suggest a slight overestimation of F, and a slight

underestimation of SSB, but it wasn't anything that the Panel felt was concerning or alarming.

It was generally mild in the grand scheme of how bad these patterns can emerge for some assessments. The tagging data you are well aware of these data; they've been around since the 1980s. There may be some advancement that could be brought along in the tagging arena by bringing multistate or spatial models to bear there, a lot of work, those are challenging.

But still there is a rich dataset that could be utilized. But in general the tagging data were useful for comparisons of the mortality estimates and the stock size estimates, and will become actually I should say, more vital if this two-stock model continues to move forward, because these are probably the most valuable data sources for understanding stock composition and movement, or at least that are in hand at the moment.

The take-home message as Mike showed. We have a 1995 SSB as the threshold; and the associated F that comes along with that. The target is 125 percent of that threshold; and there is another F that comes along with that. The Assessment Committee elected to go with again these sort of empirical; that is they are just static numerical values for reference points.

An area moving forward might be to consider why the SPR or the spawning potential ratio, which are reference points that are tied to underpinning the productivity of the resource, are not able to perform well. It's unclear, the group did not have a clear answer, but it's likely that there may be some sex specific male/female dynamics that are still not well articulated within the modeling framework that could be responsible.

We have empirical reference points, and Mike showed this slide, so we have simple comparison. When you look at the 2017 estimate of SSB it is below the threshold; and when you look at the 2017 estimate of F it's above the threshold, so we have a status

determination of overfished and overfishing occurring.

Short term projections were run under a variety of different scenarios; and virtually all of them showed high probabilities of remaining overfished, greater than 95 percent. There was some, maybe a little bit more uncertainty regarding the probabilities of maintaining overfishing; but they were generally about 50 percent, depending on some assumptions of the configurations depending on the recruitment assumptions and things like this. But still, short term projections suggested high probabilities of maintaining the current status determination. In general I think we were very complementary and positive; even though the outcome may not have been ideal. I think the team did a great job; they did a lot of work, a tremendous amount of work, and the innovation associated with some of the modeling was really great to see. Great progress on SARC 57, and just moving forward a high priority put on maybe moving that two-stock model forward.

To kind of wrap up, the two-stock model was great but not accepted. The single-species model was modified and brought forth in a way that I think made great sense, and is a more useful tool for you as a management group. That model was accepted; the outcome unfortunately had an overfished, overfishing occurring status determination for 2017. The group had great progress in a lot of areas; and we support their efforts moving forward. Thanks for your time, and I'll be happy to answer any questions.

CHAIRMAN ARMSTRONG: Questions for Rob. Jay.

MR. JASON McNAMEE: Thank you, Dr. Latour. I appreciate the presentation. One question that I was wondering and the answer might be you got kind of jammed up with going through the model that wasn't accepted in trying to get to the other. But one thing I wondered about is discussions on natural mortality that you may have had. I guess I'll offer the context of I'm trying to wrap my head around some of the SPR,

or if that was done and why it kind of went off into the stratosphere.

The reviewers and you mentioned this kind of implicated this notion of sex-specific dynamics. The females move out earlier and things like that. But I wondered if natural mortality came up as another discussion. I think it's like a Lorenzen type curve, but scaled to the tagging. I'm wondering about the discussion around that if that was also implicated as a factor in the response of the SPR reference points.

DR. LATOUR: We did not spend a great deal of time talking about M. The Lorenzen curve as you pointed out is a commonly accepted approach. It was scaled to tagging; which is also another viable way of estimating natural mortality, so the methodologies underpinning both are well accepted. It was nice to see them treat M as age varying as opposed to a static singular value for the entire age class, or age structure.

But you're hinting at what ended up happening. We couldn't dive into some of the details associated with the SPR stuff; because there really just wasn't a great deal of time. We spent probably 70 percent of the meeting on the two-stock model; and then had to kind of move along through the single one quickly. But I will say there was nothing alarming with the approach used by the group.

Nothing seemed to come up in the discussion with the Panel that raised concerns. The SPR stuff likely is tied to the male/female thing. It could be a function of M; it could be some other stock dynamic that's occurring there. I think your intuition is probably correct. This is the first place to start thinking about it.

CHAIRMAN ARMSTRONG: Emerson and then Mike

MR. HASBROUCK: Thank you Rob for your presentation. Could you put the slide back up please for TOR 6? I had a question on that. The bullet for short-term projections was run under four harvest scenarios. Could you expand on

that a little bit please, in terms of what those harvest scenarios were and what the output was?

DR. LATOUR: I might rely on Katie or Mike, because I don't remember those scenarios, the details of them. But I'm sure they were under different assumptions of removals. Do you want specific values of those removals? It was sort of bracketing a status quo, probably a reduction of some kind. I don't know the percentage off the top of my head.

MR. CELESTINO: We looked at a constant catch scenario; so holding 2017s catch constant. We looked at a constant F scenario holding 2017s F constant. We also looked at fishing at the threshold, 0.240 I believe, to get to the 1995 value of SSB, and we also looked at the F value to get to the 1993 value of SSB as well.

DR. LATOUR: In summary there is some status quo and then some first cut ideas getting back to threshold or target values from the reference points.

CHAIRMAN ARMSTRONG: Mike and then Rob.

MR. MICHAEL LUISI: Rob, thank you for your presentation. I'm having a little trouble figuring out a couple of the comments that were made; specifically about the spatial reference points being not biologically meaningful. But there is also optimism that this two-stock model could be something for the future. I'm wondering how to bridge the gap between what the peer review was saying about the meaningfulness of reference.

You know spatial reference points, spatial management are certainly something that we're highly interested in pursuing for future management. I wonder if you could comment about how we can get from a point where a peer review is saying something isn't meaningful, yet it's optimistic that it can ultimately achieve, it can get there someday. Then after that Mr. Chairman, I have one more follow up on reference points.

DR. LATOUR: Yes thank you for the question regarding clarification. We're scientists; and models are cool. A lot of this modeling was very innovative and very interesting. But there is still some fundamental biological things that the single-stock model overlooks; that is you have two genetically, possibly more, but at least two genetically isolated stocks that each likely have their own underpinning life history and life cycle.

The Delaware stock may have an entirely different reproductive strategy; it may have a different recruitment strategy than the Bay, and all of these sorts of things which are not accounted for in this one-stock model. From an analytical point of view; building in the two-stock structure was very attractive from that perspective, because it allows that flexibility to play out.

Regarding reference points being spatial, if you have a single stock it is a single biological entity. In this room we are the ASMFC participants of this meeting for this day. We could say there are enough of us; there is an adequate number to move our agenda forward. If we all split up and go into separate rooms every room itself might not have enough; but there is still collectively enough to move the agenda forward. Where you're located doesn't really matter; because you've achieved a certain threshold of having enough abundance, if you will by analogy, versus maybe spatially there is not enough room for us to conduct our business most efficiently here.

We need to move ourselves around and do different things to go different places; because that is a better way of managing how we're going to move forward. From that point of view we're managing ourselves spatially; but we're not saying anything about whether there are enough of us to move it forward or not.

This idea that the Chesapeake stock could be overfished in the Bay and not overfished in the ocean or vice versa doesn't make sense; because it's the underlying biological productivity of the stock that defines what's allowable in terms of

removals, and what's balancing that with its own productivity. I'm not sure if that analogy helps; but that is sort of where we were as a group on that comment. Spatial management is different than spatial reference points.

CHAIRMAN ARMSTRONG: Go ahead, Mike.

MR. LUISI: Thanks for that. It helps me get a little bit closer to understanding. I guess my follow up question to your comments is that I am aware. Staff has informed me that even through the single-stock model that reference points were generated for both Chesapeake Bay and the coastal fishery. Is the reasoning you just gave the reason why the peer review, even under one-stock model wouldn't be suggesting those for management use?

DR. LATOUR: Exactly, exactly, because again you have a single stock now; not separate ones being treated in the same model. It's exactly the same logic that would apply.

MR. LUISI: One more question Mr. Chairman, if that's okay. Regarding the reference points that we're currently using, there was some discussion in the peer review about the 1993 reference point. We've had concerns over the reference points for quite some time. In our mind they're a bit too high. I think they provide for an unrealistic expectation to the public that we're going to be able to achieve that level.

You know, currently the threshold reference point is 91,000 metric tons and 125 percent of that puts us at a target value, and when you look at the estimates of spawning stock biomass that came out of the benchmark. We have never achieved the target in all of that time as we're evaluating that.

With that said, I also understand thresholds as being something where the stock is in what I would think is considerable trouble. When I look back as to when that threshold was developed, you know a date was chosen, a period of time was chosen when the stock was considered recovered.

It's difficult to communicate with stakeholders about the appropriateness of thresholds and targets; when you have a threshold that you think the stock is in trouble, but at the same time when it was recovered. Then you have a target that you never have achieved. I just wonder if you could expand a little bit on the discussion about the 1993 empirical point in time; and whether or not you would consider that to be maybe a more appropriate threshold and target moving forward.

DR. LATOUR: As a Panel we did not challenge the choice of reference points. There is a history of them; and from the Panel's perspective unless there is some obvious modeling-type failure or problem with the assessment that would be tied to the choice of reference points, it's generally not the place of the Peer Review Panel to do that.

Only if it sort of linked to some sort of scientific failure, at least in my view, and that's kind of how the Peer Review Panel that we had for this assessment viewed it as well. I personally would have liked to have seen the SPRs work. I think you have a conceptual divide here. You have an empirical-based reference point that as you say is a marker in the sand; it's not tied to the biological processes of the resource.

That is where the SPRs offer some different insight. They're not working. They are giving drastically unrealistic estimates of abundance and SSB just cannot pass the red face test type scale of the estimate. There is something inherently off there; and it would be nice to understand why.

But usually it's nice to have an empirical marker; or something that's tied to the underlying biology to give you a sense of whether the empirical is based in a reasonable level of what the resource can sustain moving forward, in terms of removal. Long comment here perhaps; but we didn't spend a lot of time discussing it. We just assumed that this is what the management regime and the management

system was happy with; so it wasn't initially our place to suggest otherwise.

CHAIRMAN ARMSTRONG: Rob.

MR. O'REILLY: I guess I'm interested about the recruitment stream or vector that when the projections were done. Was it the entire time series of recruitment data; and if not were there other time periods looked at before the complete time series? How did that work?

DR. LATOUR: I'll take a stab at my memory. I believe the full time series was used. Random draws from the full time series cast forward, hockey stick too.

MR. CELESTINO: We looked at two; the hockey stick recruitment relationship. Just to be clear, is your question regarding the migration model or the non-migration model. For the migration model we used the full stock recruitment relationship for the Chesapeake stock. We felt like the asymptotic recruitment had been reached for the Chesapeake stock.

For the combined Delaware/Hudson stock, we used what we termed as hockey stick recruitment relationship where we didn't believe we had reached asymptotic recruitment in that stock. It was more of sort of an ascending relationship. We used Beverton Holt model predicted recruitment through median SSB, and then median recruitment for SSB greater than that for the migration model. As an alternative we looked at random recruitment draws from just 1990 forward; the period of time during which the stock was restored but not recovered, as a sort of sensitivity analysis.

CHAIRMAN ARMSTRONG: Further questions, sorry, Justin.

DR. JUSTIN DAVIS: Thanks for that presentation, Rob. I'm curious when you look at the landscape of data gaps and information gaps that led the Peer Review to conclude that the two-stock model couldn't pass. Can all those readily be addressed with the existing data sources we

have; with as you indicated maybe just more simulation work, or just accumulation of longer time series, or do states need to be thinking about initiating new data collection or research survey efforts to produce new sources of information that we don't currently have?

DR. LATOUR: Thank you, it's a good question. I do recall the Panel having some discussion saying that it would be wise for the management body, the management system, to integrate with the TC regarding whether or not this is the direction they want to go, because there are some different data configurations that the two-stock model would require.

I think several of those can be dealt with, with extant data. I don't necessarily think major new data collection programs need to be initiated. But there is the human resource time allocation issue, and so which way does the management system want to go, in terms of its technical supporting information.

There may be some worthwhile effort devoted to prioritization of the modeling tools; and the things that you want to see for what you're envisioning management wise moving forward, because I think that would help guide TC and stock assessment folks with respect to what they're going to tackle next.

But in general striped bass as you know are very data rich. You have one of the longest tagging datasets in the history of fish tagging, to be blunt. It's one of the most-rich in terms of the number tagged and the length of recoveries and things. There is a wealth of information there that can aid the two-stock model in terms of movements and stock composition type questions.

There is a ton of simulation work that could be done that is all analytical computer time that could advance estimability questions that the Panel had. I think a lot of it can be dealt with; with resources currently in place. It's a matter of prioritization. As a general comment, you know I've been around enough to know that when you

bring a new model online there is always skepticism.

I don't think this lack of acceptance of the two-stock model should be viewed as some sort of criticism of the group, or fault of anyone in particular. It's just there is reticence to bring on a new modeling tool; because unless it has been fully vetted and quite frankly fully vetted means can take years, in terms of developing it.

It starts out in its infancy and it grows, it grows, it grows. At some point it reaches a threshold where everybody feels comfortable. I don't think there is anything wrong with that. I think it's just a natural progression; and we've started it now, or you've started it with this two-stock model. It's a matter of whether you want to continue it.

CHAIRMAN ARMSTRONG: Jay then John.

MR. McNAMEE: Maybe I'll start off with a comment based on what Dr. Latour was just saying, just to support. I think this idea of bringing in new modeling approaches, having them run kind of parallel. It's a good process. It allows you to do these cross comparisons and to get multiple reviews done on them.

We did a similar thing with black sea bass. I think that process is great. I applaud the group for getting it to the Peer Review. I hope you continue to carry it forward. That was a quick comment. My question is probably not for Dr. Latour, maybe for Mike. I was hoping to put notions of uncertainty and risk in a little bit of context. The one thing that wasn't clear to me in the projections that you did there are these envelopes of uncertainty.

There has been a comment or two made about 95 percent probability of not reaching the target and that sort of thing. I know that you tested stochasticity in recruitment. You also have the two different methods that you talked about. But what I was wondering; was there stochasticity put on any other elements in the projections, like catch or anything like that? When we're looking at that uncertainty are we

only considering recruitment uncertainty in that projection?

MR. CELESTINO: Another place that we incorporate uncertainty is where the projection starts; or taking the initial abundances at age and sampling from a normal distribution from each of those starting values, based on the model estimate of standard errors. We're incorporating some variability from where those projections are starting; and then incorporating recruitment variability in addition to that.

MR. McNAMEE: Thank you for that Mike. Just to confirm, so you are doing some sort of Boot Strap routine where you're kind of grabbing from some reasonable sense of variability around the terminal year estimates; and then pitching those forward.

MR. CELESTINO: Exactly. We have estimates of abundance at age and the standard error around those estimates at age; so we're sampling from a normal distribution based on that standard error from each abundance at age.

MR. McNAMEE: Awesome, thank you.

CHAIRMAN ARMSTRONG: John.

MR. McMURRAY: I don't want to get caught up on this. I think there is plenty of time to get caught up on it later; and hopefully this is a quick question, quick answer. But to Mike's reference points comments, I understand that we're dealing with empirical rather than biological reference points. What was the rationale for 1995 as the rebuild year; and is there any reason to believe, based on JAIs and other information that we have that we can't get back there?

DR. LATOUR: From the perspective of the Peer Review Panel those were on the books as preexisting, so the rationale was never really brought to bear. Your question may be dating back to times prior to the most recent assessment review. Mike.

CHAIRMAN ARMSTRONG: Maybe Katie can give us the best background on the invention of those.

DR. DREW: I certainly think there are other people around the table who have been here longer; in terms of why that was declared the restored period. But it was related to the JAI trends over time; as well as sort of the condition of the stock, the age structure of the stock later, when we were able to estimate that through the assessment process.

But it was based predominantly on the JAI index over time. There is no biological reason that we can't get back there. That SSB was the product of good years of strong recruitment and low fishing mortality. But it is within the biological capacity of the stock to show those kinds of year classes again; even now.

MR. McMURRAY: Just one quick comment on that. In the last ten years we've had four pretty good JAIs. I hope the Board keeps that in mind.

CHAIRMAN ARMSTRONG: Roy Miller.

MR. ROY W. MILLER: I didn't hear this morning any discussion of F based estimates, or tag-based estimates of F. I was wondering if Dr. Latour or Mike. My reading of the stock assessment, I recall values for the tag-based estimates of F 0.07, 0.09, somewhere in that range.

How do we reconcile those differences compared to the SCA model estimates of F? What should we do with that? It seems like every assessment we have these independent F-based estimates of F. My recollection is we never know exactly how to reconcile them. Are we any closer to that now?

MR. CELESTINO: I think what the Tagging Committee and the Stock Assessment Subcommittee sort of makes of those very low F estimates is that they are likely unrealistically low. We think it has a lot to do with the reporting rate. The reporting rate and the tagging model

helps partition total mortality into fishing mortality and natural mortality.

The natural mortality tends to be a little bit higher than we think is realistic, and Fs tend to be a little lower than we think is realistic. We instead look at just the total trends in total mortality, and look really good. When we look at those trends, not looking at the distinction between F and M, but just total mortality, we see a high degree of overlap between the tagging model and the statistical catch-at-age model.

This is another sort of line of evidence of support for the migration model, as we saw similar trends with the migration model as well. We at least right now, one of our primary research recommendations that we have in the Assessment Document and the Tagging Committee has talked about for a number of years is trying to get a really good handle on reporting rate that we think will help really tease apart that distinction between F and M.

DR. LATOUR: I can add a little bit to that too. As someone who started their career working on tagging models, I published on the darn things. I would echo Mike's comments in that unless the situation meeting the assumptions of the methods can be truly met then there is likelihood that they are missing a lot of what's going on, because they are relying on a very simple process. You tag 100 animals, you get 10 returns back. That means 90 have survived, 10 have died. You can figure out the mortality rate very quickly.

Missing from that is all the catch activity, all the landings, underlying biology. There is no biology in those methods; and such that I don't think, unless there is a data-poor situation that tagging emerges to the top of the list as a tool for formalized assessments. It's a nice complementary tool. It gives insight into comparability and cross modeling that sort of thing. But relying on this catch-at-age model is by far your best tool for supporting management activities moving forward.

CHAIRMAN ARMSTRONG: Go ahead, Roy.

MR. MILLER: Quick follow up. Is the principle weakness in the tag-based estimates the fact that tag reporting is variable and not well known? Is that the principle problem?

DR. LATOUR: That is a major problem. There are other things called mixing. In order for the information you get from the tagging data regarding survival and mortality to be representative of what the entire population is doing, recognizing that we're tagging a tenth of the percent. A thousand animals tagged in a year is really great; but that is way low compared to what the total population and size is.

What we require is, for every one of those tagged animals to be preferably mixed with the untagged animals, behaviorally, age, size, male/female, all of those classifications. If there is any divergence there, then you're getting a false sense of what the mortality rate of the population is, because it's based only on those tagged population animals.

That is another one that is very hard to validate, or assumption is very hard to control for. We hope it's there; but it's very difficult to know. There is the fisher behavior side of it, like will a fisher return the tag if it's in their hand, and that's a behavioral thing. We would like to know that. Maybe we have a better chance of knowing that. But then there is the biological side of what we're attempting to do with the tagging program in general.

CHAIRMAN ARMSTRONG: Rob O'Reilly.

MR. O'REILLY: Just a point of information. I'm not sure I heard everything Katie was saying earlier; but I think there was an inference about the recovery, and the average of the 1960 and the 1972 spawning stock biomass was what that was all based on. The Technical Committee at that time was very pleased when that milestone was reached.

CHAIRMAN ARMSTRONG: Are there any other questions for Rob or Mike? Jim.

MR. JAMES J. GILMORE: Are you ready for a motion?

CHAIRMAN ARMSTRONG: I thought I had to say something first; but go right ahead.

**CONSIDER ACCEPTANCE OF THE
2018 STRIPED BASS STOCK ASSESSMENT AND
PEER REVIEW REPORT FOR MANAGEMENT USE**

MR. GILMORE: I was helping you move it along. I'm taking over the Pat Augustine role of New York. **Move to accept the 2018 Striped Bass Stock Assessment and Peer Review Report for management use.**

CHAIRMAN ARMSTRONG: Do I have a second; second Ritchie White? Let me read that into the record. Move to accept the 2018 Striped Bass Stock Assessment and Peer Review Report for management use. **Discussion, seeing none; is there any opposition? Seeing none we approve the motion by consensus.**

**CONSIDER MANAGEMENT RESPONSE TO THE
2018 BENCHMARK STOCK ASSESSMENT**

CHAIRMAN ARMSTRONG: Moving on, now that we have a Benchmark Assessment and a Peer Review, we need to consider management responses to this. The first point is Nicole will present a response from the Technical Committee to our request for what was needed to achieve fishing mortality reductions.

TECHNICAL COMMITTEE REPORT

MS. NICOLE LENGYEL: Today I will be presenting a Technical Committee Report on the task assigned by the Board at the last Board meeting. I'll start by going over some background information; and then I'm going to present each task assigned by the Board. For each task I'll review the methods, results and the Technical Committee comments.

At the February 2019 Board meeting, the Board was presented with preliminary findings of the 2018 Benchmark Assessment. Those findings, which we just reviewed again today, found that SSB in 2017 was estimated at 151 million pounds

of fish, which is below the threshold of 202 million pounds, resulting in an overfished status. Fishing mortality in 2017 was estimated at 0.31, which is greater than the threshold of 0.24; meaning that we are also in an overfishing status.

As a result of these findings, the Board passed the following motion: *Move to task the Technical Committee with providing the Board with a report that shows the reductions in harvest needed to reduce F to F threshold, and F target, and also provide one example of recreational bag and size limit combination, and if necessary seasonal restrictions needed to achieve these conditions, A, on the coast and B in the Chesapeake Bay, and report back to the Board in May.*

The first task from that motion that I'll review are the projections that were done to estimate what total removals need to be in 2020 to have a 50 percent probability of bringing fishing mortality back down to the target and threshold. For the projections the Technical Committee had to make several assumptions.

The first of that being, that any management would not be implemented until 2020. Next, because estimates of commercial removals for 2018 to 2020 are not yet available, the Technical Committee assumed that commercial landings would be the average ratio of commercial removals to total removals for the period of 2015 to 2017; with commercial removals including landings and discards. For recreational removals for 2018 to 2020, the Technical Committee assumed that 2018 removals would be equal to the preliminary 2018 MRIP estimates. For 2019 we looked at two different scenarios. The first scenario was assuming that 2019 removals would be equal to the 2018 preliminary MRIP estimates; and the second scenario was assuming that 2019 removals would be equal to the average removals from 2016 through 2018.

That three-year average was chosen to capture the variability in landings over the three-year time period. Under both those scenarios we got

very similar results. From the projections it was estimated that total removals in 2020 need to be 7.1 million fish to achieve F threshold; which is a 0 percent reduction from 2017, and total removals need to be 5.9 million fish in 2020 to achieve F target, which is a 17 percent reduction in total removals from 2017.

For these projections there is a 50 percent probability of achieving the target and threshold. For all scenarios the spawning stock biomass was projected to be below the target and threshold in 2020. This plot shows female spawning stock biomass over time in metric tons; and shows that by 2020, spawning stock biomass is expected to increase slightly, but will still be below both the target and the threshold.

The TC had several comments related to the uncertainties in these projections. At this point 2018 recreational data are still preliminary; and assumptions had to be made about what 2019 removals are expected to be, as well as commercial landings and discards for 2018 and 2019. Additionally, preliminary recreational landings in 2018 decreased by 25 percent compared to 2017, with no management changes, adding to the uncertainty.

This decrease was likely due to a decrease in total effort and directed trips. This is a plot of recreational removals over time in millions of fish. As you can see from the preliminary estimate for 2018, the black bar, it's quite low and it hasn't been that low since about the mid-1990s, when the stock was declared rebuilt.

The next task assigned by the Board was to provide an example recreational option to bring F back down to the target and threshold. As mentioned, the projection showed that we needed a 17 percent reduction in total removals in 2020, to have a 50 percent probability of bringing F back down to the target and threshold. For this exercise to come up with an example recreational option, the TC assumes that reductions would be taken from both the recreational and commercial fisheries, in order to achieve that overall 17 percent reduction and total removals.

It's at the Board's discretion to decide how they want reductions to be allocated to the different sectors; but for this exercise the Technical Committee made this assumption, and therefore we looked at an example for the ocean and the Chesapeake Bay to achieve a 17 percent reduction in total removals relative to 2017, to achieve F target.

On the coast we're currently at a one-fish bag limit. Looking at a reduced bag wasn't an option. Seasons vary drastically along the coast; depending on the jurisdiction, so only a size limit analysis for simplicity was conducted for the coast. In the Chesapeake Bay the bag limit reduction resulted in a decrease greater than 17 percent; and the season analysis had many options that would achieve 17 percent. Again, for simplicity and for ease of comparison to the ocean, only the size limit analysis is presented. Length frequency data from 2016 to 2017 was used; as it was thought to be most representative of the population size structure in 2020. In 2016 and 2017, the 2011 year class was about the same age as the 2014 and 2015 year classes are expected to be in 2020. Maryland and Virginia have different size limits at the present; so separate analyses were conducted for each state.

Maryland was at 20 inches for 2016 to 2017, and then decreased to 19 inches in 2018. The proportion of 19 inch fish had to be estimated; as the average proportion from 2000 to 2014, when the minimum size was 18 inches. The results show that to achieve the 17 percent reduction in the recreational fishery by 2020, the coast would have to increase their minimum size from 28 inches to 35 inches.

Maryland would have to increase their minimum size from 19 inches to 21 inches; and Virginia would have to increase their minimum size from 20 inches to 22 inches. Increasing the minimum size will increase dead discards; approximately 3 to 4 percent; but the reduction in harvest offsets this.

The proportion of total removals made up of dead discards also increases; due to the small

increase in dead discards and the larger reduction in harvest. The TC made several assumptions in the size limit analysis; including the availability of different size classes will be the same, and there will be no changes in effort or angler behavior.

Realized reductions could end up being very different from what was estimated; with fishing mortality and removals varying under constant regulations. We've seen this with Addendum IV, where we initially saw a decrease in harvest following implementation in 2015. We subsequently saw an increase in harvest in 2016 and 2017; and now again we've seen another decline in harvest by 25 percent in 2018.

The Technical Committee did discuss season changes as a way to reduce harvest; but noted that with reduced seasons dead discards are likely to increase, as anglers will target other sportfish and still encounter striped bass, and anglers may switch to catch and release. With that we can take any questions.

CHAIRMAN ARMSTRONG: Steve.

MR. STEPHEN TRAIN: Thank you, Nicole. I have a question. I'm trying to equate something on this. One of our past slides, and it's in this packet too from the SAW, says we essentially have on catch and release we keep 40; it's about a 50/50 balance. It's 48/42 on how many die versus how many are kept alive when we harvest, because of catch and release.

We essentially for catch and release we kill more than we keep. The summary and your results says if we go up from 28 inches to 35, which to me seems like a lot more catch and release to get that 35. We'll only increase mortality by 3 percent. Those numbers just don't seem to add up to me.

MS. LENGYEL: In doing those calculations, we're not accounting for any changes in angler behavior. We're just taking the savings from those 28 to 34 inch fish that will no longer be caught, and applying 9 percent discard mortality

to those fish. We're not adding any additional mortality from a catch and release fishery that might occur.

DR. DREW: To add to that. You have to keep in mind that ten times as many fish are released alive as are kept for this fishery. Yes, half of the mortality on the recreational side comes from those fish that are released alive; but that's because ten times as many fish are being released alive or they're being retained.

When we reduce the harvest the number of dead discards increases by about 3 percent; because 90 percent of those fish that we release alive now live, as opposed to being died and being harvested the way they were before. That is why yes there is a lot of release mortality in this fishery, but that is because of the number of trips that are taken that release alive so many fish.

CHAIRMAN ARMSTRONG: We have lots of people to get to here. Justin.

DR. DAVIS: Nicole, I'm wondering if you can comment a bit on the choice of 2017 as the reference year to calculate percent reductions; rather than using 2018.

MS. LENGYEL: The Technical Committee looked at 2017 and 2018. When we looked at both of those years, 2017 presented the largest reduction that would be necessary; and so the most extreme case. We chose that to present. When we look at 2018, it appears that there may be no reduction necessary; and because of the great discrepancy between 2018 and 2017, we thought let's just present the most extreme of those cases.

CHAIRMAN ARMSTRONG: Chris.

MR. CHRIS BATSAVAGE: Nicole, just out of curiosity. What was the percent reduction for dropping the bag limit in the Chesapeake Bay?

MS. LENGYEL: I don't have the exact number in front of me; but I believe it was on the order of 30 percent, somewhere in that realm.

CHAIRMAN ARMSTRONG: Rob.

MR. O'REILLY: I think last meeting there were at least a half a dozen comments about the dead discards; and I did not look back that far. But I looked back to 2006; when the fishery was doing very well and the stock was doing very well, and there were a lot of dead discards then as well. If you happen to have something that shows the time series of dead discards; it may be important for all of us to realize that that's the way this fishery has been prosecuted over the years. It's not something new. But I don't know whether you have anything like that handy or not.

DR. DREW: This graph is from our last meetings assessment; and it's showing the APAIS calibrations. But it's also relevant that you can see the harvest on the left, and the live releases on the right. Again, notice the scale difference that there is literally an order of magnitude larger on the live release side. We assume that about 9 percent of those die; bringing them down to essentially equivalent to the magnitude of the harvest over the entire time series.

CHAIRMAN ARMSTRONG: I have Eric.

MR. ERIC REID: Under the scenario you presented; you're saying there is going to be a 3 to 4 percent increase in dead discards. Is that 3 to 4 percent of 9 percent or is it in total, which would be a 33 to 44 percent increase relative to 9?

DR. DREW: The way we calculated that is that we have the number of dead releases in 2017; so that's 9 percent of that. Then we calculated how many of those fish that were no longer legal harvest that would be thrown back would die. That resulted in a 3 to 4 percent increase in the dead discards. Compared to the level of dead discards that we estimated for 2017, in 2020 the result would be about 3 to 4 percent higher. That is the total number of dead discards would

be 3 to 4 percent higher; not the mortality rate itself.

MR. REID: Then that means dead discards would go up somewhere between 33 and 44 percent.

DR. DREW: No, the total number of fish that would be released alive would go up a lot. But of the fish that actually die as a result of that it's only about 3 to 4 percent different from what it was in 2017. The total, including the ones that we assumed before would have been released alive, as well as the new ones that are released alive. That difference of the dead more releases is only 3 to 4 percent.

MS. LENGYEL: The 9 percent discard mortality has already been applied to those fish.

CHAIRMAN ARMSTRONG: Sarah.

REPRESENTATIVE SARAH PEAKE: As you're looking at dead discards; are you taking into account the effects of climate change and the warming of, whether it's Buzzards Bay or Chesapeake Bay or the Delaware Bay, and whether a stressed fish that is released into ever warming waters, if we're going to see a trend for more dead discards as we're seeing the trend up for warming waters.

DR. DREW: For this analysis no, we only applied a constant 9 percent release mortality across the entire population. We do recognize that there are certain times of year and certain situations where that is different. There are also times of year where that is lower. That 9 percent is kind of an average for the overall population.

It's something we could consider looking into as we go forward but, when we've tried in the past to kind of get more spatial or temporal better estimates of release mortality, we've found it's very hard to kind of connect the when and where that fish is being released with enough detail, in terms of water temperature, to relate that back to what we know about the relationship between release mortality and water temperature. But in the future it could have a larger impact.

CHAIRMAN ARMSTRONG: All right, I've got Mike and John and Tom and Jay and Andy. Mike.

MR. LUISI: Thank you, Nicole for your presentation. Just a quick question, are we still doing questions at this point or are you entertaining comments as well?

CHAIRMAN ARMSTRONG: Let's keep it to questions right now.

MR. LUISI: Okay, great. My question Nicole is in your report you were specific in that the calculations and the percent reduction that would be required to achieve a 17 percent reduction in total removals was a combination of all the sectors involved, so both recreational and commercial sectors. I wondered would it be possible as a follow up action to take a look at and analyze each of those sectors independently; if one were removed from the equation.

Meaning that if it were going to be the case at some point that we would be considering perhaps removing the commercial fishery from being part of this addendum, due to its, I guess size in comparison to the recreational fishery. Would it be possible then to calculate reductions solely based on a recreational fishery; if that were going to be what was going to take the reductions?

MS. LENGYEL: If the Board decides to task the Technical Committee or the Plan Development Team with that we can certainly calculate that. If the commercial fishery is not involved it could change the numbers slightly; but we would have to look at that and we certainly can look at that.

CHAIRMAN ARMSTRONG: Go ahead, Mike.

MR. LUISI: Just a quick follow up. But that wasn't anything that you guys discussed at this time. You would need further tasking at this time for that.

MS. LENGYEL: Correct. We were just tasked with providing the example; and we chose applying

the 17 percent to both sectors, as we didn't have any other clear guidance on how to allocate the percent reduction, and that is what was done for Addendum IV. We thought for this simple exercise that would be the simplest approach. But, we would be looking, any future tasks that the Board assigns, clear definition on how you want to see those allocations to each sector would be helpful.

CHAIRMAN ARMSTRONG: John.

MR. McMURRAY: One thing I'm not clear on is the Board tasked the TC with developing percent reduction that would get us back to F target. But as far as I'm aware there was no discussion about what would get us back to SSB target. Now my question is; is F target calculated to get us to SSB target or are the two things independent? Do we need to be discussing an F rebuild?

MS. LENGYEL: Theoretically yes. Your F target is supposed to be the level of fishing mortality that gets you to your spawning stock biomass target. It's on what time frame are you talking about thought. On the short term when we look at the slide that we had presented, by 2020 we do see an increase; but by 2020 will not be back up at the target.

CHAIRMAN ARMSTRONG: Go ahead.

MR. McMURRAY: I understand that and thank you, but my question was; were the calculations done given say average juvenile abundance indices that this F target would get us to SSB target within ten years?

MS. LENGYEL: We did not do any long term projections looking at past 2020. The example that we looked at was strictly what do removals need to be in 2020 to get back to F target; and that resulted in the 17 percent reduction.

MR. McMURRAY: Thank you. Okay that's good to know. But I would just remind the Board that part of that second trigger in Amendment 6 is to not only address overfishing, but to rebuild. It's

something we need to think about moving forward.

CHAIRMAN ARMSTRONG: Tom Fote.

MR. THOMAS P. FOTE: In the benchmark stock assessment there is a chart that shows the commercial discards, the recreational discards, both harvest and discards. Could you put that table up for me please? It's a yellow/gray spot, it's a bar graph. That is the one I'm looking at. Now we keep saying hook and release mortality is 52, and catch is 48.

If I'm looking at the last three years, and maybe I'm reading this wrong, I look at the hook and release mortality in '15 with 6.5 million, where the TAC is only about 4 million. In '16 it was 7.5 million by the catch and release mortality to 3.5. In '17 it was even more different. It's really not 52/48 anymore according to those last three years, and I don't know what it is in 2018.

I'm hoping you have the numbers for 2018. But it looks to me like the catch and release mortality actually makes about two-thirds of the kill, and about one-third is actually the harvest. When you keep saying 42 to 48, if I'm looking at this correctly, it's a lot larger than that in the last three years.

MS. LENGYEL: I can tell you that in 2018, dead recreational releases accounted for 49 percent of total removals and 55 percent of recreational removals.

MR. FOTE: Explain those charts to me that they don't basically add up to those figures; because according to those charts hook and release mortality is much greater than the catch, it's not on a 42 to 55.

MS. LENGYEL: The numbers that I just gave you were 2018; and this plot only goes through 2017.

MR. FOTE: But on these three years it's a lot larger numbers than that; am I right or wrong?

DR. DREW: That's the correct number for 2017. It's true that in the most recent couple of years it has been higher than it has in the past; and that is a combination of some of the management changes and also a couple of strong year classes moving through, so that when we have more stronger year classes moving through we generally have higher release rates on that. But this is the data that we have.

MR. FOTE: It doesn't add up to the chart though. That's what I'm trying to figure out. If the numbers that are there, I'm looking at the numbers they don't add up to what you're putting up there.

CHAIRMAN ARMSTRONG: Jay.

MR. McNAMEE: I think I'm maybe on the same theme here. One of the comments made about the projections; and Nicole, nice presentation by the way. One of the comments you made, Nicole, was you sort of projected some size structure that you expect in 2020. I'm curious if I'm understanding that correctly. Are you guys making an assumption about those recruitment events in 2015/2016, and kind of pushing those fish forward in some way? The reason, just to put my question in context, I'm wondering.

We're talking about reductions and expectations of discards and things like that. I'm wondering if you have gotten us to a better point with that expectation by doing something like that by propagating forward 2015 and 2016. Maybe they are not old enough yet; it's only a couple years. But you understand my question. I'm wondering how you projected that size structure for 2020.

MS. LENGYEL: I'll let Mike take this; because he actually did the projection.

MR. CELESTINO: Yes, we are starting the projection in 2017; so we have some information on cohort strength from the previous cohorts, and we're projecting that forward. I think to the extent that we can we are accounting for those cohorts coming through the population. The

projections are kind of a continuation of our catch-at-age model; so we're projecting those cohorts forward. Does that help?

MS. LENGYEL: Then on the example regulations size we're also accounting for the year class in that and how that is going to impact dead releases. That is why we chose the 2016 and 2017 years; because we're expecting that the 2014 and '15 year classes are going to be the same age as the 2011 year class was; so we're kind of accounting for it in the example regulations as well.

MR. McNAMEE: Okay great, thank you.

CHAIRMAN ARMSTRONG: Andy.

MR. ANDREW SHIELS: Nicole, the TC chose to limit the analysis to minimum length rather than season limits or bag limits. My question is; did the TC consider maximum length limits or slot limits, and if not why not?

MS. LENGYEL: We did not look at a slot limit. The TC thought that for this because it was just an example exercise that the easiest option was just to look at a straight increase in size limit.

CHAIRMAN ARMSTRONG: Emerson.

MR. HASBROUCK: My question is similar to one that Mike Luisi asked; and it was partially answered. I'm wondering why the Technical Committee chose to take a reduction for both the commercial fishery and the recreational fishery; because my recollection of our discussion back in February was really about the recreational catch, and even more so the recreational dead discards.

I was under the assumption, and maybe I'm the only one, perhaps other people have a different view that the task that we were asking the Technical Committee to perform was relative to, or both parts of that motion, were relative to the recreational fishery.

MS. LENGYEL: The Technical Committee discussed it. We were unclear from the Board's motion whether those reductions were to come from the recreational fishery alone or apply to both sectors. We chose to make the assumption that equal reductions would come from each side; as this was just an example.

If you were to look at just the recreational fishery and not take any reductions on the commercial side that 17 percent would be higher. I don't know exactly what that number would be, but it would be greater than 17 percent. You would be looking at greater than 35 inches on the coast; and greater than the minimum sizes in Maryland and Virginia as well.

CHAIRMAN ARMSTRONG: Ritchie.

MR. G. RITCHIE WHITE: Following up on what Jay was asking about. We projected the 2011 year class going forward; and did that turn out to be, has the 2011 year class turned out to be what we projected it to be at this point?

DR. DREW: Yes the model still thinks that was a very strong year class. If you look at the catch at age, you can see that 2011 year class is more abundant relative to the other ages around it going through. I think we only hit our removal target in one year out of the three years that we had under Addendum IV. As a result I think the full benefits of that were not as realized as the projections would have suggested; if we had managed to maintain that harvest reduction through '16 and '17 as well as '15.

CHAIRMAN ARMSTRONG: Justin.

DR. DAVIS: To return to the topic of using the 2016/17 size structure data for harvest and catch for formulating the new regulations. I would agree that that is a good choice; because of the issue of the 2011 year class was at about the same point then as the '14 and '15 year classes will be in 2020. But in 2020 we'll have not one but two strong year classes starting to come into the fishery; make themselves sort of known. I would guess that might be one reason to believe that the projections of dead discards with a

higher minimum length limit might be a little bit conservative. It's possible we might have more discards than projected with those two year classes coming in.

MS. LENGYEL: Yes that absolutely goes into the uncertainties with these exercises. You're basically assuming that your population size is going to stay the same. Even though we chose those years for the length frequency; to kind of incorporate that a little bit. It is very uncertain.

CHAIRMAN ARMSTRONG: Russ.

MR. H. RUSSEL DIZE: When we were here in February, and I want to back up what Emerson said, everyone was aghast that we had 48 percent dead discards in the recreational fishery. It looks to me at this point that we're going to punish the commercial for doing a good job. As the chart reads, 2 percent dead discards, and even if it goes up to 10 percent that the problem we have is in the recreational fishery. I was just wondering why we didn't concentrate on what the meeting in February was all about.

MR. CELESTINO: Again, the motion did ask explicitly for a recreational measure to achieve F target. But there was no guidance on how to apply those reductions to the two sectors. The TC used Addendum IV as a template; which applied those reductions equally to the commercial and recreational sectors. That's what they did with this example, right to set the stage for a management response discussion.

MR. DIZE: Thank you for that. I will nearby guarantee that if we go with this and raising the size that dead discards are going to be much higher than 48 percent.

MS. LENGYEL: We just wanted to reiterate that this is an example option; and also that the motion tasked us with looking at reductions in harvest needed to achieve F and F threshold. It wasn't specific to recreational harvest. That's why we made that assumption.

CHAIRMAN ARMSTRONG: All right Rob, go ahead.

MR. O'REILLY: Will you take a comment, Mr. Chairman, or is it still questions?

CHAIRMAN ARMSTRONG: Still questions, but we are right on the fringe of comments.

MR. O'REILLY: Okay, can I break through the fringe?

CHAIRMAN ARMSTRONG: Are there any further questions for Nicole about the work that she did? John.

MR. McMURRAY: One quick question here. It looks like the TC did calculate the effects of the 2015 year class entering the fishery. If I'm understanding correctly that is not something that we did with Addendum IV with the 2011's. Is that correct?

DR. DREW: The problem was with the 2011 that we ran into was that there had not been a strong year class in the last five or six years before that 2011 year class came through; so we essentially had no historical data in order to provide a proxy length frequency. That was certainly something that we were concerned about when we did that analysis for the Board.

CHAIRMAN ARMSTRONG: Go ahead, John.

MR. McMURRAY: Thanks for that answer. With that analysis in mind we're not expecting that sort of jump in recreational landings in the Bay states with a 21 or 22 inch limit.

DR. DREW: I think this analysis is probably going to be closer than the previous analysis was. But we can't guarantee that there will not be a difference.

CHAIRMAN ARMSTRONG: Tom.

MR. FOTE: I think I finally figured out this chart; and why I was making a different comparison than you were. If I'm reading this, and Joe was

trying to explain to me what the chart shows it should be better explained; is that bar is not what the individual catches are. It shows the accumulation of the three catches.

Usually when I'm looking at a bar graph like this, when I see that yellow line that is the number of the yellow line that is basically that is why this is a confusing chart. That is why I was having a problem. I better understand it now. Now I understand where you are getting the numbers. But if I just look at that chart I'm not getting it.

I've been at this a long time and when I get confused, I feel how the public must get confused. When we put up a chart like that we've got to explain this better that this is the percentages one. When you combine all three of them that makes up your hundred percent, am I right or wrong now?

DR. DREW: You are correct. They are stacked on top of each other.

MR. FOTE: I apologize, but I was confused. I figured if I'm confused I've really got to find the answer for it. Thank you.

CHAIRMAN ARMSTRONG: Further questions? We're starting to get into the comment phase. Before we do that Max has a very brief presentation to guide us; in terms of Addendum versus Amendment and the timelines involved, and what we should be thinking. That would be the first order of business.

Are we going through Addendum or Amendment; and how do we approach it? Arnold, I'm going to hold off on public comment until we have perhaps a motion; because we've been all over the place, so I would like to bring us back a little bit, a question, Okay, Arnold.

MR. ARNOLD LEO: Yes thank you. Arnold Leo, I represent the fishing industry of the Town of East Hampton. Since I'm paid to be here to do that I appreciate getting a couple of minutes to address you and ask a question; which I think needs to be clearly answered. As I understand it,

the overfishing has occurred entirely in the recreational sector. Is that correct?

MR. CELESTINO: We're unable to determine stock status by sector. We have an area, sort of an area-partial F rather than a sector partial F, so we're unable to develop stock status by sector.

MR. LEO: No, not stock status, the landings. The landings that accounted for overfishing occurred entirely in the recreational sector; true or false?

MR. CELESTINO: We do have a time series of landings by sector. That is true; we have a time series. I don't think we have it in this presentation; but we can make that available.

MR. LEO: I can't understand your answer; but it's not an answer.

CHAIRMAN ARMSTRONG: Arnold. We will come back to the question of commercial versus recreational and we'll take comments then.

MR. LEO: But why can't I get an answer to that simple question at this point?

MR. CELESTINO: The answer has never been calculated; so there is one that could be derived. The current stock assessment does not allow that question to be answered; thus it remains unknown.

MR. LEO: Okay however, it seems to be that is the essential question when it comes to what measures should we take to address the problem. I would beseech you in the next few minutes to come up with an answer to that question; so we would know for sure where the curtailment of effort has to be applied. Thank you.

CHAIRMAN ARMSTRONG: Rob, can your comments hold off after Max?

MR. O'REILLY: Absolutely.

CHAIRMAN ARMSTRONG: Max, go ahead.

REVIEW ADAPTIVE MANAGEMENT TIMELINE

MR. MAX APPELMAN: Again just a couple slides here to highlight some of the issues that could be considered in an addendum or an amendment, and also to review a few possible action timelines. As it has been discussed over this last few agenda items, by accepting the new benchmark assessment for management use the triggers in the plan relating to fishing mortality threshold and the biomass threshold have been tripped.

The Board is required to adjust the management program to reduce F to a level at or below target within one year; and to rebuild biomass to the target, and that rebuilding schedule cannot exceed a ten year period. The adaptive management section in Amendment 6 is very flexible. There are a lot of issues that could be considered in an addendum; and so it's very important that the Board provide good direction to the Development Team on which issues to consider, and also on how those issues should be approached or explored.

Looking at the regulatory program for example, if the Board tasked the PDT to look at new measures for the recreational sector, it would go back and look at bag limits and size limits, because that's currently what manages the recreational sector. If the Board wanted to look at a coastwide season or regional seasons that direction would need to be explicit.

Similar for the commercial sector, it's managed through size limits and quotas. If a seasonal aspect, you know the Board wanted to explore that. That would also have to be explicit. Sort of along the lines of developing alternative regulations, we would also need some guidance on how to apply those reductions to the different sectors.

I think that is definitely a topic that has been discussed around the table already. Also, a regional allocation of fishing mortality, if you use Addendum IV as an example, there were different reductions taken for the Chesapeake

Bay and the coast. However, within those two regions the reductions were applied relatively equally to the commercial and recreational sectors.

Guidance along a regional breakdown and also the sector breakdown would be needed. There are a number of other issues that could be considered in an addendum. This list is not exhaustive by any means; it's just a few of the issues that have been raised at this table over the last few meetings. Reference points, management triggers, those would sort of be tied together.

Monitoring requirements, looking at some of the recommendations that came out of the benchmark assessment, a little coordination with the Technical Committee to see if our data needs are being met for the new two-stock model, or other assessment needs. Then I put up here FMP goals and objectives.

That has been discussed some times over the last few meetings. That last bullet, goals and objectives, would require an amendment. Everything else I've talked about could be done through an addendum. A couple action timelines, possible timelines, if the Board were to initiate an addendum at this meeting the PDT would work to bring a draft for public comment in August.

Following approval hearings would be held during the fall; and then final action could occur in October of this year. If an amendment were initiated today, similar timeline in the beginning, first with a PID in August, hearings in the fall, and then at the annual meeting the Board would task the PDT to develop a draft based on that comment received. In February the Board would see a draft for public comment; and then following approval of that we would have hearings on the draft in the fall of 2020.

Actually that is the spring of 2020, sorry, and then the final action would occur this time next year. You know it's important to consider any back and forth between the Development Team,

the Technical Committee, and this Board may delay these timelines; so keeping those implementation dates and targets in your mind as we go through this would be helpful. Other than that that is just a couple slides to sort of set the stage, Chair. Thank you.

CHAIRMAN ARMSTRONG: Okay to further set the stage we have a decision tree here. The first point is Amendment/Addendum. I've talked to many of you and I know your opinion; so as soon as we can get a motion to go in that direction would be good. Then we can flesh things out; Rob and then Mike, and then John.

MR. O'REILLY: I'll just take a minute or two, Mr. Chair. Actually Max, you did a great job helping out on some of these issues we've been talking about; as did Nicole. I think that we now know there was an example; and there was an example that was provided by the Technical Committee, and that is what was in front of us today to talk about a little bit.

We also know that we have conservation equivalency; and I think that I will propose that we provide today an amendment for later, much later, maybe after the dust settles on our addendum. It's crucial that we start on an addendum. You probably have seen the information from Virginia, Massachusetts, and Connecticut imploring quick action; and lots of other things as well.

You also have seen from Commissioner Bowman a letter saying that we were proposing emergency action in order to eliminate the spring trophy seasons; which have been in Virginia since 1995, and in fact our Commission in Virginia did just that through an emergency. I can't answer all the questions about these dead discards.

For some reason in Virginia that is not a problem in the recreational fishery; we are 3.8 percent of the total coast for dead discards, and it's always been that way since the fishery reopened in 1990 the recreational fishery does not have a lot of dead discards, usually ranking seventh or eighth.

But where are the spawners? Where is the spawning stock? Where are the large fish? That is what Virginia is interested in right now. I do want to note that we do have a commercial fishery as well; and like Maryland it's an ITQ fishery. That makes things a little bit different than the recreational side.

You can't just put in a size limit and walk away. You have to have the right mesh sizes. I'm hoping that when we come up with conservation equivalency plans for the Technical Committee that we can certainly be looking at mesh sizes; in companionship with size limits and we can have options that are not just cut and dried raising the size limit.

The big currency in Virginia is to try to curtail the number of large fish that are taken; regardless of where they are taken, because this is a spawning area and it's very important. One example just to give you is that we are seriously considering having a single tag per individual for one trophy fish for the entire recreational season; and that's a big step forward. Really when you think about it that is 36 inches; which is commonly a ten year old fish, more often than not. What is the need for harvest of more than one?

With that I would like to initiate an addendum and move that we do start on that today. Then I know there will be several comments about how that goes forward; what steps need to be undertaken Max has already outlined. I guess that it's a very simple motion; because I think in a way the Technical Committee is going to be seeing a variety of information from the states, from the jurisdictions as to how they would meet the reduction. I think it's going to be difficult today to wrap all those in; although you started Max, with the size, season, and bag. Mesh size is there; establishing just finite maximum sizes will be there as well, so that is really just a start Mr. Chair, **and I'm welcome to someone seconding my motion to initiate an addendum to achieve the target fishing mortality rate or lower within one year through this addendum process.**

CHAIRMAN ARMSTRONG: We have a motion; do we have a second, John McMurray second? Before we discuss that I had Mike and John and Doug. Do you want to provide your comments first?

MR. LUISI: Sure, thank you Mr. Chairman. You asked the question; you know amendment or addendum, and the answer in my opinion is that we need to do both. I think there is certainly a need to initiate an action today. We have concerns over the ten year decline in spawning stock that has occurred since its peak.

We certainly believe those to be concerns that we need to correct. Taking the reference points out of the picture there is a concern there. We have to do something today. There is a problem that exists; which was discussed pretty in depth back in February, and for us that problem is the dead discard issue in the recreational fishery. I have to say that while Nicole and the technical staff produced a nice report, which was considered an example for us to use in understanding what reductions may come in the shape of through this addendum.

I'm a little disappointed and slightly discouraged that we're sitting here talking about options to increase minimum size limits across the board; only knowing that it's going to exacerbate the situation that we are currently in with dead discards being as high as they are. I really hope that those examples are just examples of what things we could put forth in this addendum; to try to be creative in an approach to solving a problem.

We're not going to solve a problem taking the easy road; and simply using the same tools we've used in the past. We did it in Addendum IV. We've done it with other species that we manage; summer flounder for instance. Increasing minimum size limits across the board isn't going to work in my opinion. Therefore, I support the action to move forward today with an addendum.

I hope we can have a more thorough discussion about elements of the addendum that could be developed over the summer; to take into consideration the problem that exists, and let's try to solve a problem rather than on paper just putting numbers down, so we can walk away thinking that we've accomplished something.

Lastly, what I'll say is that I think an amendment is absolutely necessary. I don't believe that a parallel track amendment at this time, given the ambitious timeline that Max put forth just in the addendum itself is appropriate. There is only one Max. He can't work on two things at the same time and expect to get them both done.

I do have an interest Mr. Chairman, when we finalize the discussion on the addendum today. I do have a motion prepared for the initiation of an amendment. But that amendment would be initiated, and work would begin upon completion of this addendum later this year.

CHAIRMAN ARMSTRONG: John.

MR. CLARK: Well, I just had a simple question about the timeline that kind of gets to what Mike was just asking. I agree with Mike; we need an amendment as well as an addendum, but Max was that timeline showing doing both concurrently or either/or when you said it looked like either one would be done in a certain time?

MR. APPELMAN: Yes, I was highlighting two possible routes if those documents were initiated today. As Mike just pointed out, it would be difficult to work on both simultaneously. More effort would be put into one and the other would be put on hold probably. If both were initiated today they likely wouldn't follow the timeline that I put up on the screen.

CHAIRMAN ARMSTRONG: Doug.

MR. DOUGLAS E. GROUT: I agree with what has been already stated by my colleagues to the south. I think we need to initiate an addendum

today and follow it up with a full-scale amendment to look at a variety of issues that we need to look at. But I think our plan right now specifically calls for us to take action to reduce to the target. I had a similar motion to Robs with an additional wording with specific tasks of the PDT to try and give them guidance in developing this addendum.

I could make a substitute motion; which would give fuller instructions to the PDT on what the Board will do, or we could take this up and approve it. Then I could add the tasking afterwards. Which would you feel would be the smoother; to either substitute right now or to take this motion up right now and then have a second motion?

CHAIRMAN ARMSTRONG: I think Doug we should go with the substitute motion.

MR. GROUT: I've given that to staff here and as soon as that substitute comes up. **Okay, I move to substitute to initiate an addendum to address the overfishing status of striped bass and implement measures to reduce F back to the F target. Task the PDT to develop options that would reduce F to the target that would include: a minimum fish size for the coast and a minimum fish size for Chesapeake Bay; a slot limit that would prohibit harvest of fish over 40 inches.**

Mandatory use of circle hooks when fishing with bait coastwide to reduce discard mortality. A provision that states could use seasonal closures in conservation equivalency proposals. Apply needed reductions equally to both commercial and recreational sectors. If I get a second I would like to provide rationale for all of these charges.

CHAIRMAN ARMSTRONG: Is there a second; Justin.

MR. GROUT: I am using the minimum fish sizes as something to begin with as a concept that we could task the Technical Committee with doing. They've already done some of that work. As far

as a slot limit, I'm looking at trying to protect some of the larger spawning fish at this point. I have no idea what that is going to do to the minimum size of that; but I would let the Technical Committee come up with that. I am very concerned about the amount of discard mortality; and I think it behooves this Board as we move forward to try and address this with circle hooks. To be honest with you, I've never been a big fan of mandatory circle hooks; because of the enforceability problem. But after I saw the results of what happened in Maryland when they implemented mandatory circle hooks, and they got 95 percent compliance.

I felt that even though it is going to still be difficult to enforce, clearly the vast majority of people are willing to follow those rules in trying to put conservation measures and reducing discard mortality. A note about the statement I have here, a provision for states to use seasonal closures and conservation equivalency proposals.

That is already in the plan. We don't have to put that in there. But I put that forward as another possibility for states to reduce discard mortality if you were to choose to; and some of the states where their bay temperatures and the temperatures get warmer and the discard mortality is higher that you could put your closures during the summer.

But clearly under conservation equivalency we have a lot of other options that states can bring forward; as far as measures that would be conversationally-equivalent. I want to make it clear that this is not limiting conservation equivalency only to seasonal closures. You could use net sizes; you could do a variety of things.

Just to clarify; I wanted an option that would apply needed reductions equally to both commercial and recreational sectors. I certainly would not be opposed to another option that might consider just applying it to these measures to recreational fishery; if somebody wanted to put an additional task on the PDT. But from my standpoint I feel that the commercial sector

should take some measures to try and get us back to the target. Thank you very much and that is my motion.

CHAIRMAN ARMSTRONG: There are a lot of elements there; and clearly this is not going to be a quick discussion, and it is 12:30. Right after Rob has his piece we will break for lunch so we can all come back with full bellies and wise minds and work on this. Rob.

MR. O'REILLY: Thank you, Doug. I think it's a good motion. You can talk later on about Doug's last point; but he did add the conservation equivalency in there, which is always there with the ASMFC. But it's good to know that we'll have that looked at carefully by the Technical Committee.

The slot limit over 40, Virginia would not be interested in having a fish that size in a slot limit, but nonetheless that might be important somewhere else but not in Virginia. Circle hooks are something we've already started to introduce to our Advisory Committee; as a matter of fact we've met three times. I think all in all Doug has crafted a good motion. It's going to take a little more talk after lunch; but I appreciate the motion.

CHAIRMAN ARMSTRONG: Mike.

MR. LUISI: Just a quick question.

CHAIRMAN ARMSTRONG: You're between us and lunch, keep that in mind.

MR. LUISI: I'm not going to keep you; just a really quick question so I can think about this as I'm trying to eat today. Would it be the intent that each one of these as guidance would have, like let's pick the circle hook example? Would the document have a status quo and a mandatory use of circle hooks; or is the intent that all of this applies together, and that everything would be initiated at once?

Because I'm thinking that as Doug mentioned, I certainly would like to amend the last bullet and

have another alternative added or another option added to that set. But if we take each one of these as an independent set, I just wonder if we're going to be deciding at the end of the day either status quo or mandatory circle hooks. If we apply both to commercial recreational, or maybe we just do recreational. Just trying to get a sense as to what you're thinking about how this is going to structure; to get my act together over lunch. Thanks.

CHAIRMAN ARMSTRONG: I see it as a pick and choose menu; but I'll let the maker of the motion comment on that.

MR. GROUT: Yes, my intent here was for the PDT to develop options that they would bring back to the Board for consideration for inclusion in the addendum; and that we eventually when we're making final decision here, we're going to come up with a suite that we choose that will accomplish that 17 percent reduction, whatever it's going to take to get us back to the target.

MR. APPELMAN: Mike, I also need to mull this over a little bit. But just looking at the first two bullets for example; I see those kind of falling under the same issue right, in a draft addendum status quo, and then Option A would be a minimum sizes, Option B would be slot sizes and things like that. But again the PDT needs to do some work to flesh out how this would look in an addendum; the same with the circle hooks might be a second issue, status quo versus mandatory circle hooks, to your point, still fleshing this out in my own mind.

CHAIRMAN ARMSTRONG: Okay if we could all be back at our desks 1:30 sharp. We only have an hour to get this out the door.

(Whereupon a recess was taken.)

CHAIRMAN ARMSTRONG: Could you find your seats, please? Thank you that got quiet amazingly fast. You've all mulled over these options. At this point the TC has told us that they need some flesh on the bones. They need some

numbers associated with these. There are a few ways to approach it.

We're trying to figure out the easiest way. But I think the first thing we want to look at is the last one; because all analyses on the recreational side, which is the rest of them, will be dependent on which way we go with that. We either do it friendly amendment, hang on just a second.

MR. APPELMAN: I think the first bit of guidance that might be helpful is there has been a lot of talk about how to apply these reductions to the commercial and recreational sector. We have up here on the board equal; apply them equally to both sectors. If the Board wants to see another way of doing that more applied to the recreational than the commercial that is something we want to tease out first; because that is going to sort of duplicate or triple the types of options that are up on the screen already. I think that is what the Chairman was getting at.

CHAIRMAN ARMSTRONG: Mike and then Tom.

MR. LUISI: I won't go back through all the comments that I made earlier in regards to the concern that we have with the stock and the problems that we see existing in the stock. I want to remind everybody that we're not deciding today on whether or not reductions are going to be applied to both commercial and recreational fishermen.

We're trying to develop a range of alternatives to go out to the public to get feedback as to how those reductions would apply. I see this as an opportunity to get that feedback; only if we are to add something to the last bullet that sets a second set of options, which would be for the recreational fishery only, essentially excluding the commercial fishery from necessary reductions.

My intent there to add something like that or add language to this motion, we're not saying that anyone is to blame. Recreational fishermen as well as commercial fishermen have complied

with and participated in the fisheries that we developed through our own state process through Addendum IV; and conservation equivalency program, so there is no blame being associated with any one particular individual or individual sector.

But I do think in order to have the conversation based on the level of removals being taken by the recreational fishery compared with the commercial fishery, and just that sheer magnitude in itself has opened the door for this conservation. The only way to truly have it is to have some additional language on this bullet. Mr. Chairman you said we could maybe do this through friendly. I'm happy to suggest language; but I also have a motion if we want to do it by motion.

CHAIRMAN ARMSTRONG: Would the makers of the motion consider amending to provide some range of options of commercial involvement in the reduction?

MR. GROUT: From my standpoint I would not object to there being another option to that effect. Justin's okay.

CHAIRMAN ARMSTRONG: Then I think, and keeping in mind this is to go out to public hearing, no decisions are being made and it sounds like we can make that as a friendly motion.

MR. LUISI: I have language if you want me just to read it.

CHAIRMAN ARMSTRONG: Yes let's see what they figure out down the end here. Doug, Justin, is that fine?

MR. APPELMAN: Just to clarify. It would be a suite of options where reductions are applied equally and then a separate suite of options where the reductions were only applied to the recreational sector. Is that correct?

MR. LUISI: Yes that is how I would intend it to be. It's partially based on the question that I

asked Nicole earlier regarding an analysis. If you were to take that analysis that was done in the report by the Technical Committee, and now apply that analysis throughout just the recreational sector, you're going to come up with different levels of reductions that will be necessary. I think this is the way that you get at it; so you almost have two columns for each option as you go forward, one with recreational and commercial together and one with recreational only.

CHAIRMAN ARMSTRONG: Justin.

DR. DAVIS: For clarification based on what Mike is saying. Would that mean that we're setting up a binary choice; where the two options in the document would either be commercial takes no reduction or commercial takes and equal reduction, and there wouldn't be a possibility of doing something in the middle after it comes back from public comment?

CHAIRMAN ARMSTRONG: I will have to take advice I would guess; because we went to public hearing with the extremes so that we could pick something in the middle.

MS. TONI KERNS: Unless you specify you cannot.
CHAIRMAN ARMSTRONG: That would be what I said is wrong.

MS. KERNS: I think if you said on the record today that you were only taking one or the other then that could apply. But if you just leave it, you would have to write that into the document. You could say that the Board would not be able to choose an option in between. But otherwise normally you can go anywhere from one end of the spectrum to the other.

CHAIRMAN ARMSTRONG: All right, I think this accomplishes what we're trying to do then. Doug.

MR. GROUT: I would just point out that I believe that if we were to pick something in the middle at final decision, you wouldn't know what any of

these measures would be when you're making that decision.

CHAIRMAN ARMSTRONG: You're completely correct, Doug. We either go with zero or a hundred, or we throw in another option at this point and give the TC yet another avenue to analyze. Jim.

MR. GILMORE: I just wanted to echo Mike's comments. I think what a lot of us have gone through is that with all the suggestions we've had since the February meeting, and there are many of them that we've had at our Council meeting in New York. We don't want to prejudge this. We want to come up with a bunch of options that when we come back in August and we put this out on the street that we're going to have a suite of things to look at that consider all different alternatives. Everybody wants to get this done quickly; and if we don't include things now, we could end up delaying this even further. I clearly want to see the numbers from this stuff; because a lot of it is more a concept at this point, and once we get numbers wrapped around some of these options, I think it will maybe guide our final selection more efficiently.

CHAIRMAN ARMSTRONG: John.

MR. McMURRAY: I just want to be clear that what this does is provides us analysis of what the effects are going to be; whether we go across the board reductions or just on the recreational side. I'm assuming that's going to prove to be quite a bit more impactful to the recreational side than what we're looking at now. That is probably going to play out at the public hearing side of things. Am I correct in that assumption? I mean we're not looking to make a decision here; we're just looking to get the analysis, see what it looks like to provide context for a future decision.

MR. APPELMAN: Yes this is all guidance to develop alternative measures to put into a draft to eventually go out to public comment.

CHAIRMAN ARMSTRONG: Tom Fote.

MR. FOTE: I've got a question first to ask when these 2018 catch figures are going to be finalized. Is it May?

MR. APPELMAN: That's MRIP; May, June. Commercial harvest will come in; in the June 15 Compliance Reports.

MR. FOTE: But the recreational will be before that.

MR. APPELMAN: Hopefully.

MR. FOTE: Here is what I'm getting at. I just want to say one statement on it. The last time we did the reduction it was supposed to be 25 percent equally in both the commercial and the recreational sector. But a lot of states by the way they implemented the regulations it was a 32 percent reduction or 33 percent reduction, 34 percent reduction on the recreational sector; and only a 25 percent reduction on the commercial sector, because that was setting line.

But by the time they went to one fish or a bigger fish and one fish, it winds up being a bigger reduction. On the other point, what I'm trying to say is if we're going to have the final figures, and 2018 is a 25 percent reduction, I would like to basically have that included in the projections. I mean why are we not using the best information that we have available to basically do that; because we've done this before?

I've also been down this road before; as you made me change my slot limit years ago, when I basically go for a regulation and four years down the road, three years we find out we were not in as bad a shape as we thought we were. I think there are a lot more reasons why we saw a 25 percent reduction in 2018; if that's the number. I think that is going to continue because of the drop off of anglers going out, and reduction of trips again. I really would think it's important so we can justify; because if people see we have a 25 percent reduction when we need a 17, we average it out between 16, 17, and 18. It will

smooth it out some and we should have an idea with the '18.

I'm asking to include that when we do it; at least one option to show what those numbers are, because we have the numbers. It's based on the best science available at the time that we're making our decision; and we should be making it with the best available science that is there. That is what I'm asking for; because we're not going to public hearings until later after that.

MR. APPELMAN: I don't know if there was a question in there; but are we talking about the reference year of these analyses, and whether it should be 2017, 2018 or an average across the most recent three years, something like that?

MR. FOTE: I'm asking a way of how to handle the 2000s; I just don't want to make it 2018 figures because it might be lopsided. But if you average it with the 2016, 2017, and 2018 it shows the trend over three years; and it might not be a 25 percent reduction, but it will be something different than it is right now as 17. Less than a 17 percent reduction, it might be less. I want to look at the figures of the best available science that we have.

MR. APPELMAN: Thanks for teeing that up; because I think that is still a missing piece of this motion here is what the reference year is when we say reduce F back to the target by what time, what year, and also what that reference would be.

MR. FOTE: That is what I am suggesting is do we do an average of '16, '17, '18 to get what the three years are showing; not just use one '17. I think since we have the science for all three of those years let's use all three of those years.

CHAIRMAN ARMSTRONG: Doug.

MR. GROUT: Correct me if I'm wrong; but when you did the example analysis you did an example with using the 2017 as the terminal year, and then you did a three-year average of I forget which three years. It came out to be almost

exactly the same percent reduction. Am I incorrect? I thought I saw that in the analysis.

MS. LENGYEL: That was our assumption that we made for 2019. We did one scenario where 2019 equaled 2018 preliminary landings; and then we did another scenario where 2019 equaled the three-year average.

MR. FOTE: Follow up on that Mike.

CHAIRMAN ARMSTRONG: Go ahead, Tom.

MR. FOTE: But did you use proxies in that number so it was the complete 2018 catch? You said it was the preliminary numbers; so where were the preliminary numbers coming from, and is the same preliminary numbers that you have now that we'll have in the final numbers?

MS. LENGYEL: The numbers that we used are the numbers we currently have; which are just preliminary estimates.

CHAIRMAN ARMSTRONG: Eric. If we could concentrate on the changes we just made re the commercial allocation; so we can move past that one and then move on to the other items. Eric. Is this not concerning that?

MR. REID: It's just an indication of effort in both commercial and recreational sectors. Is that in bounds, Mr. Chairman or not? I'll make it quick.

CHAIRMAN ARMSTRONG: Sure.

MR. REID: I appreciate Mr. Luisi's motion; but my position is about what we know and what we don't know. What we know is the commercial fishery for striped bass we know reasonably well what the potential effort is on any given year; because as far as Rhode Island goes you can't just go out and get a license.

I don't know about the rest of the states; but I'm pretty sure it's limited entry up and down the coast. That is one universe that is reasonably finite; and that effort can be defined. But when it comes to the recreational sector, if the number

of saltwater recreational licenses is a metric for potential effort those numbers are staggering.

I know in Rhode Island when the license came out; the first year it came out we had 20,000 recreational licenses issued. The next year there was over 30,000. Virginia is in the same position; only the numbers are much bigger in Virginia. The rest of the states I couldn't find and figure it out; or else I would have them for every one of you, but I couldn't do it.

My position is it is better to isolate the commercial sector; because of the potential effort versus the recreational sector for the exponential increase in any given moment for that effort. If that is some data you can look at I don't know; but that is a question for you.

CHAIRMAN ARMSTRONG: Ray.

MR. KANE: Eric, we still have people can get endorsements; we don't have limited entry in Massachusetts. But getting back to Mike's, apply needed reductions to the recreational sector only. What is the timeframe on this? After the technical team runs all the scenarios, when will we be seeing this again at the summer meeting or at the annual meeting?

CHAIRMAN ARMSTRONG: I think I know this one. We'll be seeing it the summer. We'll finalize it for public hearing. We'll go out to public hearing, we'll come back in October and vote.

MR. KANE: Thank you.

DR. DREW: Unless you guys get really carried away with all of the options that you want to see here. This is a reasonable set of options. But just keep that in mind as you add to this list.

CHAIRMAN ARMSTRONG: Adam Nowalsky.

MR. ADAM NOWALSKY: My comment did not pertain to the last two current bullet points; so would you like me to hold off?

CHAIRMAN ARMSTRONG: No. Go ahead.

MR. NOWALSKY: I don't think we could reasonably request a technical analysis of this; but an item I would like to see included in the document would be something that references the potential for disproportionate impacts to the different recreational users of the resource. Unlike a lot of the recreational fisheries this Commission manages across other boards, this fishery has two very distinct user group; those who target the fish with the intent to harvest, and those that target the fish with the intent to release.

We've had conversation about the concerns about release mortality. We've heard the concerns here this morning about simply increasing the size is probably not a preferred way to proceed; based on what we know about this fishery, and many of our individual experiences with other recreational fisheries management in recent years.

When I look at some of these options here, increasing a minimum fish size or having a slot limit that prohibits harvest; there is potentially an entire user group out there in industry in fact that this will have zero impact on, zero. I think that's a disproportionate impact that this management action could have; and I would at least like to see that referenced in the document.

Anything that can be put forward about it, any thoughts about it by the PDT for our consideration when we come back here to consider sending this document out for public comment in the summer. I think it's very, very important; so any thoughts other people have as we go around the table here, but my request would just be to see that included and referenced in the document as a concern.

CHAIRMAN ARMSTRONG: Do you have that Max? Okay, Steve Bowman.

MR. STEVEN G. BOWMAN: Mr. Chair, my comments will be a little bit more simplistic. I'm adamantly opposed, in all due respect, to my

colleague from Maryland. When you've got to add a clarifier which basically singles out a specific user group, the law of the Commonwealth of Virginia prohibits specifically the consideration of one user group over another.

I know what we're trying to get at. But if we leave from here today with that statement on there, you can rest assured from a constituency perspective, maybe not some but primarily from a lot of us, if you leave that statement on there, it's going to be read as if that is the direction that we're going. I have some significant heartburn with the addition of that specific statement.

In addition, there has been I think a false presumption; and I know it's hard to keep up with. But from a law enforcement background, we're considering the fact that in the commercial sector the numbers are what they are. Now I realize the recreational sector they are what they are as well. But in the commercial sector there is a heck of a lot more of product lost than is being accounted for. I will mention one specific investigation where we know, and one would say well why don't you take care of it, because there is a reason that persons are fishing well over the quota based on the system that we have in place in Virginia, which we'll be looking at? I want to make sure everybody keeps in mind that it's not as clean as it looks as far as on paper is concerned; as far as the commercial sector is concerned.

I really do believe if we could do something to massage the next to the last item we would be a lot better off; because if you leave here I know what the constituency is going to think. They're going to think ah ha there they go. What they're doing basically is going to single out the recreational sector for application to these measures. With that I thank you for your time.

CHAIRMAN ARMSTRONG: Tom Fote.

MR. FOTE: I agree with Steve; and it's going to be a bad message to send out. But the other thing I want to follow up is on what Adam was

saying. I'm reading a blog one day from one of my friends; and they talk about the fact they went out and caught and released 203 fish in an afternoon of fishing, and they were using blood worms.

Now, nowhere in the article did they put on the blog that not only they caught 203 fish, but they basically killed 16 fish through hook and release mortality. That is what I'm concerned about. When we start looking at this, people are going to fish for striped bass. We always knew it was going to be a higher mortality when we opened the fishery up in '92, because we knew at that time.

What happened over the years and I wasn't going to go into this, is the history went out with regulations. When you push people with closed seasons on summer flounder and black sea bass, remember in 1995 we had no closed seasons on black sea bass, scup. We didn't have any bag limits as a matter of fact, and summer flounder was 10 fish at 14 inches coastwide, and that was the regulations and no closed season.

Then we started inching. By the time we got to 2000 the striped bass had all gotten big from the years we protected them. All of a sudden the guys that didn't want to fish for striped bass, because they said they weren't good to eat. They wanted to catch summer flounder, black sea bass and other species; now turned their attention to striped bass.

Because it ain't like the old days; when I was fishing in the '60s and '70s and crawled on J's and lost my two front teeth on top by falling on the rocks, because it was a lot different. You were skinning eels to use eel skins and everything else. Now to become a striped bass fisherman all you have to do is throw a hook in a bunker and you were king.

You could catch a 50 pounder. It introduced a lot more people into striped bass fishing; and again for food, because you couldn't catch other species. Now this is what we do. We always do single-species management, and we're talking

about ecosystem. We should look at the impacts when you do this on striped bass. What are the impacts going to be on black sea bass? What are the impacts going to be on summer flounder; because if you start closing those things then you're directing people to go into other fisheries, and that's what has happened over the last 15 years? Again, 15 or 20 years ago the guys who were fishing summer flounder would sooner fish summer flounder. They didn't want to fish for striped bass, because they wanted those fish to take home to eat. Then there were black sea bass, and we pushed them to now become striped bass fishermen. We redirected their behavior. That is the new world we're facing now.

Now we want to do largely catch and release; but there is another sector that basically harvests. A lot of our businesses that we have in our states from the recreational sector, the charterboats the party boats the tackle stores, depend on both individual groups functioning in unison. When you start eliminating one of those you wind up with a collapse of businesses up and down the coast.

My job is to make sure first is the fishery sustainable. If we did a 25 percent reduction last year, they said in a statement earlier, we might not have to do anything. If we're going to do something, make sure we include that year in there to see what we actually have to do; and then we make sure we do it equally so everybody takes an equal hit if we're going to do that.

CHAIRMAN ARMSTRONG: Sarah. We are running out of time. We need to get to brass tacks very quickly here. Sarah.

REPRESENTATIVE PEAKE: I'll try to be brief and concise in my comments. I think that the last bullet point could in effect be radioactive in Massachusetts. There has been a push for a number of years to make striped bass, give it a game fish status in the Commonwealth. We have I think a well-managed, both commercial and recreational fishery.

I think that as we look at management measures we should look at both commercial and the recreational sectors. I think the word equally is where we're getting hung up. Maybe each sector doesn't need to take the "same hit." Maybe what we're really looking at is applying management measures to both commercial and recreational sectors in an equitable manner.

It doesn't mean that if we're asking for a 15 percent or 25 percent reduction in one sector it's got to be 25 percent in the other. I mean we look at what the mortality rate is in each. We have to look at something that is an equitable solution; and maybe it's not an equal solution.

CHAIRMAN ARMSTRONG: Ritchie.

MR. WHITE: I'm concerned that we're not gaining and running out of time. I see two alternatives to get this thing going; either to call the question on this and then if anybody wants to change it they make a motion, or limit debate. I would ask for your choice Mr. Chair, and I would be willing to make either motion.

CHAIRMAN ARMSTRONG: All right, let me go a third tact. I think we can move this along. This one needed to be a friendly amendment. The rest just need advice for the TC. If people have comments on the other ones, then I'll ask the TC what they need also. I think we can move along faster. There were comments over here? Procedurally we will vote when we're done amending this to our liking we will vote for this versus the original simple motion made by Rob O'Reilly. If this wins then that substitutes for that motion, okay?

MR. APPELMAN: To try to help move this along. I have a couple questions and we can start from the top of the motion; maybe work our way down, some questions for the Board to provide some clear direction here. The first I had is talking about by what year we would implement or by what year we would bring F back to target; would that be 2020? It's asking for bringing to target within one year.

Also, trying to work my way down here, talking about the quota, how we would apply reductions to the commercial sector. Would that just be via quota reductions or are we talking about exploring size limits or bag limits for the commercial sector? Direction on that would be helpful; otherwise I see the Technical Committee and PDT just showing quota cuts. Also a reference year, so maybe let's just start with those three; reference year, when we would achieve F target, and when we talk about reductions to the commercial sector are we just talking about quota?

CHAIRMAN ARMSTRONG: Doug.

MR. GROUT: My intent with this, and I'm sorry if I didn't put 2020 in, is that it has to be in place by 2020. The reason I didn't put it into the motion was because within Amendment 6 it requires it within one year. To me it was already implicit that that was our direction. But if you want to have a modification to it we can do that. My concept with the next to the last bullet, when we were talking about commercial reductions, it was to take a 17 percent reduction in the quota.

But how a state reduces that quota is up to them. If they want to come in with a conservation equivalency that is up to them, but that is what I was looking at was a 17 percent reduction. As far as the base year, terminal year is 2017 in the assessment. My intent was that we would be basing it off of 2017; unless the Technical Committee felt that there would be a more appropriate year or range of years to use in this analysis.

CHAIRMAN ARMSTRONG: You've addressed all three questions. Could I ask the TC what is the default that you'll be using for the analysis?

MR. APPELMAN: I think that's good guidance; and if the TC has a better recommendation for a reference year that will come out in the next step. Also just for clarification, the first four bullets there we're assuming that those all apply to the recreational sector; and that the commercial sector is not involved with those first

four bullets, seeing a nod from Mr. Grout, thank you.

CHAIRMAN ARMSTRONG: Andy.

MR. SHIELDS: My arm is so tired. I wanted to move back above the bullets; and I've been trying to get my hand up sooner so that I could get there sooner. I guess my question. I'm confused about why we have gone to the lowest possible common denominator, the lowest possible denominator to start.

With respect to Doug, who I value his opinion greatly. We have a threshold and we have a target. We have instantly agreed that we're going to shoot for the lowest possible thing on the target here. We're going to go for the target. We're going to task the TC to look at alternatives for all these bullet items. But we have limited ourselves to only going as far as the target. The TC told us that the example we were given was a 50 percent chance of a 17 percent reduction in mortality. If I went to the doctor and I was going to have surgery; and he said you have a 50 percent chance of dying. I would say I am going to go to another doctor and find one that will give me an 80 percent chance of surviving.

In looking at this situation, I'm wondering can we move back up to the body of this; accepting that the bullets have been worked over pretty well, and increase that either from target to threshold or somewhere between target and threshold, so that if we miss on our 50 percent shot we don't come up short after doing all this work and all this planning. Thanks for Doug's consideration and for the time to speak.

CHAIRMAN ARMSTRONG: Doug.

MR. GROUT: The reason I went specifically to the target is because that's what is called for in Amendment 6. It says this is what we need to do within one year; come back to the target. I didn't see that we had at this point any other option until we start looking at the amendment that has been discussed here. In the future maybe that is something that we will consider in the future.

But right now we're operating under Amendment 6; and we don't have the option to be looking at the threshold.

CHAIRMAN ARMSTRONG: Jay McNamee.

MR. McNAMEE: Just on this topic to Commissioner Shiels. The target is the more conservative of the two. With fishing mortality you want the lower number. I think you're maybe reversing target and threshold. That was just a clarification. The other point is the probability. That is something we need to specify, I believe.

I will start the volley at suggesting 50 percent is a good probability. I think people often mischaracterize. This isn't a binary live or die situation. This is a continuous situation. When you say 50 percent what you're saying is your highest probability is being at that target; and then the distribution decreases as you get away from it.

You're still really probable of being somewhere around that target; if you think of like a bell curve. The middle of the bell curve would be your target; and you can kind of slide to either side, depending on the uncertainty. I think that is a fair place to start; and so I'll offer that we should give that guidance to the PDT or the Technical Committee, a 50 percent probability of achieving the F target.

CHAIRMAN ARMSTRONG: Okay. That is guidance to the TC. We don't need to amend this at all for that. Megan Ware.

MS. MEGAN WARE: I just wanted to join the Massachusetts and Virginia Commissioners in our discomfort with that last bullet. I realize that this is for a range of alternatives; and we're exploring analysis right now. But I just want to flag that as a source of heartburn for Maine moving forward.

CHAIRMAN ARMSTRONG: Thank you. John McMurray.

MR. McMURRAY: Just to contribute to the F target confusion here. I think I want to go back to the question that I asked during the first presentation on the stock assessment; or on the TC report. We're looking to reduce F to F target. But I still did not get clarification; and to Andy's point about half measures and 50 percent probabilities.

Where is the calculation of what's going to get us to SSB target? I think that needs to be part of this document; because if it's not we're going to get accused of half measures and not taking enough steps to get us back to where we should be.

CHAIRMAN ARMSTRONG: Mike.

MR. LUISI: To John's point. I mentioned earlier that I don't think that we're solving anything. I mean this is a short term. We need to take action short term here. But I think where we solve some problems is for the long term outlook. I have prepared a motion to initiate an amendment after we take this issue up; and I have the rebuilding of the biomass as one of the functions in that amendment discussion.

I think you know we've talked. The timeline here is ambitious. We can't have any hiccups. There can't be any questions as we move forward. We've got to be clean and smooth in all of this; and I think the more we add into this document the more complicated it's going to get, and the less likely we're going to have it in place by 2020, as a caution. But I just wanted to put that back out there that I do have intent for a motion on an amendment after we take up this issue.

MR. McMURRAY: I just want to be clear though that the trigger, Trigger Number 2 in Amendment 6, requires us not only to address overfishing but to rebuild the stock. The feedback that I got from staff is that maybe F target does do that. If it does I would like to see that it does; and if it doesn't I would like to see what would. I don't think that's unreasonable to ask that of the TC for this document.

CHAIRMAN ARMSTRONG: Nicole.

MS. LENGYEL: It would be completely reasonable to task the TC with doing a projection that shows you at what point in the projection SSB comes back up to the target. We could do that. If the Board tasked us to do that we can certainly do that.

CHAIRMAN ARMSTRONG: Consider yourself tasked. I'm not sure I have that power; but you guys can tell me otherwise. Justin.

DR. DAVIS: At the risk of not following Katie's advice to task the Technical Committee folks with coming up with too many options. I would like to expand a little bit upon the slot limit options that are going to be looked at. In particular I would be interested in seeing slot limits options with a 28 or a 32 inch minimum size; and then figuring out what the accompanying upper size limit would need to be to achieve the necessary reductions. I feel pretty strongly that slot limits are something we should really be thinking about. I've heard a lot of support from the public for it. I'm concerned about like has been mentioned many times around the table today, the potential increase in recreational discards that will come with a higher minimum length limit.

As Adam alluded to earlier, I have heard from some of my constituents in the party charter industry, in certain areas of Long Island Sound they have trouble accessing fish larger than 28 to 32 inches. By having a slot limit we would still allow access to abundant small fish for some folks that still do rely on harvest for their business; or because that's what they're interested in out of the fishery, while still potentially providing the conservation we need.

Also encouraging folks to put those bigger fish back in the water; which I think we all know is really important for the productivity of the stock. If it's possible I would like to see those options looked at under slot limits; not just the slot limit with an upper end of 40, but with a lower end of 28 or 32, and where that gets us.

CHAIRMAN ARMSTRONG: Okay I regard that as advice to the TC. Short of anyone with vehement objections, we'll move that forward. I hesitate. Are there any more amendments that people would entertain here? Steve Bowman.

MR. BOWMAN: Mr. Chairman just very, very quickly. The Commonwealth of Virginia is prepared to support this motion with the amendment to the next of the last bullet; which changes as Sarah had indicated from equally to equitably, and eliminating the last line.

CHAIRMAN ARMSTRONG: I think the PDT is going to have trouble with equitable; of what that means.

MR. BOWMAN: Okay what would the PDT not have a problem with?

CHAIRMAN ARMSTRONG: They need specific numbers; as in the commercial fishery will not have a reduction, they'll have 50 percent of that 17, they'll have 100 percent of that 17.

MR. BOWMAN: Okay, I'll yield to Ms. Peake, is that her name?

CHAIRMAN ARMSTRONG: Sarah Peake.

REPRESENTATIVE PEAKE: It's not going to be helpful; because it goes in the other direction. I was saying if we just take out the word equally. Apply needed reductions to both commercial and recreational sectors; and then can you show us a menu of options? I guess beyond this.

What are we doing in terms of tying the hands of our state managers to determine where you have both a commercial and a recreational sector; to understand state by state how big the recreational sector is versus the commercial? I'm struggling with how we can take a one-size-fits-all approach here; where there may be not so nuance differences state to state relative to the size of the commercial harvest versus the recreational sector. Maybe I am missing something.

CHAIRMAN ARMSTRONG: Historically this Board has, when we take a 17 percent cut everyone takes it. There has been some consideration that maybe because commercial has been static; recreational has grown that it's time to look at it in a different way. That would be the option on the board.

REPRESENTATIVE PEAKE: Thank you for the explanation.

MS. KERNS: I will just add Sarah that any state can use conservation equivalency proposals to address something that they feel as though they want to treat their states fishery in a more unique way. Therefore, you can move forward with changing your percentages of how you're going to address the reduction that your state takes; as long as it equals the total amount that your state would have taken, and it's approved by the Board.

MR. APPELMAN: I wanted to piggyback off of what Toni was just saying about conservation equivalency. I see seasonal closures could be part of a conservational equivalency proposal. I just want to point out that if the intent is to have conservation equivalency as part of the addendum development process; that is an added step in the timeline. Keep that in mind.

States would have to do their homework, bring it back to the Technical Committee for review; in order to build those alternatives into the draft document. How it worked out with Addendum IV for example is the addendum went forward without conservation equivalency; and that was actually done after the addendum was implemented. To stick to the timeline that I showed, conservation equivalency would happen as a second step, as a second process after the addendum was completed.

CHAIRMAN ARMSTRONG: Tom.

MR. FOTE: I cannot support this with the last bullet in; so I'll make a motion that we remove the last bullet, and handle that in the amendment not in the addendum, because

that's the one that's going to be the lightning rod we go out to. **I make a motion that we remove the last bullet that has been put up there; apply needed reductions to the recreational sector only.**

CHAIRMAN ARMSTRONG: Is there a second to that motion; yes, Dennis Abbott.

MR. DENNIS ABBOTT: We had an original motion and we have an amended motion. I think that it's a requirement that we vote on the amendment first. We can't keep amending the amendment.

CHAIRMAN ARMSTRONG: Doug, do you have some help here?

MR. GROUT: As you indicated, you said that the best thing would just be a substitute motion. As you know with Roberts Rules of Order we need to amend both a substitute motion and make any amendments to the underlying motion. Then once all the amendments are done and we approve, we vote on the substitute motion. If it is approved then that becomes the main motion. If it fails the underlying motion becomes a main motion. Amendments at least by Roberts Rules are, in fact we suggest that you get all the amendments in place, so you've got your substitute and your main motion exactly the way you want it.

CHAIRMAN ARMSTRONG: Is there a second to this motion; Andy Shiels., discussion. I'll call the question. The motion –

MR. LUISI: Can we caucus?

CHAIRMAN ARMSTRONG: Yes, caucus. **The motion is to amend to delete; apply needed reductions to the recreational sector only from the substituted motion.** Two minutes please. Please have your seats please, so we can call the question. All right in regards to the motion on the board by Mr. Fote, all in favor raise your hand.

All against raise your hand. Are there any null, abstentions? The motion passes 9 to 5, two abstentions. Going back to the **main motion; which is a substitute motion**, do we need to caucus? All affirmative raise your hand. I'm sorry. Okay, we will be voting on the amended substitute motion. Emerson.

MR. HASBROUCK: **I would like to amend this motion to remove in the last bullet – I'm doing this on the fly, so excuse me – remove the word equally and replace it with equitably based on harvest.**

CHAIRMAN ARMSTRONG: Is there a second; Steve Train. Would you like to speak to that?

MR. HASBROUCK: The commercial fishery has been operating under a quota; and they have not exceeded that quota, at least not that I am aware of over the past, I don't know how many years that commercial quota has not been exceeded. To ask the commercial fishing industry to take the same percentage reduction as the recreational fishery, you know earlier today we saw the bar graph that Tom Fote was having trouble with, showing what the harvests are. I think it's more fair and more equitable.

CHAIRMAN ARMSTRONG: Doug Grout.

MR. GROUT: I'm going to speak against this amendment; because I think that for the purposes of analysis we need to give the PDT and the Technical Committee a specific figure. Because they don't have, from what we heard from their response there it was they need something like that; because they don't know what equitably means to us. I urge the Board not to approve this, to support this. But if you want to have something like that you need to come up with some kind of specific percentage reductions for each entity.

CHAIRMAN ARMSTRONG: Further discussion. Mike.

MR. LUISI: I understand where Emerson is going with this. I think it's something to consider in this

addendum. I just wonder if we could apply some numbers as Doug mentioned; if we were to change the language from equitably to proportionately, based on total removals.

We're taking that total removal picture of dead discards and harvest by the two sectors, and proportionalizing the (if proportionalizing is a word). We're doing something with those numbers, which is close to 90/10, and applying reductions in that capacity. I don't know if that is what your intent was, Emerson. But that could fix the problem that Doug brought up.

MR. HASBROUCK: Yes that was my intent; so I'll accept that as a friendly.

CHAIRMAN ARMSTRONG: You will accept that as a friendly amendment. Steve Train. I'm just checking to see if the TC is clear on that charge.

MR. LUISI: Mr. Chairman if it's okay, I would just add to the point I forgot to mention that we could pick a year, maybe the terminal year. That would set the proportional allotment to the sectors; that again to the maker and the seconder.

MR. HASBROUCK: That's fine.

CHAIRMAN ARMSTRONG: Steve Train, are you okay with that?

MR. STEPHEN TRAIN: Yes.

CHAIRMAN ARMSTRONG: The makers are okay with another friendly amendment. Tom Fote.

MR. FOTE: According to the plan there is no quota on the commercials to the recreational. There is no split. We have no problem when it's scup, when it's 17 percent of the recreational catch it's 17 percent of the quota. When we start making reductions, which won't affect the overall quota, even goes with the scup fishery is not even being caught, and yet we'll put those fish reductions in equally on the recreational sector that is only catching 17 percent of the fishery.

That's our historical way of doing business. To start trying to do business in another way to be accommodating to one or two sectors is not going to work; and I don't want that firestorm. If you're going to do it, do it in an amendment where we actually spell out everything, and basically go through and take the time to really study this.

But, you try to do it under this addendum you're going to wind up with a firestorm in the recreational community just opposing the whole addendum; and so you might not get what you want for when we get up here and basically want to vote on it in October. If you want to really get it in October, make a cleaner addendum and put it in the amendment.

CHAIRMAN ARMSTRONG: All right I'm going to move this question. We are running out of time. Do we need to caucus; one minute caucus? A point of clarification, this would get rid of the option to equally split it. I don't think that is the intent of the motioner. I think you would rather add this as another option. Keep equally as an option and then have this as an option.

MR. HASBROUCK: Yes, I would be comfortable with that as an additional option to look at, yes. I don't know if I need to reword my original motion but that's fine. Steve, I don't know if you're comfortable with that or not.

MR. TRAIN: It's not that I'm trying to wordsmith here; but there is a pretty specific definition of the word equal, and when you have two parties involved but one party has a smaller interest, equal isn't fair.

CHAIRMAN ARMSTRONG: It would be 17 percent of the commercial quota, 17 percent of the recreational harvest, which would be much larger of course. That would remain. This new option would bring it down to 10 percent reduction for the commercial.

MR. TRAIN: I'll be satisfied with the second option, yes.

CHAIRMAN ARMSTRONG: All right we will restructure that and let's caucus now as this evolves. Okay one minute. Adam.

MR. NOWALSKY: I just need a clarification on that last comment that you just made. What does proportionally based on total removals mean? I heard you just say that that would bring the commercial reduction from 17 percent down to 10 percent.

CHAIRMAN ARMSTRONG: Yes let me step back from that.

MR. NOWALSKY: I interpreted the proportionally as that instead of taking 17 percent reduction on the commercial side, the commercial side would take the proportion of the harvest times 17 percent as their reduction. If their proportion of the harvest was 10 percent, the reduction in harvest needed was 17 percent.

The commercial side would be reducing by 1.7 percent and the recreational side was reducing by the rest. That's a big difference between a 1.7 percent reduction and a 10 percent reduction. I think we need to be very clear what we're adding here on the record; and I appreciate your help with that.

CHAIRMAN ARMSTRONG: Yes let us clarify that. I misspoke on that. I believe it's multiplying 10 percent times the reduction.

DR. DREW: It's complicated because it's percentages. What we're doing with all this percentages is we came up with a number of fish that you need. The removals in 2020 need to be about 5.9 million fish in order to reach the target; and so that's coming down from a set number. That's coming down from about 7 million in 2017.

What we're saying is that in this case the way the TC I think would interpret this is proportionately based on total removals, if the commercial sector represents 10 percent of the total removals, then they are going to take 10 percent of that reduction necessary to get down to the

5.9 million fish. The rest of that will go to the recreational side will be responsible for taking the 90 percent of that reduction of going down to 5.9 million fish in 2020. When we say equally we mean everybody takes the same amount of a cut across the board. When we say proportionally based on harvest, we're saying the recreational side is going to take 90 percent or is going to take their proportion of total removals out of that reduction that we need to come from 7 million down to 5.9 million fish, in order to achieve the target. Versus everybody taking the same amount of the same percent cut. Did that make sense?

MR. NOWALSKY: That would get the total cut for the commercial side would be closer to 1.7 percent than it would be to 10 percent.

DR. DREW: Yes. It would be, yes. I can't guarantee that those numbers are exactly right because it's percentages but yet. The idea would be it would be a much lower percentage than if that percentage is applied equally.

CHAIRMAN ARMSTRONG: All right I think we all get it. Did you caucus? I need to caucus very briefly, 30 seconds. All right, are we ready?

MR. APPELMAN: I was informed that it might help to clarify what the Technical Committee interprets equally as. When we talk about equal reductions, to make round numbers are easy to work with. Take a million fish, we're not talking about 500,000 fish would apply to the commercial, 500,000 to the recreational. We're talking about proportional percent reductions. It's not the same amount of fish we're talking about; we're talking proportional reductions for the sectors. That is what equally means to us in this case.

CHAIRMAN ARMSTRONG: To the motion on the board. All in the affirmative raise your hand. Okay opposed, null, abstention. The motion passes 13 to 3. This will be added back to the substitute motion. We know where this is heading. We've seen it ten times so far, so caucus while we're waiting if you could. Tom

MR. FOTE: I'm just asking for a roll call vote.

MR. LUISI: Point of order, Mr. Chairman.

CHAIRMAN ARMSTRONG: Adam Nowalsky.

MR. NOWALSKY: Did you want to address the point of order first?

CHAIRMAN ARMSTRONG: I'm sorry, what was the point of order? Who had the point of order?

MR. LUISI: It was my mistake; forget about it, I'm sorry.

MR. NOWALSKY: Just a clarification with the provision for circle hooks with bait coastwide. We heard comments earlier about blood worms, smaller fish. Is that intended to mean all states, all areas inshore and offshore coastwide, or did that just mean coastwide in terms of the coastal waters as we talk about the two differences in the fishery?

CHAIRMAN ARMSTRONG: Doug.

MR. GROUT: My intent was it would be an option that all states would implement that for anybody fishing for striped bass with bait would need to have circle hooks. Again, this is just an option to go in there. I understand the potential enforcement issues behind it; but it's an option that could potentially get us to reducing the discard mortality, which is an important part of this addendum.

CHAIRMAN ARMSTRONG: Sarah Peake.

REPRESENTATIVE PEAKE: A related question then based on the response. Circle hooks for bait, what does that mean for fly fishing where there is a feather attached to the end? Would they not be required to have circle hooks?

MR. GROUT: No. Any bait. It would not be attached to a lure. It would not be attached to a lure or to a fly; because that's where you have from the studies that we've seen is when you're

using bait, whether it's chunk bait, whether it's live bait, whether it's worms, not artificial, no artificial. It would not apply to artificial. Does that answer the question?

REPRESENTATIVE PEAKE: It answers the question; and I'll talk to you offline, I guess about why does it matter bait versus non-bait? If we're looking to diminish the stress on the animal so it has a greater chance of surviving when it's caught and released. I don't understand why it makes a difference whether you have bait or a lure.

MR. GROUT: I would be glad to talk to you offline. I've got a variety of studies that will explain why it only applies to bait.

CHAIRMAN ARMSTRONG: If it's helpful, and I hope it is, we can flesh this out more. This will not be able to be analyzed by the TC. There are no data appropriate for coming up with a quantitative answer.

DR. DREW: I think the TC would be very hesitant to use this to apply to any of the reductions; but we can look at sort of the studies and see if we assume perfect compliance. Where would this be applicable is something we could look at; but I think we would be very hesitant to say this will count towards your X percent reduction.

CHAIRMAN ARMSTRONG: It would be a positive measure that is unquantifiable and not necessarily a bad thing. Can we move the question? Yes Tom Fote.

MR. FOTE: You said all bait. Now like Massachusetts is all hook and line fishery and New York has a hook and line fishery, and they use bait on those fisheries. Are you basically directing them now that they should be using circle hooks; the same way the recreational fishermen are doing, or is it just pertaining again just to the recreational sector?

MR. GROUT: The original intent of this was it would just apply to the recreational sector; because they are the lion share of it. But if

someone would like to offer an amendment to have it include the commercial sector I would not oppose that. But my intent was just to have it apply to the recreational sector.

CHAIRMAN ARMSTRONG: Yes and I think it can be done at a later meeting. Chris Batsavage.

MR. BATSAVAGE: I assume the Law Enforcement Committee will review this as the addendum is being developed for enforceability issues; which will be challenging over a wide area. But just so the PDT is aware when they're putting this together. For North Carolina not all of the striped bass fisheries in North Carolina are managed through the ASMFC FMP; so in our case it would just be the coastal ocean waters that this would be applied to, not the estuarine waters.

CHAIRMAN ARMSTRONG: All right let's vote, okay to the motion, it has been requested that this is a roll call vote and so we shall do that.

MR. APPELMAN: Okay working north to south. Maine.

MS. WARE: Yes.

MR. APPELMAN: New Hampshire.

MR. GROUT: Yes.

MR. APPELMAN: Massachusetts.

MR. KANE: Yes.

MR. APPELMAN: Rhode Island.

MR. REID: Yes.

MR. APPELMAN: Connecticut.

SENATOR CRAIG A. MINER: Yes.

MR. APPELMAN: New York.

MR. GILMORE: Yes.

MR. APPELMAN: New Jersey.

MS. HEATHER CORBETT: Yes.

MR. APPELMAN: Pennsylvania.

MR. SHIELS: Yes.

MR. APPELMAN: Delaware.

MR. CLARK: Yes.

MR. APPELMAN: Maryland.

MR. LUISI: Yes.

MR. APPELMAN: District of Colombia.

MR. BRYAN KING: Yes.

MR. APPELMAN: Potomac River Fisheries Commission.

MR. MARTY GARY: Yes.

MR. APPELMAN: Virginia.

MR. BOWMAN: Yes.

MR. APPELMAN: North Carolina.

MR. BATSAVAGE: Yes.

MR. APPELMAN: National Marine Fisheries Service.

MR. DEREK ORNER: Yes.

MR. APPELMAN: U.S. Fish and Wildlife Service

U.S. FISH & WILDLIFE SERVICE: Yes.

CHAIRMAN ARMSTRONG: **The motion carries unanimously**, the next order of business. Mike.

MR. LUISI: Just a reminder Mr. Chairman that was a substitute motion that we'll need to now make the main motion and vote again.

CHAIRMAN ARMSTRONG: That is correct. Given the previous vote we could do this by consensus.

Is there any objection to moving the substitute motion over Rob O'Reilly's original one? Seeing no objection it passes. Go ahead, Mike.

MR. LUISI: I know we are incredibly behind the time here that we have allotted for this discussion; but I wonder if you would consider what I've mentioned a few times already today, a motion that I've prepared and sent to staff, which would initiate an amendment today, **well initiate an Amendment to the Striped Bass Fishery Management Plan. To address the needed consideration for change on the issues of fishery goals and objectives, empirical/biological/spatial reference points, management triggers, rebuilding biomass, and area specific management.**

Work on this amendment will begin upon the completion of the previously discussed addendum to the management plan. I would like to make that motion. If I can get a second I'll add quick brief points about why I think this is the direction we should take.

CHAIRMAN ARMSTRONG: Second by John Clark. Go ahead, Mike.

MR. LUISI: Well I've made the point a few times already; so I won't restate that again. I just think that Amendment 6 has been in the works since 2003. We've seen declines over time to get us to the point where we are now. I think it's time for a comprehensive look at the plan; addressing not only the issues that are listed here, but any others that the members of the Board may want to add as we take this on. I don't think a parallel track with the Addendum that we just started is appropriate; so we would essentially postpone any work on this until after the Addendum is complete. Thanks.

CHAIRMAN ARMSTRONG: Discussion. Craig.

MR. CRAIG D. PUGH: One question to the motion. Would you accept reallocation as a discussion with this amendment?

MR. LUISI: There is a lot to any kind of reallocation. There are the commercial/recreational splits there are state-specific allocations. I think I would want to start with this. But that could be something that we might want to add later.

MR. PUGH: Specifically in my interest it would be to relook at the commercial end of that not so much recreational. But the commercial end of that in our minds in the state of Delaware has been that we have been allocated a disproportional amount of the quota for a number of years, well over 30 years, and it has been a bit of a chip on our shoulder for a long, long time.

These are things that need to be addressed. I see that New York wants to address this with their summer flounder; but we also have had this issue for a long time in the state of Delaware with striped bass. We think it's time to reassess this. You know we're working off of 1970s catch data; and we're looking at a 2020 fish. I don't think it's too much to ask to bring this up to date.

We have issues with climate change and other things that everybody would like to throw into these things; and I think it's high time that we proportionally look at these allocations in a different manner and as they apply to the coast today. I think it's important; and it should be added to this. **I guess I would like to make an amendment to the motion to add the issue of commercial reallocation.**

CHAIRMAN ARMSTRONG: Do we have a second; second by Eric Reid? Adam Nowalsky.

MR. NOWALSKY: Let me ask a question. I understand we're now on an Amendment and we should be limiting debate to that. But I think it's relevant here with regards to our path forward. This issue of allocation has now been brought up; specifically on the commercial side. With regards to the MRIP re-estimates, there is discussion about commercial/recreational allocation for almost all other species. That box is being opened very soon.

What is the advantage to initiating this amendment today; as opposed to postponing this until after the Addendum is completed, at which time in that interim time we could have some conversation about the allocation issues, both within one sector and across sectors? Why would we need to do this today? We got it up on the board. We've got it here to digest. We've heard some other issues that we want to consider. What advantage do we gain today?

MS. KERNS: An option that the Board could take here is because this document wouldn't start work until after the Addendum is done. If you all want to spend the time this week talking with each other and maybe even between now and the August meeting about the things that you would really want to include, and put some thought into what you would want in an amendment.

Then we could bring this back up again at the August meeting when we meet again. We can make sure we have the proper amount of time to discuss fully the issue; and so you could potentially table this to the next meeting, which would be August. Postpone, sorry.

CHAIRMAN ARMSTRONG: We would need a motion to table it at this point. Adam Nowalsky.

MR. NOWALSKY: I'm assuming you had a second to Craig's motion before; so that motion was completed. Okay. **I'll go ahead and make the motion to postpone until the summer meeting initiation of an amendment.**

CHAIRMAN ARMSTRONG: What we're going to do is make a motion to postpone both, because there are two motions on the table right now. We can table both of them right now. Really, you know this is a big issue. We need to devote time to it; because this is back of the envelope at this point. A second; Russell, is there any discussion? John McMurray.

MR. McMURRAY: I don't know why we would even consider this in August. I mean for God's sake let's get through this Addendum first. Let's put these options that we developed today out

to the public and see what their reaction is. I mean we're talking about a complete look at the goals and objectives, Mike. You're basing it on assumptions about productivity that aren't supported by the science.

I mean just from my perspective looking at the young-of-the-year indices, there are plenty of fish coming up that could jumpstart the rebuilding to the SSB target, as long as we keep them alive to get there. I think we're getting way ahead of ourselves by starting this now. I'm perfectly willing to consider it after we're done with the Addendum; but this is premature.

CHAIRMAN ARMSTRONG: All right, we have a motion to postpone until next meeting two motions. Is everyone clear on what we're going to vote for? All affirmative raise your hand; opposed, null, abstention. The motion passes 15 to 1.

CONSIDER FORWARDING COMMENTS TO NOAA FISHERIES OPPOSING PROPOSED MEASURES TO LIFE BAN ON RECREATIONAL STRIPED BASS FISHING IN FEDERAL BLOCK ISLAND SOUND TRANSIT ZONE

CHAIRMAN ARMSTRONG: All right the last agenda item is we need to consider the letter that has been crafted in response to a request to lift the ban on recreational fishing in the Federal Block Island Transit Zone. In your materials you've seen the letter; which essentially says no, given the stock conditions we think it's unwise to open up part of the EEZ, comments Emerson.

MR. HASBROUCK: I would not support sending that letter to National Marine Fisheries Service. I spoke at length at the February meeting as to why I didn't support drafting the letter. I'm still in a position where I would support allowing fishing in the transit zone for a couple of reasons; one is the amount of area that is going to be open there, the amount of area of the EEZ is very, very small.

Having that closure also prohibits the charterboat fleet and private boats from fishing for other species in that area; if they've already

caught a striped bass. If a charterboat goes out and they've got their six fish in a box, then they can't go into this other area to fish for scup or sea bass or summer flounder for instance.

Also, in the meeting materials there was a couple of letters that were sent in by charterboat fishermen in New York suggesting that that area be opened for fishing; that the transit zone be opened for fishing on a temporary basis. I would like to put that on the record; and recommend to National Marine Fisheries Service that they consider that as well.

Then lastly, at our February meeting I asked what the impact was on recreational fishing effort when the EEZ was closed. I would like to bring that question back up again and ask our technical people and staff what the impact was when the EEZ was closed to striped bass fishing.

MR. APPELMAN: The question was, with the closure of the EEZ in 1990, if we could figure out what those effects were on harvest/effort, those two pieces. We looked back at it and essentially there were a lot of things going on at that time. Regulations were relaxing throughout the 1990s. Effort was increasing during that time.

It's hard to see how that closure actually affected effort and harvest in the EEZ or across the coast in general. I hope that answers the question. But the point is that there were a lot of things changing in the fishery and the management of the fishery; and so it's hard to pinpoint the exact effects of the EEZ closure during that time.

CHAIRMAN ARMSTRONG: Go ahead, Emerson.

MR. HASBROUCK: Thank you, Max for that response. Also, thank you Max for sending me some information last week relative to that. In looking at that information that you sent, yes I agree there is no clear trend. But the one thing that I do see is that the proportion of striped bass directed trips in the EEZ really did not decline after that ban was put into place.

In fact, they continued through 2017 to be striped bass directed trips conducted in the EEZ in the recreational fishery. I don't see where opening up this little sliver of the EEZ is going to make any difference. Recreational harvest is going to be constrained by what we put in place; in terms of size and bag and season.

CHAIRMAN ARMSTRONG: I have Jay McNamee and Tom Fote.

MR. McNAMEE: Just make a quick comment in support of the letter. But one thing, and it's with due respect to Commissioner Hasbrouck. We see the potential for this opening to complicate the enforcement issues in that area. It has to do with the location of some of the existing lines and where the actual activity goes on in this area. They are not in the same spot. This would actually complicate enforcement of rules in that area further; and so for that reason along with the findings from the stock assessment, we are in support of submitting the letter that we crafted.

CHAIRMAN ARMSTRONG: Tom Fote.

MR. FOTE: It was the only time that Larry Sims, Jerry Schill and I, all three of us were on a Congressional testimony saying that the EEZ should be shut and kept shut. That was 1995, and you all know Jerry and you knew Larry who passed away. But we couldn't agree on a lot of things; but we agreed on that.

It has basically been a sanctuary out there. Once we start opening it if we start doing that the catch of striped bass would go up dramatically; because we know there are fish in the EEZ, so the guys would be targeting. Nobody fishing in the EEZ, whether if they're targeting striped bass they're doing it illegally, and they should be caught.

I mean, one of the reasons I think Virginia trophy tag probably started going down was because

NMFS started really enforcing the closure of the EEZ so that nothings felt right away around the bridge opening, because the guys were fishing in the EEZ. That's happened in areas of New Jersey when they did the same.

I can't support. I support the letter, because I can't support opening up the EEZ for anything. At the same time we're talking maybe of doing a 25 or 17 percent reduction on the whole recreational sector; and now we're opening up another fishery. We look like kind of hypocritical.

CHAIRMAN ARMSTRONG: **Tom, would you like to make a motion to forward the letter to NOAA Fisheries?**

MR. FOTE: **I'll make that motion.**

CHAIRMAN ARMSTRONG: Second; Justin Davis, discussion. Is there any caucus needed; brief caucus? **The motion on the table is to forward the Block Island transit zone letter to NOAA Fisheries. All affirmative raise your hand; okay, opposed, null, abstain. The motion carries 13 to 1, with 2 abstentions.**

ADJOURNMENT

CHAIRMAN ARMSTRONG: Is there any other business to come before this Board? Seeing none; we are adjourned. Oh, hold it.

MR. APPELMAN: I do want to just remind the Board that we'll be developing a Plan Development Team for the Addendum that just passed today; the initiation of the Addendum I should say. Look for an e-mail from me looking for nominations. It will include a couple sentences of what types of skill sets and knowledge of the fishery and data those personnel should have. Thank you.

(Whereupon the meeting adjourned at 2:55 o'clock p.m. on April 30, 2019)