# PROCEEDINGS OF THE

# **AMERICAN LOBSTER MANAGEMENT BOARD**

ATLANTIC STATES MARINE FISHERIES COMMISSION

The Westin Alexandria Alexandria, Virginia January 31, 2017

Approved May 8, 2017

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# **INDEX OF MOTIONS**

- 1. Approval of Agenda by Consent (Page 1).
- 2. Approval of Proceedings of October, 2016 by Consent (Page 1).
- 3. Move that Addendum XXV include the proposal for *de minimis* for the states of Delaware, Maryland, and Virginia (Page 11). Motion by John Clark; second by Mike Luisi. Motion carried (Page 12).
- 4. **Move that the overlap zone issue be added to Addendum XXV** (Page 12). Motion by Mark Gibson; second by Pat Keliher. Motion carried (Page 14).
- 5. **Move to approve Draft Addendum XXV for public comment as modified by discussion today** (Page 17). Motion by Dan McKiernan; second by Eric Reid. Motion amended.
- 6. Move to Amend to approve Draft Addendum XXV for public comment as modified today and include an Option C under Section 2 to allow gauge size changes and season closures to be used either together or independently to achieve egg production increases (Page 17). Motion by Peter Burns; second by Ritchie White. Motion carried (Page 20).
- 7. Move to initiate an addendum to improve harvester reporting and biological data collection in state and federal waters. The addendum should seek to: 1) utilize the latest technology to improve reporting; 2) increase the spatial resolution of harvester data; 3) collect greater effort data; and 4) advance the collection of biological data offshore (Page 26). Motion by Dan McKiernan; second by Steve Train. Motion approved by consensus (Page 27).
- 8. Move to approve Addendum II to the Jonah Crab FMP with the following options: Issue 1, Option C (Claw Harvest Permitted Coastwide) and Issue 2, Option B (Bycatch Defined as Percent Composition) (Page 30). Motion by Jim Gilmore; second by Mike Luisi.
- 9. Move to Amend: Option C: Coastwide Small Volumetric Claw Harvest Permitted. Under this option, only whole crabs which meet the minimum size of 4.75" may be retained and sold, with the exception of a one 5-gallon bucket allowance of detached crab claws per vessel per trip which may be retained and sold. Two claws may be harvested from the same crab (Page 31). Motion by Allison Murphy; second by Mr. McKiernan. Motion to amend fails (Page 33).

# **Main Motion**

Move to approve Addendum II to the Jonah Crab FMP with the following options: Issue 1, Option C (Claw Harvest Permitted Coastwide) and Issue 2, Option B (Bycatch Defined as Percent Composition) (Page 33). Motion by Jim Gilmore; second by Mike Luisi.

- 10. Move to approve Addendum II to the Jonah Crab FMP as modified today (Page 33). Motion by Doug Grout; second by John Clark. Motion passes (Roll Call Vote: In favor ME, NH, MA, NY, NJ, DE, MD, VA, NEFMC; Opposed RI, CT; Abstain NMFS). Motion carried (Page 34).
- 11. Move to adjourn by Consent (Page 37).

## **ATTENDANCE**

## **Board Members**

Terry Stockwell, ME, proxy for P. Keliher (AA)

Stephen Train, ME (GA) Douglas Grout, NH (AA)

Dennis Abbott, NH, proxy for Sen. Watters (LA)

G. Ritchie White, NH (GA) Raymond Kane, MA (GA)

Dan McKiernan, MA, proxy for D. Pierce (AA) Sarah Ferrara, MA, proxy for Rep. Peake (LA)

Mark Gibson, RI, proxy for J. Coit (AA)

David Borden, RI (GA)

Eric Reid, RI, proxy for Sen. Sosnowski (LA)

Sen. Craig Miner, CT (LA) Mark Alexander, CT (AA) Lance Stewart, CT (GA) John McMurray, NY, proxy for Sen. Boyle (LA)

Jim Gilmore, NY (AA)

Emerson Hasbrouck, NY (GA)

Adam Nowalsky, NJ, proxy for Asm. Andrzejczak

(LA)

Tom Baum, NJ, proxy for D. Chanda (AA) Craig Pugh, DE, proxy for Rep. Carson (LA) John Clark, DE, proxy for D. Saveikis (AA)

Rachel Dean, MD (GA)

Mike Luisi, MD, proxy for D. Blazer (AA) Joe Cimino, VA, proxy for J. Bull (AA)

Allison Murphy, NMFS Peter Burns, NMFS

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

## **Ex-Officio Members**

Kathleen Reardon, Technical Committee Chair

Staff

Megan Ware Toni Kerns **Robert Beal** 

# Guests

Bob Ballou, RI DEM
John Bullard, NMFS
Roth Carson, Mass Lo

Beth Carson, Mass Lobstermen Assn

Kevin Chu, NMFS

Lanny Dellinger, LCMT 2

Marty Gary, PRFC

Colleen Giannini, CT DEEP Joseph Gordon, PEW Zach Greenberg, PEW

Jon Hare, NMFS Marin Hawk, MSC Aaron Kornbluth, PEW Arnold Leo, E. Hampton, NY
Greg Matarones, RI Lobstermens Assn
Jason McNamee, RI DEM
Grant Moore, AOLA
Cheri Patterson, NH F & G
Michael Pentony, NMFS

Michael Pentony, NMFS Mike Ruccio, NMFS

Wilson Laney, USFWS

Kate Wilke, TNC, Fairfax, VA

Chris Wright, NMFS Darryl Young, MEFA Rene Zobel, NH F & G

The American Lobster Management Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin

Hotel, Alexandria, Virginia; January 31, 2017 and was called to order at 1:02 o'clock p.m. by Chairman Dave Borden.

## **CALL TO ORDER**

CHAIRMAN DAVID V. D. BORDEN: Let's get started. My name is David Borden; and I'm the Chair of the Lobster Board. Welcome to the January meeting of the Lobster Board.

## APPROVAL OF AGENDA

CHAIRMAN BORDEN: In terms of items on the agenda, we have an agenda that has been distributed. Are there any comments, additions, deletions to the agenda as circulated? Seeing none; we'll take the items in the order that they appear.

# **APPROVAL OF PROCEEDINGS**

CHAIRMAN BORDEN: In terms of the proceedings, does anyone care to make any comments on the proceedings? No hands up; any objections to adopting the proceedings as written? No objections; proceedings stand approved.

# **PUBLIC COMMENT**

CHAIRMAN BORDEN: On the public comment, we have one person signed up; Beth Casoni. Beth, if you would like to come up to a microphone. Beth, just so you understand, and I think you do, this is for items which are not on the agenda.

MS. BETH CASONI: Beth Casoni; Executive Director for the Massachusetts Lobstermen's Association. At our annual weekend meeting last weekend, we had the Division of Marine Fisheries give a presentation on the trawl survey data and the importance of it. Historically there have been significant gear conflicts where trawl tows have been aborted or abandoned completely.

I've tried for the past five years to get it across to our active members that this data is important to the stock assessments; and that you should really give way to the glory of Michelle. The division did a great job; I would like to thank them for coming and bringing the information forward. When they did the numbers were quite

staggering. Some of the sights had a 68 percent reduction. When they saw those numbers of data being missed in the stock assessments, it was quite clear that they needed to move their gear.

We're hoping that the 2017 season will be better. I would ask if the TC could look at historically how many sites have been abandoned in trawl surveys; and the impacts to the stock assessments collectively, the Gulf of Maine, Southern New England, and Georges Bank. Given the severity of the southern New England stock, I think that information would be pertinent before any further action is taken.

CHAIRMAN BORDEN: Any comments on that suggestion? No hands up. Any objections to having the TC discuss that? No objections, then the TC has their first charge of the meeting; which I am sure they were looking forward to.

# AMERICAN LOBSTER DRAFT ADDENDUM XXV FOR PUBLIC COMMENT

CHAIRMAN BORDEN: Next item on the agenda is Addendum XXV, and I think I'm actually going to ask Megan. We're going to go through the reports and then I'm going to come back and make a few comments, and kind of frame the issues that I think we're going to have to deal with today. Megan.

MS. MEGAN WARE: Today I'll be reviewing Draft Addendum XXV; which looks to address the stock declines in Southern New England. The board first saw this addendum in October, but since that time several changes have been made. That will be the focus of our discussion today. The ultimate question for the board is whether the board would like to approve this document for public comment.

Just taking a step back and reminding ourselves of why we are working on this addendum. Addendum XXV was initiated in response to the 2015 Stock Assessment, which found that the Southern New England stock is at record low abundance; and in response to this information

the board decided that the goal of Addendum XXV is recognizing the impact of climate change on the stock.

The goal of Addendum XXV is to respond to the decline of the Southern New England stock and its decline in recruitment, while preserving a functional portion of the lobster fishery in this area. This is our current timeline for Addendum XXV. Today the Board is reviewing the document, making any necessary changes, and considering approving it for public comment.

If it is approved for public comment, our public comment period would be from February to April, 2017. During this time we would encourage LCMTs to get together and put together preliminary proposals. At the May board meeting the Board would review the public comment and select management measures; and then about a month later we would ask LCMTs to submit final proposals on how to meet the targeted increase in egg production.

This means at the August meeting we would review and hopefully approve those LCMT proposals; and this will allow for implementation in 2018. At the October meeting the Board decided to allow for preliminary comment from industry and state and federal agencies, and we received comments from Massachusetts, Rhode Island, Connecticut, New York and NOAA Fisheries.

We then put together a subcommittee that was comprised of two PDT members and three Board members to review these comments and provide recommendations to the Board. In late December the Board did review and approve these recommended changes to Draft Addendum XXV. Throughout January the PDT has worked to incorporate the recommended changes, and I am going to go through each of the changes that have happened.

This is a list of the editorial changes that were recommended. You'll see almost all of them were included by the PDT. There was one slight

alteration to the recommendation that ventless trap survey data be added to the addendum. Instead of adding ventless trap survey data, the PDT added larval survey data.

This was done because the larval survey data has a much more extensive time series; and so it shows the full decline of settlement in Southern New England. We also had several recommendations for additional management issues or management alternatives that should be added to the addendum. Anything with a green checkmark next to it has been added by the PDT. There was only one issue which was not added by the PDT, and that was a recommendation to discuss the implementation of gauge size changes in relation to interstate commerce. The Commission received advice that this document should not include issues in relation to interstate commerce; and so the PDT followed that advice. You also see there are two issues that have a black squiggly line next to it. Those have to do with the ongoing trap reductions.

I'm going to kind of take a step here and talk about those in a bit more detail. As a reminder, LCMAs 2 and 3 are currently going through a series of trap reductions. These were started in 2016. Any biological implications of these trap reductions were not included in the 2015 stock assessment.

One of the recommendations from the Board was that an issue be added; which asks whether these areas should receive credit for ongoing trap reductions as a part of this addendum. In the PDTs discussion of this issue, the PDT decided that really what this issue is asking is what is our baseline for this addendum; or said another way what year are we considering current stock status? That would be the same year from which we're measuring increases in egg production.

The PDT went through the TCs analysis on the various management tools, and all of that analysis depends on data from the 2015 stock assessment; and the last year of data included in

those analyses is 2014. As a result the PDT is proposing that 2014 serve as the baseline for Addendum XXV.

Action implemented after 2014, which produced measurable increases in egg production, counts towards the egg production target chosen by the Board. If the Board wants to use a different baseline or wants to exclude specific management tools from counting towards the egg production target; that needs to be specified to the PDT at this board meeting.

There was also a recommendation to add an issue; which would ask whether current trap reductions can be accelerated. The intent of accelerating the trap reductions would be to allow for LCMAs 2 and 3 to be able to take additional trap reductions and still meet the implementation deadline of this addendum.

In discussions with staff at ASMFC and the PDT, the PDT felt that the implementation schedule represents the final deadline for trap reductions, and if LCMAs want to implement trap reductions on a quicker schedule; they have the ability to do so; since again that implementation deadline is really that final deadline.

This is similar to other addenda where there is an implementation deadline; and states can always implement something ahead of schedule if they choose. As a result the PDT has added a sentence to the addendum which states that ongoing trap reductions can be accelerated; to allow LCMAs to take additional action in this addendum and meet the implementation deadline. I am now going to go through the issues that are included in the addendum; and the associated management alternatives.

We do now have six issues in this addendum. The first issue asks what the target increase in egg production should be. We have options ranging from 0 percent to 60 percent, with 0 percent being our status quo and the Board tasking the PDT to investigate options between 20 percent and 60 percent. The second issue asks whether management tools can be used

independently to achieve the increase in egg production; and this question is prompted by the fact that there is a greatest confidence in gauge size changes to produce measurable increases in egg production. Option A says that management tools can be used independently. This means if the Board chooses a 20 percent increase in egg production, an LCMA could decide to use just a season closure to achieve that 20 percent increase. Under Option B, trap reductions and season closures must be used in conjunction with gauge size changes; and trap reductions and season closures cannot account for more than half of the increase in egg production.

Going back to that example, again if the Board chooses a 20 percent increase in egg production only a 10 percent increase in egg production could come from trap reductions and season closures. Issue 3 asks how the recreational fishery will be impacted by this addendum. Option A says that the recreational fishery must abide by all management action taken in Addendum XXV; that would include gauge size changes, season closures and trap reductions.

Option B relaxes this a bit and says that the recreational fishery must abide by gauge size changes and season closures. Then Option C further relaxes this and says that the recreational fishery must abide by gauge size changes only. Given that the recreational fishery primarily occurs in the summer months, this third option provides an alternative to maintain the recreational fishery; should a summer closure be implemented.

There is no option which completely exempts the recreational fishery from gauge size changes; and that's because if the recreational fishery is exempted from gauge size changes then there is the potential to have two sets of minimum and maximum sizes, one for the recreational fishery and one for the commercial fishery.

The PDT felt that there might be a lot of enforcement challenges if we have two sets of gauge size changes for one area. The fourth issue asks how season closures should be implemented as a result of this addendum.

While removing traps from the water provides the greatest biological benefit to the stock, this issue is complicated by the fact that the lobster and Jonah crab fisheries are now jointly managed.

This means that season closures could negatively impact the Jonah crab fishery. Under Option A, lobster traps must be removed from the water. No lobsters may be harvested during a season closure. Under Option B, commercial harvesters would not be allowed to land or possess lobsters; but lobster traps could remain in the water, and species such as whelk or Jonah crab could be harvested during that closure.

Option C is kind of a further relaxation of this. It says that those with the lobster trap allocation cannot land or possess lobsters during a season closure; but lobster traps may remain in the water. Those non-trap gears which are allowed to land lobster under the bycatch limit can continue to do so.

Just as a reminder, there are 100 lobsters per day, 500 lobsters per trip bycatch allowance; and this also includes black sea bass pots. Those gear types would be allowed to continue to land under a season closure. You also notice that there are sub-options under each of the Options A, B, and C. These sub-options ask whether the most restrictive rule should apply to season closures. The reason this is prompted is that for example, if Area 2 implements a season closure in Quarter 1, and Area 3 implements a season closure in Quarter 2 that means that an Area 2/3 dual permit holder would not be allowed to fish for the first half of the year under the most restrictive rule. Sub-option 2 provides an option where the most restrictive role would not apply. Again, if we have that 2/3 dual permit holder and Area 2 implements a season closure in Quarter 1 that fisherman could continue to fish in Area 3 during Quarter 1. Our fifth issue asks about the standardization of regulations across LCMAs in Southern New England.

Just as a reminder the Board did ask the TC to weigh in on this option and the TC stated that

while standardized regulations may help with the enforcement of regulations, as well as the stock assessment process; it would likely create clear winners and losers in the fishery. Option A is our status quo, so regulations would not have to be uniform across LCMAs.

Under Option B, gauge size changes and season closures would be uniform across LCMAs 4 and 5, and in Option C, gauge size changes and season closures would be uniform across LCMAs 2, 4, 5 and 6. Our last issue is where in LCMA 3 the management measures adopted in this addendum should apply.

This question is prompted by the fact that Area 3 spans both the Southern New England stock and the Gulf of Maine/Georges Bank stock. Really the intent of this addendum is to address the declines in Southern New England. Under Option A that would be our status quo, so we would maintain Area 3 as a single area.

Any management action taken in this addendum would apply throughout Area 3. Options B and C provide an opportunity to split Area 3 along the 70 west line; and this is the line that divides the Southern New England stock from the Gulf of Maine/Georges Bank stock. Option B would allow for a one-time declaration by fishermen into either the Southern New England or Gulf of Maine stock.

Option C would provide a bit more flexibility to fishermen by allowing for an annual declaration. A fisherman can annually declare into the Gulf of Maine stock and not be subject to any gauge size changes or season closures, or that fisherman can declare into the Southern New England stock, but be able to fish throughout Area 3; but be constrained to the more restrictive management measures.

Just to show this for those who are also visual learners. We have a map up here. We have a red solid line that represents the 70 west line, and that splits the Gulf of Maine stock from the Southern New England stock. Under Options B and C we would split Area 3, which is the lighter

blue color; and fishermen could declare either one time or annually into either of those stocks.

We would amend trap tags to either add an E or a W, and that would signify to law enforcement where those traps are allowed to be fished. Hopefully that would help with the enforcement of these different regulations. After the comment period we also received two state proposals, and these are proposals that the Board will need to address today.

The first proposal was whether de minimis states should be exempt from management measures taken in Addendum XXV. Just as a reminder, our current de minimis states are Delaware, Maryland, and Virginia. Under Option A, de minimis states must implement all management measures adopted under Addendum XXV. Under Option B, de minimis states would be exempt from measures adopted in this document. But the states would have to meet the following criteria. They would have to close the lobster fishery in de minimis states to new entrants. They could only allow lobster permit holders of that state to land lobsters in that state; and then total lobster landings for that state could not accumulate to more than 40,000 pounds annually. We also received a proposal that proposes an Area 3 overlap.

This goes back to Issue 6, which asks where in Area 3 the management measures should be implemented. Under this proposal we would add an Option D. Again we would split Area 3 along the 70 west line, but we would have an overlap area; which is defined by 30 minutes on either side of the 70 west line.

Fishermen could elect to fish in either the eastern or western portion of Area 3, but everyone would be allowed to fish in the overlap zone. The intent of this proposal is to accommodate about a dozen fishermen who harvest lobsters on the Gulf of Maine/Georges Bank side of Area 3; but then cross over the 70 west line to harvest Jonah crab in that Southern New England portion.

Again we have a map here for the visual learners. We have the dotted line, which represents our 70 west line; and then two solid lines which represent about 30 minutes on each side of that. If a fisherman declares into the Gulf of Maine/Georges Bank portion, then that fisherman can fish in the eastern portion as well as the overlap zone.

On the other side if a fisherman declares into the Southern New England portion, they could fish in the western portion and the overlap zone. These are some of the questions that the Board needs to address today. What year should serve as the baseline for this addendum? Should an issue which discusses an exemption for de minimis states, be added to the addendum? Should an option which proposes an overlap zone in Area 3 be added to the addendum; and should this document be approved for public comment?

CHAIRMAN BORDEN: What I would like to do at this point is to take questions on the addendum and then I would like to deal with the issue of de minimis, the overlap zone, and the baseline separately. I think all of those will require motions, because all of those suggestions came in after the deadline.

I think it is appropriate to do it via motion; or at least by consensus if we have consensus. Let's start. I would ask individuals to not, well you actually you can ask any questions you want, but let's not get into a debate of personal preferences and so forth at this point; so questions on Megan's proposal. Dan McKiernan.

MR. DAN McKIERNAN: Yes, Megan, you mentioned that for the Area 3 fleet there would be an option to fish east or west; and you would declare that prior to the year. I don't see a same option for what you described earlier as dual permit holders, somebody who had an Area 2 and Area 3 allocation. Wouldn't it make sense to give that vessel that same kind of option saying for this year I'm going to be an Area 3 boat or an Area 2 boat; and live by whatever rule they chose? I don't think it's in the document, or if it is it wasn't presented that way.

MS. WARE: Yes we can clarify that it would apply to dual permit holders as well.

MR. McKIERNAN: They could declare at permit renewal time whether they wanted to sort of surrender for the season the right to fish in one of the two areas; if they had multiple LCMA trap allocations.

MS. WARE: Yes I think the intent is anyone who holds an Area 3 permit would be able to declare either one time or annually; depending on the option chosen.

CHAIRMAN BORDEN: Other questions for Megan. Doug.

MR. DOUGLAS E. GROUT: Just on that picture that you have up there, clearly the overlap on that picture goes up into Area 1; and I assume that is just a product of not being able to cut it off at Cape Cod, correct?

MS. WARE: That's just my poor painting skills, yes.

CHAIRMAN BORDEN: Mark Gibson.

MR. MARK GIBSON: Megan, I just wanted to be clear the Board has had a number of disagreements about the merits of trap reductions; in terms of reducing exploitation. There have been counterpoints raised to written testimony from industry. I just want to make sure that the way the action is written right now, there is an option for trap reductions after the baseline period to be determined that could count independently against the exploitation reductions. They could be combined with other factors; but there is an option for them to stand independent.

MS. WARE: Yes that is an option in the document.

CHAIRMAN BORDEN: Other questions, anyone? Peter and then Emerson.

MR. PETER BURNS: I'm just curious about the overlap proposal and wondering if the Law Enforcement Committee had a chance to consider that and discuss any issues that might come up with respect to enforcing those management measures. I know that the document talks about consistency and the options for consistency throughout the area, so I'm a little confused about how this option would fit in.

MS. WARE: The Law Enforcement Committee has not had a chance to review that. That would have to be during the public comment process.

MR. EMERSON C. HASBROUCK: Thank you for your presentation, Megan. I've got a couple of questions, one is I'm wondering how actual egg production is going to be determined going forward. That is my first question.

MS. WARE: I'm trying to flip to the page, but at the end of the addendum it does talk about trying to measure the impacts or achievements, we'll say of the addenda. Much of the TC analysis was looking at changes in exploitation and seeing how that relates to egg production; so I presume we would have to do it that way. But we can also look at some of the other surveys to see if it is an effective management tool.

MR. HASBROUCK: Follow up on that. Yes well that is what prompted my question was reading that section on monitoring. My question still is, how is actual egg production going to be determined going forward? Is that just going to be an output from a model? What is the actual means of determining what egg production is?

MS. WARE: I believe it would be outputs from model.

CHAIRMAN BORDEN: Other questions.

MR. HASBROUCK: I've got a second question, Mr. Chairman.

CHAIRMAN BORDEN: You get a third bite of the apple. Go ahead.

MR. HASBROUCK: My other question related to Figure 2 in the document, which is a little confusing. I have two questions relative to that figure. The first question is where are we currently? I'll say currently, whatever the latest year data that we have? Kind of where are we on that graphic? That's the first question.

MS. WARE: We are just so everyone knows what we're talking about. We're looking at the relationship between model-based spawning stock biomass and recruits. We are at the bottom of that graph. There is an 11; that is where we are at now. But that is the last year of the assessment; that's where we were at.

MR. HASBROUCK: Okay so we don't have anything more current than 2011 on that then, okay. Then the second part of that is what I'm seeing on Figure 2 is that there really is no relationship between recruitment and spawning stock biomass or egg production. Is that correct?

MS. WARE: You're correct in the sense that spawning stock biomass has been fairly constant but recruitment has dropped.

CHAIRMAN BORDEN: Dan, do you want to respond?

MR. McKIERNAN: I think the overlap zone might be an error. I think it is supposed to be drawn at the 70 line and go on either side of the 70 line; but Megan, I think as you've drawn it, it is west of that. Just so we're clear.

CHAIRMAN BORDEN: My suggestion is to staff have the discretion. We know what the intent is. Staff will have the discretion to make the line in the correct spot. Does anyone object to that? If not, Emerson back on your question. Do you want to follow up on that or get a response to it?

MR. HASBROUCK: On what Dan just raised, no.

CHAIRMAN BORDEN: On Figure 2. You had two questions on 2.

MR. HASBROUCK: Yes I asked both of those. But I have another question, but I don't want to dominate this conversation, so if you want to come back to me later after everybody else has asked questions; I'll be happy with that.

CHAIRMAN BORDEN: Any other questions? Peter.

MR. BURNS: I was going to bring this issue up when we talked about the Plan Development Team report on the trap reductions, but since Emerson brought it up I thought it makes a good point; and if we're just going to be talking about this addendum with respect to those questions that were on the previous slide, then I think we should begin the discussion on some of the management options that are offered in the addendum.

I was just curious, Emerson made the point of how are we going to quantify egg production? I think that is a very, very good question. We've got two measures here, we've got seasonal closures and gauge increases that have a fairly good way to be measured, and the Technical Committee has felt very confident in being able to measure egg production based on those two things.

Not so much with trap reductions. I'm looking at the management options in the addendum that look at, and I think it's Section 2. Would those be predicated on active trap reductions or would it be something else? Would they be permanent active reductions, because keep in mind that the Technical Committee's assessment assumes you get a 13 percent reduction in egg production with a 25 percent trap reduction; if it is active traps that are taken out of the fishery.

We know that when those trap reductions are applied, at least in the last two years; a lot of that effort has been latent effort. I'm just curious as to how that is going to be characterized. If we're actually going to be assigning numbers to trap reductions and these other measures that are going to have to add up, ultimately to whatever egg production target we're choosing, we need

to know what those numbers are. Right now I don't see how we could measure trap reductions.

CHAIRMAN BORDEN: That's a little bit of a statement as opposed to a question.

MR. BURNS: My question, I think I said it at the beginning was; do these management options are they going to apply to active traps, and is it going to assure that that active effort is not going to be replaced, and that those reductions are going to be permanent?

MS. WARE: Right now the trap reductions are written to apply to total trap allocations.

CHAIRMAN BORDEN: How is the trap-reduction analysis done? Was that also done based on active or allocated traps?

MS. WARE: The analysis, if I understand it correctly from Burton, was looking at the relationship between changes in exploitation and the total traps allocated; and trying to find a relationship between that. That is how they got to the change in exploitation and a change in egg production.

CHAIRMAN BORDEN: I guess the important point to answer your question; the analysis was done based on allocated traps. Peter. We're going to save the debate. If you've got questions we'll take the questions. But I'm going to come around to the debate point. Mark.

MR. MARK ALEXANDER: Megan, has any analysis been done to determine if the traps or the permits that have been involved in a transfer or fished either in the year of the transfer or the previous year, to help discern whether those traps are actually active or latent?

MS. WARE: I don't have a good answer to that question. I'll say at this point I don't know of analysis that has done that. But we could try and investigate it.

CHAIRMAN BORDEN: We've got Ritchie White then Dan.

MR. G. RITCHIE WHITE: Megan, the PDT was not in consensus on their decision on trap reduction in relation to egg production. It would be helpful for me when this happens and we're provided with two different results, two different reports; it would be helpful for me to have a vote, because if it's a 4 to 3 vote then I would tend to weigh both those inputs equally. If it was 7 to 1 vote let's say, then I may weigh those quite differently than a 4 to 3 vote. If you could help in that regard that would be helpful to me.

MR. McKIERNAN: The question is would it be useful if the Commonwealth of Mass and let's say the state of Rhode Island that has data on these permit holders tabulate the number of permits, the number of maximum traps fished, and the number of trap hauls in advance of the final action in May; so that we can put this issue to rest?

I understand the concerns that reducing allocated traps doesn't actually save lobsters, if there is a lot of compensation going on. But the big trap cut was last year and we are just now getting the cash reports in so that we can tabulate the net result of all of that. I'm pledging to this board that we will in Massachusetts deliver on that question. Maybe that would put the question at least to rest to some degree. I understand the PDT and the TC speculating about what could happen, but I'll try to bring forward in advance of the next meeting that kind of a summary.

CHAIRMAN BORDEN: Other questions. Okay, Emerson.

MR. HASBROUCK: Thank you Mr. Chairman, for coming back around to me again. Megan, I have a question on Table 5 relative to the discussion we just had about trap allocations. I was discussing those numbers from New York with New York's lobster biologist, and her numbers don't agree with what is in the table. I would suggest that before this goes back out to the

public that you resolve those numbers for New York in that table, please.

MS. WARE: Can do.

CHAIRMAN BORDEN: Anything else? No hands up. What I would like to do next is I'm going to go back to Pete Burns eventually, but what I would like to do is have a discussion on the issues that came in after the deadline; which is de minimis and the overlap area for Number 3, and the baseline.

We have to answer the questions on these, and then I think we can go back, have a debate on the overall addendum. We'll know what if any additional items will be added to the addendum; and then we can actually have a vote on whether or not to proceed to public hearing. I would like to take the first issue which is de minimis, and I'm going to recognize John Clark.

MR. JOHN CLARK: In conjunction with Mike Luisi of Maryland and Joe Cimino in Virginia, we put together this proposal for de minimis for our states; because as we stated in the proposal as included in the meeting materials, we have very small lobster fisheries in our states. It is getting to the point that the administrative burden of allowing these fisheries to go forward when, I jokingly refer to it sometimes as almost concierge management.

When we only have two lobstermen in the state and the state is putting in all this effort to make sure all these regulations are in place. We thought that as long as we follow the guidelines as stated in Amendment 3, which is the amendment we're working under for American lobster, and we're sure to not exceed the de minimis limit as put in Amendment 3.

If our states were exempted from these new regulations that we could still ensure that our insignificant lobster fisheries would not grow. We would not be an attractive situation to other states; because we would limit it only to the lobstermen we already had in our states. As

stated the de minimis level is clear in the amendment, 40,000 pounds.

If we exceeded that if we did not follow through on the other parts of this, we would not be eligible for this option; but we were hoping that the Board would see fit to grant us this de minimis. In addition, as it's been pointed out during the Technical Committee presentations, down at our end of the range it is probably pretty doubtful that we're having that much impact on the stock anyhow; given the water temperatures and all. For those reasons we hope the Board can put this de minimis option into the addendum.

CHAIRMAN BORDEN: Mike do you want to follow along on that? No, okay; any questions for John on the de minimis proposal with that explanation? Peter.

MR. BURNS: Yes just curious. Is there a status quo option that goes along with that that would allow it? I thought when I saw it up there were just two options for de minimis.

MR. CLARK: Yes I mean status quo in the sense that we would have to follow all the other management requirements of the addendum. That would be the status quo is that our three states would have to implement all the management measures of the addendum. Then the second option that we would like to include would be one that would exclude us from the new management options.

CHAIRMAN BORDEN: Any further questions? No hands up. Are there any objections to including this in the addendum? Obviously this is for public comment. We'll get comment from not only all the states, but the federal agency on the issue. Dan.

MR. McKIERNAN: I think I object to it, and it's because this is reminiscent of what we just went through with Jonah crabs, where as I understand it, it is essentially a fish prosecuted in federal waters. You would have fishermen from a few states that are going to have different rules based on their state of landing.

The time is now for NMFS to speak up to whether or not this would be inconsistent under the federal standards for regulating fishing activity in the EEZ. As I understand it, the request is not concerning necessarily catches in their state waters; but it's in their state ports.

CHAIRMAN BORDEN: To that I won't put NOAA staff on point on that; but I'm happy to entertain any comments they want to make. Normally what NOAA has done on an issue like this, is they look at the item after it has been written out in detail, and they listen to the comments that are made; and then they submit written guidance on it. What my expectation would be that NOAA would handle it in a similar manner, but if someone on the NOAA staff wants to answer the question that was asked I will certainly recognize you. Peter.

MR. BURNS: Right just to clarify. The states can go ahead and if they were de minimis and they're exempt from implementing the regulations, then that would only apply to their state waters. But we would I am sure be asked by the Board, by the Commission to implement complementary management measures for Addendum XXV in federal waters. If those folks in those states, fishermen from those states with federal permits would be subject to those federal restrictions if they are more restrictive than the state ones.

CHAIRMAN BORDEN: All right so I'll go back and ask the same question, and if we have objections I'm going to ask for a motion on the issue. Is there anyone at the table that wants to object to including this proposal in the public hearing document? Emerson, you're objecting?

MR. HASBROUCK: Not directly, but as the discussion was going on here I was looking for a table that had the landings for the states that are asking for de minimis status. The only thing I could find is – I've lost it in the discussion – but it had landings for Southern New England, there we go, by state for Massachusetts, Rhode Island, Connecticut and New York, and then New Jersey and south.

I think it would be helpful that if this option is included in the document that Table 2 be expanded to show what the landings are for these states that are asking for de minimis status. If that request can be accommodated then I won't object to this request.

MS. WARE: The issue is Emerson that the landings from those three states are confidential. I could add those three states together and separate out New Jersey, but I cannot say in the document what Maryland's landings are for example.

MR. HASBROUCK: That's fine.

CHAIRMAN BORDEN: All right so I'll ask a third time, are there any objections? Craig.

MR. CRAIG A. MINER: I guess I'm just trying to be clear. This de minimis status in these two states, is it driven by a bycatch; or are these targeted species?

CHAIRMAN BORDEN: John, do you want to respond to that please?

MR. CLARK: It's both. They have lobster permits, but they're also catching them as bycatch in black sea bass pots. Is there anything else, Mike? I think it's just those two fisheries.

MR. McKIERNAN: Yes I would just ask the three state proponents for this de minimis request to repeat on the record that if it won't apply to the federal permit holders, is it still worth going forward with?

CHAIRMAN BORDEN: Craig, did you have your hand up to follow up on that? I apologize.

MR. MINER: That's all right, thank you. When I think about bycatch I think primarily about species caught in a net that you probably can't release or shouldn't release; they're going to be dead discards or something like that. In this case these animals are alive. I don't know where recruitment is going to start to build from.

I couldn't tell you if it's going to be off the coast of the southern state or the coast of the Gulf of Maine. But right now we seem to have a spawning biomass that stays fairly consistent, and have continued downward spiral of recruitment. I guess my question would be, if it is going to be a de minimis status why wouldn't they just be released to the ocean?

Otherwise, maybe the burden of tracking all that would be sufficient to have the agency say look; it's not enough for us to do it so we're going to close that fishery. I think most of us that are dealing with some of the requirements of any of these selections are going to be facing some tough choices. I guess that's my only comment on de minimis.

CHAIRMAN BORDEN: All right I think we've got enough of a divergent view here so we need a motion. John.

MR. CLARK: Well in that case I would move that the addendum include the proposal for de minimis status from Delaware, Maryland and Virginia as included in the meeting materials.

CHAIRMAN BORDEN: Do I have a second? Second, Mike. Discussion, is there any discussion on it? Joe.

MR. JOE CIMINO: I just wanted to make one comment, or address something that was just said and that's some of the options that seem to be going forward, as far as seasonal closures, also would be including an option where bycatch fisheries are still allowed to retain lobsters. I don't see that as a difference; although I don't dispute anything that was said in that.

CHAIRMAN BORDEN: Ritchie.

MR. WHITE: I guess from what Peter said then, this would be de minimis for state water fishery. Is that a correct assumption?

CHAIRMAN BORDEN: I don't believe that's the intent from the maker of the motion, but John clarify that if I'm incorrect.

MR. CLARK: Well, no that was not, the intent was de minimis for the lobster fishery; which these guys are pursuing in both. I understand the federal waters issue is definitely a complication here. I was just going by the wording in the amendment that being that this is a joint plan, federal and state, I thought because of the state component of this that this could be done without causing huge problems here.

But obviously that is something that will be obviously evaluated here. If that is the case that it would not apply at all in federal waters that would make it less attractive; although as Joe pointed out, there is the bycatch component to the black sea bass fishery.

CHAIRMAN BORDEN: Any other comments on this? Adam.

MR. ADAM NOWALSKY: Just what I believe is clarification perfection. I don't believe this is a proposal for de minimis status; as that already exists. I think this is a proposal for the de minimis states; as I believe it is.

CHAIRMAN BORDEN: John is that what the intent is; to Adam's point?

MR. CLARK: I believe that covers it.

CHAIRMAN BORDEN: Any other questions on this? Dan, do you have your hand up?

MR. McKIERNAN: Well, I guess I'm really concerned that we're going to have a lot of questions when this public hearing document goes out. If I hold a public hearing in Massachusetts, and fishermen from Massachusetts ask me what this means for those states to be de minimis. I guess I would fall back on Peter Burns' likely answer.

There is a lack of clarity or I guess I'm really shocked this is going forward without really clarifying that it would not apply to federal permit holders; if the federal government enacts complementary measures on its permit holders. Maybe if the document says that I'll be a little more comfortable.

CHAIRMAN BORDEN: Any other comments? Mike.

MR. MIKE LUISI: In thinking through this, I also share the concern based on what Peter mentioned about federal waters. I think when John and Joe and I talked about this, we were thinking that in federal waters that the provisions would not apply to our state licensed permit holders.

However, after hearing where this might go in federal waters, so I'm going to support it at this point because I think it could be more defined in the document. We obviously have some questions about how this would work. I would like to see it stay in the document and be developed; so that when it is time to make a final decision we'll have all that information in front of us.

CHAIRMAN BORDEN: Anyone else who hasn't commented? No hands up. Are you ready for a vote on this? Do you want a one minute caucus; one minute caucus? All right ready for the vote? All those in favor of the motion to include de minimis status in the addendum, signify by raising your right hand.

Six in favor, opposed; two opposed, any null votes, any abstentions? One abstention; motion carries. Next item on the agenda is the overlap zone. Mark, would you like to comment on this? I would note while Mark is doing that; Grant Moore who is Chair of the LCMT3 is here and I may ask him to comment on it, since he and David Spencer collaborated on the development of this.

MR. GIBSON: I would like to move that under the issue of the boundary line in Area 3

between Georges Bank and Southern New England; that the 70 line with overlap zone as described today, or as perfected today, be included in the addendum.

CHAIRMAN BORDEN: Is there a second? I'll wait until we get the motion on the board before I call for a second; so you can see what it is. Mark could you please repeat the motion?

MR. GIBSON: I'll try; I may not get the words the same. In regard to the boundary line on Area 3 between Georges Bank and Southern New England; that the 70 line with overlap zone alternative be added to the addendum.

CHAIRMAN BORDEN: Is there a second on that motion? Pat Keliher. Discussion, Mark do you want to comment on this further?

MR. GIBSON: I would just comment that it was finally endorsed by the industry as deemed necessary to avoid conflicts out there in a spatially stratified fishery.

CHAIRMAN BORDEN: Grant, would you mind coming to the microphone? You can use that microphone right in front of you, and just explain the basis for this. Then I'll take questions and then we'll get into the debate on the issue.

MR. GRANT MOORE: The purpose; the industry sat down and basically with a sharp 70 degree line there was a big concern with shift in effort with some of the western fisheries thinking that if they were going to draw a firm line that they would definitely move their effort to the eastern side of 70 degrees. The reality of this is that there are probably eight to ten boats that are effected that fish either side of this line; and some of the fishermen are lobstering on the east side but they're fishing for crabs on the west side.

By basically putting this 30 degree buffer on either side of the line, and treating it like the Area 2/3 overlap, it is a solution that is going to basically solve the problem of fishermen feeling like they're being displaced and feeling like

they're going to have to relocate. By adopting this measure we're really going to be, I believe giving the fishermen an opportunity to continue their practices; while still adhering to new regulations in southern New England.

CHAIRMAN BORDEN: All right any questions for either Mark or Grant; questions? Mark.

MR. ALEXANDER: My question is not directly related to the overlap zone, but I'm looking in the addendum on Page 28 under Option B. The last sentence there says season closures and gauge size increases that are implemented as a result of this addendum would not apply to fishermen who elect to fish exclusively in the eastern portion of LMA3. Essentially aside from whatever reductions in traps that may be claimed there, they are not implementing any other measures to address egg production?

CHAIRMAN BORDEN: Megan, if you would like to answer that. What is the intent?

MS. WARE: The intent of splitting Area 3 is the fact that it spans both the Gulf of Maine/Georges Bank stock and the Southern New England stock. The intent of this addendum is to address the Southern New England stocks decline. The reason we would propose these splits is so that those fishermen who exclusively fish in the Gulf of Maine/Georges Bank portion of Area 3 would be less impacted by this addendum. Through that sentence they would not be subject to any gauge size changes or season closures implemented as a result of this addendum.

CHAIRMAN BORDEN: Mark, follow up.

MR. ALEXANDER: Even though a big chunk of Area 3 east lies south of a latitude where Southern New England starts, those measures still wouldn't apply?

MS. WARE: The line was drawn based on the biological stock boundaries. The boundary between the Georges Bank stock and the Southern New England stock.

CHAIRMAN BORDEN: Any other questions for Mark or Grant? Adam.

MR. NOWALSKY: The original options in the document for the LCMA3 split contemplated a one-time versus an annual declaration. As I read the Rhode Island proposal that included only an annual declaration. Is there any merit for having both options, both an annual and one-time declaration or we're talking about with the overlap area that will only provide an annual declaration; and the overlap would not be a one-time declaration option?

MS. WARE: My understanding from the proposal is that the overlap zone, the fishermen would declare annually or could declare annually into either the Gulf of Maine/Georges Bank or the Southern New England stock. If the board would like to see an option with that proposal that also does a one-time declaration, we can add that. But we would need Board direction to do so.

CHAIRMAN BORDEN: Any other questions? Thank you very much, Grant. Peter.

MR. BURNS: There is just a lot to this and it's fairly new. I don't think there has really been any analysis on this. I know I really appreciate Grant's comments on this; and he addresses the number of vessels that are involved. But I guess I'm just curious about the enforcement on this, and whether or not the Law Enforcement Committee possibly could look into this.

Between now and the May meeting, if we were to add this into the document, to give an idea of whether the measures that we're going to possibly implement to help the Southern New England stock would be somehow diminished or compromised by something like this.

CHAIRMAN BORDEN: To that point, Peter. It was my original intent to have the Law Enforcement Committee review the Draft Addendum before this meeting. It would have been highly desirable to have their comments on a number of these provisions; but it simply wasn't possible.

At least from my perspective, I think this entire document has to go to the Law Enforcement Committee and get comments from them on all the proposals. Further discussion on this, any discussion, anyone object to including this proposal in the addendum? No objection; so it's included in the addendum. The next issue and this is the last one that Megan raised; was the baseline for the analysis. What the PDT and Megan have suggested is the benchmark stock assessment be the baseline for it; so comments or questions on that.

MR. GIBSON: The recommendation was for 2014, which is the terminal data year. I just want to make sure there is clarity. There is a difference between the calendar year, lobster fishing year, what the last bit of data is; which I think is the fall trawl survey. We're talking about fall of 2014. What do we mean by 2014? I just want to make sure before I make a motion or someone else does.

CHAIRMAN BORDEN: Megan.

MS. WARE: I think it would be the fall 2014 data and we can clarify that. The assessment, the terminal year is 2013 but it includes data from 2014 to stabilize that final year. That's the end of the last bit of data that we're including as part of the assessment.

CHAIRMAN BORDEN: Are you suggesting that some language to that effect be included in the addendum? Whatever was the terminal year in the analyses?

MR. GIBSON: Yes I think we're calling it the terminal data year for the stock assessment. I don't know if that means different things relative to the lobster catch year or the survey year. I guess the point it just to make sure there is clarity on that.

CHAIRMAN BORDEN: Any objections to doing that? No objections. Okay so comments on this baseline issue. You've heard the recommendation from both the PDT and the staff on this; any objections to including that,

no objections. It is adopted by consensus. Okay so now what I want to do is go back to the Addendum XXV.

Essentially now you have a written addendum before you. We've added items to the addendum by consensus generally. I think we're to the point where we need to get on with the discussion that Pete Burns was raising about certain issues that he wanted to get into. Peter, I am going to come back and recognize you.

Then after I take a few statements I'm going to ask for a motion to send this addendum out to public hearing. I've asked the staff to draft a motion to do that just for clarity purpose. Let's take any statements that individuals want to make. Peter.

MR. BURNS: This is a very comprehensive document. It is a much different document then the one that we looked at in October. That document as you remember was the initial version from the Plan Development Team that set the boundaries for our next stage in Southern New England management; and included gauge increases, trap reductions and seasonal closures, and requiring all the measures to be tied to a gauge increase.

We've gone back out to public comment. We've received lots of comments and now we've got a very complicated and a lot more, I guess maybe comprehensive document; and a lot of different ways to look at this. But I think one of the things we have to think about moving forward is that we need to come up with a number here.

Ultimately what we're going to be deciding on in May is a percent egg production target, whether it is 0 or 60 percent or somewhere in between. All of these measures cobbled together are going to have to equal that number. We have some fairly good analysis from the Technical Committee and about the ability to measure seasonal closures and gauge increases, in their ability to improve egg production. But with trap reductions there is a real disconnect there; because the analysis that we have is predicated

on active traps being removed from the fishery. We know that the way that we've allocated traps that it has been mostly latent traps that have been removed from the fishery.

I think that needs to be addressed here somewhere in the document that I think certainly we can give credit where credit's due. If we're looking for credit between 2014 and now for what we've gotten for trap reductions that's fine. But I don't think we have any way to quantify that.

I think it's misleading to the public if we allow them to consider trap reductions as an egg production tool; only to not really be able to quantify that and attribute those credits toward whatever egg production goals we come up with. I would like the board to address that or maybe Megan or somebody in the PDT could address it or the TC could address it; to see how these management measures going forward that are in here can actually meet the egg production goals as stated.

CHAIRMAN BORDEN: Any other comments on the addendum? Mark Gibson.

MR. GIBSON: Yes I just want to speak to this trap reduction issue for the record. Rhode Island staff engaged this issue prior to the Technical Committee and the PDT. We specifically used what's called a saturating type curve to describe this relationship, because we recognized prior to board comment and prior to Technical Committee input that the relationship would be nonlinear, and there would be factors that would prevent that linearity from emerging.

We specifically used a saturating curve, which is designed to accommodate and explicitly recognize those issues that have been repeatedly raised at the Board and by the Technical Committee. We believe that so much attrition has occurred by any measure, whether it is allocated traps, whether it is prep tags issued, whether it is plot hauls computed from landings and industry CPUE from the sea sampling program.

Just looking out my window over the past 15 years, there is enormous attrition has happened. We believe we have cut through that saturation point of the curve and are now in a position where trap cuts, whether you're talking about allocated ones or active ones; effort is going down now at a place where we're going to be on what we call the descending limb of the saturation curve. I just wanted to put that on there for the record. Thank you.

CHAIRMAN BORDEN: Other comments on this. Dan.

MR. McKIERNAN: I agree with Mark, and over the next month and a half, two months, I think we have an opportunity to demonstrate what has been the effect of the effort control plan. I think if we can do that it will lend credibility to the proposal; or it may do the opposite. But I think the data will reveal, the data is important to look at and I pledge to bring that data forward as soon as possible.

CHAIRMAN BORDEN: Other comments. Mark.

MR. ALEXANDER: I appreciate the comments by Dan and Mark. I know that a lot of people have contemplated both sides of this issue. I would like to certainly see some analysis related to the saturation curve that Mark talks about. But I would specifically like to see some analysis or indication that indicates, or leads credence to the idea that a lot of the reduction seen in Areas 2 and 3 has been active and not latent traps. I think especially to get credit for reductions that have taken place to date, since the baseline that we just proposed. I think we really need to see that kind of analysis to be fair about the equitability of all these options that we're considering.

CHAIRMAN BORDEN: Any other comments here? Peter.

MR. BURNS: That was an interesting comment about the saturation curve, and I was just curious if the TC had had a chance to look at that; and

whether the TC can give us an indication of how we can measure any trap reductions that have already taken place, as far as egg production is concerned.

CHAIRMAN BORDEN: Any other hands up on this. Eric.

MR. ERIC REID: I just want to remind the Board that this is a public hearing document for public comment; and I think we're having a lot of public comment before the document even goes out to the public. Trap reduction was a proactive measure by industry, and I think that should be acknowledged moving forward.

You've already got several people acknowledging and stating that they will provide the data as it becomes available. I just want everybody to remember this is a public hearing document, and we should have as many options for consideration as possible.

CHAIRMAN BORDEN: Does anyone else care to comment? Doug Grout.

MR. DOUGLAS E. GROUT: Maybe I missed it, but I thought Peter Burns had just specifically asked a question; if that saturation curve analysis that Rhode Island had used had been put before the TC for analysis. Maybe there was a nod that I missed. If it hasn't then I would recommend that that be put forward to the Technical Committee for analysis between now and the time that we make a final decision on this. If the state of Rhode Island would be willing to put that forward to the Technical Committee, I think it would help us in our decision.

MR. GIBSON: Yes I believe it has already gone to the Technical Committee and I believe that Burton's work, which generates the 25-13 number or whatever it is; 25 percent reduction in traps doesn't yield a 25 percent reduction in exploitation, it drops to 13 because he's using a saturation type curve. The nonlinearity or the linearity is just starting to emerge. I believe that has already been before the Technical

Committee and those are the numbers that come out of it.

CHAIRMAN BORDEN: Doug, do you want to follow up on that?

MR. GROUT: No, if it's been before the Technical Committee that is fine. But I think it is something that when the Technical Committee provides their input on this, hopefully they can put forward their opinion based on the analysis.

CHAIRMAN BORDEN: Does anyone else care to offer comment or another comment? Peter.

MR. BURNS: First of all I want to address Mr. Reid's comment, and I appreciate his understanding of the debate we're having here. I really am in favor of a document that has a lot of comprehensive options going out for public comment; and so I'm not trying to delay that. But I think this is a concern.

Because there are a lot of different interpretations it seems on what's happened with this Technical Committee analysis. If we could have something that could come before the Board prior to the review of this, if the Technical Committee could look at this and maybe clarify this issue; we've got a divided Plan Development Team on this.

Frankly the way that we're interpreting this at NOAA Fisheries, the way that this addendum is written right now there is a possibility that measures could come forward after we've approved this from the LCMTs; that really don't meet the goals and objectives of this addendum, which is to increase egg production.

Some of these trap reductions if they come in on their own as a sole way to make these egg production goals, if we're looking at this information loosely, can mean that there could be basically no action and we could meet the goal that is chosen. I've got some concerns with that. I would appreciate it if we could get some kind of clarification there.

I know we sent the TC back to the drawing board a lot of different times, but maybe this is a time that we can try to wrap this up; because as I said, I still don't have an answer on how we're going to quantify or enumerate trap reductions, and this document is not clear on that.

CHAIRMAN BORDEN: Any other comments that haven't been made? I think we're ready for a motion. My suggestion would be to have someone make a motion to approve this addendum for public hearing as modified by the discussion today. Does someone care to make that as a motion? Dan McKiernan is there a second, Eric Reid. Is there any discussion on the motion to approve the addendum for public hearing?

MR. BURNS: I would like to add an option into the document, if this is the appropriate time. I missed my chance before you asked for a motion to approve the addendum.

CHAIRMAN BORDEN: Motion on the table, so if you want to make a motion to amend you are certainly happy to do that.

MR. BURNS: I could do that. That's fine. It would be motion to amend to approve Draft Addendum XXV for public comment and include Option C under the management measures; I think it's Section 2; that would state gauge size changes and season closures used together or independently. Gauge size changes and season closures may be paired or used independently to achieve the targeted increase in egg production. I'm not sure if it's Section 2. I'm sorry; I don't have the document right in front of me.

CHAIRMAN BORDEN: Is there a second to this motion? Ritchie White. Discussion on the motion to amend, is there any discussion on it? No hands up. Peter.

MR. BURNS: Just to clarify. This just gives us one third option. The first option allows for independent use of all three management measures, the second one requires them to be

tied to a gauge increase. This one just allows either gauge increases or seasonal closures to be used either together or independently; and this could be useful to the public, considering the controversiality of the egg production issue, the trap reduction issue, excuse me.

MR. GIBSON: Just to the maker of the motion. Would this option if adopted then preclude trap reductions from being used to calculate egg production increases?

MR. BURNS: Yes trap reductions wouldn't be included in this if this motion was selected. I think the point that I'm trying to make is that I think trap reductions have a place in our management program; they have for quite some time. In a lot of ways they were never intended to achieve egg production benefits.

The reason we had them in Addendum XVIII wasn't to achieve any kind of fishing mortality reduction or any kind of egg production; it was to right-size the industry, because we knew that it was rife with latent effort. At least this way we have some way that we can look at something else. I think if there is credit to be given for trap reductions then that's fine. That is what my questions were intended to get today was what those numbers are, and how we come to get that. But I never got an answer.

CHAIRMAN BORDEN: Anyone else on the motion to amend? Are you ready for the question? We'll take a one minute caucus on the motion to amend. All right are you ready for the question? This is on the motion to amend; Motion to amend to approve Draft Addendum XXV for public comment and include an Option C under Section 2 that gauge size changes and season closures may be used either together or independently to achieve egg production increases.

The motion by Peter Burns and second by Ritchie White, are you ready for the question? All in favor of the motion to amend signify by raising your right hand. Nine in favor; opposed, two opposed, any null votes, none, any abstentions, one abstention. Motion carries. You're back on

**the amended main motion.** Are you ready for the question? Emerson.

MR. HASBROUCK: After the Board has discussed this, if anybody needs to discuss this, I'm wondering if we could go to the audience to see if there are any comments from the audience.

CHAIRMAN BORDEN: I'm glad you mentioned that. Does anyone in the audience care to comment on this? No hands up. Yes sir, if you could come up to a microphone please. At the table identify yourself.

MR. GEORGE DAHL: My name is George Dahl; I'm here on behalf of the Long Island Sound Lobstermen's Association. I do have to say that this addendum, the document is quite impressive and obviously took a lot of hard work to produce. Unfortunately there are some items in there that our members disagree with.

First of all in the Executive Summary it states that the poor condition of the stock is due to environmental conditions and fishing mortality. It implies that each thing is equal; and we find that environmental conditions are way more important than fishing mortality. The document also states that environmental conditions are, in our case that we should rebuild or have increased egg production in case the environmental conditions get better, so that the lobsters can survive.

My comments are just from Long Island Sound. What good is penalizing the fishermen with more restrictions if the environmental conditions are not good enough for the lobster population to survive? We also continue to disagree with Long Island Sound being lumped together in Area 3. Long Island Sound, there are things happening in Long Island Sound that are not being recognized.

We have in the last few years seen a tremendous increase in the stock. The data that you're using I believe is from the latest is 2013 or '14. In 2014 we implemented a closed season. I have never heard of any of the results from that closed

season. Has it achieved what it was supposed to? All we hear is that there are more regulations coming on top. We never hear what the results of all the things that we have already done.

In the Executive Summary, you had six items; increase egg production, new management tools, and impacts to the Jonah crab fishery, uniform management measures, and LCM3, something to do with LCM3. Also the effects of these measures on the recreational fishery, I'm astounded that in the Executive Summary there are not the impacts of these regulations on the commercial fishery. Also uniform management measures across the whole of Southern New England, we again believe that Long Island Sound is a special place and it should be treated as such.

CHAIRMAN BORDEN: I'm going to ask you to conclude your comments.

MR. DAHL: Okay I can understand that data is hard to collect and everything, but we have joined with this Fisheries Observer Program. I don't really know at this time who gets the data from that. But they've been out on lobster boats on Long Island Sound and taken brand new data.

I had the survey that they took and I was bringing it here, and then I realized that it's in some kind of a code which they have not told me how to read the stuff. I believe that that new data in Long Island Sound should be considered for any of these management measures. That's it thanks.

CHAIRMAN BORDEN: Anyone else? Beth. Is there anyone else after Beth that wants to speak from the audience? Then we're going to come back to the Board.

MS. CASONI: Beth Casoni; Executive Director Massachusetts Lobstermen's Association. As you can imagine, several of our members in Area 2, Massachusetts and Rhode Island have been trying to stay whole; and to not give credit to the trap reductions for part of this fishing mortality is detrimental to the industry for buy-in. I mean

the fishermen are scrambling to stay whole, and when there are so few of them left who are they going to get their trap tags from?

One of our members, and I jokingly say he is looking at his father like, okay Dad when can I have your allocation; because further trap reductions are just going to be pitting fishermen against fishermen. It is an industry funded buyout. To do the economics, I mean \$30,000 or \$40,000 to stay whole in an industry that is collapsing. In Massachusetts there are about 35 fishermen. To take that off the table for the past years reduction and to accelerate it, how are they going to stay whole with another 25 percent reduction? Thank you.

CHAIRMAN BORDEN: Back to the Board. Craig, you had your hand up.

MR. MINER: I am wondering whether, with this action having just been taken. Is it in any way conflicting with Option 2A in the document that we voted to take out to hearing; or are they separate?

MS. WARE: Nothing has been approved to take out for hearing yet that will be kind of the next vote here. But 2A and 2C I do not believe are conflicting, because they are different options. You can either chose to have trap reductions, season closures and gauge size changes used independently; which would be Option A, or you can have gauge size changes and season closures be used independently, which would be Option C.

MR. ALEXANDER: Just to be clear what Craig was trying to get at, so if ultimately Option C were chosen that would infer or imply that trap reductions had to be used; either in conjunction with the gauge increase or season closure. Is that correct?

MS. WARE: I believe the intent of the motion, but maybe I'll look to Peter Burns, is that trap reductions would not be used. But Pete, maybe you can clarify that.

MR. BURNS: This Option C is an alternative to the other two options because it does not include trap reductions. But there would still be Option B that allows trap reductions and seasonal closures to be used in conjunction with a gauge increase, or Option A that allows the three to be used either together or independently.

CHAIRMAN BORDEN: My interpretation all you're doing is adding another option to the document, not taking any of the options out.

MR. ALEXANDER: But if this were to be chosen it would take trap reductions off the table entirely, or would it just say the trap reductions have to be used with some other measure?

MS. WARE: The Board is considering adding an option right now, and that option would only look at season closures and gauge size changes. Final action in May would decide which option is ultimately chosen by the Board.

CHAIRMAN BORDEN: Any other discussion on the motion? Are you ready for the question; 30 second caucus. Are you ready for the motion? I have to go find the end of my microphone. All those in favor of the motion on the board signify by raising your right hand; eleven in favor, no votes, anyone opposed, any abstentions, one abstention, any null votes. Motion carries.

All right so the next item on the agenda is a Technical Committee report. Just by way of introduction, the last Board meeting Pat Keliher made a motion which passed, requesting the Technical Committee to look at the changing stock conditions in the Gulf of Maine and look at a whole number of different parameters, and then bring some recommendations back to us.

# **TECHNICAL COMMITTEE REPORT**

CHAIRMAN BORDEN: Kathleen Reardon from Maine DMR is the new Chair of the Technical Committee; congratulations! She is going to give a report, and then at the end of the report what I want to do is discuss how to handle this issue.

I'm going to tell you right up front what the recommendations are. One would be to initiate an addendum today or at the May meeting. The second I think alternative for the Board to consider would be to form a small subcommittee and bring a recommendation back to the next meeting; a written recommendation back to the next meeting. Those are the questions I'm going to ask you after we listen to Kathleen, take questions on her presentation. Then we'll go back and try to answer those two preferences; so Kathleen, welcome and congratulations!

MS. KATHLEEN REARDON: Thank you, Mr. Chairman. This will be the report on the Gulf of Maine/Georges Bank that the TC put together over the last couple months. Just to review, last spring the Board made the motion for the Technical Committee to shift our focus on to the Gulf of Maine to determine baselines, recent research, and data gaps for the Gulf of Maine and Georges Bank in relation to the lobster population.

We were tasked with some specific questions; they were to determine what we know about connectivity between Canada, Gulf of Maine and Georges Bank. If there had been changes for size distribution of egg bearing females, if there had been changes in the Gulf of Maine currents and how they could potentially impact larval supply.

What has been the stock recruitment relationship in Gulf of Maine and Georges Bank, and what are the current research holes; and how would we prioritize them? What could the benefits be for harmonizing biological management measures that are currently competing? Finally, could we develop a traffic light analysis as a potential control rule?

As a review of where we stand after the 2015 stock assessment, Gulf of Maine and Georges Bank were combined as one stock. We're still using the same reference period as the 2005 stock assessment of 1982 to 2003, and our current effective reference abundance is above the 75th percentile.

The concern has come from the young-of-year settlement survey where the index has declined for a number of years; with record high spawning stock biomass. The TC believes that the egg production is unlikely to be the cause for the observed young-of-year declines. Temperature is one of the most talked about changes in the Gulf of Maine and other places as well.

Looking at this long term dataset of sea surface temperature from Boothbay Harbor in Maine, you can see that there have been more years since 2000 with days above 20 degrees Celsius than the previous 100 years. More warming is projected in the northwest Atlantic. For ocean currents, the Gulf of Maine is a complicated system.

Generally it is a clockwise gyre with some subgyres around the deeper basins. There is some inter-annual variability in deepwater sources coming off the shelf along the Gulf of Maine, and along the Gulf of Maine coastal current. The shelf water input can change the water masses, especially at depth in the Gulf of Maine; while the Gulf of Maine coastal current annual variability can drive differences in connectivity of the east and west regions, and stratifications along the coast.

There are strong correlations between the oceanographic trends and larval connectivity. There have been a few coupled biophysical modeling efforts to investigate the connectivity of lobster larvae. Depending on the ocean currents, especially that coastal current, some areas are more likely to be sources or sinks. But the models did find that most larvae came from local or upstream adjacent zones, but they can also come from multiple and distant sources. Eastern Gulf of Maine tends to be a source, while western areas are often sinks for larvae. The offshore banks have had less modeling effort, but the studies imply that the source of larvae is variable annually; but it is also uncertain at this point. The modeling research identified key factors for connectivity. The biological factors were location and amount of egg production,

hatch timing and location at depth, larval development times and larval mortality.

For oceanographic factors the coastal current transport and eddies were a driving factor; but drift from wind forcing and stratification also played a role in where the larvae ended up. Shifting to older lobsters in connectivity, we looked at a number of tagging studies, many tagging studies have been completed and at different life stages.

The research shows that movement depends on life stage. The smaller lobsters don't move as much while the mature, reproductive lobsters can migrate long distances often seasonally and likely associated with thermal regulation. Tagging studies do depend on recaptures by the commercial fleet; so the success of those tagging studies depends on the distribution of fishing effort and reporting compliance. In many studies the days at large after tagging are short, so limited movement has been observed.

Summarizing the available tagging studies in the literature, a general southwest movement along the inshore Gulf of Maine and out to the outer Cape Cod, similar to the direction of the coastal current has been observed. There have been very few recorded recaptures providing evidence for exchange between the inshore Gulf of Maine and Georges Bank; but the analysis in the assessment of trawl surveys imply that there is more connectivity than the tagging studies suggest.

While there have been a number of studies on the offshore banks and inshore areas of Gulf of Maine, we found little work has been done to try to characterize the movement in the middle of the Gulf of Maine. At the end of this process of collecting tagging studies, a tagging project from the early 1980s completed by NMFS was brought to our attention.

The only available record of the results that we could find from the study published in the Commercial Fisheries News in 1985. The map is there and sorry for the quality, because it is a

scan from a newspaper. The results indicate that lobsters in the deeper water tagged in the deeper water in the Gulf of Maine, travel in all directions; to Canada, to Georges Bank, to the inshore Gulf of Maine.

This work was never published in a peer reviewed journal, so we hope to explore this further if we can find more information. In the meantime there is a tagging study proposed by AOLA, New Hampshire and Maine that may try to tag some lobsters in the deeper basins offshore Gulf of Maine and Georges Bank; to at least partially replicate this study.

Moving on to looking at changes within the reproductive component of the lobster population, possible changes in size and maturity has been an ongoing question as the assessment is using parameters determined in the 1980s and '90s. For this initial investigation we focused on data from the commercial sea sampling programs from the states; and size classes below the minimum gauge.

We found the proportion of small egg bearing females has been increasing in all statistical areas in the Gulf of Maine; for which we have data, especially in the 76 to 80 millimeter size class and especially in 513 and 514 in the western areas. The figure shows a line for each size class and the proportion over time. The change indicates a decrease in the size at 50 percent maturity, and warrants further research. While the decrease in size at maturity would imply greater egg production, we did find that there may be changes in larval abundance.

The New Hampshire Seabrook Nuclear Station has been monitoring the larval abundance every year since 1988. Larval abundance is not necessarily straightforward or easy to interpret. But the index from this monitoring project indicates there has been an increase in Stage 1 larvae confirming the high egg production; but they've also observed a decrease in Stage 4 larvae, especially in the last few years.

This lines up with the young-of-year settlement index declines. At this point we do not know why these declines are being observed, but could be possible changes in hatch timing transport; also could be limits of food supply, as it has been noted in the literature that the zooplankton in the Gulf of Maine has also declined.

Unfortunately there are few larval abundant surveys available in the Gulf of Maine, but the TC is hoping to examine this further. Using the data we did have available, we were able to look at hatch timing using our commercial sea sampling programs; and found that while comparing the time period before 2009 to after, the hatch is occurring up to one month earlier in all statistical areas.

This is a big biological change that needs more investigation to determine the implications for the population. Another theory for why we have been observing declines in the young-of-year survey has been an expansion of available habitat per settlement driving the densities down, or observed densities down.

Post larvae have a temperature threshold for settlement where they are less likely to survive below a specific temperature. We currently assume a cutoff of about 10 meters as a threshold depth. This is just a preliminary analysis that looks at the available depth by statistical area, and does not consider the temperature or habitat quality for settlement.

By looking at depth alone, we found that depth was unlikely to be able to account for the declines in density. This simplified analysis found to double the amount of habitat area relative to the area available at 10 meters; more than twice the depth is needed. The amount of habitat increases incrementally with incremental depth.

I don't know if you can read that. In 511, which is the lower left panel, to get twice as much habitat than the 10 meter area you would have to go to 27 meters. Shifting gears to other tasks. The TC developed a stock recruitment

relationship using the lobster model similar to the Southern New England developed relationship that we were talking about earlier.

Each point represents six to eight years of surveys and landings from multiple sources. The points at the end of the time series have less data to stabilize them and should be interpreted with caution. I'll focus on the lower, smooth plots in the slide. In both stocks starting in the early 1980s, there seemed to be a linear relationship between recruitment and the spawning stock biomass. As the spawning stock biomass increased recruitment increased. That changed for Southern New England around 1991, where the spawning stock biomass was still increasing and the recruitment was decreasing. Then after 1997 the spawning stock biomass was decreasing, but the recruitment stayed the same. In both stocks there seems to be a change and further decoupling beginning in 2003; but with opposite results. In Gulf of Maine/Georges Bank as the spawning stock biomass remained the same, the recruitment has been increasing.

The opposite was observed in Southern New England, where the recruitment decreased while the spawning stock biomass was stabilized. The Board asked the TC to consider the competing management measures in the Gulf of Maine/Georges Bank stock; and we looked at potential increases in minimum size.

As expected, by harvesting a larger size, less individuals are caught for the same yield. This leads to more mature lobsters in the population and potentially increased resilience. Looking at the figures below, the left shows the relative change in spawning stock biomass with increased minimum size, and the right illustrates the relative change in the total population biomass.

With an increase up to the same gauge size as Southern New England and outer Cape Cod of three and three-eighths inches or 86 millimeters, this analysis suggests a 75 percent increase in spawning stock biomass; with only a 20 percent increase in total biomass. That increase in

spawning stock biomass could increase resilience in the population.

But the TC notes again that we are currently at record high levels for spawning stock biomass, and do not know if the system could support higher biomass. The TC did consider a traffic light analysis, but we want the Board to recognize that the last assessment provides a set of model free indicators that could be considered a traffic light analysis.

The TC recommended incorporating these indicators as part of the control rule in 2010; but the addendum at the time set the current control rule based on effective reference abundance and exploitation determined by the model. We do think that developing additional indictors reflecting changes in the environment like number of days above a certain temperature or predator abundance; could be a useful addition to the current indicators.

Also with the declines observed in the young-ofyear index, we recommend monitoring the existing surveys that are in the model free indicators like the ventless trap survey and the inshore trawl surveys. The current control rule triggers action when effective reference abundance falls below the 25th percentile. Currently that threshold is defined by the reference period of 1982 to 2003.

We again recommend changing the trigger threshold for abundance to below the 50th percentile to increase the resiliency in this changing system. The table to the right is from a 2010 memo from the TC to the Board, using both the assessment model and the model free indicators; spawning stock biomass and young-of-year as an example of what were recommended in the past.

In the meantime there are a number of uncertainties and data gaps that the TC would like to highlight. There are some current research projects that address components of these; but we recommend further research on updating parameters for maturity, growth, and age; understanding natural mortality and how it

could be changing or change in the future. Generally the environmental influence on the life stages of lobster, better understanding of mating and reproductive success, stock connectivity, especially between Gulf of Maine/Georges Bank and Canada, and better fishery dependent data about discards effort and landings with higher spatial resolution; especially in the offshore areas. Thank you for your time and I will attempt to answer any questions or bring them back to the Technical Committee if I cannot.

CHAIRMAN BORDEN: Questions for Kathleen. Any questions? No questions. Okay Pat Keliher.

MR. PATRICK C. KELIHER: I mostly just wanted to thank Kathleen and the TC for all the work they put into this. There is a lot of work obviously and a lot of analysis that went on here. I appreciate the effort that the TC put in to bring this report forward. Mr. Chairman, I did have a lot of questions but as I developed my list of questions what came to light was one of your suggestions that you made earlier; as far as a path forward.

Instead of spending a lot of time answering and asking questions, my thought was the development of a subcommittee to really start looking into this a little bit more thoroughly; to start talking about the ideas of resiliency for the stock in the face of a changing environment within the Gulf of Maine and to address any other issues that may arise out of this report. I would encourage the development of a subcommittee between Maine, New Hampshire, Massachusetts and Rhode Island to advance this thinking.

CHAIRMAN BORDEN: All right any other views on that? We're essentially to I think the end point here where we have to decide how to handle it or at a minimum form a subcommittee that can bring a written recommendation back to the Board. Pat is suggesting the subcommittee alternative; it would be Maine, New Hampshire, Massachusetts, and Rhode Island. Is that correct?

MR. KELIHER: That is what I would recommend, Mr. Chairman, and I would think obviously TC representation along with some state staff. But there probably ought to be, states ought to be identifying and selecting some potential industry members to participate in the discussion as well.

CHAIRMAN BORDEN: Any comments or questions on that suggestion; any objections to the suggestion? Okay Dan.

MR. McKIERNAN: Just a question for Pat. How would you envision a group like that relating to the LCMT, because the LCMT is kind of created in the same vein; but could you contrast your vision with what an LCMT would look like versus this?

MR. KELIHER: To be honest, Dan, I didn't really think about the LCMTs in this venue, other than this would be the State Directors, Managers, Commissioners, whatever we want to call them along with industry so the states could engage their LCMT members in the process.

CHAIRMAN BORDEN: All right any objections to that suggestion? If not, we'll form a subcommittee and I think to make it productive, it would be useful to have a written recommendation from the subcommittee at the next meeting. The committee will meet and include whatever technical advice and industry input they deem appropriate. No objections to that? If not we're going to move on to the next agenda item; which is the data deficiencies. Megan.

MR. KELIHER: Just quickly, many of our subcommittees obviously meet over phone, and I would encourage because of the proximity of the states, encourage these to be at least one face-to-face meeting if not all to start the process.

# CONSIDER ACTION TO ADDRESS DATA DEFICIENCIES IN THE AMERICAN LOBSTER FISHERY

CHAIRMAN BORDEN: All right. Moving on to the next agenda item and just for introduction the Lobster Working Reporting Group met. I think as

everyone recognized they gave us some excellent items for suggested changes in the data collection protocol. Those have been fleshed out. Megan will highlight what those suggestions are, and then I think we'll have a discussion of whether or not we want to initiate an addendum on this to improve the data collection aspects of the plan. Megan.

MS. WARE: I'm just going to briefly highlight some of the recommendations from the reporting workgroup, which met in September, 2016. Just to kind of set the stage, this discussion on reporting started after a TC report highlighted some of the data deficiencies in the lobster fishery; particularly offshore.

Then subsequent to that a series of management actions have taken place, so we've had the National Monument, we have the ongoing Deep Sea Coral Amendment, offshore wind projects; all of these have kind of highlighted that improved data with greater spatial resolution is needed to respond to these growing management issues.

This is a table of the recommendations from the Reporting Workgroup; it is split up into short-term, intermediate, and long-term recommendations. The two short-term recommendations were that Maine's 10 percent harvesters reporting only include active commercial harvesters. Right now it also includes noncommercial harvesters.

There was also a recommendation to define inshore versus nearshore versus offshore; as we don't have consistent definitions for these three areas. Moving to the intermediate recommendations, there was a recommendation to require a statistically valid sample of harvester reporting.

The TC is working on that analysis and we hope to have that to you guys in a coming board meeting; but work on that is ongoing. Another recommendation was to add data components to harvester reporting; so things like soak time, trap hauls, LCMA. Some of the states are

collecting this information, but it's not uniform across the states. This data would help provide greater effort data in the lobster fishery.

The third intermediate recommendation was to further delineate the statistical areas in the harvester reports, as a way to provide greater spatial resolution to the lobster fishery. Then we had three long-term recommendations. The first was to establish an electronic swipe card system. Some of the benefits of this are quick linking of harvester and dealer reports, pre-programmed fisherman information.

The second recommendation was to incorporate VMS on lobster vessels, to again get at the spatial resolution of the lobster fishery, and then the third recommendation was to create an electronic fixed gear VTR for all federal permit holders. This would help get at some of the more specific data needs of fixed gears; as opposed to all gears in general.

CHAIRMAN BORDEN: Questions for Megan. Any questions? I see no hands up. One of the items that is not included in this list that I think should be in it, relates not only to this agenda item but it relates to the previous agenda item. One of the biggest drawbacks in the current stock assessment, the most recent benchmark stock assessment, and this has been noted repeatedly by the Technical Committee and a number of states, and even federal partners; is the lack of a comprehensive bio-sampling program in federal waters.

It just doesn't exist. We have a trawl index that gets included in the stock assessment. We have some other sampling from fixed gear, some observer coverage. But there really isn't a comprehensive program that spans all of federal waters. I think this should be one of the issues that we should seek some guidance from the Technical Committee on.

Then in fact, based on whatever they give us for a recommendation, possibly factor that into this addendum. One of the things I'm seeking some comment on is whether or not the board members think that we should ask the Technical Committee, basically to come back to us with a recommendation for a comprehensive statistically valid sampling program in federal waters.

Then factor that into the data collection program. This is going to become a critical – and I'm just speaking personally at this point – this is going to become a critical issue if the lobster resource in Southern New England continues to move offshore. If you look at the sampling programs for instances, in Area 4 and 5; they are almost nonexistent.

We need this data. To Pat Keliher's earlier initiative in terms of the Gulf of Maine and Georges Bank, I think as water temperatures continue to increase we should expect some of the same dynamics. I think it is important for us to seek some technical guidance on this. I discussed this concept a little bit with Bob Glenn the other day. His attitude was, and I'm not representing him here, his attitude basically was this is an excellent idea. I think we should do it. It is not a heavy lift for the Technical Committee to do it.

They know where the deficiencies are in the stock assessment. All I'm suggesting is that whatever action we take in terms of the data deficiencies that we basically seek the guidance of the Technical Committee to flesh out a sampling program for federal waters. What we do with that advice we will determine at a subsequent meeting. Comments on any of the above, and if somebody wants to make a motion to move this forward I would be happy to entertain a motion.

MR. McKIERNAN: Yes we've known for a long time that lobster is one of the most valuable species in the United States that probably has some of the weakest data collection. I would certainly be all in favor of filling those gaps. I think I provided a motion earlier to Megan, if you want to put that up for discussion. Would you like me to read it, David, at this time?

Move to initiate an addendum to improve harvester reporting and biological data collection in state and federal waters. The addendum should seek to one, utilize the latest technology to improve reporting, two, increase the spatial resolution of harvester data, three, collect greater effort data and four, advance the collection of biological data offshore.

CHAIRMAN BORDEN: Is there a second? Yes, Steve Train. Discussion on the motion. Doug Grout.

MR. GROUT: Maybe I misunderstood what you were saying, Mr. Chair. Originally I thought you were calling for something that we would be directing the Technical Committee to develop a program, and this is to initiate a management action. Is the intent that this would be a management action now or are we trying to get the information from the Technical Committee first?

CHAIRMAN BORDEN: I think the reason it's a little bit confusing is we already have a written recommendation from the working group on specific proposals. My suggestion was to just add tasking to the Technical Committee to give us that input; and then we would consider whether or not we wanted to fold that into the FMP or addendum. Are you clear on that Doug?

MR. GROUT: We're initiating an addendum and then we may add stuff to it, depending on what the Technical Committee sees happening.

CHAIRMAN BORDEN: That's correct.

MR. GROUT: This would clearly involve our federal partners and they have responded to some of our requests in the past for this type of a program.

CHAIRMAN BORDEN: Yes, NOAA has a number of personnel that attend Technical Committee meetings; and they would be, I would imagine heavily involved in this effort. Certainly we would invite them to be heavily involved in this effort. Other questions. Pat Keliher.

MR. KELIHER: I'm not sure Mr. Chairman that you answered, I mean you answered Doug's question to his satisfaction. But I'm unsure why we would initiate the addendum process now, before we got the information back from the Technical Committee. The Technical Committee still has not done an analysis on the appropriate level of harvester that should be reporting.

I brought up the issues with the state of Maine; we're at 10 percent now. What is the right number? It seems to me the idea and what you talked about and what is in here I agree with; I'm just not sure why we're initiating the addendum process at this time.

CHAIRMAN BORDEN: I think the only advantage of doing it now is we are now in the process. The PDT, there are a number of really definitive recommendations that the Working Group has already made. There is no uncertainty in regard to those, so the PDT can basically start developing a document on the issues that we have definitive advice on. Then on the two issues where we're going to get additional advice at the May meeting, then we'll decide whether or not to factor those in; depending upon the advice we get and how we receive it.

Does that make sense? Okay, anyone else on this; anyone in the audience on this issue? If not are you ready for the question? Do you want a 30 second caucus; 30 second caucus. All right, given the lack of discussion on that is there anyone at the table that is opposed to this motion? Are there any objections to adopting it by consensus? The motion stands approved by consensus.

# JONAH CRAB ADDENDUM II FOR FINAL APPROVAL

CHAIRMAN BORDEN: The next item on the agenda is the Jonah Crab Addendum, and this is an action item, and we'll vote on it. Megan, if you could go through and outline the issues, then we'll move on with a couple of motions.

# **REVIEW ISSUES AND MANAGEMENT OPTIONS**

MS. WARE: We're going to be discussing Jonah Crab Draft Addendum II today. I'll be reviewing the public comment we received, and then the Board will be considering final action on this addendum. Just a brief overview of the presentation today, I'll go over the two issues included in Addendum II, which are claw harvest and a definition of bycatch.

Then I'll go right into the public comment summary. We did hold public hearings and received written comment. Then we will finish up with a Law Enforcement Committee report. Starting off with our first issue, which is claw harvest. The FMP established a whole crab fishery, with the exception of individuals from New Jersey through Virginia, who can prove a history of claw landings prior to the control date.

However, following final action on the FMP several issues arose that have prompted this addendum. The first is that claw fishermen from New York and Maine were identified following approval of the FMP; and currently those fishermen are limited to whole crabs. There are concerns about the equity of the current provision.

The second issue is that NOAA Fisheries has stated that there might be some potential challenges implementing the regulation in federal waters; and this is specifically in regards to National Standard 4, which requires that management measures not discriminate between residents of different states.

While the Commission is not under the purview of the Magnuson-Stevens Act, NOAA is and they are the ones that implement regulations in federal waters; where the majority of the Jonah Crab fishery is being executed. We have three management options for the claw issue. The first would be status quo, so only whole crabs can be retained and sold; with the exception of individuals who can prove a history of claw landings before the control date in the states of New Jersey through Virginia.

Option B would establish a coastwide whole crab fishery, so only whole crabs which meet the minimum size of 4.75 inches may be retained and sold. Once landed claws may be detached from the whole crab and sold; and there would be no minimum size for claws detached at the dock.

Option C would permit claw harvest coastwide. Under this option claws may be detached and harvested at sea. If the volume of claws harvested is less than five gallons, there is no minimum claw length. However, if the volume is greater than five gallons then claws must meet a 2.75 inch minimum claw length.

This is a slightly more conservative claw length than the expected length of 2.5 inches. This was chosen to ensure that claws are harvested from neither sublegal crabs nor berried females. Two claws may be harvested from the same crab. Under this option the bycatch limits would still remain in Addendum 1.

If a gear type is under the thousand crab bycatch limit, they would be allowed to land up to 2,000 claws. Fishermen can also harvest whole crabs which meet the 4.75 inch minimum size. Once landed claws can be detached from the whole crab and sold; and there would be no minimum size for claws detached at the dock. Moving on to our second issue, which is bycatch. The FMP established a 200 crab per day, 500 crabs per trip bycatch limit for non-trap gear. Addendum I increased this to a thousand crabs per trip, and expanded it to include non-lobster trap gear.

While the intent of the bycatch provision is to cap landings of Jonah crab across all non-directed gear types with a uniform allowance; the increased bycatch limit has raised concerns that it could support a small scale fishery. This is primarily due to the fact that there is no definition of bycatch provided. As a result a fisherman could target Jonah crab by landing a thousand crabs per trip and nothing else. We have two management options under the bycatch issue. The first is status quo. Under this

option there would be no definition of bycatch in the Jonah crab fishery.

Fishermen using non-trap gear and non-lobster-trap gear could land Jonah crabs up to the bycatch limit without having any other species onboard. Option B would define bycatch as percent composition. Under this option Jonah crab caught under the incidental bycatch limit must comprise at all times during a fishing trip an amount lower in pounds than the species the deployed gear is targeting.

## **PUBLIC COMMENT SUMMARY**

CHAIRMAN BORDEN: Moving on to the Public Comment Summary, eight public hearings were held. They were primarily in conjunction with the menhaden public hearings. Approximately 40 individuals attended. We also received seven written comments, five from organizations and two from individuals.

Looking at our first issue of claw harvest, a majority supported Option C, which is that claw harvest be permitted coastwide. Those in favor of this option stated that it provides equal opportunities to those along the state; that it's critical to pot fishermen to be able to land claws, especially in the summer when whole crabs don't survive without refrigeration.

Others commented that trawlers and gill netters have to break the claws off of the crab to remove the crab from the net, and so this provides them an opportunity to participate in the Jonah crab fishery. Those who supported Option B, which is our whole crab fishery, expressed concern that a claw fishery could undermine the provisions of the FMP, namely the carapace width and the prohibition on egg bearing females.

There were also concerns about enforcement, and one individual expressed concern over the high mortality rate associated with claw harvest. We also had some who supported Option A, which is our status quo. Those who supported this option wanted more research on the claw fishery before changing regulations; and we had one individual say that residents of different

states should not be treated the same if the fisheries are not the same. Moving on to bycatch, a majority of comments supported a bycatch definition based on percent composition.

Comments in favor of this option were that it would ensure a small-scale fishery does not develop, and ensure that the bycatch provision is truly used for incidental catch. We did have a couple comments that stated the thousand crab limit is too high. We did have one who is in favor of Option A, which is our status quo; and that letter said that there is nothing wrong with the current provision, and so there is no need to change it at this time. I will now pass it over for the Law Enforcement Committee report.

CHAIRMAN BORDEN: Before we do that any questions for Megan on what she just said? If not, Rene, welcome.

# LAW ENFORCEMENT COMMITTEE REPORT

MR. RENE CLOUTIER: The Law Enforcement Committee met and discussed all of these options, and came up with Option B being the most enforceable; coastwide, whole crab fishery. This recommendation is consistent with previous positions regarding claw harvest allowance; and we continue to believe that this is clearly the most enforceable option.

It eliminates what would be cumbersome and potentially confusing measurement standards. As far as the bycatch definition goes, the Law Enforcement Committee went with Option B, bycatch defined as a percent composition. Although bycatch limits are generally low-ranked management measures with regard to enforceability, this proposed measure is considered a reasonable approach that could be understood and verified by fishermen and officers.

CHAIRMAN BORDEN: Questions for Rene, any questions? Joe and then Pat.

MR. CIMINO: I probably should have gone before, because this isn't directly at the law enforcement report, but that Option B kind of

leaves out the option of it wouldn't be all other species combined right; it is only the I guess intended species of the gear. Is that a complication?

MS. WARE: I believe the addendum does say that it has to be less than the targeted species, and there is a definition of target provided in the addendum. I can try and find that if you're interested.

MR. KELIHER: Rene, the Law Enforcement Committee had an issue with volumetric measure of five gallons for enforceability?

MR. CLOUTIER: As a whole the Law Enforcement Committee thought that coastwide rather than getting into the five gallon pail and all of this would be more enforceable just a whole crab fishery.

CHAIRMAN BORDEN: Are there other questions for either Megan or the Enforcement Committee? Any other questions, okay. Oh Ali, excuse me.

# **SUMMARY OF NMFS COMMENTS**

MS. ALISON MURPHY: If I could, could I just summarize the NMFS comments on the record. Would you like me to do that now or wait?

CHAIRMAN BORDEN: I prefer you to wait. I'll come back to you in just a minute. Are there any other questions? No other questions, Ali you're up.

MS. MURPHY: We appreciate that the PDT and the Board developed a document with a range of alternatives that addressed our National Standard 4 concerns with the measures that were originally included in the FMP. That said we don't support Option C in Section 3.1 of Addendum II that would allow for an unlimited amount of claw harvest coastwide.

We believe that this would allow for an expansion of the claw fishery, which is beyond what was identified as a goal in the original FMP of capturing historic harvesting practices. Our own Office of Law Enforcement also believes

that this would greatly complicate enforcement by our state and federal officers. Therefore our preference is for a coastwide whole crab fishery. However, we may be able to find some compromise with a small amount of claw harvest like one five gallon bucket. This limit would prevent an expansion of the claw fishery; it would capture historic harvesting practices, and minimize complication for enforcement to the extent possible. Finally we also commented in support of creating an incidental bycatch definition, as it will minimize targeting of Jonah crabs and could reduce gear conflicts.

# **CONSIDER FINAL APPROVAL OF ADDENDUM II**

CHAIRMAN BORDEN: Any other statements that individuals want to put on the record at this point? If not, I think we're to the point where I'll entertain a motion. You've got three options here; and possibly one additional one you could cut down for instance on the volumetric standard as was just suggested. Does someone care to make a motion on this? Jim Gilmore.

MR. JAMES GILMORE, JR.: I'll wait until Megan gets back, because I'm going to try to do this telepathically. Megan, did you type up that motion? Okay could you put that up and then I'll just read it. It might be easier. Move to approve Addendum II to the Jonah crab FMP with the following options. Issues 1, Option C, claw harvest permitted coastwide and Issue 2, Option B, bycatch defined as percent composition.

CHAIRMAN BORDEN: Second to the motion, is there a second; yes, Mike? Discussion on the motion, Jim, do you want to speak in favor of your motion?

MR. GILMORE: Yes, again this was I think it went through when we first did the management plan. We kind of jumped the gun a little bit. This was really to correct some oversight. It is still a relatively small fishery, so I understand the Service's concern. But we don't have a great deal of fishermen involved with the fishery itself in the claw fishery; so this seems to be a good solution to fix all the things we missed earlier.

CHAIRMAN BORDEN: Michael, do you want to follow that up as a seconder?

MR. LUISI: Sure thank you, Mr. Chairman. I think this addendum does a nice job of taking the problems that we had, like Jim mentioned we kind of jumped the gun a little bit. It allows for the continued historical fishery in the areas where these types of activities have been going on forever. I do support the motion and I hope the rest of the board will as well.

CHAIRMAN BORDEN: All right we've had two positive comments, any negative comments? Ali.

MS. MURPHY: Could I make a motion to amend? I'm just trying to figure out how this will all work. I guess this would say motion to amend to approve the two portions but revise Option C to read; Coastwide small volumetric claw harvest permitted, and then under this option only whole crabs which meet the minimum size of 4.75 inches may be retained and sold; with the exception of a one five gallon bucket allowance of detached claws per vessel per trip, which may be retained and sold. All harvest of claws must meet the minimum length of 2.75 inches, and two claws may be harvested from the same crab.

CHAIRMAN BORDEN: Is there a second to this motion? Dan McKiernan. Discussion on the motion to amend, Ali.

MS. MURPHY: If I could just provide a little bit of rationale. The previous comments that I made on the record are some of that rationale. An unlimited claw fishery I think could vastly expand the existing claw fishery; especially given the discussion that we just had with Southern New England lobster.

More and more people may be turning to Jonah crab. This motion I think is more consistent with the original intent of the FMP of capturing historic practices, and I think it also balances the historic claw fishery with enforcement and

biological concerns raised during the public comment period.

CHAIRMAN BORDEN: Dan, as the seconder, do you want to comment?

MR. McKIERNAN: I would. Just for the record, in going back to the document. I just want the Board to know that a five gallon bucket of claws is the equivalent of about 250 in count; which is about 125 crabs. Just for reference, in case we want to drift to a new place, a tote like a single standard fish tote might represent 500 crabs and 1,000 claws. As we trade horses and negotiate that might be another place to consider, because I see the two sides diverging.

CHAIRMAN BORDEN: Other comments, Rene.

MR. CLOUTIER: We did a test and what we came up with is the average fish tote holds 120 crabs so that would be 240 claws and that fills a five gallon pail. It is not 500, it was 120.

MR. McKIERNAN: One hundred and twenty claws.

MR. CLOUTIER: One hundred and twenty crabs, 240 claws.

CHAIRMAN BORDEN: Other comments on the motion to amend; Doug.

MR. GROUT: Just to clarify with either this or the underlying motion. The control date that we had would not be as to who could participate in this fishery would no longer be in place, we would be getting rid of that control data; so that anybody could become part of the claw fishery.

CHAIRAMN BORDEN: That's correct. Pat.

MR. KELIHER: I can't support this motion to amend, only because we're talking about now starting to measure claws. We're talking about a simple volumetric measurement of five gallons. It is not a lot of crabs as you just heard Major Cloutier state. Fishermen are not taking small claws off those crabs. They are not worth taking

to eat. I can't support any motion that has a claw measurement included in it.

MR. CLARK: I just had a question about whether this option, it was not in the addendum and it doesn't seem like it's between any of the other options that we had there; so the public has never had a chance to comment on this. Is it possible to even consider this now?

CHAIRMAN BORDEN: I am going to have to defer to the staff. Does this fall within the range of the options which were taken to public hearing?

EXECUTIVE DIRECTOR ROBERT E. BEAL: I'll give it a shot. I think this is probably in bounds and that the draft document did talk about the volumetric in a five gallon measure of crabs; and it also talked about potential to have a minimum size for crab claws also. I think the public probably did comment on volumetric and on minimum size for claws. It is up to the Board whether they want to go down this route or not. But I think it is probably in bounds, given the range of options that went out to public hearing.

CHAIRMAN BORDEN: Given the advice from the Executive Director I'll rule it a valid motion. Further discussion?

MR. McKIERNAN: If I could follow up to a comment that Pat Keliher made. I think the main motion does have measurements, in those cases when five gallons is exceeded the measurements are in play. If we reject this motion, we're going to go back to the main motion; which does have a requirement to measure claws, but only in cases where you have more than five gallons, just so that's clear.

CHAIRMAN BORDEN: Other discussion on the motion to amend? I've got Adam and then Ali.

MR. NOWALSKY: I'm going to support the motion to amend. In looking at the original addendum I had concerns. While I understand this is a practice that's been going on for some time, I'm not sure it is something if this was a

new fishery and we were discussing it I would support moving forward.

But in order to accommodate fishermen that are using this practice, markets that have developed; I would support this and I support it as a middle ground between what is currently in here with prohibiting the claw landings and what is in currently Option C that would provide for more than a five gallon harvest, so I can support this. MS. MURPHY: If the board has significant having measurement concerns with а requirement on the size of the claws, I would be happy to take that sentence out or entertain a friendly motion to take that sentence out; whichever is appropriate.

CHAIRMAN BORDEN: I'll just ask you as the maker of the motion. If you want to do that and the seconder agrees to that and we have no objections to doing that we can do it by consensus. Are you willing to do that?

MS. MURPHY: Yes.

CHAIRMAN BORDEN: And the seconder? Yes. Okay is there any objection on the part of the board on this. You're going to delete. I'll ask you to read your motion now as revised so the record is clear.

MS. MURPHY: Option C, coastwide small volumetric claw harvest permitted. Under this option only whole crabs which meet the minimum size of 4.75 inches may be retained and sold; with the exception of a one five gallon bucket allowance of detached crab claws per vessel per trip, which may be retained and sold. Two claws may be harvested from the same crab.

CHAIRMAN BORDEN: You have a revised motion. Dan is shaking his head yes. Discussion on that. Mike.

MR. LUISI: I can't support this motion, and the reason I can't support it is because it just doesn't work. The five gallon bucket is not enough for the two or three fishermen that I have in Maryland. We have gone round and round

about this over the last year. To be honest I thought we had moved past the same discussion over and over again. The thousand claw option is what worked, and that was based on feedback that we got from the fishermen. I can't support this and I'll be supporting the original option.

MR. GILMORE: Similar comment and I know it might be in bounds, but we went out for public comment. There was a seasonal component to this, to the one main fisherman we have in New York, where it is essentially during July and August it's a claw fishery where he's taking those and the rest of the year he's actually taking whole crabs. I don't know if that five gallon limitation would preclude him during those months, so since I don't have that information I can't support the motion either.

CHAIRMAN BORDEN: All right other comments, anyone else? Does anyone in the audience want to comment on this? No hands up. All right so I'm going to take a two minute caucus on this. Just for the record, I recuse myself from crab voting; because I have membership that is involved in the fishery.

Are you ready for the motion to amend as read? All those in favor of the motion to amend raise your hand and keep it up, please. Four in favor, opposed, six opposed, any null votes, any abstentions? The motion fails. You're back on the original motion as submitted; so discussion on the original motion. Doug.

MR. GROUT: To the commissioners in the states that do have existing claw fisheries, is it in a lobster trap fishery? Are there claw fisheries in your lobster trap fishery, because that is the one case under this particular motion that we're making? We could have literally unlimited increase in the number of claws being removed. That is the one concern that I have with it. But I'm not sure whether your fisheries are in lobster trap fisheries.

Mr. TOM BAUM: I can't answer your question specifically. Most of those Jonah crab harvest is from our lobster fishery; but we do have a few

that target them. As far as the claw harvest, depending on what the market is, they'll have a dealer come down and specify I'm buying claws or I'm buying whole crabs. Recently it has been whole crabs, but that could change depending on the mood of the dealer; I imagine.

MR. LUISI: To the question. We have a couple guys that they are catching Jonah's in their lobster gear. There are one or two guys who are catching them in their whelk pot. That is where the crabs are coming from in Maryland.

CHAIRMAN BORDEN: Further discussion on the motion? Yes, Ray.

MR. RAYMOND KANE: Mike, so these boats are essentially fishing offshore lobstering. They do have RSWs right, to maintain the lobster catch, refrigerated sea water; no. Thank you.

CHAIRMAN BORDEN: Anyone else? Dan.

MR. McKIERNAN: If this fails I would suggest we consider a one fish tote option or something to cap the number of claws coming in; because I agree with NMFS that I am nervous about the potential growth in this fishery that law enforcement is going to be really burdened by having to pull out gauges to measure something that is pretty small. I mean there are a lot of claws in a per unit volume.

CHAIRMAN BORDEN: All right we've had a good discussion; does anyone want to make a point that hasn't been made already? If not I am going to allow a one minute caucus, and then I'm going to call the question. Are you ready for the question? No hands up. All those in favor of the motion on the board, please signify by raising your hand.

Six in favor, oh seven in favor; I had Terry Stockwell down at the end of the table. Opposed, five opposed any null votes, any abstentions? The motion passes. The next issue is an implementation timeline, and I'm just going to make a suggestion here that we use January 1, 2018. Can I get a reaction to that from the

states whether or not that is a reasonable period of time to put this regulation in place?

Are there any objections to that as an implementation timeline? Okay no objections so we'll include that in the document. The last action on this item is because it's a final vote we need a motion to approve the addendum and then take a roll call of the states on the motion. Does someone care to make a motion? Doug.

MR. GROUT: I'll help out; motion to approve the addendum as modified today.

CHAIRMAN BORDEN: All right is there a second, second, John Dean; thank you. Any discussion on the motion? No hands up. Anyone in the audience, no hands up. Okay are you ready for the question? I guess everyone is. Megan, would you please call the roll.

MS. WARE: Maine. MR. KELIHER: Yes.

MS. WARE: New Hampshire.

MR. GROUT: Yes.

MS. WARE: Massachusetts.

MR. KANE: Yes.

MS. WARE: Rhode Island.

MR. GIBSON: No.

MS. WARE: Connecticut.

MR. ALEXANDER: No.

MS. WARE: New York.

MR. GILMORE: Yes.

MS. WARE: New Jersey.

MR. BAUM: Yes.

MS. WARE: Delaware.

MR. CLARK: Yes.

MS. WARE: Maryland.

MR. LUISI: Yes.

MS. WARE: Virginia.

MR. CIMINO: Yes.

MS. WARE: NOAA Fisheries.

MS. MURPHY: Abstain.

MS. WARE: New England Council.

MR. TERRY STOCKWELL: Yes.

CHAIRMAN BORDEN: Final vote, Megan. Just

read it into the microphone.

MS. WARE: Motion passes 9 to 2 and one

abstention.

CHAIRMAN BORDEN: Motion approved and I note just for the record that that includes one of the provisions in the addendum was that we would forward a request to NOAA to implement the rules in federal waters; and the staff is charged to do that.

# TECHNICAL COMMITTEE REPORT LOBSTER FISHERY IMPACTS FROM NEFMC'S OMNIBUS DEEP SEA CORAL AMENDMENT

CHAIRMAN BORDEN: Okay so last item on the agenda unless there is something under other business is Technical Committee Report. This is on Deep-Sea Corals. Kathleen.

MS. REARDON: The TC was tasked to provide an assessment of the lobster fishery impacts for the New England Fishery Management Council Omnibus Deep Sea Coral Amendment. Just to give you the plan timeline, the Council plans to publish the preferred alternatives in April, 2017, and then hold a final vote in June of 2017.

These proposed closures are both in Area 3 and Area 1, with options including broad areas by

depth or discreet canyons on the edge of the shelf; or a combination of the two, in addition to the National Monument, and some Gulf of Maine areas in both Area 1 and Area 3. Using vessel trip reports to assess revenue value, the Council has identified the lobster fishery as highly impacted by these closures if they are applied to the trap fishery. As we have discussed before, using VTR data to characterize the lobster fishery is problematic. VTRs are not required for all lobster permits. There is a high percentage but not 100 percent of Area 3 boats with VTR requirements, but in Area 1 the percentage are very low. Without full or better **VTR** coverage estimates could be underestimating the revenue impact in these

The TC focused on two areas for alternative analyses, the proposed broad area closures at the edge of the shelf and the two proposed closures in Area 1. For Area 3, a 2016 survey of Area 3 industry members characterized offshore effort in the lobster and Jonah crab fisheries. The survey provided an estimated proportion of revenue and effort by depth; with 35 percent of the permit holders responding.

For Area 1 we used Maine dealer data that covers all dealer transactions, and the Maine harvester logbook data that is collected from an annual 10 percent of the Maine license holders. In addition to these datasets, some information was contributed from potentially impacted Area 1 fishermen to estimate number of boats and harbors.

Unfortunately, I didn't have a map of all of the areas, the discreet canyons and offshore areas; so this is just an example. The map to the left is the broad areas by depth, and then the map to the right is just a subset of some of the canyons that would be impacted. In interest of time I will not go into the methods of each scenario. You can look at the report if you would like to learn more about that. Instead I'll focus on the results and uncertainties.

For the shelf and discreet canyons, in addition to the National Monument designation, the worst case scenario estimate was a 6.5 million impact for the combined discreet canyons and 300 meter broad area; while the minimum was 3.3 million dollars for just the discreet canyons and the National Monument.

The un-weighted proportions were based on straight proportions within the survey results, while the weighted estimates were weighted relative to the other responders in their survey. The final estimated values were based on the proportions in the survey and the total value estimated by VTRs. Although we did not produce an estimate for the Jordan Basin and Lindenkohl Knoll, these are the maps of those discreet areas that would be impacted for the Area 3 fishery.

This is the map of the Area 1 proposed closures, with the Maine lobster zones. The two areas are Mount Dessert Rock and Outer Schoodic Ridge. You can see the Jordan Basin proposed closures below; right above the Legend. For Area 1 we used three approaches to estimate revenue impact.

The first provided the total revenue by Maine zone, by distance from shore. This estimate does not assign a value to the discreet proposed closures. The second approach took an average value in days fished by month from the Maine Harvester logbooks, and combined those averages with a maximum and minimum number of boats and percent income to determine a range of values for these two areas.

The third method looked at the value by square mile and calculated the value by percent area. The value of the two distance-from-shore categories impacted by these closures, are outlined in red. In Zone B, the one in the center, between 3 and 12 miles; this is where the Mount Dessert Rock closure would be. The total value between 3 and 12 nautical miles was estimated over 15.3 million, while outside of 12 miles in Zone A the area to the right was worth 9.8 million in 2015. The TC was wary about producing estimates at a finer spatial scale than

the scale at which the data was collected. But we decided to determine a range of estimates, which came out to over 8 million down to 1.2 million.

The TCs preferred estimate was for 50 boats in each area with 50 percent of their income derived for a limited number of months during the winter and spring totaling about 4.2 million as an impact. There are a number of sources of uncertainty for these analyses, for both the broad areas and canyons in the inshore Gulf of Maine; calculating the percent area assumed equal productivity of habitat.

The TC considers this unlikely and thinks it leads to underestimate of revenue. Second, we were unable to validate industry information from the surveys and interviews. Third, in the Maine inshore areas the distance from shore proportions are based on 10 percent harvester reporting; and we are unsure if the reporting adequately represents the offshore areas.

In all cases there was low spatial resolution, so it is difficult to assign a value to a specific area with confidence. This is something slightly different, but wanted to bring it to your attention. This is the co-occurrence model developed as part of the Large Whale Take Reduction Plan. The Outer Schoodic Ridge Area is in the middle of a high co-occurrence area with whales and lobster gear; while the Mount Dessert area is adjacent, or just north of an area where there is co-occurrence.

Spatial closures in Maine have been avoided in the Atlantic Large Whale Take Reduction Plan, due in part to concerns about the displacement of effort and a potential to increase the density of vertical lines along the edge of the closure. A similar scenario exists here, relative to the proposed coral closures; with the displacement of gear creating a higher risk of entanglement in the area surrounding the closure.

For this reason there is great concern regarding unintended impacts to whales in the Outer Schoodic Ridge Area, where whales are known to frequent; while the impact near Mount Dessert Rock is less certain. I will take any questions, but the report in the supplemental materials goes into much more detail as well.

CHAIRMAN BORDEN: Any questions? No hands up. Eric.

MR. REID: I just want to point out that there isn't an option for a broad zone at 900 meters now.

CHAIRMAN BORDEN: Anyone else want to comment, any hands in the audience; if not? Pat, excuse me.

MR. KELIHER: Considering the potential ramifications that would come from a closure based on corals, I would like to request the Lobster Advisory Panel be tasked to review the TCs analysis and potential impacts to the lobster and Jonah crab fishery as a result of this Coral Amendment.

CHAIRMAN BORDEN: Any objections to asking maybe the AP to formalize some recommendations? Excuse me, I'm losing my voice. No objections, all right we'll do that. Is there anything else under this item? The one thing that I would suggest is that as I understand it the timeline for the council to take action on this is at the April meeting. Terry, is that correct?

MR. STOCKWELL: The Council is scheduled to select preferred alternatives at the April meeting, final action.

CHAIRMAN BORDEN: The one thing that I think would be helpful for the Board is if we could have Michelle come to the next Board meeting and actually go through the addendum in detail at that point, and explain it. If for some reason the Council delays action on it, then that could take place at the May meeting.

I think that's it. This is what happens when you go to the Massachusetts Lobstermen's Association meeting; the plague. Okay so anything else under this item? Terry, if you would just if for some reason it slows down then I think it would be helpful to have Michelle come

and explain it. She is incredibly knowledgeable. I'm sure the Board members would benefit from that type of presentation. Terry.

MR. STOCKWELL: I'm not sure of the exact scope of the public comment period. Would it seem that our May Board meeting would be in the middle of it, so it might be appropriate for her to come at that point? The final action is not scheduled until the June Council meeting, which is almost a month later.

# **OTHER BUSINESS**

CHAIRMAN BORDEN: Okay, thank you, so anything else on this? We're into Other Business. Any other business? If not, I just remind everyone as Megan said, the public comment period on Addendum XXV is going to be April 1st. We're going to need the states that coordinate the LCMTs from Southern New England to put together those committees, and in some cases those committees need to be reconstituted.

I think the states should have the flexibility to do that. I think it is extremely important for us to get comments from the Advisory Panels that were set up originally; and that all has to take place before April 1st. Is there any other business to come before us? Any objections to adjourning? Dan.

MR. McKIERNAN: David, I think what I should do because Massachusetts is the host state for Area 3, which is the LCMT with no home. We will send an e-mail around to the heads of the delegations describing whose a current participant in that team; to see if they have any nominations or recommendations.

There can be at least 10 or more members, and many of the states are listed throughout the range of lobster as potential participants in that team. We would want to get people that as you said, get the whole team reconstituted; but we would need names from the directors.

## **ADJOURNMENT**

CHAIRMAN BORDEN: All right, any other business? If not the meeting stands adjourned. Thank you very much. Five minutes early.

(Whereupon the meeting was adjourned at 3:55 o'clock p.m. on January 31, 2017.)