SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL
SNAPPER GROUPER ADVISORY PANEL

Town & Country Inn and Suites
Charleston, SC

October 18-20, 2022

Transcript

AP Members

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James Paskiewicz, Vice Chair
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Vincent Bonura
Randall Beardsley
Tony Constant
Jack Cox, Jr.
Andrew Fish
Robert Freeman
Richard Gomez
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Dr. Mike Schmidtke
Nick Smillie
Suzanna Thomas
Christina Wiegand

Attendees and Invited Participants

Tom Caruthers
Rick DeVictor
Frank Helies
Adrian Hordyk

Ashley Oliver Meg Withers

Additional attendees and invited participants attached

The Snapper Grouper Advisory Panel of the South Atlantic Fishery Management Council convened at the Town & Country Inn and Suites, Charleston, South Carolina, on October 18, 2022, and was called to order by Mr. Bob Lorenz.

MR. LORENZ: All right. We'll get started today with the AP meeting, and I guess we'll be on time, or maybe a minute ahead. I'm Bob Lorenz, from Wilmington, and I will be your chair for the meeting today. First thing off, I just would like to recognize that we have two council members who are here with us who also deal with the snapper grouper, Jessica McCawley, and I believe, Jessica, you are the chair, and Kerry Marhefka. Welcome to them, and they're here to help out, or ask questions, or they're accessible, if you have questions about how the council runs and operates. We'll get started with the introductions today of who everybody is, and I think we'll start -- Let's see, and this is a right-oriented state, and so we'll start with the far left and go around the table.

MR. AMICK: My name is Scott Amick, from Savannah, Georgia, a charter fisherman, and I own and operate Amick's Deep Sea Fishing.

MR. LORENZ: Welcome.

MR. AMICK: Thank you.

MR. FREEMAN: Robert Freeman, retired charter fisherman, commercial fisherman, and all kind of stuff, the Morehead City and Atlantic Beach area.

MR. FISH: Andy Fish, and I'm from Cape Canaveral, and I represent the commercial fishermen.

MR. GOMEZ: Richard Gomez, charter/for-hire, Lower Keys, fisherman.

MR. MOSS: David Moss, south Florida, recreational fisherman.

MR. LORENZ: Bob Lorenz, and I'm the recreational sector and from Wilmington, North Carolina.

MR. HULL: Jimmy Hull, Ormand Beach and Ponce Inlet, Florida, commercial sector, and I'm also a fish house and restaurant owner.

MR. CONSTANT: Tony Constant, Beaufort, South Carolina, and I'm a recreational and ex-charter/for-hire.

MR. COX: Jack Cox, Atlantic Beach, North Carolina, commercial fisherman and seafood dealer.

MR. MCKINLEY: Randy McKinley, Topsail Beach, North Carolina, commercial and, also, retail and wholesale dealer.

MR. MILITELLO: Chris Militello, south Florida, recreational.

MR. LEWIS: Selby Lewis, Wilmington, North Carolina, commercial, charter, and fish dealer.

MR. LORENZ: All right. Thank you, everyone, and welcome to everybody who is joining us online and, also, including our AP members, and we've had quite a few surprises that went on as we got towards this meeting, with the aftermath of Ian and some illnesses and things like that, where people were spread a little thin right at this moment, and so thank you, and welcome to everybody here, and welcome to the public that is online.

The first order of business will be the Approval of the Agenda from the last meeting, and I believe that was a full transcript we looked at, that I saw. Mike has just told me that one of the things that he would like to do is he would like to review the changes that are on the council website now, the new website page. Sorry.

DR. SCHMIDTKE: No problem. I just wanted to bring up -- There were a couple of -- There were a group of links that I sent out earlier today, and I'm just kind of bringing those to your attention, but I wanted to point out where they are on the council's new website, because it has been updated since the last AP meeting, and so I just wanted to give you a brief look at two things that are relevant for the AP and just make sure you know how to navigate to them.

Within the website, under the "About the Council" section, there is a section there, and there's a link there, for advisory panels, and, if you click on that, there's a description of the advisory panels, talking about what they do, and, within that description, are two of the links that I sent out a bit earlier today, and they are the AP policy document, and that describes the role of the AP in the council process, as well as the code of conduct guidelines, and those are included there, and so you can refer to those as you need to.

Then the other page that I want to point out to you is underneath meetings, and there is a link for advisory panel, and, within this, all of our advisory panel meetings would be listed, and so the one that is happening right now is the most recent listing there, and that's our Snapper Grouper AP meeting, and, within that meeting webpage, there should be everything that you need relevant to this meeting, and so, if you scroll down, you see the agenda listed there, and attachments relevant to each of the agenda items are linked right there in the website.

You also see the links there for someone to be able to submit public comment, register for the webinar, which a couple of folks -- Obviously, they're on the webinar, and so they were able to do, and then, finally, for you all to have access to read the public comments that have been submitted online. There's a button, right here, that says, "read public comments", and that will take you to the Wufoo form that has the public comments listed here. I just wanted to make sure that we pointed that out at the beginning of the meeting, and you all can refer to that information as we go throughout this week in your discussions.

MR. LORENZ: All right. Thank you, Mike, and, yes, I found it interesting, and I was very happy to see this rule of conduct for employees and advisors of the fishery management councils, and I see that it was updated in 2022, and I think it's worth a good read. I mean, not just for our conduct here, which, in the eight years I've now been on the AP, everybody has been excellent, but, also, if you do run into a problem, and, you know, we do get into issues, and there are different points of view, and it speaks in there, if you find that you are harassed, or maybe intimidated, and you don't necessarily have to take anything into your own hands, if such an unfortunate situation comes up.

It sounds like, through the council, you can, you know, get legal advice on dealing with that, and that's what I lot of what I saw was in here, on just how to deal with those sorts of things, both on your personal level, that you not do it, but that we not do it, but if it is done to you, and so it's worth a good read, and I thought it was an interesting, good document. I would like to, if everybody reviewed the agenda, I would like to go forward with approval of the agenda. Is there anything that I guess anybody would want to add, probably, or corrections or changes or anything like that? I would like approval of the agenda.

MR. HULL: Mr. Chairman, I would make a motion to approve the agenda.

MR. LORENZ: Jimmy Hull makes a move to approve the agenda.

MR. MOSS: I will second.

MR. LORENZ: David Moss seconds, and I guess we'll do this by -- Is there anybody that has a contrarian view on what the motion was, that would not want to approve the agenda? I see -- It looks like everybody is happy with the agenda, and so the agenda stands as published. The next thing would be our Approval of the April 2022 AP Transcript, and I think it was about two-hundred-and-some-odd pages, and I would like to have a motion and approval of the AP transcript from the April meeting.

MR. HULL: Mr. Chairman, I would make a motion to that effect.

MR. LORENZ: Jimmy Hull.

MR. MOSS: I will second.

MR. LORENZ: David Moss seconds. All right. The AP transcript for the April 2022 meeting is approved. I will sign and certify. Next, I would like to proceed with public comment, and just raise your hand. I don't see any of the public in here, and that's correct, and so we will go -- We will move to anybody that is online that wishes to make public comment, and I will make note to the AP that there were four people that submitted written public comment, and Mike showed you the link to that, and I believe we had someone -- I believe they mostly were in Florida, Jacksonville, Sebastian, up on the west coast, Tampa, and somebody from Savannah.

I think most of the comments were on -- The comments were related to red snapper, and there was a comment there with respect to the potential speed reductions and the increase of the diligence for boats, and maybe sportfishing boats also, for right whales, and so, at this time, is there anybody online that wishes to speak to the AP and make public comment?

There also will be a period for this as we get towards adjourning the meeting on Thursday. Anybody out in the public with public comment? No hands raised, Mike? All right. Let the minutes note that we have solicited for further public comment at the meeting and have received no additional public comment besides the four written comments that have been noted. First, as usual, the committee chair for the Snapper Grouper Committee on the council will speak to us, Jessica McCawley. Thank you, and welcome.

MS. MCCAWLEY: As always, thanks for having me, and so we have a short little PowerPoint, but, also, as you mentioned, Mr. Chairman, Kerry and I will be here for the duration of the meeting, if you guys have questions about anything. All right, and so this is covering the last two council meetings, and so highlights from both the June and the September committee meetings of the Snapper Grouper Committee.

Reg Amendment 35, and so you guys are definitely going to talk about this today, and this was kind of the hot topic at the last couple of meetings, and so this particular amendment covers red snapper and snapper grouper release mortality, and so the council decided that this is the short-term action, and Reg Amendment 35 is the vehicle for the short-term actions to consider revising red snapper ABC, ACL, and OY, as well as modifications to gear for the recreational sector, including prohibiting electric or hydraulic-powered reels and prohibiting more than one hook per line, or requiring single-hook rigs.

Also, a part of this will be the best fishing practices outreach and education, and so that will be a big portion of this amendment as well, and there will be an appendix in there talking about what staff has already done, and, in addition, what is going to be done in the future, and there's been a lot of work done on descending devices, and so there will be more discussion of this in this particular amendment.

The details of this, you guys are going to talk about it at this meeting, and the council also reviewed the spatial time/area closure information for the entire snapper grouper fishery and decided to not consider it at this time, in this short-term action, which is the Amendment 35, but it will be on the table for some of the longer-term actions, including the management strategy evaluation, but you guys are going to talk about that as well, and then the council also made decisions to kind of speed this amendment up, so that the final approval will now be set for March of 2023, and so the short-term action will move a little bit faster, to get the ABC, new ABC, and ACL in place, as well as these new gear requirements.

All right, and so the council finalized, at their last meeting, Amendment 49, which is the greater amberjack and removal of recreational ACTs across the entire snapper grouper fishery, and so this is ready for secretarial review, and it updates greater amberjack catch levels, revises commercial size and trip limits, expands the April spawning season closure to both sectors, and so it's for rec and commercial, and then, as I just mentioned, it removes the recreational annual catch targets for the entire snapper grouper fishery.

Also, the council discussed the yellowtail snapper stock assessment at the last council meeting, and so the interim analysis was completed by FWRI, and this was updating the assessment, so it had more recent years of information in there, and the conclusion was the same, that the stock is not overfished or undergoing overfishing, and the council decided to reinitiate work on Amendment 44, which is the amendment to look at yellowtail snapper, to respond to those assessment results, which is primarily updating the catch levels, but you guys will talk about this amendment this week as well.

Then the committee also continued work on a number of different amendments, including Amendment 51 for snowy grouper, Amendment 52 for golden tilefish and blueline tilefish, and Amendment 53 for gag and black grouper, and these will all be discussed at the meeting this week, and then we also talked about Amendment 46, which is the recreational permit and reporting

amendment that you guys talk about a lot, and I feel like we talk about this at every AP meeting, and so this is something that the council has been talking about, and the council has, remember, a special working group, and then kind of a spinoff of that working group, like a technical group, that's working on this document, and so a progress report on this is expected at the council's December meeting.

This was kind of discussed also in conjunction with the red snapper discussion as well, and it kind of happened in sequence there, and I figured that you guys would be discussing this again this week, but it is moving, and it's probably moving slower than we all would like, but it is underway, and then you guys are also going to talk about the snapper grouper management strategy evaluation this week, and so this is the long-term portion of thinking about what to do with red snapper, and across the fishery as a whole, kind of the holistic approach for how to manage this fishery, and that's all the slides I have.

MR. LORENZ: All right. Thank you, Jessica. Anybody on the AP have any comments or questions, any clarity you might want to hear from Jessica? Speak now. Jimmy Hull.

MR. HULL: Thank you, Mr. Chairman. Jessica, I have lots of questions, but I think we're going to discuss them here, at this meeting, and there's lots of things that I don't know, or understand, about MSE, and so I'm hoping that we have a really good explanation of how that's going to be, you know, a really good tool.

MS. MCCAWLEY: Yes, and I'm excited as well.

MR. LORENZ: Yes, and those folks are coming in from Ontario now, correct, Mike, for tomorrow's meeting that are presenting to us on that system. Anyone else, or even a question for Kerry, since she's on the council's committee there? All right. We didn't want to leave her totally loose. All right. Thank you.

All right, and we're moving right on to I think what we set for today, and it's actually the last thing, and so maybe we can move forward with some other things later on in the agenda, but, for now, we'll speak about the Regulatory Amendment 35 for red snapper. I'm so sorry. All right. Moving on to the update on recent regulations and status of the amendments, and, Mike, are you handling that? Thank you.

DR. SCHMIDTKE: Thank you, Mr. Chair, and so I'll pull this up. There is a document in your briefing book that's just kind of a standard update on snapper grouper amendments, what has happened since the last meeting, and there is some overlap with what Jessica discussed, and so I'll try not to do too much overlap there, but there are some things that will be hit in both places.

For Amendment 50, red porgy, if you remember back a bit, the council had approved that, earlier this year, and the status of that, as it moves through the federal rulemaking process, is that the proposed rule has been published for that, and the comment period is open right now for the National Marine Fisheries Service, and comments are being accepted on that through November 8.

Next, for greater amberjack, Amendment 49 had final council approval, and so we're in the process, right now, of getting that wrapped up and submitted for secretarial review, and there's a

summary of the actions that were taken, and that's included in that amendment's update, and Jessica kind of went through those actions, but all of the selected preferreds are highlighted within the amendments update there, so you have some knowledge of what the council has decided.

Wreckfish, there is going to be a little bit more of a question related to wreckfish, and so I'm going to pause on that one, and we'll come back to that at the end, after I've gone through these other amendments, because there was a question for the AP related to that amendment.

Snowy grouper, through Amendment 51 and then Amendment 52 for golden tilefish and blueline tilefish, those are both moving along. Public hearings were held ahead of the last council meeting, and both of those documents are going to be considered for final council approval in December, and so we'll have at least those two going for approval.

Gag grouper is one that will be discussed this week, and that's one of our topics that is scheduled for tomorrow, and so that will get a bit more detail for you, when we have that discussion. Reg Amendment 35 is going to be discussed today, and Jessica provided a summary of the council's actions at the last meeting related to that. Amendment 46 is the recreational permitting amendment, and Jessica summarized that well. The technical AP has continued to meet, and, at the next meeting, there will be the progress update that Jessica mentioned, as well as the council will be reviewing an options paper for that amendment, and so it's moving through the process as well.

Yellowtail snapper has already been discussed, and work has been reinitiated after the interim analysis, and then, finally, the Comprehensive ABC Control Rule Amendment, and that one is not specific to snapper grouper, but snapper grouper is included within that amendment, and it changes kind of the process from going from a stock assessment into an acceptable biological catch that can then be used to develop the different ACLs and the different limits that are implemented into the fishery.

That amendment is going to be considered for final approval in December as well, and so the council will have several amendments coming before them in December that will be considered for final approval, and we'll try to keep on churning those things out, and so now I'm going to ask Christina Wiegand to come up and discuss Amendment 48 and what happened related to that amendment at the last council meeting and questions for you all.

MS. WIEGAND: Thanks, Mike, and so, if you guys will remember, way back, Amendment 48 for wreckfish is looking at modernizing the wreckfish ITQ program. Right now, these guys still operate using paper coupons, and so the goal is to get them set up with an online system, similar to how other ITQ systems are managed throughout the nation, and so I'm not going to get into too much detail today, and dive into each action, but there is one thing we wanted to highlight, and that was that, at the September meeting, the council passed a motion asking staff to add an alternative to the permit action that's in there that would essentially allow those with a snapper grouper permit to harvest wreckfish without necessarily being a shareholder.

If you know anything about this system right now, there is a wreckfish permit, in addition to the shares that are required to harvest wreckfish. You cannot get a wreckfish permit unless you own shares, and so, essentially, what this alternative would do is it would get rid of that wreckfish permit and would allow wreckfish shareholders to more easily work with fishermen without them

necessarily having to also have a permit to harvest wreckfish, and I know that sounds a little convoluted, and so what I would encourage this AP to have a little bit of discussion on is what sort of eligibility requirements you think are appropriate to be able to participate in the commercial wreckfish fishery.

Think of it as how you all perhaps, as non-shareholders, would like to be able to interact with those that possess wreckfish shares, in order to harvest wreckfish, because, as part of building this online system, eligibility requirements will be built into that system, and so now is the time to sort of have a conversation about eligibility for this fishery.

MR. LORENZ: Christina, would you like input from the AP on this time on this? All right. I will recognize Jimmy wants to speak.

MR. HULL: Thank you, Mr. Chairman. Christina, I know we're going to talk about this, and it's on the agenda, correct, or it's not?

MS. WIEGAND: Now is the time.

MR. HULL: Now is the time? Okay. The wreckfish shareholders currently are in an IFQ, the oldest one in the nation, and have you heard from them about what the council has proposed to do, and has there been any participation from the members?

MS. WIEGAND: The wreckfish shareholders did meet to discuss this amendment in June of this year, and then this motion was made at the September meeting, and so the wreckfish shareholders haven't had a chance to review this specific motion. I will say, when they discussed eligibility in June, their desire was to maintain the current system and just have that system switch electronic, without really making any broad-scale modifications.

MR. HULL: Just to follow-up, and thank you, Mr. Chairman, do the wreckfish shareholders have their own -- Do they ever schedule a meeting amongst themselves, through the agency, like an advisory panel capacity to that fishery, because it's so unique to the South Atlantic to have an IFQ fishery, and it's the only one we have, and I don't know, and I just think that it would be important that they get really involved, and like, all of a sudden, we're blowing this up.

MS. WIEGAND: How meetings of the wreckfish shareholders work is that they're not a formal advisory panel, in the way this is an advisory panel. However, the council does request meetings of the shareholders, in which we invite anyone who has a wreckfish share to come participate in the meeting and have a discussion, and that was the meeting we had in June. All of the wreckfish shareholders were there, and we had a discussion about every single action that's within this amendment.

MR. HULL: It was, but then you threw -- I thought I had it, after you explained that they were there, but then the new option was added after that, correct?

MS. WIEGAND: Correct. This amendment is still very much in the development process, and so I can't say for sure when, but it's certainly possible that we would bring together another meeting of the wreckfish shareholders, and certainly the intent of the council has been, throughout this process, to regularly work with the shareholders, to make sure that any changes to this program,

and moving to an electronic system broadly, are going to work with what they are actively doing right now.

MR. LORENZ: Thank you, Jimmy. Vincent, I believe you have something to say.

MR. BONURA: Yes, and I was going to say that I think removing the wreckfish permit and the having to own a share in order to lease a share is a good thing for the new entrants and the newer fishermen that could have the opportunity to come into the fishery in the future, and so, currently, if you don't own one pound, you can't lease any at all, and so I think this is a really good thing.

MR. LORENZ: Thank you, Vincent. Anyone else on the AP?

MR. COX: Vincent, I agree with you. I mean, my commercial boat interacted with some wreckfish, and we don't have any quota or anything, and so what are you supposed to do, if you're in 600 or 700 feet of water and you've got a couple of wreckfish?

MR. LORENZ: Vincent.

MR. BONURA: I think, too, this would be a good opportunity for the shareholders as well, because, currently, there is only half-a-dozen shareholders, and is that correct, and so, currently, they only have the option to lease and/or fish the half-a-dozen guys that own the shares. In the future, if you remove this, you would have, I mean, potentially SG 1 permit holders, and you have 519 permit holders who could potentially lease your fish and catch your fish, whatever you've got to do.

MR. LORENZ: Thank you, Vincent, and so we've heard from Jimmy Hull, Jack Cox, and Vincent Bonura. Anyone else here in the AP that wants to make a comment to Christina on the wreckfish? I would just note -- Mike, is there anyone out in the public, or out online, that wants to make a comment that is on the AP? There are none outside, and recognizing Jack Cox for another comment.

MR. COX: Christina, how much of the ACL gets caught every year? Do you know, off the top of your head?

MS. WIEGAND: I don't know that number off of the top of my head, but I can certainly look it up and get back to you guys.

MR. LORENZ: Vincent.

MR. BONURA: I guess that confidential information, and all the other ACLs are open online, but the wreckfish are not.

MS. WIEGAND: Some years that data is confidential, and some years that isn't, because the agency works by the three, three, three, and there have to be three different fishermen, three different vessels, and three different dealers harvesting for data to not be confidential, and that's for all fisheries, and not just wreckfish, and, because of the low number of participants in the wreckfish fishery, there are some years where that data ends up being confidential.

MR. LORENZ: All right. Thank you, Christina. I'm sorry.

MR. BONURA: I had one more thing, and would it be a good idea, here at this meeting, to put a motion to remove that, the criteria based on having to own a share to lease or catch any shares?

MR. LORENZ: Jimmy Hull.

MR. HULL: Not for me. I would like a lot more information and to hear from the people in my area that are holders. Like this is the beginning of it, and so I would like to hear more information before I could vote on anything.

MR. LORENZ: Vincent, do you have a reply? I mean, you did say you would like to make a motion, but --

MR. BONURA: I mean, I think it would be a good thing, because, I mean, why do eight people, or half-a-dozen people -- Why are they the only ones who can fish the quota? If you have an SG 1 permit, I believe it's a good idea to be able to get the shares, or lease the shares. I think, for the future of the fishery, it's the only option we have, honestly.

MR. LORENZ: Christina.

MS. WIEGAND: I just want to note sort of the timeline that this amendment is on, if that's helpful for you guys in deciding, you know, when and if you want to make a motion. This amendment, due to its complexity and the amount of time it sort of takes the council to discuss, comes back to them at every-other meeting, and so they won't be talking about it in December. They will be talking about it in March, and the March council meeting will serve as the public hearing for this amendment, and then it will come back to them again in September, I believe, to start considering for final approval, and so, if this AP is interested in having a more in-depth discussion on wreckfish, or, you know, some maybe key actions within the lengthy amendment, I think that's certainly something that could be presented to the council as an option, if you guys would like to have more information.

MR. LORENZ: All right. Mike is telling me that we could do that in April. Tony, did you raise your hand for something?

MR. CONSTANT: Yes, and I agree with Vincent, but I also agree that I think we need to look at the ACLs and see how the eight people that are fishing it now are affecting them, versus another 500, to see how the overall performance of the fishery is doing.

MR. LORENZ: Jimmy Hull.

MR. HULL: I just need more information, and it may be great, but I just -- It's a long process to go yet, and so I would like to hear a lot more.

MR. LORENZ: David Moss.

MR. MOSS: Forgive me if I'm wrong, but isn't that exactly what Christina said that we're talking about doing with this, is just essentially gathering more information and take a look at this when

the council meets in, whenever it is, March or April, and I forget what you said, and I'm not saying that I don't agree with you, but this is exactly I think what they're doing here, is looking at this, and so I don't know that there's a need for a motion just yet, because, to my understanding, whatever motion we put forth is saying exactly what they're doing, correct?

MR. LORENZ: Thank you, David. I think, in the interest of democracy though, I believe Vincent would have the right to make a motion, if you so desire. You will need a second on that motion, and then a vote for it to carry, and, Vincent, you're open to make a motion, if you wish.

MR. BONURA: Maybe could we do this either tomorrow or the next day, if we all had a meeting at the bar this evening and talked about it?

MR. LORENZ: I don't believe we could follow the bar at the meeting versus the openness of this procedure.

MR. BONURA: No, but later on, and you know what I'm saying?

MR. LORENZ: Mike wants to help us out.

DR. SCHMIDTKE: So what we can do, because it sounds like there is some desire for additional information, is we can use the time in between now and the AP's April meeting to have some additional information, and there will be more work done, and there will be information put together for our public hearing document, within that time, and so this can be brought back to you all as a formal discussion item, and we'll have information in the briefing book, so that you can prepare your idea and come and have that full-fledged discussion more in April, rather than having it here at this time, and that's an option that you all could take.

MS. WIEGAND: That would also give the AP the opportunity to sort of -- Since we breezed through it very quickly here, and there are several alternatives under that action, and so that would give you all the opportunity to discuss all of those different alternatives and see this alternative actually written out and analyzed and then make a formal recommendation to the council on what you believe their preferred alternative should be, moving forward.

MR. LORENZ: Thank you, Christina. Vincent.

MR. BONURA: I just wanted to add in there that I do not own any shares at all, and this is like as a bystander looking in, and so like I don't have any option in this fishery, really, and so I do own SG 1 permits, and it would be nice to have the opportunity.

MR. LORENZ: Okay. Thank you, Vincent, and so we'll hold off on a motion. It seems like the thing everybody is wanting, and it doesn't seem like anything would carry, and it's more information, in order to make -- To give more informed input, so that this AP can give a much higher-quality output, and we're kind of shortcutting things right now, and so thank you, Christina. Anything further for you? Okay. Thank you, Christina.

All right, and we're moving right on to Regulatory Amendment 35, which will be our favorite fish, red snapper, and it's snapper grouper release mortality and ways to further reduce it, and I guess the goal of this discussion will be to discuss the proposed management actions for us to give --

There are recommendations that we should consider, and there are preferred alternatives, and I know there is also -- Probably, in the discussion, maybe I could see a need for the species, certain ones that may be impacted, and I know there are things in there on electric reels and multi-hook rigs and how pertinent, how necessary, they are and for what species, which ones would be affected, which ones would you strongly feel that you need to retain things, or can we follow through with the recommendations and the alternatives as presented. To start that, to kick-off that, that's Mike, right? Thank you, Mike.

DR. SCHMIDTKE: All right. Thank you, Mr. Chair, and so there was a discussion document that was provided in your briefing book, and we'll be using that to kind of go through the different points of this amendment. There is a bit of a background section, but this has been something that's been talked about for several AP meetings now, and so a lot of that background has already been discussed, and I'm not going to dive into that too much, and it just has some of the assessment information related to that.

The last assessment determined that red snapper is not yet rebuilt, and it's still overfished and experiencing overfishing, and most of that overfishing is occurring due to discard mortality, and so that is what the council is trying to address within this amendment, is a response that would update the annual catch limits and the acceptable biological catch to correspond to the most recent stock assessment, as well as address the large amount of discard mortality that red snapper experiences.

Just looking at the bottom portion of this background, that gives you kind of the most recent update, and so, in June, the council directed that, in addition to the consideration of catch levels for red snapper, specifically this amendment should include some gear actions related to the use of electric or hydraulic-powered reels, as well as multi-hook rigs for the recreational sector while fishing for snapper grouper species.

Then there was also the direction, at that meeting, for there to be some addressing of the overfishing of red snapper through expanded outreach and education on best fishing practices, and so there was that information, and then kind of the item that had a lot of folks talking had to do with the consideration of closures of the snapper grouper fishery being considered by time or by area, and so things were -- Information was brought together, brought before the council, and that information was reviewed in September.

In September, the council decided that the time and area closures, any consideration of those, that that would not be included in Regulatory Amendment 35, and so it's not going to be included in this document, and that's something that would need much lengthier discussion, and a lot more information, for them to consider that, and so that's not being included here.

They also revised their timeline, and this is something that is quite a bit different from the standard timeline that we normally operate under, and I just want to point out the timeline, for you all's benefit, because, with this timeline of the council taking their final action in March of 2023, this is going to be your opportunity to speak on this reg amendment, and it's not going to come before you in a future meeting, and so any recommendations, anything you have to say regarding this reg amendment, today is the day to do it, and so I just wanted to put that out there.

There will be consideration of this document for approval for public hearings in December, and then, if that gets approved, then public hearings would be conducted sometime in January or February, ahead of the March 2023 meeting, and so that is the timeline that we are looking at, and I guess I will pause here, and we're going to be looking for input on the specific actions, and we'll get to that point, but I'll pause here, to see if there are any questions about what has happened in the council meetings leading up to this point, or what the process looks like moving forward.

MR. LORENZ: Any questions for Mike, based on his request?

MR. MAHONEY: I guess my question is how is there proof of the discard mortality? How do you get that information of discard mortality?

DR. SCHMIDTKE: So the fish that are caught and released are estimated through the MRIP process, and that's one of the data fields that is collected through the MRIP survey, and so that's how the releases, the fish that are caught and released, that's how that is determined. As far as the mortality rate that is then applied to those releases, that is from -- For red snapper specifically, there have been scientific studies that have estimated the survival of those fish after they are released, and so the percentages that come out of those studies are then applied to the release numbers.

There has been changes to the mortality rate over time, because of the incorporation of different regulations, different changes in the fishery, and the recreational fishery has moved toward practices that would promote survival of red snapper after they are caught and released, and so that was captured within the stock assessment. When they estimated release mortality for the earlier time periods, it is at a higher rate than what they estimated as for right now, and so they have estimated that the mortality rate has gone down, but one of the things that kind of offsets that effect is that the number of releases, the number of fish that are being caught and then released afterwards, has gone up dramatically, and so there is a reduction in the rate.

There is an estimation that, you know, things like descender devices and the promotion of best practices, that these are having a positive effect on the behaviors that are happening when people catch red snapper, but there is a massive amount of red snapper, and a large amount of red snapper that are caught and released, and so those two things -- As they interact, that's how that kind of came about to the effect that it had in the assessment.

MR. LORENZ: Richard.

MR. GOMEZ: I am just wondering what -- If you could tell us about the process of that scientific study, and how would that work?

DR. SCHMIDTKE: That is something that I don't have the expertise on, just because I didn't conduct the study, and I can definitely get you some materials to refer you to that, and it's included in the stock assessment, and they reference the reports there, and we actually have Judd, that has worked a little bit more directly with red snapper, and so Judd is coming up to the table, and he can maybe shed some light on that.

MR. LORENZ: Judd, would you state your name formally to all of us?

DR. CURTIS: Yes. Judd Curtis, South Atlantic staff. Thank you for the question, and so I just started at the South Atlantic Council last year, but I came from the Gulf and did a lot of research on red snapper and other reef fish discard mortality, and so, to answer your question of like how you get kind of a scientific estimate of that discard mortality, the use of descending devices, is you would have kind of a side-by-side treatment of catching fish, just your typical hook-and-line setup, and then just releasing using either descender devices or venting treatments or non-venting treatments side-by-side.

Then there are several methods on how you evaluate their survival, and so kind of the older-school methodology is you just put like a spaghetti, or a dart, tag in the backs of these fish, and then you look at recapture rates when anglers, or commercial fishermen, would recapture these, and you can get a recapture rate.

More recently, there's been these advances in what we call acoustic telemetry, which are these ultrasonic transmitters that get implanted inside the fish's cavity, and you set up hydrophones that listen to these frequencies of these transmitters, and those detect the fish's position, once they are captured and released, and so you can use those in concert with like the descender device treatment, or a venting device treatment, and then, based on the acoustic returns you get from those -- Back on the acoustic returns and signatures you get back from those fish, you can infer if there is a survival, or if there is delayed mortality, if there's a predation event, et cetera. Since the last stock assessment, or the previous assessment, there's been a lot of that work in the scientific literature, and that has been incorporated into the most recent stock assessment, and so that's kind of a general idea of a study on how you obtain those discard mortality estimates.

MR. LORENZ: Jimmy Hull, a question for Judd?

MR. HULL: Yes, and thank you for that. I think, for me, it's the original -- So the MRIP process was discussed by Mike, as to how the assessment came up with the actual numbers that were estimated for discards, and that may incorporate some of what you said, but so the MRIP process, as I understand it, is going to be intercepts and reporting from the percentage that they get ahold of to do that, and, of course, for a lot of us, those numbers seem enormous and unbelievable, and so I think that's at the heart of what my colleagues are trying to get to, is, you know, the MRIP process is giving us the effort, and you're getting the intercept data from the anglers, and then they're telling you what they released and how many snapper they caught that day, and then it's expanded out into what they assume is the total effort in the fishery, and is that correct, to kind of, sort of, part of it?

DR. CURTIS: Yes, and, more or less, that's the gist of it, and so there are several different expansion factors that occur, based on the different regions, and so, where those intercepts occur, those might have a certain expansion factor associated with them, and so, in some cases, that's where you see larger estimates of this recreational effort occurring.

MR. HULL: Just a follow-up, Mr. Chairman?

MR. LORENZ: Yes, Jimmy.

MR. HULL: So then, as far as the scientific analysis, I mean, that's science too, statistical, but, as far as the on-the-water, what you're talking about with, you know, conducting -- Proving that

descending devices work by different methods, and the telemetry you get from acoustical and all these other things, and, of course, that's really good stuff for proving that, if we implement these best practices, what are we going to yield out of it, and it's like, okay, what percentage are we going to get to apply to all these intercept numbers that we're dealing with, correct?

DR. CURTIS: Yes, exactly right, and so the scientific studies that I was describing gets you that discard mortality rate, and so, if you were to treat fish with a descending device at a certain depth, this is the return and survival that you would get, and so what those studies do not obtain is like the prevalence of use, and so those things are separate, and there has been some work, recently, and was it The Nature Conservancy that has a report out that shows a little bit more of the prevalence of use of those devices, but you need kind of both pieces of that puzzle to ascertain -- You know, you need the rate, the percentage of discard mortality, or survival, and then you need the use of these devices, in order to get an overall estimate of what the surviving -- What the survival might be over the entire fishery.

MR. HULL: Thank you, and that just brings up more thoughts, and so what is the -- I wasn't involved in, or I can't remember seeing this, but the uncertainty in those numbers of discards, and is it a really high uncertainty, PSE, that is associated with them, or is it -- Where is it, and is it something that is known, what the uncertainty level is of those numbers, the discard numbers in the private rec fishery?

DR. SCHMIDTKE: I know it's at least estimated, and I don't have the ballpark number off the top of my head, but it's something that we can definitely get to you fairly quickly.

MR. HULL: Thank you. I would like to know that number. Thank you.

MR. LORENZ: Thank you, Jimmy.

MR. MAHONEY: How often do you all interview observers for data on release mortality?

DR. SCHMIDTKE: Are you speaking related to like the commercial observer program, in terms of --

MR. MAHONEY: Well, yes, and I think that's all there is, right?

DR. COLLIER: All the information is provided to SEDAR, for consideration when they're developing these estimates, and there's a working paper, and it's in SEDAR 73, and I think it's Working Paper Number 10, and it discusses how they came up with the recreational estimates for discards, for the discard mortality rate. They do -- There is observer work that is done on charter boats and headboats, and there's also observers that are on commercial vessels, and one of the issues with red snapper is the surface-related mortality isn't necessarily all the mortality that is observed, and that's why doing some of the work that Judd had described, talking about telemetry, that tracks fish after they have been released for several days, to see if it's a hooking-related injury that causes that fish to die, and so that is the important part. If you just look at the surface-related releases that observers would see, it's not going to be the same as what the full mortality would be for a fish that's released. Does that make sense?

MR. MAHONEY: It does, and could you just explain to me what exactly telemetry is? I'm sorry.

DR. COLLIER: So telemetry is that acoustic tag that Judd was talking about, and so what they do is they will put a -- It has a sonic ping that the tag releases, and then there's usually some receivers that are put in the water that can understand that signal detect where the fish is.

MR. MAHONEY: How does that prove whether or not the fish is alive?

DR. COLLIER: There are several different ways that they look at that. Some of these have monitors on them to look at the rate of the fish movement, and so, if a fish is moving at certain speeds, they can say that fish is alive. Other times, it's if a ping has not -- If a fish has not moved in several days, they can figure out if that fish is not alive, and there are several different ways that they've figured out if that fish is alive. Even if it's in another fish's stomach, they've been able to figure that out as well, and so they've got some pretty interesting techniques for these telemetry tags, in order to assess the survivorship of the fish.

MR. MAHONEY: Thank you. I believe you.

MR. LORENZ: Thank you, Mr. Mahoney. I would like to recognize Richard Gomez.

MR. GOMEZ: Just one more thing, and I know it's real complicated, and I know how hard this is, and, believe me, I get it, but I thought I heard you say that the telemetry is only for a few days.

DR. COLLIER: Some of the fish might die four months after it's been tagged, and some of the fish might die after two days or three days, and so they make a decision whether it's a hook-related injury or it's a predation event not related to the fishing event, and so they will make some classifications. Usually it's around three days, seventy-two hours.

MR. MAHONEY: So, when it dies in three days, that's a release mortality, regardless of how it really died?

DR. COLLIER: There are some assumptions that are there with it, and most fish, when they are released, the majority of them survive, right, and the discard mortality for red snapper is around 25 percent, and so 75 percent are surviving. They are able to figure out exactly how long these fish are surviving, based on some of these telemetry tags, and, based on work in tanks and other areas, they have been able to figure out that about three days is what a hook-related injury takes, in order to impact the fish. Sometimes, as the fish is hooked, an organ will get nicked, or something like that, and it causes the fish to bleed, and so they've been able to determine that's a likely time period for a mortality event due to hooking.

MR. MAHONEY: The depth has an impact on that?

DR. COLLIER: Depth has an impact on it, but Judd can talk a heck of a lot more about this than I can, and he did some studies on this.

DR. CURTIS: One of the things certainly we're looking at is depth-related barotrauma injuries and how that affects survival, and so you pull up from different depths, and you can expect that, if it's deeper, to have more barotrauma and less survival, and so, within these transmitters, you can have these depth sensors that give you an idea of, when you taking the fish back down to depth on

your descender device, or if it's surface released and swims back down to the bottom, where it ends up.

Another way to infer that survival, or mortality event, is, if you can set up a grid of these hydrophones, you can essentially triangulate the position, and couple that with depth as well, to see if that fish is still moving after it's been released or it's stuck in the same spot, and it's not moving horizontally, and so it's dead, or it might exhibit a depth profile that is more indicative of a dolphin or a shark or something like that, where maybe you look and see that it's been eaten by a predator.

MR. MAHONEY: Okay, and --

MR. LORENZ: Thank you. Andrew, can you hold up just for a minute? I would like to get a question in from another panel member that is offline, and it's a little difficult with it both ways, and I will get back to you, and we also have David Moss here. Okay. Thank you, Andrew. I want to recognize Harry Morales for your comment, and Harry is on the phone.

MR. MORALES: I apologize, and I'm out of the country right now, and I'm traveling, and so my signal is going to probably fall off, and I will get back on once I get to a secure place. I thought, in SEDAR 73, they were estimating the mortality rate from releases to be in the 80th percentile, and am I incorrect in getting that number, that the council was concerned that it was so high that we would not be able to rebuild the stock?

DR. CURTIS: Harry, can you clarify, and you're talking about the discard mortality rate or just the overall number of discards?

MR. MORALES: No, and the discard mortality rate that the recreational fishermen were encountering was resulting in an eighty-plus percent death rate, and so, consequently, the scientific community was saying that's the reason for 35 and shutting down bottom fishing, and did I read that wrong, because I just heard that it's 25 percent.

DR. CURTIS: Harry, I will have to go back to the assessment and check and see the exact rate that they use, but they did implement different time blocks with the mortality rate, and I know that, to account for the use of descender devices and venting, and then also hook changes throughout time as well that modify the mortality rate, but I think Chip is here to speak more to that.

DR. COLLIER: Harry, the difference between what you're talking about and what we're talking about -- We were talking about the actual rate that is applied to the fish that are -- The fish that are caught, and what you're looking at is 80 percent of the mortality in the fishery is associated with recreational discards, and that's the difference between the two. Does that make sense?

MR. MORALES: It's as clear as mud.

DR. COLLIER: We're looking at that 75 percent rate, where approximately -- That is looking at how an individual survives, and then the 80 percent is looking at the fishery overall, combining the commercial dead discards, the commercial landings, recreational landings, and recreational dead discards, and so, in that --

MR. MORALES: Okay. I was interested in the tagging program, and I did not realize that that was taking place, and what kind of sample size are we talking about for these assumptions that have been made?

DR. CURTIS: For the traditional tags, we're looking at several thousands of fish. The acoustic telemetry tags, usually a good study would have several hundreds of fish tagged, but there have been many studies that kind of replicated similar types of mortality estimates.

MR. MORALES: Okay, and so having a general population tagging program that the general charter and recreational fishermen could participate in would really be of no benefit?

DR. CURTIS: Sorry, but can you repeat that again, Harry?

MR. MORALES: One of the things that was brought up to me is that, since almost no person that I know believes in the mortality rate, is why not have a tagging program, the same way that we did with cobia, so that we could prove, in a different manner, what the mortality rate is, because, if we catch the same fish, and that is months later, it would suggest that they survive the hook incident.

DR. CURTIS: Correct, and I know some other studies that did utilize, you know, ride-alongs and observers, would tag fish onboard and release them with the spaghetti tags, and then they would use those recapture rates, just like you're describing. If you catch the fish two months later, and it was a known survivor, and whether it was either vented or just unvented or a descender device, and you can get an estimate of that survival, and so those types of studies have been -- They have occurred in the past, and they have been integrated into those release mortality estimates that you see in the stock assessment.

MR. LORENZ: Harry, I'm going to put you, if you don't mind, back in the queue, and we have other AP members here that may want to be recognized, and we can keep our conversation going.

MR. MORALES: Absolutely.

MR. LORENZ: Also, there is a tremendous amount of background noise coming to us from behind you, and so I'll put you back in the queue, and it looks like you might be fourth. The queue that I had is David Moss, Andrew Fish, and Andrew Mahoney. Anybody else? All right, and so David.

MR. MOSS: Go ahead and go to Andy, actually. I've got a bunch of issues/questions that I've got to formulate.

MR. LORENZ: Andrew Fish.

MR. FISH: For the acoustic, what happens when that fish swims out of the range of I guess your ears? Is that considered dead or alive?

DR. CURTIS: That's one of the assumptions that you have to make of these studies. If you only have certain coverage with these receivers, if it swims out of that array, then you lose that fish, and so there is statistical means that we can censor that data, so that you don't actually include it as a survivor or a mortality event, and so it doesn't affect those percentages.

MR. FISH: How big is that? How big is your triangulation of your ears, if you can do that quickly?

DR. CURTIS: I mean, it just depends on how wide -- How many hydrophones you have and if you want to put an array, and so, in some cases, the more preliminary studies are just placed on a single rig, and so you make some assumptions that red snapper and other reef fish are not going to swim too far from that platform, because it's very isolated, and there's not a whole lot of other refuge there, and so, if they swim outside that array, then you're going to censor those, and you're right that you do lose a fair amount of your sample size to some of these fish if you have a smaller array. More recently, they have wider and wider arrays, where, over several miles, you can track these fish, surrounding different artificial reef habitats or natural bank habitats.

MR. LORENZ: Next, I have in the queue was Andy Mahoney, and do you have anything to state again?

MR. MAHONEY: Yes, I do. What was it though?

MR. LORENZ: I can come back to you.

MR. MAHONEY: I've got it. I would like to see some kind of chart that shows the percentage of release mortality based upon depth, and I feel like, you being from the Gulf -- I have heard a lot of Gulf guys talk about how they can't believe that we have to use descending devices in order to get our fish back down, because we're fishing in such shallow water, and I feel like maybe the release mortality rate is going to be higher in areas that we're not even fishing. Do you see what I'm getting at or no?

DR. CURTIS: Certainly there is increased mortality with depth, due to your barotrauma complications and that the descender devices should be able to leave that. There is a point at which, beyond a certain depth, maybe no sort of mitigation is going to be helpful. The Gulf is going through their own research assessment right now, looking at discard mortality too, and they have put together some more recent papers and literature and things that kind of increase the discard mortality with depth, and I would be happy to share that with you, and that's something that might get integrated into this next South Atlantic research track assessment as well.

MR. LORENZ: Thank you. Next in the queue is you, Tony Constant.

MR. CONSTANT: We've been talking about percentages of mortality, and we're dealing with the amount of fish that were actually released and how many percent of them, and do we have a number for the percentage of the death occurring over the overall stock, the healthy stock? I mean, how big of a dent are we putting in the actual snapper stock?

DR. SCHMIDTKE: That would be -- That sounds, if I'm interpreting your question correctly, that would be, I guess, the -- You're looking for like the full fishing mortality rate associated with the stock, just not like discard mortality but all fishing-related activity?

MR. CONSTANT: Well, if we have a 25 percent mortality rate, based on what is actually released, and how much -- What percentage of that is affecting the overall stock of the fish, the healthy fishery? Just, for instance, what Andy was just talking about, and once that studied fish actually swims out of your scope, he's a survivor, and he's not counted that way.

DR. SCHMIDTKE: This may or may not help it, and we're jumping kind of in different directions, but I'm going to scroll here. There is a table included here, and I think it's what Harry may have been referring to before, and so I will just give a brief walkthrough of this table that's included in your document.

For red snapper specifically, this first column -- This is the percent of fish that are released, and so, when you catch a red snapper at any point -- On average, when you catch a red snapper, throughout the year, 89 percent of those fish are released, and that makes sense, because, most of the year, they're not open to keep anyway, and so you're going to be catching and releasing them. The release mortality that's applied, that came out of the stock assessment, 23 percent, and so 23 percent of those 89 percent that are released -- 23 percent would be estimated to die as a result of that release.

This 20 percent number that comes here, that is then, if you catch a red snapper, what is the likelihood that it's going -- What is the probability that it's going to die from release mortality, because you're releasing a certain amount, a certain amount die after they are released, and so just, overall, related to the overall catch, and that's 20 percent. Now, how that relates to the biomass, that's something that would be within the stock assessment document, and I would have to dig that out, but that would be the fishing mortality rate that is associated with discards.

MR. CONSTANT: I think your wording was -- That's what I was asking, is what do you think our mortality rate is to how it affects the total biomass of the active snapper.

MR. LORENZ: Okay, and I have two more people in the queue for questions, and then we're going to move to something that Mike wants to present with some data, which I think is based on a lot of our discussions, but I would recognize Jimmy Hull, and then Randall next.

MR. HULL: Thank you, Mr. Chairman, and just thank you for being here, and I really applaud the scientists and the agency for conducting what studies they are able to conduct to help better inform us, because, you know, I am learning a lot here already in digging in, and this is a really important subject for all of us, no matter what sector you're from, but red snapper -- There is an 800-pound gorilla in the room, and that's dead discards, and discards in general, and that's what is driving the overfishing status of the stock and overfished and overfishing.

That's why the council is pushing for and trying to reduce overfishing, or get rid of overfishing limits, by reducing dead discards, and the only way -- From the last stock assessment and the projections, the only way you're ever going to get any more landings, ever, is to reduce dead discards, because, what I see, you're never going to get any more catch level, and all you're going to get is you reduce your dead discards, and you're going to get some fish, and that's what it looks like, and so this has to be addressed, and this is -- I am commending all the AP members prior to all of us, and onward, to recommend some type of accountability, some type of licensing, permitting, and reporting for the private recreational sector, to try to address this huge problem that we have.

You know, the numbers that we're getting, I think the science part of it, the data collection there is great, and I'm all for it, and we need to have a lot more of it. Where I have the biggest problem is with the estimates of the total recreational effort and the total amount of animals that are

discarded that are extrapolated from the little bit of intercepts and the little bit of information that you're getting.

I have a problem with that, and I think that's where most of the corrections can happen for us, is, if that can be corrected, and we can get more realistic numbers of the amount of recreational discards that are happening, that for a lot of us are unbelievable, and I know some people do believe them, and it depends on where you're from, I guess but that's what I've got to say. This is the big problem, and that's why we're talking about this, and that's why I want to hear as much as I can about it, and learn as much as we can, so that we can help better inform management of it. Thanks.

MR. LORENZ: Thank you, Jimmy Hull, our ex-chairman. Randall. I would like to recognize Randall Beardsley.

MR. BEARDSLEY: Listening to all this, I mean, this is great, learning about all this stuff, the discarding stuff, but, from what I'm seeing, the council has already got these proposed actions, these four alternatives, and so they've gone through all that stuff, but these alternatives are mighty -- I mean, they are very contained, and it's in a small box, and that's what they're asking us about, and we could go on for days talking about where they come up with the discards and all these different things like that.

I mean, if this is the time to say stuff like that, I would like to say like the ABC, the acceptable biological catch, if the case is -- I wasn't at the last meeting, but I read the entire transcript, and the different currency, and I guess that's the term that was used, is showing all this high recreational effort and discards. If that is the case, and all these fish are dying, and it's being overfished, then why are we seeing these snappers, especially in my area, expanding to areas they've never been? It's like these fish are going crazy, and there are so many of them.

I do want to make -- To just say that, but then, getting back to it, the council is asking us to go through these alternatives here, and I guess not really getting to the thing about the discards and all of this, and I don't know if I'm making any sense or not, but, I mean, they've already done all that, and they're looking at all these discards and stuff, and they've got these alternatives for us to discuss, and that's all I've got to say at this point, right this second.

MR. MAHONEY: Can I say something, really quick? There is obviously something that we're missing, because what you all are saying, and what everybody is seeing, is two completely different things, and so what is it that we're missing?

DR. CURTIS: The reason it's still considered overfished and overfishing is, even though you're seeing higher abundances of red snapper on the water, is these young fish, right, and so even some of the fishery-independent indices of red snapper are showing these upticks, over the last several years, in younger red snapper.

The problem, from a stock assessment point of view, is, with these age-structured models that they're using, you need to have a very representative diversity of ages within the population, and the reason for that is older fish produce more offspring, more recruitment, to sustain the fishery, and so, even though you're seeing more and more abundance, or numbers, of red snapper on the water, you're not seeing the older fish yet, as part of that rebuilding plan, and so that is where the assessment is showing that it's still considered overfished and overfishing.

MR. LORENZ: Thank you, Judd. Let's just take a break here for a few minutes on the questions, and I just want to move over here to Mike, who may have some data, and we'll come right back. I saw Cameron, and I believe you may have a comment, also. Mike.

DR. SCHMIDTKE: I just wanted to initially note, in response to I guess Randy's comment or question, yes, the council has gone through the stock assessment, and that's already -- A lot of what's being discussed here, regarding, you know, discussions about the discard mortality and the assessment results -- A lot of that has happened, and it's happened within this room, and it's happened within the council room as well, and so that's already been talked about.

The point that the council is at, right now, is that there is -- There is a legal requirement to respond to a stock assessment, because it has an overfishing status associated with it, and so the council does need to respond to that assessment, and they've talked about doing this in, you know, kind of this short-term and long-term format, and they see that they want to make large-scale changes to the way the snapper grouper fishery is managed, and that's something that is coming about with this management strategy evaluation process, and that's something we'll be getting into tomorrow morning, but, in terms of the short-term response, what they're considering through this reg amendment is changing of the catch levels and then some of the gear changes, to kind of have, you know, kind of that quicker response to reduced discards. It's not going to be the end-all-be-all of discards, but it's something to respond and lessen -- To slow the discards down, and so that's what is being talked about here.

We will -- Once we're kind of ready to move into these specific actions, there are questions associated with the specific actions that are being posed to the AP, and I had kind of just paused in the presentation of information here, just to see if there were questions about how the council has gotten to the point they are now, and then we can talk about the actions that they are considering moving forward, but I will pass it back to you, Mr. Chair, as far as -- If we're ready to move forward with the actions that are being considered, we can. Otherwise, we'll discuss any questions that are coming up.

MR. LORENZ: All right, and thank you, Mike. I would just like to give Cameron -- I believe you had your hand up, before I stopped, that you would like to make a comment.

MR. SEBASTIAN: You know, I've got boats out on the water every single day, and, you know, it goes back to the same thing. I don't know whether to say all the scientific stuff is just pie-in-the-sky BS, or, I mean, I know there's definitely solid stuff there, but it's not reflective, at all, of what we're seeing in the water, and we're looking at taking these draconian measures to save a fish that, because we've got more fish out there, and we've done a good job of rebuilding, now we're going to get penalized for getting more fish in the water, because now we're catching more, and now we're going to lose frickin' the whole damn thing.

It's really tough for me to accept that, because the fish has been rebuilt, and maybe not to those standards, but, just like the gentleman said, and we're catching them at a frickin' four miles. I've been diving and fishing out there for thirty years, and we never used to see them inside of fifteen. They're going to be walking on the beach by next year, and so, you know, it's tough for me to think the entire industry, that I've been working with for thirty years, is getting ready to get turned on its head, because we're going to have to take some serious measures for this particular fish, and

it's going to really -- You know, the fishermen aren't going to know it until we say, hey, you've got one hook, or this season is closed, or that's closed, and they're going to be like, nah, I'm done with fishing, and this sucks, and it's not worth the money going out any more.

MR. LORENZ: All right. Thank you, Cameron. Jack -- One more question from Jack Cox, and then I think let's let Mike move on with a little more technical stuff, and then we'll get back into it.

MR. COX: Well, I just want to say something. I think we have a huge regional difference with red snapper, because what I'm seeing -- We're not seeing what you guys are seeing, and we don't have the red snappers that you guys have. We can fish our population down pretty quick, where I live, to where you can go out there and catch two or three in a day, to where, when the season is open, you can catch all you want, and so we can beat ours up pretty good, and it sounds like some people at the table have got more red snapper than they know what to do with. I am afraid to say anything, because I don't want to step on somebody's toes in another areas that might affect them, and it's almost like it needs to be a state-managed fishery, because it's such a regional difference in the fishery. That's all I wanted to say. Thank you.

MR. LORENZ: Noted, Jack. I'm just south of you, but they weren't around for years, and I didn't even think of them, going fishing, but now they have shown up, but not quite what we're hearing down south, but they're getting there, if Cameron is running into them. Okay. We'll take a break and go back to -- I mean, a break in the conversation of how we feel, to get back to Mike and some more of what we need to do here on Amendment 35.

DR. SCHMIDTKE: All right, and so I'm going to move us down into the actions that have been proposed here. The first one is similar to actions that you've seen for other amendments that are changing the ABC and the ACL, and that would be changing the maximum amount of fish that can be caught in a given year, and these are the numbers that have been recommended. The acceptable biological catch numbers are those that have been recommended by the Scientific and Statistical Committee, based on the stock assessment.

We have the alternatives that are considered here, and Alternative 1 is the current ABC, the current annual catch limit, and then you see the recreational and commercial ACLs listed there. Alternative 2 would set the ABC based on the SSC's recommendation and have the annual catch limit equal that ABC, and Alternative 3 would be 95 percent of the ABC, and Alternative 4 would be 90 percent of the ABC, and you can see, in these tables, how it breaks down in terms of the annual catch limit for total numbers of fish and then how that gets broken out into the commercial and recreational annual catch limits.

I do want to note, specifically related to the recreational ACL, just because of the way that the recreational fishery operates, it's really kind of measured in numbers of days, at this point, and so, with the way that catches have been progressing, you can kind of -- You can see, with the current recreational ACL, the number of fish there is 29,656. In recent years, there have been two days, two open days, three open days, things of that nature, and so, with a lower number of fish, you would be looking at a lower number of days, and there's not much lower you can go, and so that's what is being looked at here, from the recreational side, and then you have, of course, the commercial poundages, and the commercial poundages would be, you know, their allocation as

well, but that operates on a little bit of a different scale, and it's not operating on a specific set number of days.

Then Alternative 5 is something that got brought up at the council meeting of setting the annual catch limit to zero, and this would only be for red snapper. This isn't a closure of the snapper grouper fishery, but it would be -- It would be saying no harvest or possession of red snapper from federal waters, and so that -- It would be similar to the no harvest or possession of, you know, any other species where we have a zero ACL, and so, any species where we have a zero ACL, it is you can't catch them in federal waters, as well as any federal permits wouldn't be able to retain those fish. That is what is considered in Alternative 5.

In the discussion material below, you see kind of some description of what is going into the current regulations related to the total ACL, commercial and recreational ACLs, and there is some information in there concerning the average weights that are used, because, the way that we have to conduct the allocation for these fish, because we have two different units, and we have pounds for the commercial fishery, and we have numbers for the recreational fishery, and the total ACL, and so we do have to use average weights to do a conversion.

Right now, the average weights are based on the previous stock assessment, SEDAR 41, and so what's been discussed by the development team has been updating the average weights to be based off of the most recent stock assessment, and that would change the average weights, and it would change the allocation a little bit, as far as the poundages go, but there are some -- We do want to point out that there are some pretty different numbers, in terms of the average weights, and so, for the total average weight, the total average weight that is currently used is 10.46 pounds, and that's for the entire fishery, whereas the total average weight that would be applied, based on the updates to SEDAR 73, that would be 9.8 pounds, and that's based on the catches from 2017 through 2019, as estimated in the stock assessment.

Additionally, you have the commercial average weight that is used in that calculation, and the commercial average that is currently in place is 9.71 pounds. Based on the more recent stock assessment, that would be 8.67 pounds, and so you have a smaller average weight attributed to the commercial fishery.

The recreational average weight does not get used, but I included it in here, mainly for informational purposes. It doesn't get used in the allocation formula, and what happens is you take the total, in numbers of fish, and you convert that into pounds, using the total average weight, and you take that total weight, and you allocate it to the commercial, and you say, what is it, 28.07 percent of that total weight gets allocated to the commercial, and then you convert that into numbers of fish from the commercial and subtract that from the total ACL to get the recreational number of fish, and so that is the process that gets used, and I just wanted to point out that there is that slight difference in the weights that has been noticed.

The question related to this action, for the AP, is what do you all think the council's preferred alternative for Action 1 should be? We have the alternatives here that are considered. Alternative 2 is ABC equals ACL. In Alternative 3, there's a small buffer. There's a 5 percent buffer between those numbers, Alternative 4 is a 10 percent buffer between those numbers, and Alternative 5 would be a zero ACL, and so that would be a closure of both sectors.

MR. LORENZ: All right. I just want to take a minute here to kind of us get us on a track, and this probably will get a little bit sticky, and so the deliverable that Mike has for us to come up with the council's preferred alternative. I have noted a few people, while discussing, that wanted to comment, and I will recognize that in a minute. I am just speaking from myself, just as far as how to run this section right now. From what I'm seeing up there, it's a combined ACL that we're going to do, and it's going to be split between the commercial and the recreational.

In thinking about this, I thought, and if I have the AP's agreement, could we start with more of a focus and a discussion of the commercial ACL, and all the things with the commercial fishery, because we know who they are, and we know how many fish they catch, and so that might be an important anchor for us to start, and then we recreational -- I think we're down to about a day of fishing, if that, and they don't exactly know how many of us there are and which ones of us catch what, and so that's where I am leaning to, and so I will certainly accept comment on that, whether we should just melt it together or maybe focus on commercial first.

Keeping that in mind, with that desire what would be, we might let the commercial talk first and get that, because we kind of -- Recreationally, we kind of just tag on in at the end with whatever, twenty-some-thousand fish, and so, with that said, I would like to recognize who I have here, who I thought I had in the queue, and I can come back to you later, and I saw David Moss, Richie Gomez, and then Jimmy Hull, and so, David Moss, do you have something you would like to say?

MR. MOSS: Thank you, and, yes, but it's not about commercial, if that's okay. I have a couple of questions, the first of which being I'm a little confused. From the chart, which has 23,000 to 27,000 and it has, for the rec side anyway, the numbers go up each year for the ACL, but then, just below, under discussion, it says the rec ACL is 29,000 fish, and which one are we basing it on, the twenty-nine-thousand-and-change.

DR. SCHMIDTKE: The current recreational ACL, that's in place until an amendment is finalized and approved, and that is 29,656. That's what we manage on right now.

MR. MOSS: That's what I thought. Okay.

DR. SCHMIDTKE: The alternatives that are here are what would be proposed for future years, with the approval of this amendment.

MR. MOSS: Is it okay if I continue on? Sorry. So that's what I thought, and so my next question is, assuming really any of these, that we go -- Forgive me for flubbing the correct vernacular here, but what -- If we go with let's say the first, or Alternative 2, which is the 95 percent of the ACL, I believe, right?

DR. SCHMIDTKE: 100.

MR. MOSS: Okay. Sorry. 100 percent, and Alternative 3 is 95, and then so on and so forth, and there is, I'm assuming, a penalty the following year, if we go over, correct?

DR. SCHMIDTKE: Not with the current management of the fishery. Right now, it would just be -- Because, right now, the number of days for -- Speaking specifically to the recreational, right

now, the number of days is set, based on how quickly fish are caught the year prior, but there's not any payback that is put in place, as far as I know, in the accountability measures.

MR. MOSS: Okay. Yes, because that would definitely influence my decision here, especially with all the talk that we have about discard mortality and how easily it would be to exceed that, and so that was all that I have for right now, but I will probably come back. Thank you.

MR. LORENZ: All right. Thank you, David, and particularly with a good point of I do want to focus first on any questions with relationship to understanding what Mike just presented, but, with that thought in mind also, Ritchie, did you have something you wanted to add?

MR. GOMEZ: I was really getting your attention for David, but I just want to make a statement, and I'm just a simple guy, always looking for the simplest solution, and, all this scientific data on mortality, I just don't ever think that it's going to be swallowed real well, or be real relevant. I mean, it's just a such a complicated issue, but we do have a stock that is rebuilding, and here we are trying to figure out how to save the fish that we're discarding, and it's going to end up hurting the fishermen, in the end, and like that's what I am feeling anyway.

MR. LORENZ: Thank you, Ritchie. Jimmy Hull.

MR. HULL: Thank you, Mr. Chairman. You know, we have a stock that continues to have record numbers of abundance, record recruitment, from any time in observed data history and the assumptions, prior to 1981, and, despite the massive dead discards, and discard mortality rates, that are applied, we see a stock that continues to grow, continues to expand, and, again, we're dealing with these numbers that we have to deal with, and so I think the question is -- You know, it was brought up, and these are just preliminary comments, before I recommend an alternative.

You know, you have all this progress with the stock, and all we see, the anecdotal information, and the information from the agency, and this is a -- This is a reason, and a time, when the council, I feel, can take risk. If there was ever a stock that the council could take a risk on in choosing, you know, ABC equals ACL, with no buffers, this is the one, by god, because we have a stock that is exploding, and is in great shape, and, by the way, this AP made a pretty much unanimous motion that the stock is totally rebuilt, in our view, and so that was a meeting or two ago.

I think everyone is in agreement that this stock is in very good shape and, in many people's opinion, is totally rebuilt and shouldn't be -- They shouldn't be using an age-based model on this stock, and they should be using a productivity model. The stock is so productive.

For all those reasons, I would recommend Alternative 2, that the ABC equals ACL, and I could make a motion now, but I would just make that recommendation overall, and I would like to hear a lot more discussion about all the other alternatives and other people's opinions, because this is a stock that I feel we're not going to get much -- There's not going to be anything anyway, and, I mean, you're going to get nothing out of this. I mean, we're getting reduced, and the recreational sector is going to get a day, maybe, and I doubt it, and then the commercial sector is getting cut in half, and so that's all I have to say now. Again, I think the point is that, if there's anything, a stock that the council can take a risk on, it's this one. Thank you.

MR. LORENZ: Thank you, Jimmy. I have a few more folks that I'm going to recognize, but, some of what Jimmy said, I think we might be able to touch a tiny bit on that tomorrow, with what they're showing. When I read through that, it looks like you can try these different approaches, and it isn't a one-size-fits-all approach to fisheries management, and so we'll see, tomorrow morning. I noted, Cameron, that you had a comment. I will recognize you now, and then I'm going to my left for whoever there is.

MR. SEBASTIAN: You know, I wear sort of both hats. We have commercial, and we have recreational, and so we do both of them, and, you know, my main concern, overall -- I mean, the stock is phenomenal, as far as I'm concerned, and what I am concerned about is the decisions, the actions, that we take, or recommendations that we take, are hurting the overall -- The big picture of the overall fishing, and, you know, I just want to make sure that, whatever we send here, or recommend here, doesn't take a -- You know, we don't take a hit on everything just to do something -- I mean, for us, I could give a really -- I could care less if we ever catch a red snapper again in my life. I don't care, because that's not the big picture for our business.

The big picture is we've got to take people out, and they've got to have fun, and I don't care if we release everything. That's fine with me, but we can't be looking at -- If the ends don't justify what we're doing, when the stock is so prevalent, and I just want to make sure that I understand what these recommendations are going to have on the backend of it and how they're going to get to them by the -- Thank goodness they took off the spatial reductions, or the total seasons being shut down, and that's off the table, but there's still other stuff that's on it.

MR. LORENZ: Thank you, Cameron, and this stuff has been in front of the council, but, to my left, I didn't look, and did I have anyone? David.

MR. MOSS: Well, another question, and how is it -- Again, I was a history major, and so please excuse my shoddy math, but the ABC has gone up, correct, or is projected to go up next year?

DR. SCHMIDTKE: Yes. The ABC -- So, once -- The way the projections work is, once these measures would be put in, once this level of fishing is put in, then that would project that the ABC can go up, because the biomass, the stock, is continuing to get larger and larger.

MR. MOSS: So how did the rec ACL go down by 35 percent?

DR. SCHMIDTKE: Because the assessment estimated that --

MR. MOSS: Is that right? Yes, it's right -- Yes, I'm seeing that right, or, yes, that's right?

DR. SCHMIDTKE: It's from the assessment, and the assessment estimated that the rate that the fish were being caught, relative to the rate that they were growing and getting into those older age classes, and, specifically, getting into those older, more productive age classes, that the rate was too high to allow them to get to those older ages.

MR. LORENZ: Thank you, Mike. Tony and then Jack.

MR. CONSTANT: Looking at this, there is no acceptable alternative. I mean, even the no action. What I brought up, at our last meeting, is that we've got a mortality needle that is impossible to

move, and Jimmy was just speaking to that. If we don't allow a harvest, it will never move. It will never, ever move, because -- Unless you shut down everything, and nobody ever goes back out there. If we continue to fish, we will never move that needle, and so we've got to allow a harvest. Looking at that board, there is no acceptable alternative.

MR. LORENZ: Thank you, Tony. Jack.

MR. COX: I mean, how are you supposed to manage fish like this, when people are so passionate about red snapper, and people -- 90 percent of the fishery sees abundance in all these fish, but, where I am, we have such a recreational influence on the fishery that they beat the hell out of it in the first two weeks of fishing, and I don't want to agree with Jimmy, but I'm going to, because it's 90 percent of the fishery. You know what I mean?

The picture he sees is not the picture that I see, and how do you manage that? I mean, I can't sit here and say, well, I want to be more conservative, where he says I want to open it wide open and go fishing, and that's a problem, and the big problem is we don't know -- What would you -- What would you think is most accurate, the amount of fish the commercial guys are catching or the recreational? That's just -- That's such an estimate, and it's like a speck in this room, to where we know exactly what we're catching, and you can't manage fisheries like that.

MR. LORENZ: Understood, Jack, and I stated that, that we don't know who we are, meaning me. Just as a pulse check here, because this is spinning a little bit, and, Mike, just as a pulse check, what's the deliverable that you want from our AP? Do you want an alternative from us?

DR. SCHMIDTKE: Yes, and, if you all have a specific alternative that you would put forward as recommended to the council, and, again, just reminding you of the timeline, there was something that, timeline-wise, I do want to point out. Because of the bump-up -- Right now, we're trying to figure out, and this is something that, you know, the development team, we're still working through this process of how this timing is all going to work, but we're trying to figure out whether there would actually be able to be implementation for the July of 2023 fishing season, whether that is actually something that's accomplishable or not.

That is something we're still working through, and that's why it's a TBD, if it's by July, and we don't know for sure if that's going to actually be able to be done, and we can have final council action, but then there is still a federal rulemaking process that it would have to go through, and we don't know if that will be done by 2023, and so there may be a 2023 included in this. If not, it would just go to the 2024 year that is shown here, but the other timing aspect is, with the current schedule, this is your time to make your recommendation of, you know, what is the alternative that's on the table that you all would like to see the council -- Maybe "like to see" is too strong language, but that you would -- Which one should the council select as their preferred alternative?

MR. LORENZ: All right, and so the clarity will be that this AP -- We are to deliver what we feel is the best, or the way we want it to be dealt with, with respect to the alternatives, and the reason for it at this meeting is going to be that we have a council meeting that's going to -- They're going to do this, the council is going to do it, in December, and this thing goes out to the public in January and February, was what I saw, and so that's the importance of us picking something. With that said, for me, I would like to look over and get some comments. David Moss.

MR. MOSS: Thank you. Two things. Well, one, and then I will make a motion, but just I'm sure we all understand this, but I want to say it on the record, and, Mike, obviously none of this vitriol is directed at you, and, unfortunately, you have to be the messenger of all this information that we're not too happy about, and so understand that, when we keep looking at you and saying you, you, you, it's not really you, and it's the royal you. We like you just fine. **That said, I would like to make a motion, that I guess is the best of a bunch of bad options, for Alternative 2 as the recommended.**

MR. LORENZ: We can make that, and I just want to check with Jimmy, who is the queue for a comment, David.

MR. HULL: That's fine with me, and I will second it, because that's what I was going to do, was recommend Alternative 2, and, if we talk some more about it, I can talk about all the reasons why again. Thanks.

MR. LORENZ: Okay, and so I will -- David, will you please go forth with your motion again?

DR. MOSS: Do I have to say it all or just the important part? **That the council select Alternative 2 as preferred.**

MR. LORENZ: David Moss has made a motion that the council select Alternative 2 as preferred. Do I have a second? Jimmy.

MR. HULL: Yes, I second that.

MR. LORENZ: Jimmy Hull seconds.

MR. HULL: I would like to discuss and explain further.

MR. LORENZ: We will open up the discussion, and, to the corner, I saw Randy with his hand up, and so let's let him go first.

MR. MCKINLEY: Does the Alternative 1 -- Is that really not an option, because they are mandated to make a move, and is that correct? I mean, I just want to understand that.

DR. SCHMIDTKE: That is correct.

MR. MCKINLEY: So Alternative 1 is not even feasible?

DR. SCHMIDTKE: Correct.

MR. MCKINLEY: Got you. That's what I wanted to know.

MR. LORENZ: Any more discussion? Selby, you have your hand up?

MR. LEWIS: I have just got one question. Our interaction with these fish has not gone down through the years, and it's not like we put a sign on our hooks that says don't bite our hook, but the fish just keeps getting built better, and so none of this stuff makes a bit of sense, to me, because,

even if you -- The interaction is not going to change, unless you shut down all the bottom for everything, and that should not be any alternative for anybody. We have been fishing, and we're still releasing the fish, and we've been doing it for thirty years, and the stock has got better. None of this makes a bit of sense to me.

MR. LORENZ: Thank you, Shelby. Mike has a retort.

DR. SCHMIDTKE: I guess, to that point, that is something that is relevant to the other portions of this reg amendment, because the goal of the next two actions, as well as another very important part of this is going to be the best fishing practices index, and the goal of those actions was to change the interaction with the fish, and those would be on a larger scale, because it is part of the -- Those would be snapper-grouper-fishery-wide, or whatever selection, and there are some places in there where those can be defined a bit more, but those actions are intended to change the interaction, and that is more getting at the issue specifically of the discard mortality that affects red snapper, but also affects other stocks as well and so, yes, this action specifically will not change the interaction much, if any at all. The other actions are the ones that are more geared towards that.

MR. LORENZ: Thank you, Mike. Andrew Mahoney. Then I've Selby next.

MR. MAHONEY: I just wanted to see why the commercial annual catch limit is so far below, each year, compared to what it was this year.

DR. SCHMIDTKE: The reason why is because the overall total annual catch limit goes down, and so, right now, the current annual catch limit is 42,000 fish, 42,510 fish. When that gets allocated out to the different sectors, the commercial sector gets a poundage of 124,815 pounds. When you reduce the number of fish in the total ACL, that's going to reduce the number of fish going to the recreational as well as reduce the poundage of fish that goes to the commercial. You will notice there is quite a bit of difference. There is a large difference between 42,510 fish versus say, in Alternative 2, this first year of 28,000 fish. That is almost a halving there.

MR. LORENZ: Selby.

MR. LEWIS: In my understanding, the stock has been rebuilt, and so I don't know what you will say, and so why do we have to change our interaction, or anything, if the stock is getting better? Why would we change anything, if we're going in the right direction now, that would set us back? It makes no sense.

DR. SCHMIDTKE: Specific to red snapper, there is -- You know, that is certainly part of the discussion. I know one of the things, related to those other two actions, and why interactions with snapper grouper species would need to be changed, and, you know, we would need to be looking at changes to the release mortality for snapper grouper species, is because, outside of red snapper, many of the snapper grouper species in the South Atlantic are not showing these trends of increase, and a lot of them are actually showing trends of decrease, and several of them are overfished, and that's not -- That seems to -- You know, for several of those species, gag, and black sea bass is showing decline trends, and we're about to go into a stock assessment for that, but it is at least showing declining trends, and a lot of those other species seem to be showing some level of

agreement between what you all have reported in your fishery performance reports and what the stock assessment has shown, in terms of the declining abundance trends.

Those things are addressing kind of the larger -- The fishery at a larger scale than specifically red snapper, but we do have to recognize that, if you change the interaction for the snapper grouper fishery as a whole, in terms of gears and things of that nature, that it is going to affect red snapper as a part of that, because red snapper is within the fishery, and so that's kind of the larger and the smaller of how these two things are kind of interplaying in the same regulatory amendment.

MR. LORENZ: Okay, and then we have a motion and a second for Alternative 2 on the table, which we are now at the point, hopefully, and we are discussing, and so keep in mind, if anyone wants to discuss any of the other alternatives, as we're deciding what the discussion is on Alternative 2, whether we can take it to a vote whether that's what we're going to go with or not, and we will continue comment. Cameron.

MR. SEBASTIAN: If we went to the Alternative 5, which is zero, and is that going to negate any of the measures south of that, as far as hooks and depths and electric reels and things of that nature, because, if I'm reading it right, this is all specifically about American reds.

DR. SCHMIDTKE: This first action is about -- Yes, it's about red snapper, and the other two would be snapper-grouper-wide, and they're also -- There is also recognition, from the council, of a problem that is larger than red snapper. There is a large portion, and we'll come back to the table when we get to these other two actions, but there are not small portions of fish that are being caught and released and estimated to die after release for these other stocks, and those other stocks aren't all in the best of shape, as far as stock assessment and what you all have provided in your feedback related to some of those. There are some differences between the scope of the actions for this Action 1, which is specific to red snapper, versus Action 2 and Action 3 and then best fishing practices for the fishery overall.

As far as how one would necessarily negate the other, decisions would need to be made about each action. Now, if you all have kind of a contingent opinion, that you all would say, well, if the fishery is going to close -- You know, if we recommend that Alternative 5 goes forward, and the fishery closes for red snapper, do we not have to do these other mitigating things, and then that's something that you all could potentially put forward, but a decision will need to be made in kind of that action-by-action manner. There will need to be one for each action.

MR. LORENZ: Cameron, you had your hand up, and I'll let you carry on for one minute, if you wish, and then Andrew.

MR. SEBASTIAN: Sure, and so, you know, just to throw a wrench into all of that, so -- I mean, I dive all the time, and it seems like the American reds are one of the predacious groups of fish I've ever seen, and so what if they were actually causing the degradation of the other fish, the bass and the grouper, because there are so many damn snapper out there that they're eating all the offspring of the other species?

MR. LORENZ: All right. Thank you for that input. Andrew, you had your hand up?

MR. MAHONEY: I don't think that any of this is going to make a difference. You kind of lost the trust of the public, and so the people that I know engaged in recreational fishing don't abide by the law anymore, and so I don't see any point. I mean, you could be reciting the alphabet over and over and have the same effect on the fisheries, and so where do we go from there? I mean, you can tell us about what we should choose, as far as poundage, all day long, but it's going to have zero effect on the fisheries, because people just don't listen to us anymore.

MR. LORENZ: I will let Jack, an ex-council member, answer that.

MR. COX: Well, to your point, Andrew, I think that if you guys -- I think that the assessment has to be very conservative, because of uncertainty, and I think, when we get to a place where you guys are permitted and reporting, you're possibly going to get more fish.

MR. MAHONEY: I'm not a recreational fisherman.

MR. COX: Okay. Well, I'm sorry. I'm sorry that you're not, but I'm going to answer it that way anyhow, because I think that's why the recreational fishermen are not able to catch as many fish as they would like, because there's a lot of uncertainty in it. When the recreational sector starts to report, and prove their fish like the commercial sector, then we won't have these problems.

MR. LORENZ: Thank you, Jack and Andrew. As we go through the agenda, some of these things are being discussed again in other amendments, and I would like to turn it over, for further comment, to Ritchie, and I understand fully. I mean, I'm sitting up here, and my thought is I have to sit in the chair, and which hand do I want the most live electrode on, and so we all feel the same way. Ritchie.

MR. GOMEZ: I understand Jack's answer to that last question, but, again, I'm not sure why any commercial fisherman would want to accept an Alternative 2, or any of the other alternatives, which gives us less fish, in a rebuilding market, and it just doesn't make a lot of sense.

MR. LORENZ: Ritchie, for clarity, you're saying you're not so hot on Alternative 2, or any of the others anyway, because I want to get back, also, to this motion on the table.

MR. GOMEZ: Well, if I had a choice, I would stick with 1.

MR. LORENZ: Thank you. David Moss.

MR. MOSS: Thank you. I hear exactly what you're saying, Andy, and I don't disagree, and the people that I speak to are kind of saying similar things. That being said, we are up here to do exactly that. We're supposed to make these decisions, and that's why we're on this panel, and we're supposed to do it to the best science available. We don't have to like it, and I'm not saying that any of us do, but this is the science that we have right now, that we have to make decisions based on.

Again, I'm not saying that I like it, and I'm not saying that I don't, but the unfortunate truth is this is what we have, and this is what we have to make our decisions based on, and that's why we're here, and we can keep talking about it, and I'm not saying that like in a bad way, and I think we

should keep talking about it, but, at the end of the day, we have to make these decisions based on the data that we have, and that's it. We can't do any more or any less.

MR. LORENZ: Jimmy Hull.

MR. HULL: Thank you, Mr. Chairman. Thank you, Mr. Moss, for that. That's good, and so the reason I choose Alternative 2 is because trying to get something out of nothing, and I'm forever the optimist that, somewhere down the road, something is going to come right. We've been trying to better inform the science since 2009, and here we are, to this date, and looking at these ridiculous ACLs that we have for our fishery that is overwhelmingly rebuilt, but, with all that said, we're here to do a job and to produce something. If we could choose Alternative 1, which I don't believe we can, I would choose that, over the alternatives that are here, but is it -- The council, in the past, has found a way to choose Alternative 1.

I don't know if that's an option at this time or not, but, if there was a way that we could choose Alternative 1, I would retract my second for Alternative 2, and I would go to Alternative 1, but I don't think there is, and so I would stick with 2, and so I guess I need to hear that, before I keep going.

MR. LORENZ: Mike, that would be a good answer, because I do want to move forward on a vote on this, because I could also say, for those who do not want Alternative 2, we could vote it down, but, based on what Jimmy just said, who was the seconder of the motion, I think that's an important thing to know.

DR. SCHMIDTKE: Right, and the council's mandate is to end overfishing. I understand that there is, you know, disagreement and concern with that status. In this case, one of the actions towards that effect would be to change the catch levels, and so, in this case, maintaining the same catch level, which has produced an overfishing result, that would not align --

It would be as defensible to be able to move forward with that catch level, and so, yes, the council, in some other instances, has been able to choose Alternative 1, but, as far as I am telling, there is no other form that would be ending overfishing -- Excuse me. There are -- It's not seen as a viable alternative to maintain Alternative 1 in this instance. They're trying to address overfishing, and it needs to go beyond only this single action, but this is one of the things that they are doing to try to address that overfishing, is to reduce the overall harvest and then also, on top of that, make the gear changes, and change the discarding as well.

MR. LORENZ: Jimmy, hold a minute. I want to recognize David, who made the motion.

MR. MOSS: Thank you. One of the things to remember, and Mike just said it, but so Alternative 1 is assuming that there is no change to the ACL, which there is going to be, and we can't change that, and so, as we look at this, there is going to be, essentially, as far as we know, a change to the ACL, and so, really, our decision is do we fish to 100 percent of the ACL, 95 percent of the ACL, or 90 percent of the ACL, correct?

DR. SCHMIDTKE: ABC.

MR. MOSS: I'm sorry. Too many letters, but we can't change what the ABC is, and so we're just deciding what level we're going to fish to that, right? Okay.

MR. LORENZ: Jimmy Hull, who seconded the motion.

MR. HULL: I did, and I will still second it, and so let's vote on it.

MR. LORENZ: Okay. Thank you, Jimmy. Okay. We're going to run a vote on the motion where we're going to recommend to the council to select Alternative 2 as the preferred for Action 1. Mike, would you just, as a matter of practice, put that up on the screen for a last look? What I am going to want to do for this one, to help the council, is I want to actually take a -- Instead of just saying approved or unapproved or whatever, we're going to record some numbers here on who is for it and against it and abstaining it, and so I think that's valuable information for the council.

All right, and so we've all seen the motion made by David and seconded by Jimmy. **A show of hands for all in favor that we recommend to the council to select Alternative 2 as a preferred for Action 1, and may I see your hands?** I've got nine and one online, and James is voting for it, and so we have ten recorded as approved. Those against, which I presume may want another. There is nobody, and, I guess, as the Chair, I am abstaining, and so it's approved, and we just need to catch up with Andy Mahoney, who has left for a second. All right. We're finished. **That motion is approved to go forward to the council.** Thank you. I'm sorry. Any abstentions, other than myself? There is four of us. All right. Anybody online? Jimmy.

MR. HULL: Thank you for that, and just one other request. I hope that, in the minutes from this meeting, that it's reflected how disgusted the AP is with having to choose something like this. It's just -- We've been saying this all along, but, anyway, just the discomfort that we have, and we know that the council has discomfort, too. Thank you.

MR. LORENZ: Understood. Captain Bobby.

MR. FREEMAN: What troubles me about where we are now, as opposed to fifteen years ago, and the buzz word then was "best available science", and what I hear now is "estimate". That's not something I would want to base my livelihood on. We've got to do a better job of knowing what is out there and canvassing folks that are actually participating. I have a neighbor who does the charter business, and he was in contact with another commercial fisherman this week that was required to have an observer on his boat, and they went out, and I think just the two of them on the boat captured and released seventy-two Americans.

He had a charter this past Sunday, fishing seven miles off the beach, and they released seven Americans, and so those fish are out there, and they're broad-ranging, and there's lots of them in places where, typically, when I was focusing on it, they weren't there, and I could go a hundred charters and never catch an American, and you can't do that now, and so we've got to do a better job of coming up with why we're restricting the fishermen in this manner, with these ridiculously low numbers of what they're allowed to keep. Thank you.

MR. LORENZ: Thank you, Robert Freeman. Yes, we're kind of at the end of game of things we can think about. Mr. Mahoney, we just took a vote on that motion of Alternative 2, for it or against

it, and just what would you -- Are you for, against, or abstaining from that motion that's up on the board?

MR. MAHONEY: I will abstain.

MR. LORENZ: Okay. Andy abstains, which leaves us we have the motion approved by ten to four, and, also, we had noted, as Jimmy said, it's one of those things like picking something when there's kind of nothing in the candy bag that you really wanted. All right. Let's take a break here for ten minutes, and Mike and I are going to regroup and go forward with Amendment 35, which has -- I believe there's some discussion on further restrictions of recreational fishing. Thank you.

(Whereupon, a recess was taken.)

MR. LORENZ: All right, everybody. It's about 3:17, and I would like to reconvene the meeting. We will be moving on now to some of the items to reduce recreational fishing mortality on the red snapper. There is quite a bit of spirited discussion here, as we have had for probably the past eight or nine years on the red snapper and all, and I do want this committee to note that Jimmy was chair of the April meeting, but I was then sent to Key West to report to the council on the April meeting, and I don't know if you remember, or looked back, but we did have a very strong statement that stated many of the things you said, in a paragraph or too, and so the council does know, and the Regional Administrator does know, and has been told, that this AP --

We felt that, you know, we're kind of at the end of the line, where we just don't get it, and it's just not working for us, and so I just want you to understand that that is known, and that was said, and that was documented. I would not state it to them again, because we're done, and they now know, and, however, in the January meeting, which will be in my hometown, I will bring up the fact of the comments, just the gist of it that we had with the passed Alternative 2, that you selected it, but it was just because we were asked, and we executed within the job we were told, which was to pick, and we didn't necessarily pick what we liked, and I will be stating it there, which kind of brings us back to that, you know, we're kind of at the end of our game on what we think we can positively bring to the table, but the complaint has been issued.

We issued, I thought -- I think we did it in a fairly eloquent manner, but I just wanted you to know that your comments are there, and I had the Regional Administrator speak to me later, and he understood it. He got it, and he heard what we said and what's done after that and how things go in fisheries management is, of course, beyond us, and beyond any of our paygrades, but I do want you to know that they do know, and the council does know, and, actually, many on the council share a lot of your opinions, and they know, and, as I said, this vote, I will record, as Jimmy would like us to do, with objectives, or I will find a nice legal word that they like to use, like prejudice or whatever, and so I just want to let you know that, that your exasperation -- It's well known, okay? Thank you. Mike, do you want to start us off with the, I guess, control measures on recreational fishing?

DR. SCHMIDTKE: Thank you, and so the next action in Reg Amendment 35, Action 2, is looking at the use of electrically and hydraulically-powered reels for the recreational sector. There is no current restriction on the use of such reels right now, and so that's the Alternative 1, the no action. Alternative 2 would have these reels prohibited for the recreational sector while fishing for snapper grouper species. Alternative 2, as written, would just be for the entire fishery, region-wide.

The council directed additional -- Exploration of additional alternatives that would consider possibly refining that and considering that on a regional basis, or a depth-based basis, or by species, with species considerations, something like that, and so we put together some draft alternatives that could be added to this, and you will notice that this is in draft form, and we're kind of putting this together, and that has to do with this condensed timeline that we're working with, and we're having to kind of build this all within a rather short time period.

We have some alternatives here that could be considered, and kind of put together, as you all would recommend, and as the council would ultimately see fit, on if this type of measure should not extend to the recreational sector throughout the entire region, where should it apply, and should it apply only in certain states, only in certain parts of the region, or should it apply -- We've had discussions, in other time periods, about managing based on depth.

Essentially, what happens, if we have a depth-based restriction, we would be defining a zone, an area zone, that that depth is associated with, and that's for law enforcement purposes, because law enforcement -- You know, depth changes as you move in different areas, and so law enforcement wouldn't necessarily be checking a specific depth when they encounter a vessel, but they would be able to determine if they're fishing within -- You know, inside or outside of an area, and so that's why it's written in the way that it's written, kind of that bold, highlighted area associated with the following depths.

We would then have to -- You know, we would take the guidance of less than a hundred, or a hundred to 200, or whatever have you, and then we would be working to define an area that is associated, largely, with that depth, and that's what would ultimately be considered in the alternative for this measure.

You will also notice, when we get down to Action 3, that there is very similar types of alternatives for that restriction as well, and we're trying to build, in a similar fashion, you know, how these things should apply. They don't need to be exactly the same, but these are the tools that we're having to try to build what the alternatives being considered in this action would potentially be, and so the objective for this action is to, number one, reduce recreational dead releases for the snapper grouper fishery. That's something that is pervasive throughout the snapper grouper fishery.

Red snapper is, you know, kind of the poster fish for that, but it's something that affects several stocks, and so -- Just kind of as a reminder, the way that that works is, when a stock assessment is conducted, there is -- You know, they estimate how many of the fish that are estimated to die within the stock assessment -- How many of them are dying due to harvest, fishing being taken out of the water and then taken, you know, on land, to shore, versus how many are dying after being caught and released, and they apportion that out.

The more that you have going into that release pot, the fewer fish you have available for you to sustainably harvest and bring to shore, and so that's kind of the interplay and one of the reasons why, you know, beyond red snapper, for other species, they want to reduce dead releases as well, to make more efficient fisheries overall, or at least throughout the snapper grouper complex.

You have there the alternatives that have been developed to this point. The council has had some discussion, and it's been brought up, in some of the comments that I have received, leading up to this meeting, about individuals with physical disabilities and how this type of action would align with the federal Americans with Disabilities Act, and, from what I am understanding, from what our General Counsel has told us, right now, fishing regulations, federal fishing regulations, do not have exceptions written into them, but they are subject to the Americans with Disabilities Act, and so any exceptions, along the lines of the Americans with Disabilities Act, would need to be filed, and then they would be considered, but they don't need to be written into the rule. The exceptions would be applied exceptions, as opposed to written into the rule, and so that's what I understand, and so I just wanted to note that that has been discussed, but you will note that that language is not in the action language that's being considered, but it has been brought up.

A couple of notes related to the depth discussions and studies, and the scientific studies have gotten brought up, and we kind of touched on this a bit earlier, associated with barotrauma. Generally, the catastrophic decompression associated with barotrauma is estimated to occur at about 160 feet, when a fish is brought up from that depth, and about a hundred feet is the typical depth when some level of decompression is needed, when fish are showing signs of barotrauma as they're being brought up.

The table that we pointed to a little bit earlier, but I kind of want to re-highlight it on a larger level, and not just red snapper, but for some of these other species, and this is meant as you consider whether these types of gear restrictions -- Whether they should apply throughout the region or whether they should only apply in specific areas, and this is kind of assuming -- Excuse me. This is summarizing information that we have across several of our assessed species and species that we have some level of information on concerning the percent that is released, and these are recreational numbers, and so this is specific to the recreational fishery, and the information is from MRIP, as it is the recreational releases.

The release mortality, these would be from individual scientific studies on those specific species. Just like red snapper has several studies that have studied its mortality, these other species have studies of their release mortalities as well that are applied in those assessments, and then this number is just the first column multiplied by the second column, this percent of the recreational catch that is removed via release mortality.

Something that you will notice here is I highlighted -- First of all, I have highlighted the stocks that have overfished statuses right now, and those would be gag, red grouper, red porgy, red snapper, and snowy grouper within -- At least within this group, and then you will notice, in this third column, the percent of the catch that is removed, sometimes it's attributable to one of these columns rather than another, and so, for example, black sea bass has a very high percentage of release. A lot of black sea bass that get caught are released, and many of them -- You know, we have a size limit in that fishery, and so many of them would be undersized fish, something of that nature, but they also have a very low release mortality, and so not many of the fish, of the black sea bass, that are being caught and released, are then dying.

When you look on the scale of the percent of the catch, that comes out of the population, through release mortality. 13 percent, compared to some of these other numbers, isn't all that high, and it's kind of in the middle, even though they have the highest proportion of fish that are being released. Then you have some other examples, where you have kind of a high percentage of fish

that are being removed from the population overall, and that has to do with a high estimate of their mortality, and vermilion snapper is one of those that would fall into that category.

Looking next into these catch areas these are based on MRIP catch estimates by these regions, and you will see the regions defined, and we have -- When we had to go through and look up all the information, that kind of stirred up discussion, for the September meeting, about the time and the area type of information, and we developed a data report, and the area information we investigated in terms of the state, off of the states, of North Carolina, South Carolina, and Georgia. Then Florida was divided into regions of north, central, and southern Florida. You will see the counties that are associated with each of those Florida portions there, and so, for example, north Florida would be Nassau, Duval, St. Johns, Flagler, and Volusia Counties.

When we looked at those areas, we looked at the fish that were coming out of each of those areas, and there was a whole report developed, and it's linked in this document. It's in the background information, and you will see a link there for that data report, and you can kind of dive as deep as you want to dive into that information, but what I pulled out to put here is where, for example, for black grouper -- Out of those six areas, the three states in the north of this region and then the three areas of Florida, where was the highest portion of black grouper caught, and that was -- The first highest portion was caught in south Florida, and the second would be central Florida, and you can go through here and you can see, for these different species, where they are typically -- Where they are most commonly caught, from our recreational data.

Then, finally, the depth ranges that are included here, these are just scientific -- You know, scientific study information of where these fish have been reported to be caught, and this is kind of the range that is reported. Some of them are reported and representing a larger area of the region, and so it may not be specific to the area you're associated with, but it's within the South Atlantic region, and so there may be different depths for fish when they are off of Florida, as opposed to when they're off of North Carolina and where they're caught.

This is just region-wide, and it's broad, but, if you have more refined information, and say black sea bass off of North Carolina, and they're caught in this specific depth range off of North Carolina, rather than somewhere else, then that can potentially be useful information in evaluating where would it be most useful, where would it reduce the recreational dead discards the most, to have a regulation of no electric or hydraulic reels in place.

Coming down, there are some discussion questions, to try to generate discussion. Ultimately, what we would be looking for is something similar to what was asked for for Action 1, in the sense of do you all have a recommended course of action for the council to take related to this -- To this type of regulation, and, if you have any recommendations on, you know, a depth range that should be targeted, or a state area that should be targeted, something like that, what that recommendation would be, and so some of the discussion questions here that may lead you to whatever you conclude there are for what areas, components, or target species, in the recreational fishery, are electrically or hydraulically-powered reels typically used, or are most often used, and provide any descriptions of how prominent this gear is.

I like numbers, and so, if you're able to say, well, I see one out of ten people using an electric reel, then that's something that can be incorporated, and that can at least give us some idea of what is the impact of this type of action, because I think that's something that the council is still grappling

with, of what is the potential impact of this type of action, and we want to hear from you all, to give us that type of information.

Next, should a prohibition of these types of reels, for the snapper grouper recreational fishery, be implemented throughout the region, or should it be specific to an area within the region or a depth range that we're looking at, considering the prominence of use, the differences in the catch rates of the species that cannot be retained at different points of the year, the depth and the likelihood of the release mortality, that table with all that information that we kind of walked through, and you can kind of use that to piece together where -- You know, if you want to target a specific area, what would be the area to target?

Then, finally, are there areas, or parts of the fishery, where this regulation would be expected to have little or no effect on the catches of fish that otherwise could not be retained, and so those are some of the questions, just to kind of provoke and generate discussion, and, ultimately, we would be looking to you all for your recommendations.

MR. LORENZ: All right. I'm going to kick off the discussion of this in a minute, and I would just like to state one thing, just offer it to you, is I read over this on the weekend, and this could get to a very complex discussion, when we get into it, and we can go there, if that's what is required, and there is a simple part of this, and that is, if we think an electric reel is appropriate for recreational, or, in my opinion, sportfishing at all, and is that something that is more -- That it should be for the commercial side, and so it's very easy if we say don't use them in recreational fishing.

If we go to the allowance for them, understanding fully what Mike explained, that, if there is someone with disabilities, that there are going to be provisions, and there is legalese and ways in which they can use them, and so I want to maybe put that on the table as one thing that we discuss, and is that even worth considering, and then we'll dive a little deeper, and so let's think about whether an electric reel is appropriate or not, and, if so, where it would be. Thank you for listening to me on that. I think I saw David first, and then Cameron. Go ahead and start, David.

MR. MOSS: Thank you, Mr. Chair. Down by us, I can't imagine that this is going to reduce discard mortality a whole lot, because, for the most part, people by us use it for deep-dropping, and so I'm going to say 400 or 500 feet or deeper, other than when kite fishing, but you're not snapper grouper fishing when you do that, but that's pretty much all that you see people using electric reels down by us for, for the deepwater complex, which the only fish that would be -- That would come to mind in that list would be snowies, which people are going to roll their eyes, but we catch them in state waters anyway, down by me, and so a federal regulation probably isn't going to matter, but I can't see this affecting discard mortality a whole lot, to have a prohibition on this. To be perfectly honest with you, the people down by me aren't going to be happy if we put a prohibition on this for recreational fishermen, because there are a lot of guys that love to go out and deep-drop, after we can't catch any mahi or something like that.

MR. LORENZ: Okay. Thank you. I noted, with the list, that I've got Cameron, Jimmy, Tony, and Andrew.

MR. SEBASTIAN: If our purpose is to reduce the mortality, I'm assuming the mortality is going to be speed and depth at which they come out of, and, you know, if we're trying to look at reducing

mortality, and not getting in the total weeds of depth and state and this and that, maybe you just come up with a season, and they can use it. That way, if they've got the gear, they can use it for so many months out of the year. If they don't, they stow it for so many months out of the year, and keep it simple and keep it sweet, and nobody can be too pissed off about it. Do a six-month split, and you reduce it by half.

MR. LORENZ: Thank you. Jimmy Hull.

MR. HULL: Thank you, Mr. Chairman. From my area of Ponce Inlet, Florida, the private recreational sector -- Over the years, they really never used electric reels, for a long time, but, ever since they started venturing out into the deep-dropping for snapper grouper species, like golden tilefish and snowies, obviously, they are using electric reels, and the problem that I see is, since they have those electric reels, now they can come into the ledge, 160 or 180 feet, and, since they already have them, they can use them, because probably the average private recreational angler wouldn't really use an electric reel inshore too much, but they do use them in deep water, and so it is growing, and so, if they have them, then they can bring them inshore, and so I think you would have to -- If you do something like this, you would have to do it restrictive on a depth, because they're going to want to use them in deep-dropping and deepwater fishing and whatever else they're targeting out there in the deep. I think it would have to be done with a depth area, where, inshore, shallow waters, not so much, and deep water to be determined what that would be, and, yes, use them.

MR. LORENZ: Thank you, Jimmy. Tony Constant.

MR. CONSTANT: I agree with Jimmy on a good bit of that. There's a lot more people deep-dropping, but I am concerned how this would be treated towards the swordfish fishery. We have a pretty good one, and there is -- It's typically in 1,200 feet plus of water, but, nevertheless, if this ban goes over into those depths, then it would affect the swordfish fishery, because you're going to accidentally catch a snowy or a tile or so forth, but I agree that it needs to be depth controlled and not regional. Maybe 500 feet or less, you ban it, and let it go deeper.

MR. LORENZ: Okay. Thank you, Tony. That was another plug for depth versus regional, and I had Andrew Fish.

MR. FISH: Of the twenty charter boats that I associate with, none of those guys are going to use electric reels, unless they are deep-dropping, which is generally 350 and deeper, and most of those guys are going to be tile fishing and snowy fishing, on a rare chance that they can't catch anything else, and so I don't see it making a big difference, unless you go out to the deeper waters. They are not going to use it, is what I'm saying. Thanks.

MR. LORENZ: Chris Militello.

MR. MILITELLO: A couple of things. Kind of what David said too is that it's not going to affect a lot of the fish, the shallow-water stuff, unless they're catching snowies or something like that, and it's not going to help the mortality rate, and then you can't restrict it in shallow water. What about all these guys that are using kite reels? Now the guys can't sailfish? The only reason that we mainly use the LPs for is we want to catch queens and yelloweyes and stuff, and so I'm not in favor of restricting that at all.

MR. LORENZ: Thank you, Chris. Jack.

MR. COX: What I say may not be very popular, but some things aren't that I say, but I will tell you things that work in the real world and things that don't. The council has to do something, because Magnuson says they do, and this is something they're trying to do to satisfy Magnuson. I don't see that this is something that can be very regulated, and it's kind of like the circle hook thing, and this is going to be something done on the honor system. The marine patrol can't effectively do the job that they have to do before them with so many regulations.

Where I live, we have an area called The Chicken Rock, and I went out there this summer, and there was probably twenty-five boats on it fishing, and it has been beat to death, and Dewey Hemilright said something that made a lot of sense, and he said that we really ought to have an interactive map put on the wall, so we can look and see areas that we fish, and the areas that need to be protected, and what we would be trying to protect there.

Now, I am not speaking for anybody else in this room, but I'm saying we have such a recreational effort in our area that you can't go to these places that we used to catch a lot of grouper and snapper and catch hardly anything anymore, for the amount of pressure on them, and so, if you took an area like that that I'm talking about, that's a hotspot for this fish, and you put a small area of protection on that during a certain time of the year, that would work to justify what we're trying to do, but, like I said at the beginning of this meeting, our needs are different than a lot of other people's needs, and so I'm not here to step on anybody's toes, but I am just telling you what I'm seeing on the water when I'm fishing.

These things that they're putting up there, at the end of the day, I don't think they're going to make much of a difference, and I don't see how you can tell a man that he can't carry a certain type of fishing gear out there fishing, just from the comments that we've heard with electric reels. Thank you.

MR. LORENZ: Jack, just for clarity, what you're stating is almost -- Right now, we have a status quo, and this is no control, and your statement is just leave it that way, due to complications, because you mentioned about wanting to -- I'm trying to get it straight, and you wanted to control the -- These almost like sanctuary areas, and you didn't imply in there an area where you wouldn't use these, or did you, the electric reels?

MR. COX: I'm just saying that I don't think it's going to make any difference what you choose on this screen here, as far as electric reels, or two hooks, or ten hooks, or -- You can't enforce it. It's an honor system.

MR. LORENZ: All right. Thank you, Jack. Does anybody else have any comments on that, and I'm trying to think, and did we have something on the status quo, like just forget about it? I guess that's always open for us to recommend also, and I don't want to carry us on a wrong track. Andrew.

MR. MAHONEY: This is a question for Mike, and do we know a difference in release mortality between the electric and the manual reels?

DR. SCHMIDTKE: So there wouldn't be -- The way that this would affect release mortality would not be changing in terms of a different rate. What it would be doing, essentially, is it would affect the release mortality numbers by slowing down the fishing, because you can fish faster if you have an electric reel, as opposed to if you're hand-cranking, and so you would be catching fewer fish, and you would be bringing up fewer fish, and that's what the goal of this would be, is that you would be bringing up fewer fish, and you would then have to, you know, take the time to release the fish, do whatever you're having to do, but you would then be applying that release mortality, presumably, to, you know, fifteen fish, instead of twenty-five fish, and that would have a lower number of dead releases. That's the way that this would be affecting the release mortality, and that's what it is aimed to do.

MR. LORENZ: Could I just ask anybody here that -- In your fishing experience, because I have had one, and, also, we've got a few statements on just how extensive does anybody think the use of the electric reels by the recreational fishing community, against all the other fishing we're doing, and I've had an experience where a guy in my group did two tours in Vietnam, and he suffers from the aftereffects of Agent Orange and chemo and all that associated with that, and he does use the electric reel, in these depths of 140 or so, when we went snapper grouper fishing, and, you know, he would probably come under the disabilities, but I did see, where his fish come up so fast, they tended to be a little more damaged than any of the others, but that's just one guy that I knew that ever did it, and so I'm just wondering if any of you had any of those kinds of experiences, and I'm coming back to where Jack said that it's a difficult thing to enforce, and so is it worth thinking about, in spite of the fact of, I guess, what it can do to some fish that can come up a little too fast, but thank you. Andrew.

MR. MAHONEY: So we're going to bring up fish slower and give the sharks a better chance to get them, pretty much. I mean, it's not going to help anything.

MR. LORENZ: All right. David Moss. Thank you, Andy.

MR. MOSS: Just to answer your question, Bob, it's pretty prevalent down by us, because of the access to deeper water, but, like I said, I'm going to -- I mean, it's completely anecdotal, but 95 to 98 percent of the people that are using them, if they're not kite fishing, are using them for deep-dropping, and the reason that I say that it's not going to have an effect is, the vast majority of people that are using electric reels, and that are deep-dropping, there is not much that is getting released. If it's hitting your bait, it's going to hit your plate.

MR. LORENZ: I like that. Catch and fillet. Thanks. Harry.

MR. MORALES: I would just like to say that I oppose a ban on electric reels for bottom fishing, since what I did was I went to Hilton Head, Beaufort, Charleston, and a shop that we do business within Florida, and I asked them about their sales of electric reels, and the bottom fishing tackle shops do not sell electric reels, or rarely. The only one that does, like Haddrell's in Charleston, is dealing with marlin, is dealing with sailfish, and it's dealing with swordfish. The deep-drop is where it's used.

The fact of the matter is that, generally speaking, nobody, except for somebody that has a disability, which I understand, and they would be exempt anyway, but nobody would really be using an electric reel. You're talking about an incredibly small percentage of people, and so it's not going

to solve a problem, and, in my opinion, it's only window-dressing. That's all it is. It's we have to come up with something, and, here, let's come up with this, but it has no value. That's my strongest opinion. If you have a boat that has electric reels on them, and they are swordfishing, and they come in, and now they are bottom fishing, and, for whatever reason, they get stopped, now what? How do you regulate that?

MR. LORENZ: Thank you very much, Harry. Tony Constant.

MR. CONSTANT: That was good timing for that. I would say less than 10 percent, if you're looking for a number, but everybody that goes out, in my area, swordfishing uses them, and then it's like Harry just said. If you're out swordfishing, and you had a long day, and let's say you caught one, but you might want to come drop on a grouper hole on the way through, and you're not going to use that reel, but you've got it, and so I really don't think it's going to change the numbers, other than deter swordfishing or something of that matter.

MR. LORENZ: Thank you, Tony. Chris.

MR. MILITELLO: Just a question, Dr. Mike, and what triggered this to even be talked about?

DR. SCHMIDTKE: Right now, red snapper did trigger this, in the sense of there needs to be a response to the discard mortality. The primary issue for red snapper is the discard mortality. It was also pointed out that this is something that affects snapper grouper species as a whole, and there are several species that have a good chunk of their mortality that occurs due to --

MR. MILITELLO: Pointed out by who?

DR. SCHMIDTKE: Pointed out by the assessments, the numbers, the table that I just pointed to, or, you know, several of the assessments have come forward, recently gag grouper, and red grouper has been another one, and, I mean, it's included there. It came to a head for red snapper because red snapper is, for all but two days out of the year, is a discard fishery, and so that's where the most prominent mortality is, but it is taking harvestable portions of the stock out, for several other species, and so that's kind of what brought up the larger issue of discards.

Now, it's been brought here, to the AP, and it's been talked about around the council table, of how, in the South Atlantic, do we reduce discards for the recreational fishery, because those are, you know, very large numbers, and they are heavily affecting what the council is able to manage on, and so we have come to this AP, and it's been recommended, you know, several different types of things, and this was within the list of slowing down the fishing, slowing down the fishing by taking out of the recreational sector this type of gear.

There was also the other action that's included here, the single-hook action, and that was proposed by the advisory panel, in a previous ask of what can be done to reduce discards, to slow down the rate of recreational fishing, and so these are some of the measures that were put forward by the AP. The extent of their effects has been talked about at the council, and it's been talked about here, but it's kind of -- The council is kind of at the point of, if not this, then what else, and some of the what else that has been brought up has been met with a lot of -- A very strong response against for the fishery.

It's kind of how do we address the issue of discard mortality that does go beyond red snapper, that affects the entire snapper grouper fishery, and how does that get -- How can that get addressed, and no one of these things is proposed as a this is going to solve everything, but the council is approaching this in a manner of, well, if we take this bit out here, and we take this bit out here, and we take this bit out here, then, overall, then we would be in a bit better place, and so that's kind of the approach that the council is trying to use to come at this problem and try to address it, to some level.

MR. MILITELLO: I mean, the reason I brought it up is because I think it's just since a small percentage, and who is going to spend $10,000 on an LP to go, you know, catch some yelloweyes? It just seems like a small, small portion of how it's going to affect anything. Thank you though for that.

MR. LORENZ: Thank you, Chris, and just, in full disclosure, I did state this, a few years ago, at one place in the AP, and not that necessarily anybody listened, but I did state it, and so, if you're asking who -- There is one guy that said it, and he sat on the AP, and so thank you. Mike.

DR. SCHMIDTKE: In response to kind of the swordfish and kite fishery, these other uses of electric reels, that is something that did get brought up by the development team, and that is -- You know, we would definitely need to be diligent about how we write the regulatory language within this, because we're trying to go through this process, and that's -- That part is intended to be captured in the when fishing for snapper grouper species, and so the concerns that people have about, you know, you're going swordfishing at one part of your day, and then you want to drop, and you're not using the reel, but it is on the boat, and how enforcement handles those things, that is -- You know, those concerns are things that we would need to include as we are, you know, writing the regulatory language, because we're not intending this to restrict those other forms of fishing.

We are intending it for the -- You know, for the use that it's intended for, and I know that brings up enforcement questions, and concerns. The fact of the matter is that a good chunk of, you know, of the measures that are used to manage the recreational fishery, and circle hooks are a very good example of that, are things that, you know, the recreational fishery enforces upon itself, and like you all enforce by saying this is what the law is, and we're going to practice what is put into the law.

That is something that we need -- That we need, and we are going to continue to encourage buy-in from you all on, and that's what we hope to get through our outreach efforts, and things of that nature, is to get buy-in from the fishery, that people would be working together, and this is one of the ways that the fishery would be working together towards this greater end.

MR. LORENZ: Thank you, Mike. The discussion continues, and I have, in the queue, David Moss, Andrew Fish, Jack Cox, and Robert Freeman. David.

MR. MOSS: Thank you, Mr. Chairman. I know that this was kind of asked, and only kind of answered just previous, but is there any way to gauge what kind of a reduction in discard mortality any kind of action would have, or like would there be any quantifiable reduction in the statistical mortality?

DR. SCHMIDTKE: For the electric reels, I am not aware of studies that would, you know, be able to kind of define what that effect is. We can -- We're going to be working with a lot of qualitative data, for this action especially, and that's why we're trying to get an idea, in our discussion questions, of what is the prominence, and how -- You know, how often are people using this, and where are they using this, that type of thing, and so the information you all are giving us is as much, and as helpful, as we're going to be able to find on this.

On the next action, as far as the single-hook action, we actually do have a study that's going on right now, and there was some work done previously by Florida FWC, and we're kind of hoping to extend that work, with some work that council staff are doing right now, in doing a catch rate comparison between single and double-hook rigs for dropping on snapper grouper, and so there is a bit more numerical estimation there, and that project is in process, and it will be reviewed by the SSC, at least preliminarily, next week, and so there will be a few more numbers on that action, but, this one, yes, it's very qualitative, and we're going to be going off of the information of, you know, taking action and reducing this would have some effect in this direction, but, to quantify it, it would be very difficult to do.

MR. LORENZ: Andrew Fish.

MR. FISH: Basically, is the juice worth the squeeze, so to speak, but I was going to comment on -- Just like our Oculina Bank, and we can still have grouper snapper in our possession, but we can't have weights on the hooks, and we have to be one step removed away from our fishery, and so we can -- I can go in there and troll, in a protected area, with grouper snapper fish on my boat, but I just have to have that rod either stowed, or one step away from being able to fish, and so the rules are already kind of in place, as far as somebody who has got an electric reel, and it's like you've got to throw it over or you're going to get in trouble, and so those rules are already in place, if they want to proceed with this, and just that's it. Thank you.

MR. LORENZ: Thank you, Andrew. Jack Cox.

MR. COX: So this conversation is what brought out about fifty fishermen at the last public comment meeting at the council, because what they had heard was, like so many rumors, that the council was going to probably have to close a severe amount of bottom, because of red snapper discarding, and you had Shimano show up, and you had Sportsmen's Boats show up, and you had a bunch of irate fishermen show up, and I don't think it was the case, but I think some of the topic was what do you do to deal with the discarding of red snapper, to meet the requirements of Magnuson and what the council is challenged with, and so some of these things that we're talking about right now are some things that the council suggested that we do, but my challenge to this group is, is there anything that we can come up with that might help the council deal with this, other than the hooks and the electric reels, that may help satisfy the requirement, short of area and time closures?

MR. LORENZ: Great comment, Jack. Robert Freeman, and I had you in the queue.

MR. FREEMAN: I guess I must be the dinosaur, or something, but 100 percent of my business was pretty much built on deepwater fishing, snowy grouper and tilefish, whatever, beeliners, with electric reels, and, when I sold the business, six years ago, that's what they were still doing, and there was, I don't know, $10,000 or $15,000 worth of electric reels on the boat, and that's what

the customers drive down there from New York to do. They don't come down to take a boat ride, put lines out, and watch the lures float around on the surface all day. They come to take some meat home, and electric reels was the way to do that, and, if you all want, I will get Karl Huffman's phone number, and you can call him, at Electric Fishing Reels Systems in Greensboro, and tell him that you're fixing to put him out of business. Folks don't buy the Elec-Tra-Mates from the local dealers, and I have seen a couple in a pawn shop, but you buy them from Cabela's, or somebody like that, and so they're readily available, of all sizes and shapes, and they do make them for handicapped people, even spinning reels, which is a fascinating piece of equipment that you have an electric drive on a spinning reel, for handicapped folks and that sort of thing.

MR. LORENZ: Okay. Thank you, Robert, and that was a comment on --

MR. FREEMAN: Can I make -- I have made this comment before, but don't make rules that you can't enforce. There is no point in us coming up with all these glorious ideas that is going to fix the fishing industry when there is nobody out there checking. In all the years -- I ran thousands of charters, and I was boarded twice, one time offshore, and I remember I was on crutches, because I had pulled a muscle in my leg, and the guys off the Coast Guard boat that boarded me -- They didn't know what the fish were, and so we emptied the fish box, and that's a king mackerel, and that's a snapper grouper whatever, but you can't -- Or there is no point in making rules that, if the fisherman doesn't want to abide by it, he doesn't have to.

There is nobody checking at the boat ramp. Many years ago, there was a controversy about reducing the grouper limit, and they did a boat ramp survey, to see what is the value of a snowy grouper to that individual, and they probably didn't know what it was, but they came up with the value of that fish is $6.00, and that's not even the real world, and so we need to be dealing with the real world, when we start making the rules and expecting people to abide by them. Thank you.

MR. LORENZ: Thank you, Robert, and, Mike, maybe we want to make another bullet on that, because Jack had also stated it, something to the effect of difficult, to near impossible, for enforcement. I think that's what I'm hearing, and that's been said twice. Cameron Sebastian.

MR. SEBASTIAN: At the end of the day, it goes back to what we just did with the last alternative. We've got to pick something, and we've got to put something forth, and that's what we're tasked with, and so I get the rules. The same thing with drugs. Drugs are illegal, but, frickin'-A, and people are making a bazillion dollars of them every day, and you're not going to stop it, and so you're going to keep the honest people honest, and you're going to keep the guys who don't want to pay attention to the rules -- They're going to do what they want to do no matter what.

Unless you have drone strikes out on the ocean, and that would solve it, but, other than that, I mean, we've got to come up with something, and, the way I'm seeing the council going, no matter what, is they want to show something, that they're done something to reduce the mortality and catch rate, other than closed areas, and I think we discussed this in the last meeting, and nobody was in favor of closing down whole swaths of the ocean for any periods of time to all fishing.

This is sort of what we've got on our plate, and we're going to have to say, no, we don't want -- We think electric reels or fine, or say, hey, whatever, and this ABC is fine, but we'll have to come up with something to move on to them, or they're going to make decisions anyway, with or without our input, and so that's just the way I'm seeing it.

MR. LORENZ: Thank you, Cameron, and I will get Jimmy, and I will collect you all next, but I have Harry Morales online, to let him speak, and I can't see him from here. Go ahead, Harry. You're recognized.

MR. MORALES: I totally agree with that, and I think we do have to come up with something. You know, I went to the Amendment 35 part of the conversation at the council, and the stress that the council was going through, and the debate, and, you know, I don't understand all of the politics yet, but, from the science saying, hey, you've got to -- You're going to have to do something, and the council saying, you know, if we shut everything down, we're going to lose credibility, and I believe that.

Here's my question to the group. You know, we have Amendment 35, and everyone has been beating up, I guess, 46, wanting to hold the recreational fishermen accountable for offshore fishing, okay, and everyone says, you know, you don't know what I'm doing, and you have no idea what I'm doing, and you can't quantify what I do, me being a recreational fisherman, and so, from a management standpoint, do you not think that, A, you should move 46 as fast as possible, so that there has to be sort of a federal, or a state/federal, license that I have to apply for, and possibly report back to you what the hell I did when I went out there, you know, and I could tell you that we caught four red snappers last week, by the way, and one was thirty-two inches, one was twenty-seven inches, and the other two were like fifteen inches. We released all four of them.

We could report that, and I believe the recreational fisherman is -- You've got our attention, okay, and we don't want you to shut it down. We are willing to contribute. The thing with the commercial guys, and I've been listening to this thing for two years, and how, you know, you have to report every single thing that you do. Well, what about us having to report and moving that up? That's Number 1.

Number 2, you know, I listened to that scientific presentation on the snapper and how fast it grew in the first three years, and then, you know, it was like, shit, it goes twenty years, and it hardly grows much in length, but it gets fatter and fatter and fatter, and so I did my own little test. I asked several charter captains, and I said, you know, you catch a twenty-two to twenty-four-inch snapper, and can you tell me how old it is, and none of them could tell me, and so I told them that the girth, and that boy gets fatter and fatter and fatter as he gets older.

Well, I believe that, if we want to change the dynamics, then we have to bite the bullet and force an educational program down everybody's throat, the same way we did -- What is it, and buckle up or get a ticket, and cigarette smoking, and, I mean, there's just plenty of examples where we took a stand on something and forced it down everybody's throat, and then, all of sudden, hell, I don't go to the grocery store without buckling up, and, yet, twenty years ago, or thirty years ago, or forty years ago, hell, there is nobody that would put a seatbelt on. I believe that we have to promote a strong educational program with the science that we already have. We already have it, and it's just that the fishermen don't really know it, and so that's my thoughts on this subject.

MR. LORENZ: All right. Thank you very much, Harry. I have a couple of folks here commenting. I saw David Moss and then Andrew Mahoney.

MR. MOSS: Thank you. To what Jack said earlier, it's exactly right, and I recall that this came about as there was a lot of uproar about closed areas, and so it was kind of one of those there's no bad ideas, and let's throw everything against the wall and see what sticks kind of a thing, and this is one of the ideas that came from that.

That said, we're all kind of saying a similar thing with this one, and so I would like to go ahead and make a motion, if possible, for Alternative 1, no action, until we can perhaps get some data on how effective it would be for various closures in different depths, and so on and so forth, but to table this for right now and say no action.

MR. LORENZ: All right. David Moss has made a motion that we select Alternative 1, no action, as far as Action 2, and, Chris, did you say you seconded it? All right. Chris Militello seconded it. Andrew Mahoney, I did note that you had your hand up, but let's go to discussion, and we've noted the motion and the second, and state whatever you wanted to state.

MR. MAHONEY: I'm pretty sure that, all of this, we're jumping the gun on a little bit. The only first step in solving this issue is to have an education-based entry into the fisheries, and that's recreational and commercial, and then we start implementing some things that we can have an effect on management, but, until then, we can't really trust that anything that you're going to do is going to be upheld, especially with the lack of enforcement that's out there.

MR. LORENZ: Thank you, Andrew, and so we have the motion, and, actually, all the points we discussed previously are excellent, and just tucked under here is the reason why. I will recognize you, Jack.

MR. COX: David, I would support your motion, but I think that we have to give the council something in place of it, you know, and I think it's our duty to -- Okay, if we take this tool away from them, that they worked so hard on to deal with this amendment, well, what can we do to give them something to lean on, because they've got to kind of do something.

MR. MAHONEY: How about a motion for an education-based entry into fisheries?

MR. LORENZ: Hold on one minute, Andrew. I want to just do a pulse check here with Mike. Mike had something he wanted to state that may provide some clarity for us.

DR. SCHMIDTKE: Along the lines of education in the fishery, that is something that the council has brought up and has directed to be incorporated into Amendment 46, and it was initially brought up under Reg Amendment 35, but then, as they went down the lines of discussion of how do you make sure that the education gets to the people it needs to get to, that's when it came into line of, oh, it's going to need to be tied to a permit of some sort, and so that has been directed to be part of Amendment 46, which is the recreational permit amendment, and so they've got the direction there to have -- To explore that education basis and have it -- You know, they're going through their options of what they can do, but have it in some form of have some video, or some type of, you know, quiz that needs to be done, in order for you to get the permit that would be mandated by that amendment, and so it's there, and that's been directed. It's not part of 35, but it's part of 46.

MR. LORENZ: Okay. I want to circle back just to --

MR. MAHONEY: May I say something in regard to that?

MR. LORENZ: Can you just wait one minute, and I will get you, because I just want to circle back one more minute to David and Chris, David who made the motion, and Chris who seconded it, if there's any statement or anything that you want to provide that's, you know, in support or arguing for what your motion was, and then I will take other questions.

MR. MOSS: The only thing I would like to -- I don't know if we can add this, or, well, first of all, Jack, I completely agree, and we can get to that, but, just for this particular motion -- I mean, I completely agree with you, though. We do need to do something. That said, is there any way that we can put in there, and I don't know how to -- Mike, maybe you can more eloquently state it, but, until we get data -- Table this until we get data on how effective any kind of depth-based closure would be. You know, I'm okay if we can provide some justification for this, but, since we don't have one right now, then I don't see the need for taking an action.

MR. LORENZ: Richard, I want to recognize you, and I haven't heard from you in a while.

MR. GOMEZ: Is there any way to attach Amendment 46 to that, regarding like saying no action until we move forward with Amendment 46, something along those lines, or not?

DR. SCHMIDTKE: So these two amendments are on two different timelines. This one has actually had its timeline moved up, so that the council is considering final action in March of 2023, and Amendment 46 -- I am trying to remember, off the top of my head, and I don't want to overstate it, but they would be having an options paper come up, and potentially -- It may be getting considered for scoping in December, and so possibly by the end of 2023 would be when the council would be looking at final action for that type of amendment, and just don't hold me to those timelines, but that's like typical timing that I am trying to remember, off the top of my head, but the point being they're on two different timelines.

This one is moving faster than 46, and so tying this to 46 would mean that this gets delayed, and the council has indicated that this one is supposed to be moving kind of in a more immediate response, because it is responding to the red snapper assessment. Now, this action specifically could be taken out of Reg Amendment 35 and considered in some other fashion somewhere down the line, and that's an alternative, but it wouldn't be able to be put on hold within 35 until 46 is done, if that makes sense.

MR. LORENZ: Andrew, I will get back to you, because I did stop you. Did you have a statement you would like to make? Sorry.

MR. MAHONEY: Sure, and I just wanted to see why it was only the recreational sector that needed an education-based entry.

DR. SCHMIDTKE: In relation to the discussion in September, I think it's probably because the recreational permit is what is being addressed in 46, and I don't know that the council had any -- I don't think the council had much discussion on adding educational requirements to the commercial permit system, and so I --

MR. MAHONEY: Can I get that to happen?

DR. SCHMIDTKE: I mean, yes, that could be a recommendation.

MR. MAHONEY: Okay.

MR. LORENZ: We'll come back to you, Andrew, after we get a vote on this, because we do need to get to that, one way or another. Jimmy Hull.

MR. HULL: I just want to make a comment in support of the motion. I will support it as read, because I think we need more information on, you know, what is this going to do, what is the SSC going to do with it, what's available, what's the benefit, or, like Andrew said, I mean, is the squeeze worth the juice you're getting out of this, and so you're -- As other members, Robert, said, I mean, you're going to potentially put people out of business, and for what? Maybe nothing. Maybe it will do no good whatsoever, and so, for us to recommend that, without knowing more, that's why I support this at this time, no action, until we have further information.

MR. LORENZ: All right. Thank you, Jimmy, and what this is does is, for us, it does definitely kick the can down the road, unless the council decides to eliminate it, and we'll be seeing this and discussing this again in April, and so I would like to bring it a vote, but I will go to Cameron for one more statement.

MR. SEBASTIAN: I agree with Jimmy. I mean, you know, you don't want to put people out of business, and we know the council wants to reduce the mortality, and so, you know, if we move it further down the road, and we have the council come back with maybe more recommendations on what they would like to look at -- I mean, if they're going to do something with it, I'm going back to, hey, you know, you don't want to put somebody out of business and say no more, and like they go with other species, and you've got an open season where you can use them, and I don't know what that is.

We don't use them up where we are, because we don't ever fish that deep. I don't know what it is, but if the council could come up with, hey, in the overall territory, this is when they're in use the most, and this is what we could do, so they're in some of the season, and so they're out some of the season, and then everybody still retains their right to utilize them, and companies still stay in business, and the guys who want to drop fifteen or twenty grand on them, to still do it whenever they want, and everything keeps on rolling, and the council can put something in saying, hey, we've done what we wanted to do and reduced mortality by reducing this to 50 percent, because it's shut down half the year.

MR. LORENZ: Okay. Thank you, Cameron, and I'm fixing to get to a vote on this, and Mike has requested to give us a little more information before we vote.

DR. SCHMIDTKE: I just wanted to point out kind of the "until there's further information" portion of this motion and this discussion, and, as of right now, I don't know that there will be any further information. There is no ongoing study, that I know of, that's looking at, you know, kind of the efficiency rates.

I mean, really, the place where we would be looking to gain information on something like this would be looking to you all and seeing what are your observations of the fishery, and do you see

it as something that is being used, and, if your observations are that it isn't going to have any effect, and it's not going to be helpful towards reducing discards, especially, you know, kind of -- If we're thinking about species, looking at those yellow species. If it's not going to do anything, especially for our overfished stocks, then that's the information that we would have to go on, but there's not going to be anything coming, in the future, that would better inform this.

MR. LORENZ: All right. We have a few more people that want to state one or two more things in support or opposition to the motion. Tony.

MR. CONSTANT: I was going to ask David, and, being what he just said, that there's no future information coming for this, would depth be appropriate, or -- Because we don't have information on this.

MR. MOSS: Can I answer, Bob?

MR. LORENZ: Thank you. Let's keep this a little clean, for now, with what we've got, and it's a status quo thing. Scott.

MR. AMICK: Just kind of piggybacking off of what you said, in my area, we don't see electric reels, as far as like the guys that are using them pulling dredges or the handful of fellas fishing for swords, but, if you're trying to accomplish decreasing discards by eliminating electric reels in my area, I don't see how that's going to make an effect. It's kind of a drop in the bucket, really, because you're going to be dealing with such a small portion of the overall fishery. Thank you.

MR. LORENZ: Thank you, Scott, and I think a vote will give a very definitive statement on how much more to discuss at least electric reels, and so I would like to -- The motion here is to recommend the council select an alternative of no action for Action 2 until information on effects can be better evaluated, and we have a lot of language, above that, on all the sticky issues that come in on this, and so I will want to record a numerical vote, and so those that are in approval say aye. A vote here, and who is for the motion?

MR. MAHONEY: I am for it if you take out the part that says, "until information", and you just said that there's nothing else that is going on with them, and so, if you take out that "until information on effects" -- I mean, we just support no action.

MR. LORENZ: I think, Andrew, what the statement would be is more information on -- People don't know what to do, and I think, with what you're stating, it just means it's no, done, goodbye, don't bring it to us again, and I think you would have to bring that up after this, if we want to modify the motion. All right, David, please.

MR. MOSS: Only because I created the motion, and so, if no more information comes about, then no more information comes about. If we don't have any more data, we don't have any more data, and then it is what it is, but, at the end of the day, no action until we can get a better reason for why we would do this, and, if we don't get a better reason, then it never comes up again.

MR. LORENZ: All right. I see Harry Morales' name up there with his hand up, and I don't know whether that's to vote or not, but, since I did allow the interjections here, I do want to recognize

Harry to make a statement. Harry, could it be brief and with relation to on point here on supporting or against this particular motion?

MR. MORALES: I support the motion, and I do believe in what I heard there in Charleston, that there isn't going to be additional information, and I agree with what everyone else has said, and what Andrew said, and, you know what, at the end of the day, we have to aggressively apply an educational environment to our fishermen, and I will tell you my own personal experience using the descending device for the first few times, and I did not set it to the right depth, and I took that fish down and brought him back up, down and brought him back up, and I killed that fish, because I really didn't know how the hell to use it, until I finally figured it out, and I can't be the only one.

You know, I'm not a professional fisherman. I love it, but I'm not a professional fisherman, and, so, at the end of the day, any education that you can give me, so that I can help contribute, and I think, me, along with a whole bunch of other guys, are more than willing to do it, and, Dr. Mike, I would say to you that, while 46 might have the educational component in it, we don't need 46 to pass in order to start an educational component. The key thing here is discards, and, if you want to immediately change the dynamics of discards, you are going to have to educate the community.

MR. LORENZ: Thank you, Harry. Harry, we've got to get back on point here, because we do have -- There are things within the packet here that we were given that do refer to education, an educational program, and so, with all due respect, I would just like to bring this back at a vote on this motion, clean as it is, that we are not -- We are selecting no action for now, and there is a caveat that we want to know more and that, you know, we want further education, and so I'm going to stop it right here and pull the vote, ask everybody to vote yea or nay or abstain, and then we can have discussion, depending on where that goes. **All those in favor of this motion, could you raise your hand, twelve.** Harry, are you on as Number 13?

MR. MORALES: Yes.

MR. LORENZ: Thank you, Harry. **Those opposed, which means you can have any issue with this at all right now. There is no one opposed. Any abstentions? We have two abstentions.** All right. Thank you. I guess, as a courtesy, does anyone want to make a quick -- I mean, we have to move on, but any other quick statement here which you didn't think you got to say? Myra. Myra, please. David, we've got fourteen for this, and so we have either eliminated or kicked the can down the road. Thank you. Chris, you had a statement?

MR. MILITELLO: So we're going for no action, but we changed it, and can we do that?

MR. LORENZ: We didn't change it, Mike, and I view this as --

MR. MILITELLO: That wording is not the same as the wording in the paperwork, and it has the "until information".

MR. LORENZ: I think what we've done is eliminated the -- We gave a reason. We essentially eliminated the -- We have Alternative 1 as preferred, by us, with no action, and then I would say "until information on the effects can be evaluated" was giving a reason for it, and I guess we'll go back to the person who made the motion, since there was a challenge on that.

MR. MOSS: I mean, I would ask -- We could just put it in parentheses. That way, you're not changing the verbiage of the actual action, but it's kind of a caveat that we can revisit it, if needed.

MR. LORENZ: Mike, am I okay on that, procedurally? It's getting above my paygrade right now.

DR. SCHMIDTKE: I think you're okay.

MR. LORENZ: We're okay putting that in parentheses. All right. Thank you.

DR. SCHMIDTKE: All right, and I guess, just interjecting here on kind of the education-based portion, there is additional education and information that is included in 35, and it's not a requirement tied to a permit, but we do have -- I mean, the council does have an outreach and education program that we currently run, and there is a portion of Reg 35 that is going to be talking about the potential expansion of that, but that's not really an actionable item, and it's something that's being brought to the council, and they would need to consider are they going to, you know, change and expand that, and how is that contributing to addressing some of the overfishing issues in the snapper grouper fishery, but there is more than just the education component of 46 that is being brought up and is being discussed right now.

I apologize, and I can't remember -- Yes, it is down here, and so we will get to that a little bit later, and it's in that best fishing practices appendix, and so it's kind of a teaser for that portion of the document, and so, for Action 3, Action 3 is structured in a similar type of fashion as Action 2 was, in the sense of the first alternative is that there is no prohibition for a multi-hook rig for snapper grouper fishing.

Alternative 2 would be to make it region-wide, a prohibition on a multi-hook rig, and then the draft alternatives and sub-alternatives would be should that type of regulation be focused to a specific area, a specific portion, of the recreational fishery, and you will notice the discussion is very similar as well, and it has the same objectives. We're trying to reduce recreational dead releases in the snapper grouper fishery, and, in that process, also contribute to ending the overfishing of red snapper.

This is another one of those items that was brought up by the AP in previous meetings, where we were having a discussion about discard mortality and how to address it, and everybody was throwing out ideas, and this is another one of the ones that was thrown out.

As I mentioned a little bit before, Florida FWC does have some comparative data that is looking at the effects of what is the difference between single hooks and double hooks, in terms of a catch rate, and we're also doing some sampling of that same type of study, and we're trying to put those datasets together, to have a larger, bit more comprehensive, type of information related to this, and so there is a bit more quantitative information for this type of regulation, at least as far as the catch efficiency.

Now, one piece that we don't have, and that we are not going to have by the end of this amendment, outside of feedback that you all would be able to provide, is the frequency of use. We can say -- You know, we can have some information of, well, if you use a single hook or a double hook, you know, you have a 10 percent chance of catching a fish, versus a 20 percent chance of catching a fish, something like that, but how many people are using double hooks, triple hooks, any other

higher number of hooks, and I've heard very high numbers of hooks in public comment sessions, and so how many people are using multi-hook rigs when fishing for snapper grouper species, especially, you know, considering some of the species that are in a bit worse state, as far as their stock status goes.

That is something that we would look to you all, if you have any information, to say this is a very common type of rig setup, that has multiple hooks, that is being used in this fishery, that, if we reduced it, then there could be some effect from doing that, and so similar types of discussion questions as what were brought up before, and I'm not going to read through all of them, but I will put them up on the screen for you all to kind of reference and comment on, but the thing that the council is looking to the AP for would be a recommendation on should there be some type of restriction to the number of hooks that are used on each line, and if you all have a recommendation of what that should be and what is the area that such a regulation should apply to.

MR. LORENZ: So let's open it up. I know there are multiple-hook rigs used, just out of preference, and then I know there are some specific fisheries that almost everybody uses them, and so what are everyone's thoughts on this? This is another one where I guess we have a recommendation, and the council would go further, and so leave it alone, think about it, we need more data, and I would appreciate your comments, and I will start with Cameron. Everybody else that wants to speak, keep your hands up, so I can --

MR. SEBASTIAN: So give me the information to answer this question, and what are the depths where you get the law of diminishing returns, generally, for mortality of the species being brought up? Is it over 125, over 130, over -- Is there a general number, and not specific, but is there a general number where mortality starts to greatly increase, based on depth?

DR. SCHMIDTKE: So, related to barotrauma effects, I believe they start to increase somewhere around 100 feet, and I'm kind of looking in the direction of Chip or Judd to correct me if I'm wrong on that, and there are more severe effects beyond like a 160-foot type of depth, and Chip is on his way up to maybe help.

MR. SEBASTIAN: So, basically, you're saying, at 160, it's severe and, at 100, it's mild, and so like a 130 would be in the middle, maybe?

DR. COLLIER: I will have to get back to the graphs that have this kind of information. You know, it varies between the South Atlantic and the Gulf of Mexico exactly where these depths occur, and it also varies among species, and so, something like a black sea bass, you're going to be starting to see impacts of barotrauma at much shallower depths than you do for red snapper, but I will look into this and get it back to you guys, and just give me just a few minutes to look at it.

MR. LORENZ: Thank you, Chip. David Moss over here had raised his hand, and so he may be able to give you the answer.

MR. MOSS: Well, not directly about the barotrauma part of it, but my understanding of this is that the reasoning behind this is to decrease efficiency, so it's not as much about how deep, but it's more about it's going to take you longer, essentially, to burn through twenty fish caught, and or released, if you're doing one hook at a time, as opposed to two, three, or four hooks at a time, I the idea, and so it decreases efficiency of bringing up numbers of fish, and then 25 percent of those

fish that you release die, and so, if you're out there for eight hours, and you're catching four fish at a time, versus one fish at a time, that's the idea behind this, and hopefully I explained that well enough.

MR. SEBASTIAN: Is the idea behind it -- I mean, but that, in turn, relates to the whole idea is to reduce mortality, no matter what, and so, if you're fishing with two hooks, and you drop that to one hook over a depth where they have less chance of surviving anyway, it seems, to me, like you're saving 50 percent right off the bat.

MR. MOSS: Well, yes, and so the idea, again, was to decrease efficiency, and so, if you're out there for let's say eight hours, and you're fishing one hook at a time, as opposed to two hooks every time, like you said, the idea is if you're going to decrease that by 50 percent or whatever, whatever the math works out to.

MR. LORENZ: All right. Thank you. Chris Militello, you had something?

MR. MILITELLO: Like the only time that I really see multiple hooks used is deep-dropping. When we're catching grouper or snapper, we're using a single hook with a weight, and we don't drop three chicken rigs down like that.

MR. LORENZ: Ritchie Gomez.

MR. GOMEZ: For us in the Lower Keys, like from anywhere from thirty to a hundred feet, we normally use just single hook, and, quite frankly, in the charter industry, not a whole lot of people are offshore deep-dropping, but the ones that do usually just use a single hook also, but there are a few that use two or three hooks, and, I mean, I'm sure the charter fishermen in the Lower Keys could live with maybe two hooks in the deeper water and one inshore of that.

MR. LORENZ: Thank you, Ritchie. Jimmy, I had you up.

MR. HULL: Thank you, Mr. Chairman. In my area, everybody uses a double rig, snapper grouper fishing, unless they're fishing live bait, fishing specifically for amberjacks or for a very large grouper, but, most every other fish species, they're using double rigs, all the way out to deep water, and they use live bait, single-hook rigs, targeting larger animals.

MR. LORENZ: Thank you, Jimmy. Tony.

MR. CONSTANT: Catching grouper is almost exclusively single hooks, but about everybody I know uses two hooks or better for general species, for larger fish, and I think, if any of this is banned, people will fish bigger fish, but not as many. Triggerfish, porgies, all the above, is typically a double rig or better, around where we are, and I do think that a single hook would probably reach some kind of gain. I would be wondering how this would affect sabiki fishing for bait. I mean, here again, there is two sides of the sword.

MR. LORENZ: Let's note that, and Mike is writing. Jimmy.

MR. HULL: For instance, if you look at the black sea bass recreational, 95 percent of the animals are released, and so, if you go from a multi-hook rig down to a single-hook rig, I mean, you're

going to slow that way down, but they may never get to keep a bass, because they have to work through so many numbers of small animals to get a thirteen-inch sea bass, and I know, for some people, a discard fishery is -- They're just fine with that, and I understand that too, and, I mean, there are some people that discard them all, and we heard that today, but I think, for most private recreational anglers I know -- I mean, they're meat fishermen, and they want to bring something home to eat. I mean, it's going to have some effects on some of these, when you have such high discard numbers, to try to find a legal-sized animal.

MR. LORENZ: Randy.

MR. MCKINLEY: I mean, you could even get into like under a certain sized hook would be a lot thinner gauge hook or something, and then, that way, you could use all the hooks you wanted, but any kind of bigger fish would just pull right off, any of the snappers, and, I mean, you could --

MR. LORENZ: Could you twist that in any way that would also include the sabiki rig, when people are over let's say a reef and trying to get bait? I mean, that would be an interesting --

MR. MCKINLEY: Maybe anything under, you know, a 1/0 or 2/0, and you could use multiple rigs, or a certain gauge hook that would bend, and, I mean, surely sabiki rigs would be exempted from something like that.

MR. LORENZ: Thank you, Randy. Jack Cox.

MR. COX: I would tell them to use what they want to, but just tell them to leave the GPS at home. I think this is a feel-good measure. If this keeps us fishing, let's go to one hook, but, at the end of the day, it ain't going to make a whole lot of difference, and people are going to do what they want to do. I mean, that's --

MR. LORENZ: Garmin is going to be mad at you, and those guys that make those fishing charts that tell me right where to go. We have a number of statements with respect to -- I guess you could look at this as the practicality for or against multiple-hook rigs, and we haven't mentioned all the species, but there are a few, and I guess we all know them, and is this where we are? Does anybody have a motion on this to like consider or what? Go ahead, Andrew.

MR. MAHONEY: I will do a motion to support Alternative 1 until an education-based entry is applied to both sectors.

MR. LORENZ: Thank you, and Mike is arranging this just like the last one, where it's just in parentheses about the education, and so -- The motion states to recommend the council select Alternative 1, which is no action, and the reason for that, the logic behind it, is until an education-based entry is implemented for both sectors, and so that's commercial, also**.** Any second on that motion? I will recognize Jessica.

MS. MCCAWLEY: I would like to caution you on this motion that's on the board here, and so I've been listening to the discussion, Kerry and I have, and so I agree with what Jack Cox said, that something has to be done here. There is more data on the way, but it is multiple years away. We are, as Mike is discussing, talking about this education approach, and, right now, it's being discussed as part of Amendment 46, and the State of Florida already has the State Reef Fish Survey

that applies to thirteen species in this complex, and we have been talking about adding a mandatory educational component on that, and so that could be kind of a pilot here, but the council has to do something, and so this particular amendment is the short-term action, and, just like I'm hearing around the table, these two gear actions that are in there are trying to reduce efficiency.

Jack Cox made a joke about, hey, maybe no GPS, and the council seriously had that discussion. I mean, we seriously talked about what can we do to reduce efficiency, and what can we do to change angler behavior to get them off the fish, because that is the problem, is that, while you're going out, and you're targeting these fifty-four snapper grouper species, you're inadvertently catching red snapper, because they're everywhere, and then there's this percentage of them that are going to be released and die, and so there's a -- The council's plan includes this short-term and mid-term and long-term action, the long-term being the management strategy evaluation, but I don't want to see this fishery close, and so we're trying to come up with things that would reduce efficiency, and that's why we put electric reels and single-hook rigs on the table.

Do I think that they're going to solve everything that is happening in the snapper grouper fishery? No, but I do think that they would reduce efficiency, and I don't think -- Based on the state that red snapper is in, I don't think that the council, at this juncture, has the ability to just wait for more data, or more education, and we talked a ton about education at the last council meeting, and about, you know, how much credit are we getting for that, and when is the next red snapper stock assessment, and so, while we feel strongly about it, and we feel like it could still be improved, it's not necessarily going badly.

It's not that tons of people still don't even know what a descending device is, or how important it is, and there are some, yes, but there is a whole effort, in the southeastern U.S., to try to get descending devices in the hands of folks and to help them understand how to use them, and that's going well, and it's been successful, but we think, the council thinks, there is still more that needs to be done in the short-term, and those are our two suggestions, and we had other suggestions, like what if there is an overall snapper grouper bag limit that is lower than what a number of the bag limits are now, and maybe it's lower than the overall snapper limit, or grouper limit, and so maybe there is another way to change angler behavior, by having these much reduced overall limits, and then people can go do something else, fish for something else, but it's all about kind of what Jack is saying, what David Moss is saying.

It's about reducing efficiency, and it's about getting people off the fish. The conversation that you had, in the beginning, about the data and the discard data, the frustration, the council shares your frustration. We have gone round and round about that, and we had almost an identical conversation to what you guys had.

We don't necessarily agree with the data, but it is what it is, and we're having to respond to that , and so I guess I would just -- We're asking for your help, and we're asking for your advice, and we're asking for your expertise here to help us come up with some things that you guys think might help reduce efficiency in the short-term, even though it might sound kind of hokey, but something that could help here, and so we put two options on the table for you guys to bat around.

I get that you don't like electric reels, and I understand the reasons, but I'm asking you guys to consider this single-hook rig as a real, viable alternative, and, if you have other ideas about what we could consider, as Jack mentioned, then throw them out there, and we're certainly willing to

hear them, and hear your suggestions, but I don't think just saying we have to wait for the recreational permit, because we already have that off of Florida, and saying that we can just wait for more education, or better education, or educating every person that goes out on the water in the South Atlantic, and I just don't think that we have the ability to wait for that at this juncture, and I will just offer that.

MR. LORENZ: All right. Thank you, Jessica. Could I ask you to just sit here for a minute, with all respect, and what I would like is if there's anybody -- Not as a challenge question, but do you have any honest questions with respect to what the council is thinking, or for further clarity of what Jessica has presented to us? She is asking and sounding like, as we've seen, the council needs to come up with ways of reducing fishing effort, or at least the fish that are discarded, and so let's keep it that way. I will start over here with Andy, and then we'll go down. Thank you.

MR. MAHONEY: So we're choosing this regardless of if we believe that the fishermen are going to abide by it?

MS. MCCAWLEY: So there is always -- Any time you put a regulation in place, any regulation, whether it's these, size limits, bag limits, any regulation, you're going to have -- Just like you guys said, you're going to have people that are going to follow the law, and there's going to be other people that aren't.

I can say that I know that you guys have had a lot of conversations about law enforcement, and there can always be more law enforcement. We always would like to see more people on the water, but it's not like there is zero law enforcement, and so I don't think that this is can't be enforced, and I also don't think that people are just going to ignore this. I think that there are people, and I will just kind of speak for the State of Florida and some of the folks that we've talked to, and I think that people really want to fish.

They don't want any time-area closures, and they really want to be able to go out there, and they're willing to do things like this, themselves, in order to try to not have these time-area closures, and so I think that it can be enforced, and I think that people will abide by it, because I think people are more willing, at this point, to make some changes.

MR. MAHONEY: I disagree.

MR. LORENZ: Thank you. Andrew Fish, you have a question?

MR. FISH: Are we really sure that that's going to be more efficient? I mean, if I'm allowed, as a recreational person -- If that person is allowed, and I don't know what it is, ten sea bass, maybe, and, if I drop down five times, and catch my ten sea bass, I'm not going to have any more interactions with red snappers if I catch my sea bass and I'm done. I mean, is it a science? Is it proven that that will work? That's all I'm saying, and that was --

MR. LORENZ: Okay. That's pretty much also just a challenge, and I have Cameron and Ritchie, and do you have any questions for Jessica?

MR. SEBASTIAN: I am all for making the species last longer. I mean, anybody here -- I am in the business to make sure we have fish to be caught, and I agree that -- As I stated with electric

reels, we can't just say nothing, but is there a depth -- I mean, my thing is, for me to get the information on there, I need sort of a depth limit to say, hey, if we're not killing fish, and we're catching them at a hundred feet, and we're not killing them, then two hooks is all right.

My opinion is, hey, you know, it's the American population being out of shape, and, if they're grinding one fish in, and they do that so many times, and they keep re-dropping it, and they can only go so much, and then they're sitting down and regaining their breath, and they're not catching as many, because they're putting in more effort, because they have to make more drops, and we fish a ton of people, three boats at a hundred people a pop.

MR. LORENZ: I have a few more folks to recognize, and make sure these questions are specifically for Jessica, because then we can move a lot of this stuff maybe for just discussion among ourselves, because we actually haven't seconded that motion. Ritchie.

MR. GOMEZ: Jessica, I know how difficult all this is, but, you know, you were kind of pointing us towards single-hook, versus double-hook or chicken rig, and, I mean, that works for us in the Lower Keys, but it doesn't work for Jimmy, and so that creates a whole other problem, you know, unless we could separate into sectors, and I don't know, and it's a very difficult thing to do, but, in reference to Andy and this implementing for both sectors, I wouldn't vote for that.

You know, I've been a fisherman since 1978, first in the commercial fishery and then in the charter industry, and I've been to so many meetings that I can't keep track of them, and, you know, education has been forced down my throat for many, many years, and respecting that, and so I definitely couldn't wrap my hands about education for both sectors, and, even a commercial fisherman, just coming into the business, he's not going to spend all that money unless he is educated enough to take that chance, and so both sector education -- We're educated. I know I am.

MR. LORENZ: Thank you, Ritchie. I will get the names here, and I have Chris, and Chip has something pertinent, I think, with respect to the conversation, and so let us interject for Chip here.

DR. COLLIER: Cameron had asked about the depths where discard mortality really changes, and this figure comes from SEDAR 73, Working Paper 15, and this is Figure Number 3 from that, and so, if you look at the blue, those are fish that are in good condition, and, basically, they needed no treatment. There was no signs of barotrauma, and you can see that kind of decreases, even at --

I mean, there is a presence of issues even at shallow depths, and those shallow depths are ten to nineteen meters, and so just basically multiply by three to convert to feet, and so thirty to sixty feet there, and so you can see there is presence of -- People are venting fish even in the shallowest of depths, and so there is going to be issues, but you can see that there is very few fish in the good condition, even going up to sixty, but there is also issues with red snapper, once you get to those very deep depths, over 200 feet, what's called catastrophic issues with the red snapper, where they're going to -- Their actual swim bladder will blow out, and so you might not see some of the issues, but this is likely where you're going to be hearing the fish fizzing.

You've heard about some people talking about red snapper will fizz when you bring them up from depth, and that's the gas released from their muscles, and sometimes their eyes will rupture, and so they'll be blind, and you might not be able to see that, and so, as you get to 200 feet, you're

getting to probably catastrophic decompression issues, but there's issues even at very shallow depths for red snapper. I can't give you a definitive answer, Cameron, and you probably have to interpret this for yourself, as where you think it's okay.

MR. LORENZ: I've got a few in the queue, Tony and then I think Jimmy Hull.

MR. CONSTANT: I've got a question about some of the research in Florida that you all started, and I know it's probably just began, but what have you found out on that? Have you all approached that with a two rig, versus one?

MS. MCCAWLEY: Yes, and I was trying to get that while you all were discussing it, and, yes, and I'm reaching out to the Research Institute. I think they're doing it in South Carolina as well, and I think that they saw that there was a reduction. I wish that John Carmichael was here, and I think he was talking about it the other day, but I might be able to have it later in the week, but I don't have it right in my hands at this point.

MR. CONSTANT: In South Carolina, it's very prevalent for double chicken rigs, and I hate to even approach this, but I think it will work. I honestly feel that -- I mean, you're cutting it by 50 percent. Maybe you could pick a depth, say a hundred feet, and, deeper, you can only use single rigs, and maybe that would -- Because, like Cameron said, you know, your sixty to eighty-foot reefs are typically sea bass, and things like that, that are a little bit more resilient, and so maybe a compromise, that we would be willing to do a motion after we deal with this, is maybe get rid of the double hook after a hundred feet.

MR. LORENZ: All right. Jimmy, please.

MR. HULL: I agree with those comments, and then, Jessica, my question is so, if you went from a double-hook rig to a single-hook rig, and so you're basically -- The number of fish that would be counted as caught, and potentially discarded, is then cut in half, kind of -- That's the way you're seeing the results of this, going to the science part of it, when they evaluate the recreational discards, that we can see some relief, because they're just not bringing as much up, as efficiency, and we're cutting the number in half, basically, if it was just a double rig, and is that -- Do you see that there's going to be some results, or you think there's going to be some results, from that?

MS. MCCAWLEY: Yes, and then, based on these studies that are occurring right now, my just limited knowledge of it was that, yes, there was a significant difference between using the double-hook and the single-hook, and I just don't know the percentage, off the top of my head here.

MR. CONSTANT: A follow-up, real quick?

MR. LORENZ: Quickly, please.

MR. CONSTANT: I will say that a double-hook -- You're going to catch a lot more juvenile fish, versus the older fish with the single-hook, and that's very proven.

MR. LORENZ: Okay, and so maybe some more technical input, and I will go with you, Mike, first.

DR. SCHMIDTKE: Certainly not technical input, but I just wanted to -- I just wanted to give a little bit of anecdotal information, because I was one of the fishing people on one of these sampling studies, and I'm about as amateur a recreational fisherman as you're going to find, and the 50 percent -- Like I don't know that 50 percent is going to be the percentage, because, at least personally, what I was observing from myself, was that I had a better chance to catch a fish, one fish, if I had two hooks in the water, but I wasn't catching them. You know, I wasn't catching one fish every time I dropped two, and so the math -- I just want to quell the expectation that the math is going to work out to exactly 50 percent, because, the way that it plays out, when you actually sample and, you know, actually do the real-life implementation of this, it doesn't play out exactly that way.

MR. LORENZ: Chip.

DR. COLLIER: The SSC is going to be talking about this next week. There's going to be information from -- Information that we collected here in South Carolina, and there's going to be information that was collected in the Gulf of Mexico, where they were comparing different hook types, or rig types, and, for the most part, when they were comparing the rig types in Florida, on the west coast, they were looking at a double-hook chicken rig versus a Carolina rig, and then there's also the observers, information from observers, and so, once again, that's going to have information on single-hook versus double-hook rigs, but the observers observed all kinds of setups, and so they have descriptions of that, and all of that is going to be provided to the SSC for their deliberation.

MR. LORENZ: All right. We're going to have to bring some of this to a close at some point, and I see Harry's -- Go ahead.

MR. COX: One of the reasons that I'm on the AP is to give back to the fishery, and I've been in the fishery since 1982, and that's forty years, and I call it like I see it. There is much less than half of the inshore fishery left that I remember fishing in the 1980s, and it's not there. It gets pounded. Our resource, where I live, can't handle the amount of effort going into the fishery, and it's just that. I am not here to skirt the issue, and I am not here to step on anybody's toes, but I'm going to call it like it is, and, you know, we've got gag problems, and we've got red grouper problems, and we've scamp problems, and I want to see a fishery, for my kid, that I saw, and I don't see it by doing a little this and that to make it happen.

I am not in it for today. I'm in it for the future, for people to see what I had in the fishery, and, by saying that, you know, I think there's some merit. I think every region is different, and I think everybody has an idea of what might work for their area, but I certainly don't have a problem with a small area and time closure, and I know that nobody wants to talk about it, but we have talked about spawning area closures, with Amendment 36, and the offshore areas are very hard to enforce, but I think that the inshore areas -- That people would buy into it, if it was something real that could help us rebuild our gag fishery and our red grouper fishery and to deal with this red snapper discard problem. I am not saying that I want to see a bunch of closed bottom. I don't. I am just saying that, if fishermen were come together, like we did in our visioning meetings, and say, hey, this is something that is real, and we want to rebuild our fisheries. Thank you.

MR. LORENZ: Thank you, Jack. I see Harry out there. Harry, I will let you make a statement, and is this a question -- If this is a question for Jessica, I think that's where we're still trying to stay, for now. Go ahead, Harry.

MR. MORALES: Jessica, thank you for everything, and I went to that session, and I was -- It was an incredible education. I do have one question, and this may not be the appropriate place, but I sort of felt that there was this conflict between I guess NOAA Fisheries and the council, and, in everything that I have seen, you know, it's sort of like the science -- It's almost like the tail wagging the dog, because everybody, at least in South Carolina, is going to tell you that the red snapper population is extremely healthy, and they're not just young. They've got some girth to them.

What I decided to do, since that meeting, was I did my best to try to get through the damn Magnuson-Stevens Act, which was painful, but I guess my question to you, as the chair, is, you know, if the council truly does not support let's say the SSC, there is a provision in the Act --

MR. LORENZ: Harry, you're gone, if you can hear me. All right. I will bring Harry Morales back, and we have Richard Gomez recognized now.

MR. GOMEZ: This question would be more for Jimmy, and anybody else that does a lot more double-hook rigs than us in the Lower Keys, and is there and is there any depth that you could live with single hooks?

MR. HULL: I could live with single-hook rigs everywhere. I'm not saying that I couldn't, and I just said that -- I informed that it was very prevalent, and everybody uses double-hook rigs, basically, all the way out to 160 feet, and that's when you'll start to see a lot more single hooks, in the deeper water, if you're targeting big fish, you know, up high in the water column, or amberjacks or whatever, and so, I mean, I have no problem with it, but I was just stating that it's very prevalent in North Florida, and probably right up the line too, and so, depth-wise, I think a depth component is important to it. I think that, because of the fact that inshore -- Like, again, bringing up black sea bass, or something like that, and they're very -- Their discard, dead discard, rate is much lower, and so, you know, you may be able to, in those shallower waters, use a double-rig.

MR. GOMEZ: So, going back to that depth, I mean, that might be something, maybe thinking about a single hook and certain depth, versus electric reel, which seems to be more detrimental to more fishermen.

MR. LORENZ: All right. I have two other people. Cameron, did you have a statement that you wanted to make?

MR. SEBASTIAN: So, to your question, we use all chicken rigs. On all our boats, that's what they use, and, whatever it takes to keep the fishing season open for us, we're more than willing to do, and so when I started to say -- The reason I wanted to know the depth is to know where you have your sort of checks and your balances, and so, when I'm looking at what is proposed, around a hundred feet, 120 feet, and, above that, that's when I would say, in our area, going to single rigs, and we've got to take one right off the system, it's not that big of a deal, and that's something we could easily live with, and then that's just the way it would be.

MR. LORENZ: Andy, would you like to make a statement, and we do have to talk about this motion for a minute, one way or another, and not that this conversation is not pertinent, but, depending on what we do with the motion, who knows?

MR. FISH: I think this is mostly directed to recreational, but there is a lot of beeliner fishermen that they might be in 200 feet of water, but also have the fish all the way up in the water column, and, here, they're not having the discards, and I just wanted to point that out, that they might be in 200 feet of water, or be in whatever, but they're actually being caught in much less, and they actually use three rigs, or three and four and five hooks. That's all I'm saying.

MR. LORENZ: Okay. Thank you, and, you know, I will just state one thing here, and I've got over -- Kind of my personal thing, and I try not to speak too much from up here, was that I kind of support a single-hook way of going. I always have, and that's the way I prefer to do it, and I've seen, with groups of fishermen, just like Mike has stated, and I've seen where we've put on -- Somebody puts on a 10/0 hook on the bottom, and puts a two or three up above, and, low and behold, when you're fishing for grouper, in our case red grouper, all of a sudden, you've got a grouper, and then you've got a red porgy, another fish, and not a choke fish like the red snapper, and everybody goes for the grouper first, and the porgy takes kind of a second place, until it gets unhooked and put on the bottom, and so I will just state that, that I kind of support it as one way to reduce effort, and more sportsmen like, but that's just me.

I would like to get back to the motion, and I see a couple of raised hands. Anybody else? This was motion was not seconded, and so we do have to go there, eventually, and does anybody have any more comment, because this is all hitting on other reasons, which is what we were asked, is how to reduce the fishing effort in a way that allows more fish to live, or not be dead discards, and so do I have anybody else with a statement or a question?

Okay. Great. We have the motion up here, like it or not, and it was to recommend the council select Alternative 1, no action, for Action 3. Jessica has mentioned to us that she does not think it's a good thing for us to say "until an education-based entry is implemented for both sectors, since we're doing education constantly, but the motion was made. The motion was made by Andy. Do I have a second on this motion? There is no second on the motion, and so it's gone, which leads us to what possible -- Can we put a greatest-hits level of what we think we should do, or just something pretty simple that we would go with it, as Jimmy had said, or not go with it? Go ahead, Tony.

MR. CONSTANT: **I would be willing to make a motion on the hook issue, if we could put into place that we could use double-hook chicken rigs -- Well, you wouldn't use the words "chicken rigs, but double hooks inshore of 150 feet. We have to put a depth on it, and that's kind of a compromise, and so, after 150 feet, you have to use single rigs only, for the recreational sector.**

MR. LORENZ: I am going to get to David Moss, and I'm going to allow you to make sure your motion is clear, that Mike gets the language clear of what you want to say, and so read and comment.

MR. CONSTANT: This would be the recreational sector.

MR. LORENZ: Tony, that's what you want to state? Quickly, I'm going to ask for a second.

MR. MOSS: Well, I wanted to ask Tony something directly to this, and then, depending upon what he says, I might second it. Would you be okay with that? For the most part, I don't have a dog in this fight. As we said, like in south Florida, we don't do -- We don't fish with a lot of chicken rigs, and so I don't know if a hundred feet is okay for you, or if there's too shallow, number one, and then 1b would be can we put a deepwater limitation on that, to like 300 feet or so, to protect some of these guys that are deep-dropping, like by me, that are going for the blackbelly rosies and things like that that use that double-hook rigs.

MR. CONSTANT: Have a deepwater condition?

MR. MOSS: Well like make sort of a bar, like from one to 300 feet, or something like that, one to 400 feet, whatever the case may be.

MR. CONSTANT: I would like to keep the 150, to see what the council would say, but I'm not opposed to a 300, or a 300 plus.

MR. MOSS: If you add that in there, then I would second it.

MR. CONSTANT: I would like to also put the exclusion of sabiki rigs, and you could put a hook size on that, say under a 1/0.

MR. LORENZ: Would you like to restate that then, Tony, to get that language in for Mike?

MR. CONSTANT: He could put it in parentheses, and that seems to be --

DR. SCHMIDTKE: We want the language.

MR. CONSTANT: The language, I'm sorry. From 150 -- I would leave that and then say from -- There you go. Then 300 feet.

MR. MOSS: In that case, I second.

MR. CONSTANT: Then I would -- It might be easier to say the exclusion of sabiki rigs under a hundred feet, because it's just a bait-catching situation.

MR. MOSS: If you started at 150, you don't need to do that.

MR. CONSTANT: Well, I mean, but we're saying there's only two hooks allowed, and a sabiki would have six.

MR. HULL: But you're not targeting snapper grouper.

MR. CONSTANT: No, you're not, and you're just a baitfish.

MR. LORENZ: But you would be much more shallower when it's fishing it.

MR. CONSTANT: We sabiki often in sixty-five feet of water. As long as we're allowing multiple, and it doesn't read double hooks anymore, and you're right, and so it's fine.

MR. LORENZ: The cleaner it is, the easier it is to --

MR. CONSTANT: I am fine with that.

MR. LORENZ: Motion by Tony Constant to recommend the council prohibit multiple hooks per line between 150 feet and 300 feet for the recreational sector. Do I have a second? David seconded it. I'm sorry. David Moss seconded. Is there discussion?

MR. FREEMAN: What do you do beyond 300 feet? I think you're saying that, beyond 150, you want to use a single hook, but, there, you're saying 150 to 300.

DR. SCHMIDTKE: As it's written, beyond 300, you could use more than one hook per line, and so you could use a double or multi-hook.

MR. MOSS: Down by us, once you -- I mean, you could actually technically be a little bit deeper, but, once you get to probably around 400 feet or so is when they start deep-dropping with the multiple-hook rigs for like blackbelly rosefish and -- Well, they're not much deeper, but that's when you start deep-dropping with the multiple-hook rigs.

MR. CONSTANT: You see your recreational sector doing that a lot?

MR. MOSS: Do I?

MR. CONSTANT: Yes. Well, I meant in your region.

MR. LORENZ: This is interesting if we're looking at the red snapper as a choke fish, and, yes, it kind of does something, but I can see, in my area, this gets into red porgies too, but whatever. Ritchie, did you have a --

MR. GOMEZ: I was just going to say exactly what you said, and so, for us, it would definitely help the red snapper discards, and that's the depths.

MR. LORENZ: Andrew Fish.

MR. FISH: I mean, I see it as very hard to -- I mean, you're talking about 150 foot of water, and, with the deepwater guys, they're only allowed one snowy per boat, one tilefish per person, and I don't think it would be that hard to swallow for them to maintain the one hook beyond 150, and I'm not saying make another motion, but I'm just contributing to that motion. I would say just keep it at one hook beyond 150. I thought, after 300, you can go to two hooks, or I'm saying keep it at one hook after, because you're only allowed one snowy. You're only allowed one snowy per boat, one tilefish per boat, and I don't know what the gray tile is, but -- If you're only targeting eight blackbelly rose per boat -- I mean, I'm just saying that it might be easier to enforce, easier for the general public to swallow, and I don't know, and I'm just giving my opinion.

MR. LORENZ: So like amending the -- Tony made the motion to alter it, should he wish, but I also would remind you that you can vote for it or against it, as it is, when it's clean. Jimmy.

MR. HULL: We've had some really good information, and we learn more and more as we discuss this stuff, and so I kind of agree with Andy now that, you know, if the limit on what David said -- He was concerned about the redbelly rosefish fishermen recreationally, and what are they allowed, eight per boat, you said, or eight per person?

MR. MOSS: I'm pretty sure that that's unregulated, like there's no limit on those, the blackbellies.

MR. HULL: There is no limit?

MR. MOSS: Well, I was just telling Andy, on the sidebar, that we generally will stop at about eight, because they're not very big, and so, like when we go out for them, we'll stop at about eight or so, but they're unregulated, I believe.

MR. LORENZ: Okay. We're still into discussion on the motion, which has been seconded, and I do want to pick up -- This is a little difficult, with folks being outside, but I see Harry's hand raised, and so I'm going to recognize Harry now to make a statement on this motion. Harry.

MR. MORALES: Tony, I want to support the single rig. I do believe, you know, 150 feet is extremely generous for, you know, the guys that are, you know, at The Needle or The Hump, the Savannah Banks, Monster, and all of those are well inside of a hundred feet, and snappers are being caught there, but I'm not going to fight the 150, and I think we need to have a single rig, you know, whatever it is, and we need to support the council with that, and that's my opinion.

MR. LORENZ: Thank you, Harry. I would kind of like to bring this to a vote. One more comment from Randy. Thank you.

MR. MCKINLEY: I just would like to see a single hook, straight across, no depth, just because, I mean, that's going to make the biggest impact. In North Carolina, it's not going to make a bit of difference. We don't catch them from 150 to 300, and we were talking about the red snapper, and so, I mean, that's such a narrow range, especially geographically, for where we fish that -- I mean, just a single hook all the way across, and that would help the council.

MR. LORENZ: Okay. Thank you, Randy. All right. I see Tony saying he would like to clean up his motion a little bit, because my recommendation -- My initial thought was let's just vote on it, and, if we vote it down, we would change it with another motion, but would it be simpler if Tony is agreeing to the input to amend this motion?

MR. CONSTANT: I agree with David, and I hate to mess up one fishery, or attack one fishery, but the overall look is a little bit cleaner, and there is like one tile, one snowy, and I think it would be better addressed if it was from 150 and up, and so take out the 300.

MR. LORENZ: All right, and Tony has agreed to change, or amend, his motion to end it at -- The multiple hooks per line over 150 feet, and that requires the second to go along with it. David. You're turning down that change, right, David? Okay. Vincent, are you going to break the logjam?

MR. BONURA: No, and I was just going to add that I agreed with Andy Fish and everything, and, 150 and out, and I would agree with 150 and out, one hook.

MR. LORENZ: Okay, and so what we have, procedurally, is we have the motion on the table made, and it was seconded, and the second does not want to change the motion from what it is, and so I think the way we would go is we would vote for it as it is, and, if you want changes, you take that into consideration with your vote, yea or nay or abstain. I think I'm correct on that, right, Mike? Then a new motion will be made. All right, and so all those in favor of this motion, as written, that you recommend the council prohibit multiple hooks per line between 150 and 300 feet for the recreational sector, all in favor, please raise your hand. Three.

MR. MAHONEY: Wait, and this is based upon we believe that people are going to abide by it, correct?

MR. LORENZ: I am sorry, and I didn't get your point on this, but we're just doing a simple vote right now, and we can comment afterwards, and we have three people that approve it. **The motion is to recommend the council prohibit multiple hooks per line between 150 and 300 feet for the recreational sector.** That's all we're voting on right now, is exactly what's written, yes or no or abstain. I am not going to take any questions right now, and I would like to get through this vote. **I would like to get through this vote, and so, again, could I have the hands, again, for those who are in approval with the motion, and I had three. Four. Four yea. Those against this motion, if you don't like it for any reason whatsoever.** Eight, and did we get Harry?

DR. SCHMIDTKE: Harry is a no.

MR. LORENZ: A no, and so nine. Any abstentions?

DR. SCHMIDTKE: Harry, what is your vote? Can you verbally say --

MR. LORENZ: We have James on here, too.

DR. SCHMIDTKE: Harry, do you vote yes or no?

MR. MORALES: I voted no.

DR. SCHMIDTKE: Okay, and, James, do you vote yes or no?

MR. PASKIEWICZ: I want to abstain from the vote.

MR. LORENZ: James Paskiewicz abstains, and so one abstention. **The motion, as written, fails, and I believe it fails because of the depth cut and not the idea, and the recommendation, to prohibit multiple hooks.** Do we have any discussion, or does anyone want to make an alternate motion to come up with something for the council which could reduce the use of multiple-hook rigs, and do we have a depth, or depth range, that we agree with? I will recognize --

MR. CONSTANT: I will make another motion.

MR. LORENZ: Tony Constant is recognized to make another motion.

MR. CONSTANT: **I will recommend the council to prohibit multiple hooks per line at 150 feet and above for the recreational sector.**

MR. LORENZ: All right, and so a motion by Tony Constant to recommend the council prohibit multiple hook rigs per line at 150 foot and deeper for the recreational sector. Do we have a second on that 150 minimum? Cameron? Thank you. We had a lot of discussion, but are there any comments or support for or against this? I will take those comments now. Wow. Okay. I will start with David Moss.

MR. MOSS: Thank you. My only question would be why not go shallower for this, especially if you're going to exclude sabiki? Like, as a for instance, in Jimmy's neck of the woods, where a lot of people are using them, they're fishing a lot shallower than 150, I would think, and so you might get the bang for the buck going to 150 and deeper, and I am just kind of playing devil's advocate with that.

MR. CONSTANT: My thoughts were the ledge basically starts at 200 feet, and so we're keeping them off of it, was where the 150 came from. I thought 200 was too deep.

MR. LORENZ: We'll try to pick the pace up here a little, and let's go through. Ritchie.

MR. GOMEZ: My question would be, today, where does the charter sector sit, in recreational or charter/for-hire, under this one, under this motion?

DR. SCHMIDTKE: This would be for the entire recreational sector, and so including both private and for-hire.

MR. LORENZ: Thank you, Ritchie. Andrew.

MR. FISH: Thank you. I would say the depth should be where the most interactions are likely to happen with red snapper, whatever that is for the whole North Carolina to Key West, and that's the whole purpose of this agenda of this particular thing, is red snapper interactions. In my neck of the woods, at 150, you're still dealing with them pretty hard, but I know, in North Carolina, in sixty to a hundred foot, that's kind of the sweet spot for red snapper, and so that's just what I want to say.

MR. LORENZ: Thank you, Andrew. Good point that I concur on and have seen personally. Scott.

MR. AMICK: I am just curious on how they're going to enforce the depth. Like how do you -- Is it just going to be on the honor code, like other things? I mean, it doesn't make any sense to me, because, I mean, I can be in eighty foot of water, on the front side of the banks, and I can be in 120 or 130 foot on the backside, and, obviously, this 150 doesn't affect where I am fishing, but, I mean, it doesn't make sense to me on how you're going to enforce it, or how you're going to enforce the guy that is fishing inshore, early in the day, and then runs further out, and so I'm just curious.

MR. LORENZ: Thank you, Scott, and, once again, we bring up the difficulty in enforcing this on the water, and so I haven't looked to the right. Mike, and I will get you, Cameron. Mike.

DR. SCHMIDTKE: Just responding to that question, the way that this is going to end up getting translated, when we get into the reg writing portion of this, is that we would be probably drawing a contour line that would have waypoints associated with that 150-foot depth, and so there would be essentially a line in the water, and, if you are closer to shore from this line, then you would, you know, be able to use multiple hooks. If you're past that line, then you wouldn't be able to. That's how it would get translated and be a bit more enforceable for our law enforcement folks.

MR. LORENZ: Thank you, Mike. Jimmy.

MR. HULL: Thanks, Mr. Chairman. I support the motion, and I think that it's a move in the right direction, and I think that it gives the council support to discuss it and the analysis that they're going to get that we don't have, and they may change the depth themselves in different alternatives, but are at least agreeing that there should -- We need to do something to reduce the efficiency, and it may need to go in shallower, according to them, and so thank you.

MR. LORENZ: Thank you, Jimmy. Cameron.

MR. SEBASTIAN: Being from charter/headboat, you know, basically, anything that we do, as far as being enforced, is you keep the honest people honest. If they want to see the future of the species go forward, they're going to abide by it, and so what it means for us, if we go over that depth, we've just got to pull one hook off, if we go past 150 feet, and, for our business, that's fine with us to do that, and so I'm good with 150 feet, and I think that it will work and help.

MR. LORENZ: Well, that's awesome. All right. I would like to take a vote on this. **The motion is to recommend the council prohibit multiple hook rigs per line at 150 foot and deeper for the recreational sector. All those in favor, would you raise your hand, ten hands raised here, and I have Harry has raised his hand, and my question was in favor, and I presume Harry, and then James, are in favor, and that's twelve in favor. Those opposed to this motion, I have two. Anyone that I am missing. Two opposed. Any abstentions? One abstention. The abstention is Richard Gomez. The motion carries on the control for single hooks 150 feet and greater. Thank you.** Good work. Thank you, Mr. Snyder. He's not cooking tonight, I guess. **All right, and so thirteen yea, two opposed, one abstention, and Jack Cox wanted to make a statement.**

MR. COX: Well, I want to say something here, and I'm going to have to probably put it in a motion, and, hey, council members, listen up. I want to say something here. Jessica, I want to try give you guys another tool here in the toolbox, and I'm going to be unpopular, but I'm going to do it anyway, just for the health of our fisheries.

Every region is different, and we all have things that we want and things that we don't want, but, for a long time, I have watched our gag fishery be annihilated, and we don't have the gags, not even close to what they should be, inshore, but I am going to put a motion on the table, and it's probably going to not get any traction, and I've got about four people here from North Carolina, and I don't know how they feel about their backyard, but I would be willing to give the council something to look at, because I know that it's something that is real, and I am not going to waste

my time coming to a meeting without putting something on the table that has got some substance, some meat, to it.

I can tell you that I think a small -- **This is hard to do, and so you all have to work with me, but the motion would read a small inshore marine protected area to reduce red snapper discarding and benefit gag rebuilding.** It would benefit my neighborhood, in the State of North Carolina, and it may not do a thing for Florida, Georgia, or South Carolina, but I think it's unfair for us to scrutinize work that the council has done on some of their work and not put more tools on the table, for at least them to have some consideration. Thank you.

MR. LORENZ: Thank you for that, Jack, and I just will have one quick question, because we can get this with Allie, and is this okay? I know we're discussing gag tomorrow. Is this better tomorrow or continue today with the discussion we have? Kerry. Thank you.

MS. MARHEFKA: I mean, I'm not sure that there's an issue with whether or not gag is thrown in or not, but our question was, Jack, was your intent for that small area to be off of North Carolina specifically?

MR. COX: Yes, and the only reason I say that is because I don't hear many people talk about how bad off their fisheries are, but I know, where I live, we've got so much effort in our fisheries, and we need all the help we can get on the inshore bottom, and, when I say a small MPA, I'm talking about fishermen coming together and saying, hey, if we don't have big area closure, like we're trying not to deal with here, but we could give up a place that could benefit all of us, and MPA areas have worked in many regions, that we could do this for red snapper discarding, to get credit on an assessment, but also to help rebuild red grouper and gag grouper, but, on the motion, I put gag grouper, and we can leave it at that. It's just -- You know, I'm sure it's going to get shot down, but I just think that we have to -- We have to come to this meeting with some fresh ideas, and that's what the council is looking for, and so this is my idea. Thank you.

MR. LORENZ: All right. Thank you for that, Jack, and it does fit in today's conversation, because I'm reading this, and it says red snapper and snapper grouper release mortality, and so the motion is on, up, by Jack. Anybody want to second that? David.

MR. MOSS: Yes, I will second it, for discussion especially, and then I have a question, or a couple of questions, for Jack, number one being what depth/area -- How far offshore are you looking at, number one, would be my first question, and then my second question would be -- This is your motion, and so you can do with it what you will, but should it read something to the effect of -- It might get a little bit more traction if you say to recommend the council look into establishing an MPA, or something like that, because there's going to be a lot of scoping, and all that good stuff, that needs to go into it, but, either way, I second it, and I support you.

MR. COX: Thank you for that, David. I am just trying to generate some conversation here, but the motion would also -- I would like to add to it from sixty to a depth of 120 feet of water, somewhere in that range, and, when I say a small MPA, I'm talking about something a-half-by-a-half mile, and so I want to be very clear, when I say a small area, that fishermen would come together and say, you know, I think we could live with this, and we would like to see this benefit our fisheries, but I am certainly not one to want to close a piece of bottom, but I think it has merit in our area, because we have some spawning locations, and I'm talking about the Knuckle area

and places like that, where I think that we could rebuild some fisheries, and maybe get back on track, because -- Anyway, to answer your question, sixty to 120 feet. Thank you.

MR. LORENZ: Jack, could I just ask -- I guess, just for clarity, for me, I just want to make sure, legally, this can hold up, but would you mind -- Could we put the words in of "inshore marine protected area", because that does mean so much specifically, rather than just "protected", and there are certain rules around it, rather than just say "protected".

MR. COX: **Well, you can take the "inshore" off, because now it's sixty to a hundred, in the range of sixty to a hundred feet, but, in parentheses, I want to say something in the neighborhood of a-half-by-half-square-mile area, just to give an idea of what I am talking about in my motion when I saw small, because I know there are areas that we have really beat up, really bad, that need some help.**

MR. LORENZ: A suggested minimum of a-half-mile-square area, suggested minimum.

MR. COX: Correct.

MR. LORENZ: David, with those changes, are you still seconding that?

MR. MOSS: Yes.

MR. LORENZ: Okay.

DR. SCHMIDTKE: That was a minimum half-mile square area?

MR. COX: Yes.

MR. LORENZ: Yes, and he wanted that in there.

MR. COX: It's not popular, I know, by all means, and I would --

MR. LORENZ: You don't know that.

MR. COX: I want some friends to go to the bar with, but anyway.

MR. LORENZ: Andrew Fish for a comment on this.

MR. FISH: Yes, sir. I think it was two years ago, and there was already put in place -- There was like a hundred artificial reefs from Hatteras into South Carolina, and even Georgia, I think, that are already mandated as no commercial take, no spearfishing, and I think those would be perfect areas to include the recreational as a no fishing, or something along those lines. I mean, most of them were put out by the fishing clubs, if I understand right, and so --

MR. LORENZ: Since it's your motion, Jack, go ahead, and I do have somebody online.

MR. COX: I would agree with you, and I know there's some fishermen here, some commercial fishermen, that have a lot of heartburn on spearfishing, and we've talked about it, and that would

be an area that would help alleviate some of that pain as well, but, yes, you're spot-on, and I would agree with what you said.

MR. LORENZ: We have a recreational fisherman that wants to comment on this, Harry Morales, online. Harry, please speak.

MR. MORALES: Well, I can't have a drink with you at the bar, but I will tell you that I think that this kind of thinking is probably long overdue. Years ago, I went to Grand Cayman, and they took sections and make them prohibited areas, and it allowed the lobster and other fish to rebound, while the community would go fish elsewhere, and there are -- It's not just North Carolina, and there is places in South Carolina where they are easy to get to, and everybody knows the number, and they just pound the hell out of that area, and so, to be able to rotate and give these areas a breather, so that fish can repopulate, I think is really proactive, especially if we're talking about, you know, small breeding areas that the fish can populate, and so I support it.

MR. LORENZ: Thank you, Harry. Andy, you have a comment?

MR. FISH: Yes, and I think there's also spawning area closures that are -- I know there is one just inside the snowy MPA in North Carolina, and I think it's just for spawning times, and it's called a special spawning zone, I believe.

MR. LORENZ: Yes, and they're deep. They're deep though, and Jack's is shallow. Tony.

MR. CONSTANT: Just, real quick, we have an MPA, and it's pretty good sized off of Charleston right here, that we regularly catch forty or forty-five pounds of gags out around the edges, and I can't imagine what's in it.

MR. COX: Well, there's been extensive research done on MPA areas, and fishermen do fish on the edge of them, and they do really well, and it's just like anything in wildlife, whether you hunt or whatever you do, and there are preserves, and there are places that people -- That we try to protect and enhance our resource, and, you know, I mean, I know places, but this doesn't have to be something that's done, just like we've talked about Amendment 36, but they were deepwater MPAs that we're talking about protecting speckled hind and warsaw, and we talked about that for a long time, and this conversation goes a long way.

I'm just trying to put a tool out there and getting people to think of an alternative for the council, because I feel like that's that we've been asked to do, but I would certainly love to see some inshore bottom be rebuilt, and I don't know any other way to do it than this, unless you go to other things, like long-term closures, which I wouldn't want to see, but you put a sunset clause in place, and you would do something, and you would research it, and you would make sure that you're doing it in the right area, and I would only do this with fishermen that would say that we would design this and pick a spot that works, that we think would work. We wouldn't want this to come from NOAA, and say this is what we were going to do, but I think, if fishermen did this, then you would get some buy-in.

MR. LORENZ: Thank you, Jack. Good points. Mike.

DR. SCHMIDTKE: Just in relation to this motion and recommended action, I just want to point out the timeline and clarify where this would potentially be considered, because, if this is intended to be something that would go into Reg Amendment 35, this is the only time the AP would have to talk about it, and the council would be trying to go final with it potentially in March of next year.

If this is something, and it seems, you know, something like an area type of consideration, it may need a bit more extensive, I guess, development. If this is something that is intended as more of a general recommendation outside of Reg 35, then I would ask if that could just be included here, so the council is clear on what this recommendation is towards.

MR. LORENZ: I recognize you, Jack.

MR. COX: Mike, this is Amendment 35, and this is directed for this amendment, and I just threw some other stuff in there, because it would have other benefits to it as well.

MR. LORENZ: All right. I would like to take this to a vote, Jack's recommendation, Jack from North Carolina, to put a marine protected area in shallow water. He recommends the council include, in Regulatory Amendment 35, establish a small marine protected area off of North Carolina, in a range of sixty and 120 foot depth, to protect gag grouper and to help rebuild red grouper (minimum half-mile-square area). I would like to take a vote on this, and I do note that we will -- There is other states. Okay.

MR. COX: Randy brought something to my attention. It's a maximum. **We don't want anything bigger than a half-square-mile.** I'm sorry. That makes a little difference.

MR. LORENZ: Who seconded that motion? You're okay with it, David? All right. I won't re-read the motion, with the exception of it is a maximum of a half-mile-squared area, and I see Harry has his -- Harry, do you have a comment to make, before we take this vote?

MR. MORALES: I do not. I think we have to go well beyond North Carolina, but let's get this part done first.

MR. LORENZ: Thank you. **Everybody in favor of Jack's motion for North Carolina, raise your hand, twelve; anybody opposed, one opposed; do we have anybody abstaining, three abstentions. The motion passes and carries in with Amendment 35.** Thank you. Folks, this concludes what we think we needed to get done today, and so we are going to adjourn, unless anybody has anything else to bring up, and, Mike, tomorrow are starting on -- Tomorrow, beginning at 9:00, we will still be on Amendment 35, but we'll be on the best fishing practices, to finish up this amendment.

DR. SCHMIDTKE: We'll do the MSE tomorrow, and best fishing practices will be Thursday.

MR. LORENZ: I'm sorry. I've got to clarify that. Tomorrow, we're proceeding with Agenda Item 4, which is the MSE, and there is consultants coming in from the outside, and then we are going to move the best fishing practices to Thursday morning. Thank you. We're adjourned.

(Whereupon, the meeting recessed on October 18, 2022.)

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OCTOBER 19, 2022

WEDNESDAY MORNING SESSION

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The Snapper Grouper Advisory Panel of the South Atlantic Fishery Management Council reconvened at the Town & Country Inn and Suites, Charleston, South Carolina, on October 19, 2022, and was called to order by Mr. Bob Lorenz.

MR. LORENZ: All right. Good morning, everyone. I want to start today's session for the Snapper Grouper Advisory Panel. Yesterday, we completed -- We partially went through Amendment 35, and we completed the two parts for some effort reduction, particularly in the recreational sector, where we did focus on electric reels and multi-hook rigs. We will carry on with that tomorrow morning, when we will get into the other part of Amendment 35, which will be the best fishing practices.

This morning, we have guests with a system, or what we call the management strategy evaluation process, and they will go over their modeling and things like that, which hopefully -- When I reviewed it, it looks like there can be some things in there that makes better some of the things we talked about, the way regs are implemented, where this wiggle room, that sort of thing, was the way I saw it, but we'll see what they present to us today, and it should be very interesting. With that, I will handle it over to Chip over here, who will introduce our guests today. Thank you.

DR. COLLIER: Thank you, and this is a continuation to what we had brought up in April to you guys, thinking about a holistic approach for the snapper grouper fishery, and, in his holistic approach, we want to primarily focus on the recreational side of things, and so we have a group of people that -- A group of Snapper Grouper AP members that have agreed to help develop this process, and so the scientists are here today to give you an introduction to what a management strategy evaluation is, what it can do, why it's going to be beneficial in this situation, and so it's going to be a little bit of learning for all of us.

This is new, and we have never done a management strategy evaluation for use in management down here in the Southeast, and so I think this is very exciting, that we're going to have Adrian and Tom Carruthers here speaking to us today about this, and so, if you look at Attachment 4a, this kind of gives you a bit of a background of exactly what's going on, what we're talking about, as far as the MSE, why we're doing it, but there's also some questions, here at the end, that I think are really good to think about as you're hearing some of the discussion.

They would like some feedback on what are some of the uncertainties in the fisheries system, and what are the most important ones in the fisheries system, and then what are some of the main data sources that can be used to evaluate the state of the fishery? I know there is some definite questions about some of the data sources that are out there, and so it would be good to identify some of those issues for them, based on what you guys think are the biggest issues and not what we keep telling you, or anything like that, and this is really a stakeholder-driven process, and so please be open,

and talk about it as much as you want, and give the feedback that you think is most valuable. Then we would also like a description of the primary data sources.

Then, getting into 2 and 3, these are going to be probably more familiar for you guys, talking about what are feasible management options, and what management actions do you consider good options for the fishery? What are some of the key challenges in implementing some of the new management approaches, and then how do you want this to be evaluated, and so what are the objectives for evaluating performance?

How do you define a good management outcome for this fishery? If something is implemented, and is in place for a couple of years, and it's going along, how do you evaluate that? Is that good for the fishery, or the fishermen are seeing that as a good thing? What are the main indicators of successful management, and then what are the main indicators of poor outcomes? As this project goes along, we do have a webpage that's going to be developed, and it is being developed now, and there is some information on it already.

Adrian and Tom will be going through this a bit more, and so you'll be able to see exactly what's going on in the project. Right now, it's pretty blank, but it does have links on the technical members, on who is there, the South Atlantic staff who is involved, the trial specifications, some of the initial projects, presentations and documents, and then additional resources, and, just so you know who the Blue Matter Science is, these guys are world-renowned, and they are developing the projects, and so we're very excited to work with them, and so, Tom and Adrian, I'm not sure who wants to speak first, as far as giving the presentation. Tom, you will?

DR. CARRUTHERS: Hi, everyone. Adrian and I are very happy to be here, and we've come all the way from Vancouver. I was here about ten years ago, to talk to you guys about something to do with data-limited fish, or I can't remember what it was, but, today, as Chip pointed out, you're moving, or at least investigating, a different way of doing business, management strategy evaluation.

My job, over the course of the next half-hour or so, is to give you as clear as possible description of that is, and what it means to you, but, also, what the advantages could be to you in your current situation, and, also, basically, what things we really need from you guys, to make sure that this thing could be as beneficial as possible to you.

Just a brief bit of background, and I'm an adjunct professor at UBC, but we left to start a consultancy, Blue Matter, and both Adrian and are directors, and we have basically developed software and solutions for doing this, and so, you know, we, obviously, have bought into this idea, and so I hope this doesn't sound like a sales pitch, but we actually have seen the advantages of this idea for a lot of fisheries, and hopefully we can try and convey some of that to you guys today.

So what is this thing? There is three parts. I will talk about what it is, and the second part is it's useful to talk about how MSE differs from stock assessment, because people are really familiar, kind of, with the idea of stock assessment, and that usually clarifies a few issues, but it's all very known what something is, and how it differs from stock assessment, but what does the actual process look like? If we have to go through it, what are the steps, and where does your feedback come in, and stuff like that, and so just three parts to this presentation.

Let's start with Section Number 1, and the thing I would say though is we're really here for you guys today, and so there's going to be a chance, throughout this presentation, for you guys to ask questions, and stick your hand up and say, Tom, that doesn't make any sense to me, and what are you on about, or I think this is a really serious problem that I care about, and please do that. Please stop us and share your concerns, or ask a question, and we're here for you guys to do that. Don't feel shy at all.

Okay, and so our first step in this description of what MSE is is to draw a very simple diagram of what a fishery system is, and this is the real one, that one that you guys know, that's actually happening in reality, and, in this black box, that I have labeled "fishery", is all the stuff that you guys know is happening out on the water, okay, and this is creatures growing, dying, reproducing, moving offshore as they grow older, you guys going out there on boats catching them, different sizes. All the stuff that happens out there in reality, in that fishery, is happening here. Where they live and all that stuff is happening in that black box.

As you know, we collect data, and we observe that system, and that's what happens in that blue box, and that could be fishery-independent surveys, recreational trip data, you name it, some kind of size sampling program that you've got, tagging, and I don't know what you have yet, and we're here for a lot of that, but that's in that blue box, and that's how we observe what is going on on the water.

Our scientists, and managers, have a set of assessments and other rules for interpreting those data and saying what we should do to manage that fishery, and that's what is happening in that red box. We are interpreting that data, and then providing advice, and that is then enforced, in some way or other, and, of course, it feeds back into the fishery, and this is kind of what most fisheries management systems look like. The real dynamics, the data, the management, enforcing that thing on the water, and then it feeds back into the dynamics of the fishery, that black box.

It's kind of a loop that we go round and round and round doing, and, typically, on an annual, or every-two-year basis, depending on the species, and there's no big mystery, right, but the question is why are we doing what we're doing? Why do we spend loads of time going over models, and making them more and more complicated, and coming up with really complicated rules for setting management advice, and spend less time on data, and less time on enforcement, or why don't we do the opposite? Why don't we collect an absolute ton of data, spend some time doing an assessment, and then not really worry about enforcement? Why are we doing what we're doing?

This could include the type of assessment, or the type of rule, or the type of data, as well, and it's not just the amount, but it's like what things you actually collect and why are we doing what we're doing.

One of the more interesting things to realize, when you go around and you deal with many different fisheries, is that we could definitely benefit from a clearer statement about why we're doing what we're doing. Not just this is what we've always done, or this is what they do in fisheries like ours, but this is a much clearer statement about what our strategy is and what we're trying to achieve, which allows people like you guys to say things like I want more access, and I can make these kind of management changes, and, therefore, to achieve that, we should do this, and it's not up to guesswork. There is a calculation that is made, and a decision comes out of it, and everyone knows where that came from. Imagine a world like that, right?

It turns out that doesn't sound very good, that first paragraph, but there is good reasons why we haven't been able to be as transparent and open about how we make decisions, and here is what that reason is. I mean, the first thing is we could do an actual experiment. You could take those boxes and, in reality, change them, right, and so here we've got the same boxes, but you've got, at the top, a real fishery operating. To the right, you've got some port sampling, collecting data.

At the bottom, you've got a bunch of nerdy scientist types, like me, building an assessment model, and then you've got the enforcement on the water, and what's the problem with experimentation in a fishery? Well, first of all, it could just be dumb luck, right, and like you could set up a new data program, a new assessment rule, and just get a huge influx of recruits, and go, yes, we're doing a great thing, but you've only got one replica. You've only got one fishery, and so you'll never know whether it was really your experimental intervention or whether or not it was just the natural system.

Also, it's going to take you a long time, potentially, to see the impact, and you may not be able to like test many different ideas at the same time. You're stuck, right, and what if you've got twelve different things you want to try? You want to have a size limit, and you want to try a spatial closure, and you want an access limit, and you don't have 200 years of experimentation to do that with, right, and so what do we do? What do humans do now when it's just not feasible to do experimentation?

We do simulation, and, here, we've got a pilot, on the left, who is getting tested in a helicopter simulation, and he's going to get tested under a wide range of circumstances that are super tough. Like he's going to get crosswinds, and he's going to get night flying, and he's going to get thunderstorms, and the focus here is on the pilot. We're going to work out whether or not he's got the skills to survive, regardless of what the weather conditions are going be like.

We've got an F1 driver on the right, and it's very, very expensive track time, and so, instead, they're going to train him up and test him over all the conditions he might find in a real race, but they're going to do it on a simulator, where it's cheap, and he can get out and have a coffee and get back in again, and they're going to do all that stuff and not have to do this infeasible thing of real-world experimentation.

Why don't we do that in fisheries, right? Fisheries is just like a system like any other, and why don't we test our ideas first, to make sure they make sense, to make sure they can pass these tests, that what we're proposing for management is a good idea? That's basically all the MSE is, right, and like it's really simple, actually, and it's exactly what you've just seen. Every single one of those boxes is just done on a computer, and that's it. The thing that the black box, that we call the fishery, well, that's just called the operating model, and it's just a fancy word for the systems that you guys all know that are happening on the water, but just on a computer, and that's it. It's just part of a calculator.

The thing where we collect data, that's called an observation model, and that just makes sure that the types of data that you guys actually gather and work with are created in the same type, the same sparsity, the same quality, that you really see them. The thing down here, in the red box, it takes out data and it outputs advice, and so anything, any rule, that you guys want to come up with

that accepts data and says we should do this is called a management procedure, and so this is just terminology at this point.

The part of that implements that advice is called the implementation model, and that deals with how perfectly those recommendations are taken in the real world, in a real system, and so what it actually is, honestly, is just what you know in a fishery, but it's making a calculator for testing ideas for data types, for management procedures, enforcement, but, also, the black box is testing how well those work, just like the pilot, under stressful situations, or situations you think could happen, but you're not sure. It's really not a complicated idea, MSE, at all. It's a pain in the butt to program it, but to run it and to understand it is really not complicated.

Sometimes people call management procedures harvest strategies, and that's another word for that red box, and sometimes people care about the whole thing, the data your collect, the rule you use to provide advice, and how you would enforce it, and those are all the things that you do, as managers, and that, all together, is sometimes referred to as a management strategy, the overall strategy of what you're going to do.

Management procedures can be things like stock assessments. Like, if you take your advice from a stock assessment, that could be a rule that could be considered a management procedure, and you will hear us talk about OMs, and that's just an abbreviation for an operating model, and you will hear us talk about MPs, and that is just your management procedure, and, if I haven't mentioned it already, your management procedure can be just about anything. It could be a quota, or it could be a TAC limit, a size limit, a spatial closure, or it could be something to reduce discard mortality, or it could be access, number of days on the water, or it could be a combination of all those things. The thing you do in that red box, the type of advice you give, can be a combination of lots of different things, if you want it to be.

Let's just say we take a leap of faith, and we say, oh, we believe our stock assessment, and I will put my hand up and tell you that I am stock assessment skeptic, okay, in general, but let's imagine that you say we believe our stock assessment, and let's create an operating model, and let's just believe the science, just for a second, and say, well, here is our operating model, and it's going to look like our stock assessment, and that could be one scenario for an operating model, just one.

We would like to set let's say TAC, for the sake of argument, based on your fishery-independent survey, or something like that, and that could be one management procedure. Of course, this thing goes around in a loop, and we're going to do this in the future. We're going to go round and round in a circle, allowing the data to be sampled from that operating model, us to provide advice, and that feedback into, just like it does in the real world, back into our dynamics, and we can monitor things like catch and biomass.

If you look, as we go around, we've got an annual record of what really happened, the catch that was really taken, the biomass that was really taken, in the real world, in the simulation, as it were, and you can see what the outcome was, and so we just carry on, going round and round, into the future for a number of years, testing this index-based management procedure. Does it respond to -- We can then, of course, without having to do this thing in the real world of experimentation, where we never really know whether it was chance or not, and we can replay that whole experiment again, with that whole idea again, with a different strategy, and what would have happened if we

had done exactly the same here, six years of projection, but using this other rule that you guys are interested in, this other management system, using different data, and what would have happened.

We can compare now a new management procedure in the box, and it's green now, and see how well it would have done, in terms of catch of biomass, and is this a better idea to use, in this case, mean length and an index to inform your management, and so you can compare, simultaneously, on a level playing field, different management options, and, at the end of it, say why you might pick one over another, and it's not a bad starting point for suggesting a management change, or an alternative management approach or something like that, and everybody can see why you got there, but, maybe more importantly than that, is that you can change the box.

Like what if you guys don't believe the stock assessment too well, or you think there is going to be climate change, or you include your pet theory about what you think is going to happen in the system, and maybe you think discarding is going to become less of an issue, or more of an issue, and create a new version for that black box and test to see whether there is any difference in the management procedure that you would pick. This is a really important issue. What matters? What matters?

Is what matters what is actually going on in the world, the weather forecast, or does what matter is whether your pilot is going to fly well under all those circumstances? The focus here is not on the forecast. The focus here is on the pilot. Does your management procedure -- Do you have confidence that your management procedure that's being recommended can work, regardless of what is in this orange or this black box, these alternative scenarios, and MSE is not about the truth. It's about having confidence that you've got a management system that is strong, that is robust, that will get what you want. That's the focus.

Because we go round and round in this loop, and because there is feedback between the management procedure and the operating model, just like there in reality, this is sometimes called closed-loop simulation, and you will hear people say that. All that is is just going round and round in a circle, and there's feedback. It sounds technical, but that's all it means.

I am going to bombard you with a bunch of references, and this is really for later, in case any of you guys are interested to know this, but the take-home message, for the next two slides, is that MSE has been around since the 1980s, and it's used today in a very wide range of different fisheries, and it has solved a number of problems that people face when they are trying to manage a fishery resource, and I will tell you a few about a few of those problems.

Way back in the day, in the 1980s, Karl Walters and Ray Hilborn basically decided that, to learn about what a resource is like, to know how resilient it is, to know how big it is, you might have to have deliberate changes in the way you manage it. You might have to hammer it, for example, and see how quickly it responds, or ease off and see how it quickly recovers, whatever, and that was called adaptive management, but, to know what suitable adaptative management should be, like how much to hit something on the head or not, to learn, they need simulations. They needed operating models, and, at the same time, the very first management procedure was put in place in South Africa for anchovies and sardines, and so, in the 1980s, this idea of having a basis for how you were going to manage something, by using a computed simulation, came about.

Since then, it's been used for all kinds of things, and some of the biggest and most established ones relate to whales and things like southern bluefin tuna, and I have just listed here a whole bunch of creatures, but the point here is short-lived, long-lived, reef fish, invertebrates, you name it, and people have used management strategy evaluation. It's pretty well established now, and so what problems does it solve? Well, you have seen that system going around, and one thing that people are worried about is that we're basing all of our advice on one idea about what is going on in the system, one idea, and there could be a stock assessment, but they might say, well, we actually don't really know, and it could be any of these things, and so how do you build that into advice?

Well, in MSE, you just make sure your management procedure works for all of those things. The onus is not on knowing, but it's on just knowing that your management procedure will work, and so it solves that issue of high uncertainty over what is really going on in your fishery, or it can solve that.

Another way has always been a debate about how to interpret data, and so, for something like southern bluefin tuna, there was out-and-out war, at one point, between two different stakeholder groups, because they just -- One believed one index of abundance, and the other one didn't, and so they created two operating models, and they made sure their advice would work for both, and then everyone went home and discovered it wasn't really an issue after all. There is lots of good reasons to think about taking this approach.

So we'll take a break, because, basically, if you followed any of what I said, you now basically know what MSE is, and what the idea is, and so this will be a good time, if you've got questions about that, to bring them up.

MR. LORENZ: All right. Any questions for Tom with relation to understanding what he just presented, to get better clarity for yourself? Jimmy.

MR. HULL: Thank you, Tom. This will be the first of many questions, probably, but so you just stated that an MSE can solve high uncertainty. Well, we have high uncertainty, in the South Atlantic, on just about all of our snapper grouper stocks, in the assessment and in the data, and so I'm not -- I think the way you solve the high uncertainty is because you simulate all the different scenarios that could happen and figure out the plan that could handle all of them, and is that correct?

DR. CARRUTHERS: That is basically it, just that, and, moreover, what if I could show you that half of those make no difference to how you would choose a management procedure? Then we can worry about the ones that do matter, right, and so it's another way of focusing your efforts on the uncertainties that matter, and maybe there is only a small handful of these that would change the way you decided to manage your fishery, and it very often happens -- It very happens that, of the hundred things that people have been worried about for twenty years, only ten of them really make a difference to how you would decide to do things. They rank the same. If you have a size limit with this, and an index-based -- The ranking is constant for most of the uncertainties, and there's only a small number of those that really affect how you would choose what you would do.

MR. HULL: Okay, and, just to follow-up with that, so ranking would be kind of like -- Well, the uncertainty would be like a P*, an evaluation of the uncertainty level of some data into the model,

but that doesn't really line up with -- Anyway, you answered my first question, and I got it. Thank you on that one.

DR. CARRUTHERS: Yes, and ruminate on the second one, and we'll come back to it.

MR. LORENZ: Thank you, Jimmy. I recognize Richard.

MR. GOMEZ: I am going to use an example of a fishery and then ask maybe a question or two in reference to it, and so let's just take mutton snapper, for instance, and during the spawn. You know, we've always had a problem with data, because, depending on conditions, it's going to enhance productivity, or decrease it, and so, if we took a year, and this happens often, where you have strong east current and a southeasterly breeze, working against each other, and it's going to decrease productivity, because only the people that know how to fish in that condition are going to do well, and so the data for that particular season is going to be skewed, because there was less productivity, right?

Bearing that in mind, you would have to know, whoever is doing the MSE would have to know, what was going on, and would that be part of the scenario, when you go into the simulation, and then just Question 2 would be how would fisheries management handle this new tool, seeing that all this new simulated information goes into just that particular scenario?

DR. CARRUTHERS: On the first point, absolutely. If it's critical to the way that the fishery operates, if that -- The word that the sort of assessment-type people like me would use is "availability". What you're saying is that, under different conditions, there is a different availability of fish to the fishery, and let's take the example of anchovy, and I just did a review of the biggest fishery on Earth, Peruvian anchovy, and they do exactly that, and they put it in their management procedure.

They take that environmental data, and they say this year is a year where people are going to be able to catch a lot of fish, and we should have higher TACs, and they test that as an idea. They have to do the thing that you said, and they have to simulate it. It has to be in there, and we can do that, and so we just make -- We look at the historical fishery, and we look at what you guys think and what the data tells about availability and those conditions, and we characterize those, and then, in the future, we make sure it has those changes in availability, and it's really critical, but, more than that, we can test rules that could even use those, those environmental data, to make sure that the catch advice, whatever the advice is, responds to that, and so absolutely.

On the second point of how is management going to respond to this, I have no idea, and that's a really big challenge here, is to move a paradigm, a different system, where people are picking a management rule based on a bunch of simulated results, but that's what we're talking about, and I have no idea how they're going to respond. I can tell you how other people have, but, in this setting, I don't know.

MR. GOMEZ: So just one more quick thing, and so management would have to know what the condition was, on any particular day, if they were going to use your source and implement it into management, and so that would be critical to new rules and regulations coming down the line. I mean, I like the concept, but management would have to use it in an everyday manner, because every day changes.

DR. CARRUTHERS: Well, the idea is that you create those simulations that have that complexity, but the rule that you pick is something that is established and known already to be suitable for those circumstances. I mean, you can have short-term responsive management procedures, but, generally, they would be looking to establish something -- What was a simple rule, that everybody understood, that was demonstrated to cope with the situation that you're describing, and so it wouldn't require complicated changes, but it would be something that we just know works, and I don't know if that helps, if it helps at all.

MR. LORENZ: All right. Thank you, Ritchie, and I just think, out of interest here, for Tom and Adrian, we represent about maybe a thousand miles of coastline here, along the Atlantic and all, and so, if you first ask your question, it might be interesting to state what state, or what region, you're at least from, just for your knowledge, and Ritchie is from the Keys, south Florida, and Jimmy is from central Florida, and so towards the north, and that might be of some interest, where people are coming from at least, and we're all a little different, depending on where we are in the fisheries. I recognize Randy.

MR. MCKINLEY: Randy McKinley, Topsail Beach, North Carolina, and I like what you said about the streamlining and maybe getting rid of some of the stuff, and it's sort of in line with what Richard said, and you sort of answered some of my stuff, and I was concerned about the environmental and weather on some of the species, like the red grouper and the red porgies, and even maybe possibly the gags. It has nothing to do with fishing pressure, and it could be any of those other concerns, and so it sounds like all of that is going to be incorporated in, and it sounds really good to me.

DR. CARRUTHERS: It certainly could be, yes.

MR. LORENZ: Thank you. Cameron.

MR. SEBASTIAN: Cameron Sebastian, Myrtle Beach, South Carolina and Calabash, North Carolina, and so a couple of questions. One would be how do you establish your baseline, assuming the baseline is where everything goes from, and that's question one, and, two, once the baseline is established, the information that is coming from the thousand miles of coastline -- Your system is going to be able to plug that in the loop for real-time information that is put into the process?

DR. CARRUTHERS: So the idea is that, whatever the real management system is, and take what you do today, and I presume it's annual data entering a model, and managers are deciding some advice based on that model, and it doesn't have to be real time. It could just represent what people are proposing to do, and so we would try and simulate the data at the level at which it's interpreted by the managers, basically, and so that could originate from daily records, and daily things like that, but, in actual fact, the way it's interpreted is on aggregate, and it's like an annual dataset. We can get into the details on this later, but certainly we're going to try and recreate the real data that are observed for these fisheries, but whether or not that's interpreted real time is about whether or not your management would use real-time data. I don't think, right now, they do.

MR. SEBASTIAN: I guess my question was is the real-time data would be like -- Let's say, in May, we've got thirty days of fishing, and we're blown out 80 percent of the time, and would that

be factored into models that go down the chain, is sort of what my question was, because I know that's not occurring at all now, but could it be just plugged into your model, to say, hey, if they have this many days of bad weather, then they're not going to bring this many fish out of the ocean, because they can't get out?

DR. CARRUTHERS: Certainly people have tried to do that, and they have tried to deal with their fishery on a finer temporal scale, and said, well, look, we have these issues, like to do with weather, and so I'm interpreting "blown out" as bad weather preventing fishing, but, yes, that does happen. The question is whether or not managers would ever adopt a rule that was responding to that kind of -- Those kind of inputs, because, if they won't, then there is no point in investigating them, but we're here to talk to you guys, and it's not just anything about the kinds of things we can do, and so I need some realistic information about what could actually be implemented by managers, right, and you can see why that's important, because it relates to these questions.

MR. SEBASTIAN: Okay, and the other question would be do you have the capability of running economic issues in your loop, on a separate thing to say, hey, if management chooses A, B, or C, this is going to be the economic impact on Sector A, B, or C?

DR. CARRUTHERS: Absolutely, if you can characterize that, and so, if you can -- If someone can provide the data, or describe what those impacts are, absolutely we can, and it's another real -- One thing I will tell you is the real advantage of this approach -- How often have you looked at a stock assessment and scratched your head and thought to yourself, what does this mean for me, right, and maybe even cynically thought how can I change this process to get what I want out of it, because I don't trust it, or whatever it is.

With MSE, you just say what you want, and it could be based on an economic output, and then you say the things you think could be happening, and the calculator just spits out the results. There is no more gaming, no more uncertainty, no more worry about a system that is not that clear. One of the biggest problems with stock assessment is that people don't fully grasp the process from start to finish, and sometimes those include the technical analysts doing it, and like it's very complicated. The idea behind MSE is to simplify things, to see a simple rule and know that it's going to work, and be able to interpret it in a way that you care about, which could be the outputs of one of these economic models, for example, like how it's going to affect my sector.

MR. SEBASTIAN: Okay, and so the last question is so it sounds like your company is coming in as a 1000 percent neutral entity, and I know that, as I've sat here for many, many, many years, there's always been the question of, well, the guys doing the survey, are they sort of really neutral, or are they leaning left or right, and so you're coming in and saying, hey, we don't care what it is, and the information is the information, and we're going to feed our information that we run in our loops to your managers, and then you guys can take the information from there.

DR. CARRUTHERS: It's exactly that, and we would have really no long-term future if we started to try and represent people's views in the modeling, and so we stick to the science, science only, straight down the line, and, if that's disappointing to our clients, and sometimes maybe it will be, but that's what we do, and so we won't be distorting this process in any way, and we're just science-based only, and that's it.

MR. LORENZ: Thank you, Cameron and Tom. Just a quick process check here, and, for the purpose of the AP members online, I just want to mention -- We don't have anyone? Okay. I just wanted to make sure and to let everybody know that we're not going to ignore anybody online. If it's an AP member, we will get to you, and I have my list here now to continue. Tony is next.

MR. CONSTANT: Tony Constant, Beaufort, South Carolina. Along the lines of what Cameron was just talking about, the economics, in my opinion, is a very important base, and not just the boats at the dock, and, I mean, you've got dock prices, and you've got the boats that aren't going to leave, or will leave, but it trickles down to tackle shops, boat stores, state sales tax, and all that revenue is increments that would be affected, one or way or the other, good or bad, but the question I had was more doing the simulation.

We know -- You have made the comparison to pilots and race cars and such, and we kind of know how a pilot is going to react. We don't know his exact, but we know the way he thinks. If he hits a crosswind, and, yes, he feels that crosswind, and how do you simulate how a fish thinks? How is that snapper going to react to the southeast winds blowing for a month? How are we going to so-called simulate what that fish thinks and will do?

DR. CARRUTHERS: Well, the idea is that, whatever hypothesis we have for that, it fits the historical data, and so it's going to be empirically plausible, and, if you put data in there which has the kind of availability and distribution that you are describing, if that's part of the dynamics, we can simulate that, but the key aspect is we need the data to do it, and we need the hypothesis, which you just provided, to test against it, and then we can establish an operating model that does that.

It's not about knowing, per se, what the fish does. It's about having a hypothesis and making sure it's consistent with the data and then capturing that and showing you guys that, yes, we recreated these dynamics that you cared about, it's recreated, and we're going to use that as a test in the future, and so that's how it's all -- It's just the regular scientific process, hypothesis, data, model, and that's it.

MR. CONSTANT: With this, and, in particular, with this particular species, regional, like Bob was mentioning, is very important to south Florida. It's pounded with pressure. Where I'm at, we'll see six boats in a month, and they'll see twenty boats a day, all day, and so those are going to definitely affect the fisheries, but I guess they would end up being different models per region.

DR. CARRUTHERS: Yes, and it really comes down to how we choose to how we choose to create that model and how detailed it is, but certainly we can have that kind of spatial structure, for sure, but, again, we have to have the data to inform it, and, if we don't, then we need to think about how we would use hypotheses for which we don't have data, and there is a second-round set of ideas that we might use to additionally test management procedures.

Maybe they're not in the first round of things that we care about, but they're there in the second round, as something we would also like them to pass, and so MSE allows you to includes ideas for which maybe aren't that empirically strong in basis, but just as an additional test. Like we don't really think that we're going to be flying at night in a thunderstorm, but why would we not choose the pilot that can also do that, if all things being equal, and why would we not do that? It actually gives you a framework for building things which are potential scenarios for which you don't really have a lot of data to inform them.

MR. CONSTANT: I will say one thing I really like about this proposal is that, in a month's time, we can probably do ten years of work, of trial and error.

DR. CARRUTHERS: Yes, and one of the problems with the assessment paradigm is that it's this focus on veracity. It's like this is the truth, and we're going to get the best model, but the reality of the world that we work in is that our forecasts aren't very good, and there are assumptions in those models that we don't really know fully what the impact is going to be, and we need to focus on those which are most important, and so the idea behind this is very simple. It's to say let's focus on the things that matter, and let's get them all in there and see if they matter. A first-round thing we could do here would be to get all of your pet theories in quickly, very quickly, and very coarsely, in an operating model and see what matters and where we should go.

MR. LORENZ: All right. Thank you, and I don't know if we mentioned it, but Tony is South Carolina, nearby here. I recognize David Moss.

MR. MOSS: Thank you. David Moss, south Florida. I have to apologize, and I'm going to dumb this down and just say I don't get it. I am not seeing a huge difference, and there must be, and perhaps you're going to hit this in the next few slides, but, if you're going to be getting essentially the same data, because I don't know that we've come up with any other ways to get the data, as yet, but, if you're going to get the same data that is going into the current stock assessments, essentially, and with the exception of running an implementation model, I don't understand how -- Like what paradigm has shifted, as this moves forward, other than adding in a bunch of different variables, like financial data, like weather data, things like that, which are certainly important, but, if the baseline data of stocks and whatnot are the same, because I don't see a different way of getting that, I don't understand what is going to be different. It could very well be me, but I am just not understanding it well enough.

DR. CARRUTHERS: 100 percent, if I was in this seminar, and I got to here, I would be saying what you're saying, and so maybe give it the next few slides, and I will come back, and, if you're like, I don't get it, mate, in like twenty minutes, we'll talk more about that.

MR. LORENZ: Thank you, David and Tom. The list continues to grow. Andrew.

MR. FISH: Andrew Fish, central Florida and North Carolina. My question would be how do you account for -- I mean, all your success stories looked like they were highly-controlled fisheries, you know, big boat operations, purse seines, all that kind of stuff, and how do you account for the 10,000 boats that fish from Key West to Hatteras, and how are you going to put those people into the equation, because it's such a broad number that nobody really knows what it is.

DR. CARRUTHERS: Yes, that's a good point, and the question then becomes what you can enforce, because can you enforce -- I am not suggesting you do this, but can you enforce areas where people don't fish, and can you enforce days on the water? Can you enforce -- If you have a number of boats, and you can't control people putting boats in the water, can you control seasonal openings, like launches and things like that? I mean, I'm not saying you do any of those things, but the question here is what can you enforce, and, if you can't enforce the number of boats on the water, you have to use something else, like gear, size restrictions, things like that.

I mean, we have the same problem in the U.K., and we have a huge number of our fisheries where we have a big recreational component, and we have to use management systems that we can enforce, like size limits, things that you can observe after the fact. If someone comes on the docks and says, no, the fish is undersized, and, you know, here's your fine, that's all we can do, because we can't know or control for the number of boats on the water in our fisheries, and so it's not an uncommon problem.

MR. LORENZ: Thank you, Andrew, and this is Bob Lorenz, and I'm in North Carolina, and just a quick comment. Thank you, Andrew, for that, because, Tom, I had -- One of the things that went through my mind was that I saw that a lot of the examples were these very large industrial, abundant, cold-water fisheries, and we are more -- We are boutique-ish, and, you know, the nature of the south is smaller numbers and lots of species, and so thank you for that.

DR. CARRUTHERS: There is absolutely no doubt that this particular application is challenging, but look. If at, the end of it, this modeling tells you that you need to know that, and you need to control it, that's what it is, and it may be that the model that you have in your head is a very good representation of what's going to be formalized in numbers, and it's going to tell you the same thing, but, until you have that, until you have that calculator that everyone has looked at and set up, it remains a model in your head, and we can't transparently say that we'll come to those conclusions. The idea here is we're just going to formalize all that, and so I'm not saying that won't be the result, but let's go through the process of building that calculator, right?

MR. LORENZ: Thank you. I'm going to switch, and we have one of our AP members is not here in the room, and so he's calling in online, and so I would like to recognize Harry Morales. Harry, you're shown as unmuted, and I will try you again. There is two more people on the queue, and I will come back. Next is Richard Gomez.

MR. GOMEZ: I want to just kind of try and understand a little more, and I think I might be maybe helping David a little, if the answer I'm thinking is there is there, and so the data that went into the simulation -- I mean, so much of it would have to come from the fishermen that are fishing all the different conditions, correct?

DR. CARRUTHERS: It certainly could, yes.

MR. GOMEZ: Well, I mean, if it was going to be -- If it was going to improve things, a lot of this information would have to be input by fishermen that fish all the different conditions, because productivity increases or decreases according to conditions, and so, with that in mind, what would happen would be that the council members would have a better view of what happens during each condition, and, as we move through the years, they would be able to not depend so much on the catching and the releasing and all the other things that go into rulemaking, but they would also be able to put in the simulators knowing -- Of course, it would have to come back to knowing the conditions of each year and of each fishery and of each fish, and, I mean, I think it would be a great tool for more fair rulemaking.

MR. LORENZ: Thank you, Ritchie. Jimmy. Jimmy is passing. I will recognize Jack Cox.

MR. COX: Jack Cox, North Carolina. The problem with assessments, and the whole management system of our fishery, is that the council gets behind the eight-ball on things, and it takes so long

to fix our problems. In other words, the council puts out fires, and that's what they do, and it's usually we have a problem, and then they're trying to correct it, and so it takes so long, in fisheries management, to get back on track, many years, and so, when you take a forum of what I call experts, young and old, and we've got so many different baselines, here in this room, of our fisheries.

We can very candidly talk about our specific areas, and our needs, and our concerns, and we can take that, and, if we have a healthy fishery, but we have concerns, like I bring up quite often, because we don't want to see our fisheries closed, like we did with red snapper, and then we're always trying to get it to reopen, and we are the experts at what we do, and we only trust science in fisheries management when we have a voice, and, so many times, fishermen don't trust science, because we are not working in conjunction with our assessments, and, when we do that, and we do it with people like you guys that are trying to help us collect data, the only way that it can be done is just like Richard said, and you have to take the data that the fishermen are collecting, the trustworthy fishermen that some of us have been doing it for forty years.

Then you can start plugging those numbers into the equations and into things that you're trying to do, but -- I think all of this has a lot of merit in what we want to do, at the end of the day, is to have healthy fisheries, and, when we can come to a gathering like this, and spend time and discuss it, and talk about things that you could help us do with our assessments and to make them better, and to be more accurate, and I've enjoyed working with scientists, and I think that's a win-win for both of us, but it has to be -- I any kind of situation like this, it has to be fishermen and science working together, before we have a very accurate collection of information to working to any kind of model. Thank you.

MR. LORENZ: Thank you, Jack. Tom, as you can see, something of consideration, I think for this group, and you can get kind of the gist of it, is, here in this region -- I mean, we're dealing with seventy-plus different species, and our fisheries are very interrelated, and fish occur in the same area, where this is basically a bottom fishing fishery that we're speaking about, and we get into species that we can pretty much consider choke species, that become a real challenge, where one species actually affects other fisheries and other fishermen, and so that's something -- That's in the back here of everybody's mind.

DR. CARRUTHERS: So we'll reiterate this, but I think the points you've made -- It was Jack, and the points you've made have been made before in other settings, and it's basically been demonstrated that what you're saying is correct. What happens though is that sometimes there's a reluctance to build stakeholder views into the best available science, and that has created problems with assessments, because people don't think their views, or their data, are properly reflected in the management advice.

This system is at least supposed to solve that. If a science team wants their stock assessment as an operating model, we build another one, which is based on your data, and so your view, and your perception, of the fish can be built in, even under the worst-case scenario, where people wouldn't necessarily take those in as the primary model, and these are just two different ways of looking at it, and this is one which industry and fishers -- It's supposed by their data, and, therefore, you will see the impact of those models on the outcomes, and so this is a place where we can do that, and so we can create models that use, or more closely follow, the data that you provide and ones that maybe are based on, you know, conventional assessments that may or may not do that, and so that

can be there, but also what you think is good and bad can be represented in this, and, also, you can design your own -- You can propose your own management systems and test those, and so you may say, based on the data we've got, we think you should be managing it this way.

The idea here is that you can get all of that in there, or at least that's the idea, and it has the potential do that, and you guys will be on our backs to try and get that done, but that's the idea, and so I hope, as we go through this, you will see that this is a -- It's a different way of doing business, because we can do those things, which we can't necessarily do in that best-case assessment, whatever system you're currently using, and so let's just see. Let's see, but I acknowledge what you said, and MSE has been successful in answering those questions in other places.

MR. LORENZ: Thank you, Tom. Continuing on with the questions about the concept of closed-loop simulation, we want to give an opportunity, again, to Harry Morales, and he's a near-local on our committee. Harry, you're recognized to speak. Try once more, Harry. We cannot hear you.

DR. COLLIER: It's not looking like it's working, and he typed in his question. Assessments are once every five years, and this appears to be yearly, to make better proactive decisions.

DR. CARRUTHERS: One of the advantages -- One of the big problems with stock assessments is it takes a huge amount of effort to collate the data. Everyone sits around, and it's a complicated process, and you get peer reviewers in from different parts of the world, and no one really follows what's going on, and it's extremely complicated, and it gets into the weeds, blah, blah, blah. If you do that every year, it's a nightmare, and I've been in processes where they do that every year.

The idea behind management procedures is that, once you've established the operating models, and those could be like the assessment model, or it could be based on industry data, or whatever it's going to be, you get a rule that is updated and is more responsive every year, and that just -- You have tested it, and you know how well it responds, and you know when it fails, and you just simply look at the rule, and it says you get this much this year, and so it can be highly responsive, much more responsive than just an assessment that is fitted every five years and projected out for five years and so on.

Yes, there's a real potential here to build a management system that is more responsive to the data that you're seeing, and could perform substantially better because of that, and so that is a real advantage of this, is establishing a responsive rule that is simple to follow, that everyone can follow, you know, that TAC has gone up by 10 percent because of these things, and everyone can see it, and we've tested it, and that's what we're doing, and so that is a really big advantage. Whether that relates to conditions, or that relates to the data that you're seeing in that year, that's something else to worry about, but it could be, and it could be responsive to those things.

MR. LORENZ: Thank you very much, and to keep in mind that we'll continue with questions, and I have questions in the queue, but I know that Tom has considerably more to go forth, and maybe some questions that you might have might be answered, if we let him get back to the presentation again, but I would like to recognize Andrew. You have a question?

MR. MAHONEY: Yes. Thank you. Andrew Mahoney, Bluffton, South Carolina. What stocks have you applied the MSE to that haven't had a consistent increase in the MSY year-by-year?

DR. CARRUTHERS: I am just trying to unpack your question. What stocks have we applied MSE to that don't have an increase in MSY year after year? Can I ask you how you're calculating MSY, what you mean by MSY, and what it means in this setting?

MR. MAHONEY: The maximum sustainable yield.

DR. CARRUTHERS: Okay, and is that increasing? Is that a concern in this setting, that it's increasing, or that it's not?

MR. MAHONEY: I am wondering what stocks you have applied your simulation to that haven't increased the MSY year-by-year.

DR. CARRUTHERS: Okay, and so MSY is a really sticky business, right, and so, in most settings, people define it in a year based on the fishing in that year, and so the most recent year, and so here is the size or age with respect to the fishery, and here's our estimate of recruitment, and then we get the MSY estimate. We are discovering, more and more, that, in plenty of cases, that changes over time, because the fishery operates differently, or the background productivity of the stock is changing over time, and so MSY, in actual fact, changes in most fisheries all of the time, and it's actually a theoretical concept, and so I'm trying to understand really -- Like we've done it in both, and so we've got operating models developed that have really big changes in MSY over time, and we've got those that there is none whatsoever, because the selectivity of the fishery is the same, and all of the things that go into that MSY calculation are the same, but we've got others --

For example, I mean, take -- up in British Columbia, and we've now got ten-times as many marine predators as we ever have, and MSY is one-fiftieth of what it was even fifty years ago, because we have all these predators out there that keep down the stock, and so we've dealt with both, both situations. I am more interested to know why it's a concern here, and like what the origin of the question is.

MR. MAHONEY: I want to know what the benefit of having this, in reality, is going to be.

DR. CARRUTHERS: So, I mean, if you're concerned that there are big changes in things like MSY in the future, what's important is that those are built into the simulations models, the operating models, and we can test robustness to that situation, but, also, it's going to matter, if that's the case, how we measure success, right, because let's say the stock is declining in its MSY over time, and you've got to judge fishing by that changing yardstick, and so your question is complicated, because it has implications for both the dynamics that we have to test these management procedures against, but also how we measure success at the end of it, and it's actually a very complicated question.

MR. LORENZ: Thank you, Tom, and, I guess, Andrew, if you want -- Tom, you're through the day here, correct?

DR. CARRUTHERS: Yes, we're here all day.

MR. LORENZ: Andrew, if you have -- The question being somewhat complicated, you may want to talk one-on-one, and we can come back and comment a little later, at the end of the presentation or later, and I want to recognize Richard.

MR. GOMEZ: Richard Gomez, Lower Keys. I think this question is a little simpler, but big for you, and, if you look around the room, you're going to see people that fish for fifty-plus species, and a lot of these species we fish in different regions, but the same fish, and now that same fish will feed differently, depending on the region, and so not only will you be dealing with more species than ever before, but you will also be dealing with different regions that fish the same species, and, I mean, can you get -- Can you get that big, where you can handle that kind of input, because the input would be, in my opinion, like nothing you've ever done before.

DR. CARRUTHERS: Yes, and there's no doubt that this is a complicated spatial multispecies, multi-fleet fishery. This is as complicated, basically, as MSE gets, and so I acknowledge that. We have two years on this, and the priority here is to get to the species that are on the priority list and deal with the dynamics that are the most important, and so that might be ten species, five species, and I don't know what it would be, and it could be quite a complicated or quite a simple spatial structure, but we need the data to inform that.

What's really important here is that we don't -- We get the priority species, the things that are the biggest pinch points, or the biggest concerns, in the model, and we deal with the dynamics, as appropriately as we can, given the time horizons that we've got. Yes, it's going to be challenging, but I think one thing to remind the group is we have to be focused.

All of this is being produced in open source software that people can work with in the future, and it's not our stuff. It's just going to be freely available at the end of this, and so what's important is we build a framework that can be expanded on, built upon, made more complicated or not, and this is the start, and we want to create a working model, but we've got to be realistic about how big that's going to be, and, as you pointed out, there are going to be a lot of challenges in getting fifty species and like a hundred areas into something, and so we have to be realistic, for sure.

MR. LORENZ: Thank you, Tom, for that, and thank you, Richard, for the question. I think something important for us all to keep in our minds, as we're going through this presentation, is the priority list of species, the choke species, et cetera, and I thought that was a good point to bring up and something for us to keep in mind, and I guess that's what we're here for. I do have one more question, and it's, again, from outside, online, from Harry Morales. Harry.

DR. COLLIER: I will ask it for Harry, given that he's having some issues with his microphone, but will previous assessment failures be --

MR. MORALES: Can you hear me now?

DR. COLLIER: Yes, we can.

MR. MORALES: Okay. It took a while to unmute my computer, and so I do agree, and I guess we have to start with a working model, and then it's a living model that is going to continue to get smarter over time, and is that correct?

DR. CARRUTHERS: I hope so.

MR. MORALES: Okay, and, you know, I think of some of the -- I consider them failed assessments, or at least failed management strategies, like the red porgy that we've been trying to rebuild for thirty years, and do you take previous assessments like that and, you know, the various decisions that were made, that resulted in a failure in rebuilding the stock, and do you take that into consideration when you are applying this, or are going to apply this, to the snapper grouper species?

DR. CARRUTHERS: There's a few things we can do. It's usually quite good to include the status quo management, so you can compare anything against that as a yardstick, so, when you're doing the future projections, you can say, well, this is what was done, or has been done or has been done recently, and that's how it's going to compare in the future, and that's another thing you can do, is you can replay the last ten years, and you can replay it for what was done, and what this alternative could look like, and so you could do like a kind of retrospective, where you said, well, what if, for the last ten years, we used our new management procedure, and what would it have done, and so there's a couple of different ways of getting the status quo into this, and those would be two ways of doing it, but I think it's important to have that as a yardstick.

MR. MORALES: My second question is I think there is more than enough agreement, on this AP, that the various species that we go after are not homogenous, and like I've never ever caught a goliath grouper, but I hear, in the Keys, that you have trouble staying away from them, and, you know, we have no problems catching amberjack up here, and, in the Gulf, I was told they're having trouble with those, and so there is definitely a difference in the geographical areas, relative to the abundance of fish for the various fish. Are you, and can you, take that into consideration?

DR. CARRUTHERS: Yes, and there's two different ways we can do that, depending on what the -- What is causing that, and so one is to split up your fleets and say, look, this is just a regional fleet that has got a different availability of fish, and that would be one way of doing it, but that would not account for regional depletion, if that was occurring, and so it really depends.

Like we'll get into it, but we need to work out whether the regional differences are about regional distribution of the fish or regional depletion of the fish, because, if it's just distribution, you can deal with that as a separate fleet, but, if there's different depletion levels up and down the coast, for example, then that has to be in the dynamics, because that is affecting what you think is healthy and what isn't, and so we'll get into this, but there's a couple of different ways of doing this, and you can do combinations of that as well.

MR. MORALES: All right. Thank you, and I'm Harry Morales from Hilton Head, South Carolina.

MR. LORENZ: All right. Thank you, Harry. I guess we'll be returning to you, Tom, to go further on in the presentation. Do you need a little time? We could do a bio break for five minutes and regroup, since there were a lot of questions.

DR. CARRUTHERS: Whatever people need, but one thing I would say is this singularly the best feedback we've had at the start of an MSE presentation, and so thank you for that.

MR. LORENZ: I was just looking at an appropriate time for a bio break here, and let's just -- Please, let's do just five minutes, because, at the end, we had a lot of questions, and that may

proceed with the next part of Tom's presentation, and so please take five minutes, and we'll reconvene at 10:16. Thank you.

(Whereupon, a recess was taken.)

MR. LORENZ: All right. I would like to assemble and call back to order our AP and bring Tom back, who is going to further explain the difference between the MSE and the stock assessment, which is, I guess, what a lot of our thoughts and questions were about. Go ahead, Tom. Thank you.

DR. CARRUTHERS: Thank you. It's always good to compare what's being proposed with something that you guys are a bit more familiar with, and so we're going to talk about exactly that difference, and it might tidy up some of the questions we've had, and who knows. Let's go through it.

Stock assessment is just like a part of that schematic that we saw before, and it's just observations from the fishery, and then your assessment, and that's it, but it ends there, right? It ends with an estimate, probably, of current population status, current exploitation rate, and then maybe a bunch of TAC projections or whatever it's going to be, but it stops there. There is no feedback into the system, and so MSE, on the other hand, is this idea that the focus isn't on status, which is the endpoint in stock assessment. In MSE, the focus is on what you're going to do in that red box and how well it performs when it feeds back into the system, and so this could, be, as we said, an annual rule, and we want to see how it feeds back, how it can cope with different situations, like how robust it is when it fails.

The key thing here is that one of these things is like -- In the analogy, it's closer to a weather forecast, the stock assessment, whereas MSE is closer to testing a pilot, and so the focus is kind of different, and the reason why stock assessment can be problematic is because what happens in that red box -- People might have very different views about how much should be done, and the status could be really different, and all kinds of things could be different, whereas, in the MSE, maybe those differences don't really matter. Maybe you can know that your management approach is the right one, regardless of that uncertainty, and so there are quite different ways of looking at things.

Of course, an assessment can look the same, and, here, these pilots, this assessment rule, can look good, but you don't actually know which is going to perform well. Here, we take all our data in, and we say this is stock status, and we say we're going to provide advice on it, but we don't know which one these guys is going to actually perform well under these different circumstances. On the left, we have an actual NASA test pilot, whereas, on the right, it's Tom Cruise, right, and like he's a lunatic, and so they look good, but we don't know what's going to happen when there is these dramatic problems in the weather or conditions. One of these has been tested, and the other just simply has not.

Stock assessments are management procedure, but they are just a really complicated one, and, generally, we have simple rules in management procedures. Stock assessments are really complicated, and they provide advice, but they are very, very hard to test, and, for the most part, we don't know whether what we're doing -- We can look, historically, and say, well, we've had problems in this fishery, but, if we were to propose a new type of assessment model, that was

simpler, or more complicated, we would not actually know what the marginal expected benefit of that is, and think about it.

The next time someone tells you that we're going to do this new stock assessment, if the question you've got is why, and no one can tell you, but they'll just say it's more complicated, and we think it will be more precise, and you're like, yes, but does that mean that it's going to manage it any better, and stock assessment is woefully disconnected from management performance. You don't even dare to ask, and you don't expect to get a sensible response, and it's like why don't we do something simpler, and wouldn't it be cheaper? How would you know it would be worse? We don't know. We don't know, and it's kind of shocking, right?

We find all kinds of problems with stock assessments, whether we want to admit it or not, and we find that they're not very good at estimating current scale. Take your most data-rich stock assessment, and I will tell you what. You could change a few things, and it will tell you that the amount of creatures in the water is quite different, easily, and that is not -- I have reviewed maybe fifty stock assessments, globally, and I will tell you that it's not hard to come to that conclusion. They are very sensitive, often, to alternative plausible assumptions, and like you might say, yes, but what about this, and, suddenly, the thing spits out a completely different answer, and that's not uncommon either.

People involved in assessment are obsessed with trying to get to the truth, and what's the closest thing to reality, and so they tend to pursue very complicated models that maybe, maybe, aren't robust, maybe, and that can create problems, where the model takes weeks to run, and it's unstable, and there's all these other problems with it, but what if your uncertainties in the system are so radically different that they can't even be represented in that stock assessment? That happens. That happens, and so they can, in some settings, be a precarious basis for decision-making, or at least demonstrably controversial. At the very least, people can like their stock assessment, but admit that it's been difficult to get through peer review, or difficult for all the stakeholders to agree with, and things like that, and that is not uncommon, especially when you have conflicts in the data and you have large uncertainties in the system.

Imagine you have a situation where your assessment tells you it could be any of these future scenarios, and MSE is one solution to that problem, in that you can test these things across those different uncertainties, and so, again, the focus is not on the forecast, and it's on the pilot.

The objective of stock assessment is to provide a TAC, or some advice, a size limit, or some piece of advice, whereas MSE is to identify not the advice, not the tonnage, not necessarily that thing, but it's the way. It's the rule that you use, is the focus of MSE. It's the system and not the -- It doesn't say, oh, it should be 2,200 tons or whatever, but it says it should be a rule that sets tonnage according to these data, and the focus is on the pilot and not on the forecast. At the end of this, you might say, well, we've discovered that this management system is the way to go, and then, afterwards, you look at what it's going to provide you, for example.

Generally speaking, although there are different ways of doing it with stock assessment, generally speaking, for the most part, people establish a base-case model, which is the best interpretation of the available data, and we focus on accuracy. In MSE, the focus is on management performance and robustness, and so one of these things explicitly builds in all the different ideas about what is going to, or could, happen, and the other one tends to focus in on a single interpretation, although,

of course, there are different ways of presenting stock assessment results, but MSE is really expressly about uncertainty and not trying to focus in on the best possible model.

How do we expect it to perform, when we just don't know in the stock -- We don't ever ask the question of what is the -- A stock assessment will provide you with projections of biomass, and things like that, but that's the assessment, and we don't know. It could be wrong, and we don't know how well this analysis and this projection and this decision-making, this management procedure that is a stock assessment -- If it ends there, we don't know how well it's going to work.

There are plenty of places where a stock assessment has provided us with projections that never happened, and, when you simulation test it, you can see why. We don't know how your stock assessment is going to perform in management, in principle, whereas, in MSE, we do. The management performance, the long-term catch, the variability in catch, the short-term catch, the spawning biomass, all those things that could be considered management performance, are things that we have observed for multiple different management procedures.

The stock assessment approach to uncertainty is typically sensitivity analyses, and, in the system, it's estimated, and so we say this is our perception, and this is how our perception changes, and, in MSE, we say, no, these are real possible states of nature, and they are not perceptions, but these are really how the system could be, and we use that to test management procedures. That goes into our simulation, and so it's a different situation. We're not saying that is what is happening in MSE, but we're saying that's what could happen, and this is the difference between a we think, which is the stock assessment mindset, and MSE is it could be, or what if, and those are two fundamental differences in the way that we think about these things.

When you talk about communicating uncertainty, in stock assessments, you're going to get variance in estimates, and you might get a decision table based on those, something like that, but, with MSE, it focuses on the ones that matter. Like I said, you will discover that probably the majority of things that create sensitivities in a stock assessment have no bearing at all on what the correct -- The decision over the correct management procedure should be, and so, for example, you might -- The current stock status could be it's very healthy, or it's very unhealthy, but you would still find that you should be using the same size limit.

The focus here is on what you should be doing and whether that changes, depending on, for example, status, and so a lot of the scientific uncertainty in a stock assessment is not relevant to management decision-making, or may not be, and it's quite possible, and so MSE focuses on those uncertainties that actually matter when you are making rules for management, and so, again, the focus is kind of different.

One of the problems that stock assessment has faced, particularly in very complicated data-rich settings, is that stakeholders without technical training, through no fault of their own, don't necessarily have a full understanding of how it works, and so the advice that directly impacts them is based on rules, or let's just say a process, algorithms and fitted models, that isn't 100 percent clear to them, and it can breed suspicion. In plenty of places I have been, I have seen stakeholder groups say that I just don't trust this thing, and that doesn't mean that they shouldn't, and maybe they should, but they don't, because it's -- Through no fault of their own, and it's just very, very complicated.

The advantage of MSE is that you can end up with a rule that is relatively straightforward to understand, like a very, very simple index-based rule, or could use some data from that year, and then everyone can sit around and say, okay, now I know what the advice is going to be next year, and you can write it in one line on the slide, for example, and so the difference is that, when stock assessment advice is produced, there is a stage where managers sit around and look at decision tables, and probably pick something against some idea of yield and risk, biological risk, probably.

In MSE, you establish what you think the best-performing management procedure is, and then it's generally adhered to, and so that rule will calculate that advice for a certain amount of time, and it's stuck to. The advantage to that is that, rather than going through a costly, not very transparent process, where the interpretation of it by managers is up in the air, in MSE, you know what you're going to get, and there's been a pre-agreed -- It's been pre-agreed that this is the rule that's going to be used, and it's pretty straightforward to understand what that rule is.

You can -- It's not hard to see that, in the MSE setting, where you have a management procedure, people often feel a lot more comfortable, because all of their concerns have been built into the operating models, and they're using a management system that they like, that they can understand it, and the handles that are being pulled are something that they're interested in, and you can see why it could be a solution to some of the concerns that you typically get amongst stakeholder groups when you're dealing with stock assessments.

We don't know what is going to happen with our assessments. I mean, look, if we have a climate event, or we have some ocean condition event, or we have -- I don't know what it's going to be, disease in one of these creatures, or whatever it's going to be, and we don't know what's going to happen to the stock assessment and how well it's going to provide advice. We do know, or can expect to know, how our MP will perform, and it might be bad.

It might be bad, and like it might really fail, under some circumstances, but guess what? We know what those circumstances are now, and we worry about the ones that we've shown that matter, and we don't have to wring our hands and worry about every single thing that could go wrong, and we know it's one of these three things that is going to cause a failure in our management system, and then we can look for those. In general, the idea behind this is that you have confidence that what is being implemented is going to work, and so one of the outcomes of MSE is confidence in the management approach.

All the complexity in stock assessment happens in the provision of advice, and it happens in the fitting of that model and the interpretation of the data. In MSE, it can be more complicated, because you have to create lots of different scenarios for what could be going on in the fishery, and so making the framework has this high demand, but the actual advice is generated, unlike the stock assessment, from something very simple, and so complexity is front-loaded in MSE. It happens at the start, and it's what Adrian and I are going to be worrying about. It all happens at the start, getting all those simulation models together for testing things, but, once it's done, running the thing, and the advice that comes out of it, is relatively simple.

It's not too uncommon for most stakeholders, in an assessment process, to feel like they've sat at the back of a room watching a bunch of geeks just talk about stuff that's not related to what they care about, and it doesn't reflect their views on what is happening. If you feel like that, you're not

alone, and that has been a very common message that we've heard from just about every industry and NGO group that we've spoken to.

If you're not directly involved in coding and stats, you're kind of like a nobody, and you can't contribute in the way that you think you should be able to, and that's not uncommon, and so, in MSE, you're the whole ballgame, because you say -- You describe the uncertainties that you care about, and you describe what performance is good for you, what a good fishery means to you, and you can very often describe a management system that you would like to test, an alternative, and so you're involved all the way through, and, like I say, the technical aspects of it are much like a car engine.

It's very complicated, and it's made by dorks, but, really, none of your concern. As long as the thing is easy to drive, and it does what you want, and it gets you where it needs to go, who cares how the engine was built, right, and so we'll do all the nerdy stuff, but MSE focuses more on the controls of the car and where you want to go and less about the technical components of the thing you're driving, where the stock assessment is all about that. It's all like, well, we designed this really complicated engine, and it's super efficient, and it does -- What does that mean to a wide range of stakeholders? Not that much, often.

In terms of transparency, ever felt like you're trying to game a stock assessment, right, and so we might have eNGOs, on one side of the table, arguing for the interpretation of some data in a certain way, because they hope to achieve an outcome, through this not very transparent stock assessment and management approach, and you might have industry guys wanting a certain outcome, and trying to game it, in the interpretation of data or assumptions, to get there, and that's not uncommon, because people are uncertain about what stock assessment is and how it's going to behave and how managers are going to respond to it. That's not uncommon.

In MSE, you just walk up, and you lay your cards on the table, and you say this is what we think is happening with the system, and this is what we want to get, and you shove it in a calculator, and you push "go", and guess what? Very often, the things that you have been trying to game are one and the same thing. How often does an eNGO that wants a long, sustainable, healthy fishery, but is suspicious of, for example, an industry stakeholder group, realize that they've wanted the same thing all along, like high catch rates and lots of access and large fish, and that's all a healthy fishery, and they wanted the same thing, but they had to go through the suspicious and unclear stock assessment process to try and get it.

In MSE, you just say what you want, and you say what you think is happening, and you do the calculations, and so, in terms of transparency, for better or worse, at the end of it, when managers choose a management procedure, you will know why they chose it, what compromises they made, what tradeoffs were involved. There won't be mystery in it. If the group can get together and agree that this is the calculator we're going to use, it then just becomes an issue of what you want to -- What you want to put into that calculator, and that's the idea, is that it's very transparent. I don't know whether that has addressed some of the issues that were brought up about the differences between those two things, but that is -- Sometimes it's useful just to go through those.

MR. LORENZ: Thank you, Tom. I'm going to open this up to questions in a moment, and I'm not going to do this often, but one thought -- One thing that I would like to bring up, because it's the thing we have issue with, is basically two large stakeholder groups here, and a few choke

species, and, for the validity of MSE, I presume the output is only as good as the input, and so, without putting you on the spot, just for us to think about, we have like a group, with respect to the species, that we absolutely know the numbers of participants, and we have pretty high confidence on exactly what's being taken out of the biomass on a yearly basis.

On the other one, we have -- We come to a statistical estimation of the stakeholders, based on another database, mainly the state fishing licenses, but we don't have really any idea what's going on in the federal waters of even how many the numbers are, and so then, when you get to the next level, the next derivative, the amount of species taken, who would ever know? I mean, what's your confidence level on that one group, and we don't know the group, and how is your model affected by a group that we don't know the number, let alone what they take, and then, the other one, we strongly know the number, and which one would you rather deal with?

DR. CARRUTHERS: Well, what matters is that we represent, realistically, what we know. Like I said, the process here isn't about pretending to know things we don't. If you really don't know what one component of the fishery -- How big it is, then you just don't know what it is. What we have to do is make sure that the models represent that, so that you can work out what the marginal value of knowing that could be, for example, or being able to control that, or, if you can't control it -- The idea here isn't to -- Like I said, the idea here isn't to pretend that we have knowledge that we don't, but it's to formalize our current state of understanding.

This isn't an exercise in pulling the wool over people's eyes, or pretending that things are certain. If you really do have a recreational fleet of unknown magnitude and impact, we have to represent that in the models and find out whether is a management system that can navigate that. Like I said, we're not going to solve that knowledge problem for you, but we can tell you whether it is a problem or not and under which management scenarios it could be less of a problem, and then we can tell you what the marginal value of maybe getting better data about that is, and so, like I say, this is everybody here agreeing to a representation of what's going on, as much as anything, but I don't think we're going to solve that problem, necessarily, but I think we just have to make sure that we represent it correctly.

MR. LORENZ: All right. Thank you, Tom. I know that's very meaningful to me, as far as how your models will work. We'll now take the question from the AP. I have two, and, Andrew, I thought I saw your hand up first.

MR. MAHONEY: Would you mind going back to that graph, where it compared both of them, the MSE and the stock assessment? There was a graph, right at the beginning, or it was like -- That one. Okay. So, for us, the implementation model, which is enforcement first, really doesn't exist, and so we would make more gear restrictions, in order to fill that void, which doesn't sound good to me, because, once you kind of start putting a bunch of gear restrictions on people, regardless of how large the restriction is, if you've got a bunch of them, then you're not going to get anywhere, and it's kind of like Gulliver being tied down by a bunch of strings. Also, the observation model, we don't have accurate data going into there, and so I really believe that this process works, but it's not going to work, for us, until we hold up our end of the bargain.

DR. CARRUTHERS: There is no doubt that, in situations where enforcement is difficult, people use input controls, which is what you're describing, things like size limits and boats in the water,

things like that, where it's hard to enforce things like catch limits, for example, which require really good quality data and comprehensive data.

You are basically explaining to me that, although they are undesirable, the gear restrictions, for lots of ways, they're necessary, because other types of management require better-quality data, correct? If that's the statement, then we need to see if that's true, and so what we can do -- What you can't do, in a stock assessment, is you can't play what-if, but what you can do in MSE is you can, and so you can say what if we had these better-quality data, and we have an alternative management system, and how would it perform, and so this calculator will also provide you with comparisons of a whole new way of doing business, which is the one you're proposing, which is better-quality data with a potentially more desirable set of management restrictions, and it will tell you how good those data have to be, in theory.

These are all theoretical models, right, and they will tell you, in theory, how good that data has to be, and so the idea here is that your -- The point you've made is something we can recreate and test, and we may well be able to do that, but you will notice that, until we do this theoretical exercise, we can't answer that. All people are going to say is I wish we had better-quality data, so that we could implement this particular control, but, in theory, right now, you don't know whether or not that's actually, in theory, even going to be better.

The first thing to do is show that, actually, yes, it could have real benefits, or, nope, actually, it's not going to be better, and so this is going to give you that first check that what you're proposing, which could well be valid, is in fact consistent with what we think is happening in the fishery.

MR. MAHONEY: Right, and so one thing I think we can all agree on is that accurate data is going to give us the information that we want. I mean, I don't think we need a model to show us that we want accurate data. Do you understand what I'm saying?

DR. CARRUTHERS: Are you sure about that?

MR. MAHONEY: I am not, I guess, but I feel like --

DR. CARRUTHERS: Maybe we need some sort of framework for knowing that.

MR. MAHONEY: Yes, and, I mean, I feel like I -- I feel like everybody probably feels the same way, that accurate data is going to give us the info that we want.

DR. CARRUTHERS: What if your interpretation about accurate data wasn't very good? What if your data were biased by 20 percent, like you missed 20 percent of the catches, but your rule actually negates that underreporting? This idea of accuracy and precision is a scientific concept, and it's not a management concept. You could have an assessment, a rule, that was biased and provides you with better advice, and it happens all the time, as it keeps you in a productive stock state. Be careful to distinguish between the difference between knowing something and how well you will manage it with that knowledge.

I can give you perfect information, perfect information, of that system in this model, and you can have terrible management performance. I can give you rubbish, rubbish information, in the simulation model, but you have a management procedure that performs well, and it's not a one-to-

one translation, and the cost of accurate data, as it gets more and more accurate, becomes exponentially higher, and so there's an exponential cost, potentially, for diminishing returns, and MSE is going to help you navigate that, right, and that's the idea.

MR. MAHONEY: Thank you. That was very informative, and I would like to see some sort of history on how this was applied to stocks.

DR. CARRUTHERS: You would like to see some kind of history? Like a documentary or something? It's not going to sell too well.

MR. MAHONEY: Like information that you have from the work that you've done already.

DR. CARRUTHERS: Okay, and so I'm trying to think, and we would have to try and find a fishery that would be close to this one, a multi-stock, multi-fleet fishery, which there aren't that many MSEs for, but let me think about that. I think that request is a valid one, and it could be intersessional, and we can maybe get back to you on that, or we'll actually just do it in this framework, which is much more appropriate for what you care about, and so maybe just hold on to your idea, and just make sure that we represent that when we're doing the work.

MR. MAHONEY: Okay.

MR. LORENZ: Thank you, Andrew. The next question is Jimmy Hull.

MR. HULL: Thank you, and so we need an analysis tool. You know, managers need an analysis tool, such as MSE, to analyze ideas for management and to get a result of what it's going to do in the real world, and so we have our private recreational red snapper fishery is a dead discard fishery, and it's a discard fishery, and so the idea would be to throw in different scenarios of management to turn discards into landings, and so it would be to throw into the model a limit to the number of days at-sea, or the number of days that they can prosecute a snapper grouper fishery in the private recreational sector, and what would it -- What would the yield be for that in reducing the dead discards to, okay, you have a season now where you can fish, whatever it would be, and here's what you're going to be able to increase those discards -- Is this going to give us that type of answer?

DR. CARRUTHERS: 100 percent. It will show you the equivalency too of those different levels of levers, and so, if you're considering two management actions, like a dead discarding rate and season closure, whatever it's going to be, or a size limit, you can see the equivalency of those options, and so you can see, to get the same performance, what you would need in a reduction in dead discards, and it's exactly -- In the reading that we did, and the talking, ahead of this meeting, which was not comprehensive enough, and that's why we're here to talk to you guys, but those are exactly the issues that we identified would be important.

MR. HULL: Thank you, and so that's where the stakeholders come in, as to what they view as what they would like to have, as opposed to what they have now, which is basically a dead discard fishery, but, if we do these certain management ideas, this will do the analysis, so that we can -- We can look at it and say, oh, yeah, we'll take that, and that would make us happy, that type of thing.

DR. CARRUTHERS: Fundamentally, that's exactly it. I mean, if you get nothing else from this presentation, just know the idea here is to produce a central thing that everyone can interrogate and say why they're making decisions -- The decisions they are, and so exactly what you're saying. We're going to propose a difference, and this is why we're doing it. In theory, this is why we're doing it, whereas, right now, what do you have, right, and so this isn't -- I am not going to sit here and tell you this is perfect, right, but this is just what we have.

What if your racecar driver pits every six laps, and like not every like twelve, and what if? You can't do that in a real race, and you have to test it in theory first, and so that's all this is, and I am not going to sit here and tell you that it's going to be true or right, but it's just the first step to making sure that there's a coherency and a transparency in the decision-making.

MR. LORENZ: Randy.

MR. MCKINLEY: I guess this is more generalized, about this process. Randy from North Carolina, and, I mean, it looks like, if this was implemented in a couple of years, or whenever it could be, that it would mean changes in the biomass, and the TAC, and maybe the ACL, and how is that going to interact with the mandates of the Magnuson-Stevens Act? I mean, like what if it was determined that the American reds were not overfished, in a couple of years, and I guess, more specifically, like for the red porgy -- I mean, they're under a thirty-year rebuilding plan, and the gags are facing maybe a ten-year. If this management alternative way of doing it was implemented, is the council willing, or able, to operate under the mandates of the Magnuson-Stevens Act? I mean, I'm asking this for the reality of how it's going to affect the fisheries for us.

DR. CARRUTHERS: So traditional legal frameworks, like the Magnuson-Stevens Act, have been set up around concepts to do the assessment, and there is no doubt that there are challenges in trying to get a what-if scenario, like MSE, through the same framework that people look at assessments, because the strength of MSE is testing under really difficult circumstances, and some of those could be what if this was grossly overfished or something. We have to be very careful, is the answer to that.

The way to do it, in my view, is to construct a single model, which is one that is a reference model, and worry about the legal framework with respect to that, which is very much like the assessment, like the reference model, so that there is equivalency in the way that the Magnuson Act is interpreted for things like fishery stock assessments, and so you pass that test and then be very clear that all the other models, the other operating models, are things that are applied for what-if robustness testing purposes, and they are not statements of reality.

We have to be very, very clear, when going to MSE, that the legal frameworks apply to best-case models like stock assessments, in which case create a best-case operating model and apply the legal frameworks to that, and only that, because the other operating models are deliberately designed to be testbeds, like stress tests, and they are not statements of reality, and so it's a very, very important question that you bring up, and it will come into play later, but we have to take real care with it.

I think this group, and when we talk with the science team, we have to be very, very careful that we recognize that, because the probability of overfishing, or the tendency to overfish, which is a critical part of the Magnuson Act, is not relevant to operating models that are, by default, low stock

levels, to see whether a management procedure will rebuild. The test to see whether it will rebuild is not a statement about what the reality is, and do you see what I mean, and so we have to take a lot of care in how we phrase that, and it's a very important point that you bring up.

MR. LORENZ: Thank you, Randy. Just a quick note too that the AP members that are online, waiting for their question, you're fourth and fifth in the queue, and now I'm going to recognize Ritchie Gomez.

MR. GOMEZ: I do have a question, but, I mean, I can see where this could be a major gamechanger in a good way for stakeholders. You know, if we are allowed to have a major input into the input, that would be very beneficial for us, finally being able to put all these different scenarios and come up with a simulation, but I am just curious, and, I mean, does the council have an opinion on where -- How are you guys feeling about it? Are you for it or against it?

MR. LORENZ: That question was addressed to Chip Collier.

DR. COLLIER: Well, as far as council staff, we're very for it. I mean, we put together the proposal, and we presented it to the council, and the council supported it, and so we are supportive of this. We think it's a more holistic approach to managing some of the fisheries issues that we're dealing with in the snapper grouper fishery, and, if you're looking at the literature right now, there is a lot more efforts going towards MSE than towards single-species stock assessment. Although we still manage to single-species stock assessment, there is a lot more efforts going to MSEs.

MR. LORENZ: Thank you, Ritchie. Tom, you had something to state?

DR. CARRUTHERS: An interesting side note is, this year, the Marine Stewardship Council, a global premium eco-certification label, decided that, if you want to get your fishery to have an MSE rating, like the certified label of SG100, which is their best, you have to have a management procedure, tested by MSE, and that's an astonishing requirement, but that's in their draft revision to their standards, and it's right there, and so this isn't going anywhere, because the focus, for them, is on sustainability and not status. The only way of knowing sustainability of an approach is MSE, and so they have written it into their draft standard that is coming in, and that's just a side note about this issue of why it's important, and it's increasing.

MR. LORENZ: Wow. Very interesting, Tom. Tony.

MR. CONSTANT: Tony Constant, South Carolina. With your stock assessments, we have individual species, and we have multiple species that we're dealing with, and we have assessments on multiple species, but each one, and we -- A lot of us here really feel that they are interactive, and they basically live in the same house, and so, with the snapper, we are reaching our mortality rate, through discards, yet the biomass is still growing, larger than it's ever been.

To put it in perspective, our sea bass has dwindled, and our red porgies have dwindled, and, just in our neck of the woods, here in South Carolina, and I am going to put in the example of fifteen years ago. If we, a group of family or friends, wanted a fish fry this weekend, well, me, and a couple of other buddies, would run out twenty miles, and we could catch three to five-pound sea bass, enough to have the fish fry, and so we would have a fresh-fish seafood dinner this weekend. I couldn't do that, currently, if you paid me to do it.

I could go catch snapper for that fish fry, but that sea bass is nonexistent, and, in my opinion, it's because the snapper has grown to the point where it has decimated that fishery, not the fishermen, and that fishery existed for years prior to the closure of snapper, and so, in my opinion, the snapper, the redfish -- I'm sorry. The sea bass, as well as the red porgy, have both been hurt tremendously by the overgrowth of the biomass of the snapper.

DR. CARRUTHERS: I think it was two years ago that I went through an absolute nightmare process of trying to code those interactions in, to make sure that you could make the biomass of one creature affect the productivity and recruitment of the other, and I created a total rat's nest, right, and Adrian sorted this nightmare, but the point I'm trying to make is that we coded it in, and that's all, and we have tons of different options for dealing with that.

The problem you've got is that the historical assessments, the rebuilding, aren't accounting for that in their dynamics, but we can account for it after the fact in the MSE, and so, if you want to create some scenarios where you think there's what is called depensation in one creature, due to abundance of another, that's exactly the kind of operating model scenario that we can test, and so these are the kinds of things we're here to hear about, right, and like, if that's a hypothesis that you want to see tested, let's do it, and what you will discover is that there will be tradeoffs in the yield of those creatures, and you will have management procedures that actively respond and fish down to productive levels some creatures, and that will allow rebuilding of others, and we know that's going to happen, but, right now, we don't have the numbers. We don't know how much, or any of those things, and so it's a totally valid point, and it comes into that black box of the operating model.

MR. CONSTANT: Well, and, if you look at these species that I was just mentioning, the red snappers are voracious eaters, and they just very much consume, and, in all fairness, that's probably the basis of their success. That said, the sea bass, and the red porgy, is now being, you know, implemented in management to the fishermen, but it's actually a product of the fishery, and, without a change to this fishery, in my opinion, with the snapper -- If we don't allow a catch, then it's going to continue to decimate the other species.

DR. CARRUTHERS: We had this exact problem in BC with salmon, where there is competition for food in the ocean, and, of course, they've got this four-year cycle, and so, if you allow for, as the conservation groups wanted, underfishing of the big stocks, they actually impact the conservation performance on the weaker ones, and so, you know, you've got to campaign for a certain level of exploitation, to actually allow productivity in the weaker stocks, and we had this problem, and it was very, very hard to convey to people, but, nonetheless, you can use these type of models to convey that and show they what they are, and there will be some management procedures that actually automatically compensate for abundance, and they will be quite good under those circumstances, and others which don't, and, you know, that could be a second-round test.

We could say that we don't really know this is happening, but we suspect it could be, and here are three management procedures that all look roughly the same, and let's also test those with the Tony non-independence hypothesis, and so the Tony hypothesis then tells you that one of those works better, and why would we not pick that? MSE gives you another way of building a hypothesis like

that into your selection of a management option, even though it's just something that is kind of -- Something that Tony said.

MR. CONSTANT: It would actually be hard to apply to a fishery, if the fish are basically eating themselves, and it would be hard to apply that into a management with the data of gathering fish by the fishermen, wouldn't it?

DR. CARRUTHERS: I don't know, and we would have to look at it, the data.

MR. LORENZ: Thank you, Tony. Cameron.

MR. SEBASTIAN: Cameron Sebastian, Myrtle Beach, South Carolina and Calabash, North Carolina, and so, you know, I asked, earlier, what's your slant, or your bias, and, you know, I've looked through a little bit of stuff, and MSE is pretty much funded by Pew, and is that right?

DR. CARRUTHERS: What was that?

MR. SEBASTIAN: Are you being funded by the Pew Charitable Trusts?

DR. CARRUTHERS: Me? Pew and I have a very rocky relationship, and I will tell you that, and so what has happened was -- I will tell you a bit about my background in --

MR. SEBASTIAN: No, but my question is -- I mean, because I was reading through the documents, and it says management strategy evaluation developed by Pew Trusts, and I'm just saying it's on the document I have, and so my question, my only question, is that would be -- For me, it's like, okay, hey, if I see this great sales pitch, and it's bunnies for bullets, and it's funded by the NRA, and I'm going to have a question about that.

DR. CARRUTHERS: Dude, I promise you that I don't know what you are reading, and I have worked for Pew, and like I did a study recently to work out whether you could do this for --, for example, and what else have they paid me to do things?

MR. SEBASTIAN: (Mr. Sebastian's comment is not audible on the recording.)

DR. CARRUTHERS: MSE is a concept. openMSE, which we have developed and got our funding from, has been funded by the Canadian government, the U.S. government, the California Department of Fish and Wildlife, and it's been funded by The Packard Foundation, The Walton Foundation, The Natural Resources Defense Council, and all of these people have funded it, because they just want the transparency and the science. I just want to say that, if you knew anything about my background, and I literally live two doors down from Daniel Pawley and UBC, and I am staunchly neutral, and I will just tell you that.

You know, I have taken years and years of abuse from people who I think have got very strong biases in our particular field, and so, I mean, it's funny to me, because -- I mean, I tell Pew, at every opportunity I can -- I told them, three weeks ago, at a BlueFIN meeting, all the things they're doing wrong, and, I mean, these guys like -- They work with us, because they know that we're just going to give them the truth, or the facts of the matter, and I promise you that's what you're going to get from me.

MR. SEBASTIAN: All right, and so that was my question, as I scanned through stuff, and then it was like, hmm, and, okay, I just wanted to have very clear transparency on that. Thanks.

MR. LORENZ: Nice round there, Cameron and Tom. I enjoyed that. All right. We're going to the outside, and I have you in the queue, Jack, and I have Harry next, online. Harry. We can't hear you, Harry, and I presume you're typing to Chip.

MR. MORALES: Well, I already typed into Chip, but it takes a while for me to be able to unmute. I guess my question -- How involved are we, as the stakeholders, in getting you data that is currently taking place? I am thinking of in terms of whether it's this year or next year, and are we actually involved in telling you what is taking place, or is it strictly the historical information, like what Tony had brought up? You know, ten years ago, when we went fishing, the black sea bass were so plentiful that sometimes you couldn't get to the red snapper, because they were on your hook. Today, and last week, when I went fishing, in six hours, there was not one single black sea bass, regardless of where I went, but five red snappers, and so which one is it, the past data, or are we going to be able to give you additional input, or do you even want it?

DR. CARRUTHERS: Well, we'll take whatever data you can provide. Remember the onus here is not on saying what's happening today, and so, as long as we can characterize the thing you're talking about -- Like let's say, for example, we can only reliably get data up until two years ago, and that's quite typical, in most settings, that people haven't processed the data, but we might be able to represent the dynamics that you're talking about in the projections anyway, and so it really depends on -- You know, this isn't -- Remember, in an assessment, we would want all the current data, to say what's going on today, and that might include the very latest data that you need.

In MSE, we just need to create an operating model that represents the dynamics you're talking about, and so, even if we only have data up to two or three years ago, this doesn't stop us from trying to characterize a concern that you have to do with that thing, and so it's a bit of a nuanced answer, but I will take whatever data you've got, for sure, and try and use it. For sure we will, but the onus here is on capturing the dynamics and less getting absolutely the most current data, if that makes sense.

MR. MORALES: Yes. Thank you.

MR. LORENZ: Thank you, Harry, and next in the queue, online, our vice chairman, James Paskiewicz. James.

MR. PASKIEWICZ: Thanks, Bob. Some of my questions have already been answered, and, really, one of the most important things, to me, is how much is this going to cost, and are the people with the money interested in buying, but Chip kind of answered that question for me, and I think that this entire concept is really fascinating, and, you know, for us to be asked to step outside the box and entertain some options like this is a different approach, and I think that these things are very necessary, and I am just unsure how we can get everybody onboard to adapt something so new, or would it be something that's kind of underlying in the background, and we would maintain our current management structure, to where everything -- So the output looks the same, but the way we get there is different. Maybe that could be answered for me. Thank you.

MR. LORENZ: James, I guess maybe if you backed off the microphone a little bit, but we had a little difficulty with your question, due to the audio quality, but I am wondering, and could you quickly, and precisely, get to what the question would be? We're discussing the difference between stock assessment and MSE, and did you have any comment or question with respect to that, the way we were doing it and the way we're going to do it? I personally, and I can see everyone here, and Tom, and we didn't comprehend your question properly.

MR. PASKIEWICZ: Unfortunately, I'm at the mercy of distance away from cellular signal. Is anyone picking me up now?

MR. LORENZ: You're a lot clearer now. Keep it that way. Thank you.

MS. PASKIEWICZ: Okay. Basically, what -- You know, as an overall idea, I think that the concepts are very fascinating for having the data that we're currently collecting, and possibly injecting some more data from the different groups, you know, whether it be commercial fishermen or recreational fishermen, and having the possibility of that data being input into these models, but, with that, I was wondering if -- Is everybody with me still? I want to make sure that I don't jump on and off the train here.

MR. LORENZ: We've got you so far.

MR. PASKIEWICZ: Great. Is the current management structure going to stay the same, if we did decide to have this -- You know, this company help us with, you know, processing the data in different models, and will management change? Will it look different to the general public, or will it look different to the different user groups, and how quickly might change come, if we do adopt this new approach? Basically, that's kind of what I was looking at, and maybe you guys could answer some of that for me.

MR. LORENZ: James, I have Chip here, as staff with the council, who is going to answer that first, on this question, and I think that's more appropriate, for one of us, somebody in the SAFMC, versus Tom. Chip.

DR. COLLIER: That's really going to be up to a council decision on how they want to adopt this. Right now, we're going forward with this is going to be used in management, and that's the idea, and that's why it's being funded. Fishermen have stated, for a long time, that they want a change in management, and this is one way to do it. It's looking to incorporate your feedback directly into this system, so it can better match how you guys envision this fishery.

As far as timelines, we have a plan to work with Blue Matter for two years, and hopefully you're going to get an operating MSE from that, and then it might take some time to get it through the management process, and so it's not going to be next year, and this is not going to be in place, and it's going to be a few years down the line, but, once it's operationalized, as Tom had mentioned, it could be yearly adjustments in catch levels or management recommendations, and so, once we get it in place, it can be much more responsive than our current management process.

MR. LORENZ: Thank you, Chip. Are you okay, James? Okay. Thank you, James. Jack, you had a question?

MR. COX: Tom, that was a very nice presentation, and British Columbia certainly does a wonderful job with fisheries management, and I'm a board member of Seafood Harvesters of America, and so I'm quite familiar with our northwestern fisheries, and we also get funded from Packard and the Walton Foundation and so forth, and so I trust the organizations that do that, and thank god we have that funding, because this council couldn't afford to do it.

We are looking for a better approach than our current stock assessments, because they don't hit the mark, a lot of times, you know, snowy grouper, and red grouper, and we've had a lot of problems in our fisheries because of our assessments, and red snapper, of course, and so I think this approach is definitely something that could work, with the transparency.

You know, the things that I think about are certainly the fishermen's input into the evaluation and how -- I think James was just asking how much -- An assessment takes a long time. Our assessments that we're doing now takes a long time to do the thing, and it takes a year-and-a-half to do an assessment in the South Atlantic, and they can only do about five a year, and so my question to you is how many assessments could you guys do a year, and how long would it take to do one of our assessments?

DR. CARRUTHERS: So we're not doing stock assessment, and do you mean how many operating models can we build? Is that what you mean?

MR. COX: Yes, sir.

DR. CARRUTHERS: So, right now, if you want the assessments themselves to be represented as an operating model, for example, Adrian has already done that for two species, and you just copy them, and so, basically, we have code that takes a stock assessment, if you want it to be an operating model, and just converts it to the operating model, and then you can superimpose spatial structure, fleet structure, non-independence of species, other things on top of that, and Adrian is going to show you a working example that we did this year, ahead of this meeting, and so, depending on the data that are available, and depending on the availability of assessments --

For example, you might say, well, we don't trust the current assessment in this regard, and we think that there could be changes in the future, and for historically there have been changes, and, if it's available to us, we can re-fit that operating model, just push go on that assessment, and we can push go on it with that change and make that another operating model, but the bit that converts it is just like that.

How long it takes to build an operating model really depends on how much work has already been done, and it depends on -- We can fit our own models to data, and we have our own, essentially, assessment-type model that we can use for fitting that goes straight into an operating model, and so the reason why assessments take a long time is because they have to defend every single aspect of those decisions, and they have to be able to defend and reference every single parameter input and every decision on model structure.

All we have to say is not that this was right, which has a huge burden of proof, like we chose this steepness value because, but we just have alternate values for it, and we say we think these are equally plausible, and they are two different operating models, and so it can be quite quick to build operating models, because the due diligence and the justifications aren't on this is the best, but

they are this is plausible, the focus being on this is a stress test and not the truth, and so I can't tell you how long it's going to take us, but it's not going to take us one-and-a-half years, because we just don't have that amount of time, and so we're going to try and pick the species that matter most to you guys, and we're going to pick the ones that have the data available as well that we can condition, or borrow, from assessments, or modify assessments, to make operating models, and we should be able to -- In a year, we hope to have a working model for the most sort of priority species.

Like I say, because the onus is not on defending, in front of a peer-review panel, one model, and it's just on making sure that the group of models represent a range of plausible scenarios, the onus is actually less, in some ways, if that makes sense.

MR. COX: A follow-up, and so you're saying you don't have a peer review with your evaluations?

DR. CARRUTHERS: You would. You would, but the nature of that peer review is not on why did you choose that value for that parameter, and it's on are these alternative operating models, values for that, plausible and worth testing a management procedure for, and that's a completely different question. If you ask me what steepness should be, how resilient a stock should be, what's true, I think that's very hard to get, and I think that takes a lot of justification, but, if you told me that it could be between here and here, and we tested our management procedure for those two values, I'm like, well, that sounds reasonable, and so it's a different focus, and it's not on veracity, and it's on robustness and a range of uncertainties, and so it can be easier to do, but you still need a peer review, probably, and you probably still need some independent experts to come in and say we think this process was done correctly.

MR. COX: Okay. What do you do with uncertainties in recreational fisheries?

DR. CARRUTHERS: Let's talk about it.

MR. COX: That's a huge one for us, and that's where we are today.

DR. CARRUTHERS: The question would be less how do you deal with it, but how would you scope scenarios for it? Like how would you -- My concern isn't -- I could tell you how you would do it, and I could describe, but my question is the actual scenarios, how you would choose the ranges for those things, that's the question here, and like what data, or information, or expert judgment, would you bring to bear to say that there could be this many boat days, or this few, or they could go up by this much between years, or down by this much, or whatever, whatever the dynamic is.

What we've got to is we've got to not know what it is, and we've got to know what the range of values could be, and the question is what data and expert judgment you can bring to bear on that, because we could have a high recreational -- A highly uncertain high-impact recreational operating model, and we could have a highly uncertainly, but relatively low impact, recreational operating model, and, I mean, those could be two scenarios, but the question is, roughly speaking, how do we get to those two scenarios?

MR. COX: My last question is do you have any examples of U.S. fisheries that you guys have done an evaluation for?

DR. CARRUTHERS: We did the San Francisco Bay herring, and we've done -- I've been working on a joint stock, transboundary stock, for haddock, and the original simulation structure behind this I think was used for doing quite simple data-limited type of management procedure evaluation, for things like blueline tilefish and things like that, but you are probably are first, and maybe even the first, multi-stock, multi-fleet MSE of this type, with a recreational and commercial -- I don't think it's ever really been done convincingly before, and we've got what happened with halibut, California halibut. I am more so working on California halibut this year, and deriving a bag limit algorithm for them, so they can work out what their bag limit should be, and so we're working with those guys, and that's split recreational and commercial, but, in terms of a completed MSE, did they get to a management procedure yet for California halibut?

DR. HORDYK: (Dr. Hordyk's comment is not audible on the recording.)

DR. CARRUTHERS: Adrian, just for people offline -- Adrian was just clarifying that, for barbed sea bass, California halibut, and surf perch, the California Department of Fish and Wildlife have gone through this process, and so they are basically -- Whether they have implemented the management procedure yet, they've done this, and what we can do, if you want the documentation and stuff, is we can just provide that to you, and you can read up about how they did it, but, actually, the U.S. is -- Compared to Australia, New Zealand, South Africa, the U.S. has actually been relative slow in the uptake of MSE, and so there haven't been that many. The one on this coast you could look at was mackerel, but I think Atlantic mackerel was contentious, from what I heard, and I think that was challenging.

MR. COX: Thank you.

MR. LORENZ: All right. Thank you, Tom. I see no more questions from the AP, but I was just wondering, Chip, and the question that Jack asked, with respect to the input of the data that would come around the effort from the recreational, the recreational part of it, do you have any thoughts on that that might add to just our thinking? I mean, eliciting the help of Tom and his model, and, obviously, we use MRIP, and we have the intercepts and things like that, and do you want to make a comment, just to give us a little more in our brain, without -- AP, please, we're not pinning Chip to anything. Thank you.

DR. COLLIER: Well, I mean, this issue of data uncertainty has come up a lot in MSEs in the past, and there have been some that look at the benefits of increasing the precision of recreational estimates, and it's been done for a couple of different stocks, and I'm just not -- It's been a while since I looked at it, and so I don't have them right offhand, but I will look up that information and get it to you. I mean, there is definitely a benefit of increasing the precision of your estimates, and especially for a stock that can have volatile catch levels come out of it, and so we can definitely think about it and how to address it, and look at potentially other MSEs on how they incorporated that information and what their goal was.

MR. LORENZ: Thank you, Chip. Tom, a lot of what this looked like, for me, is my days of industry and manufacturing and a statistical process control somewhere in it, and, instead of having this straight line, we would have an operator adjust a dial, and, every time you got this little range, and you kind of worked with upper and lower limits, and it reminds me a lot of that. Perfection is little more of a range rather than a straight-line number.

DR. CARRUTHERS: That come under a subject called control systems theory, which basically is the origins of this, and so you're exactly on the money.

MR. LORENZ: Thank you. Jimmy, I recognize you.

MR. HULL: Something that may interest the other AP members is I know the Mid-Atlantic just completed an MSE on the recreational summer flounder. I don't know exactly who did it here, and I haven't read the whole thing yet, but it was sent to me, and it was from their August 2022 council meeting, and so maybe -- I will send it to you, and it's completed, and so I don't know who conducted, but it was a recreational summer flounder management strategy evaluation.

MR. LORENZ: Thank you, Jimmy. Tom, you have another section on this?

DR. CARRUTHERS: I'm afraid so. You guys are sick to death of me, and so that was useful though.

MR. LORENZ: We've got thirty-five minutes, and it's going well. The quality of the questions are wonderful, and the tamped-down level of emotion is fantastic, and so keep going.

DR. CARRUTHERS: A point was made about a sales pitch, and I really feel that way giving this to you, and I'm sorry about that, because I hate it when people talk about what they're doing and it makes it sound like they're giving you the rosy picture of the thing, but Adrian and I left academia about three years ago, because we were sick to death of just the BS with academia, and we couldn't think of a way of solving what we thought were actual management problems, and we located this idea as a way that we felt happy about, working as scientists with fisheries, because it was just open, and so, if we sound evangelical, and like we are -- It's not so much a sales pitch as it is just like where we've basically got to ourselves, but, anyway, I am happy to debate the merits of it more thoroughly over drinks or something, if people want to get drunk and talk about MSE, and maybe you will get a different viewpoint.

The one thing you want to do, when you start off, and we're going to talk about the process of MSE, but one thing you want to start off with is a very clear problem statement, like why the heck are you doing this thing, and like's what the -- Because maybe you do have a good assessment, and maybe everybody is happy campers, and everyone loves the advice, and there is no problem, and then just don't bother, but what's the problem statement?

Is it an uncertainty issue? Is it a multispecies issue? Is it a -- Do you think there is future scenarios that you want to know whether your management system is robust to? Then sit down, and it doesn't have to be today, but sit down at some point and think about what the problem is that you're trying to solve, so that you make sure that, when you go through this, you get, you know, the answers, and we try to solve that issue, and so problem statements are really important.

There is basically three parts, sort of groups of people, that work on an MSE, and it's useful to have these separate groups, because it stops people from wasting time worrying about aspects that aren't really an issue to them, and the first would be here we've got two -- I guess these are the strategists, base strategists, and they start looking at the speed that the cars are going at, and all kinds of other things like that, and these guys are the people that steer the process. They basically

say when the deadlines are, how it links up with management, how it fits into the general management process, and these are like kind of oversight, in a way.

Then you've got a group of drivers, and those are very much people like you guys in the room, people who are going to drive the car, and they've got to get it from A to B, and they care about the performance, and they care about how it's driven, because they are doing it, and they could be considered the people who have expertise and knowledge sort of on the track, as it were, okay, and then you've got a bunch of sort of dorks, and that's like me and Adrian, and like statistics people, and we build engines and make steering wheels and all that kind of stuff.

You know, frankly, you might be interested in how those things are done, and that's fine, but you don't need to be, necessarily, caught up in the everyday detail about how those cars are built, and your concerns are different.

By separating out these groups, you guys aren't expected to like read a textbook on statistics, which would just bore you to tears anyway, or it certainly does me, and then you can focus on the things that you actually care about. You know, I've been in MSE processes where there's a big mix of people coming in and out of the groups, and it's quite wasteful, because you can't quickly resolve issues at these different levels, and so it's important to think about where you belong in this system, or where you feel -- You can certainly be an observer to any of this, but it's helpful to have this distinction, and so we already think we've got a technical group of people that are all sort of model-type people.

We'll present what we're doing, and we'll explain that to all of the groups, but, when it comes to the nitty-gritty, it's useful to have that as a small group and keep that separation, and so, anyway, you have these groups, and it's useful to establish them. We've already got the technical one, and I don't know whether we can make decisions about the other things, and your SSC is a natural user group, right, as well as this meeting, and so you sort of have, already -- We're not talking to a big room of everyone, and you already have organization in your advisory panels and other things, and so I think you already have your users, as it were.

DR. COLLIER: Yes, we have the users set up, and so, at the last meeting, people volunteered, recreational -- It was definitely slanted towards the recreational group, and I will pull that up list of volunteers, but we also have the technical group that's put together, and then the review would be done by the SSC.

DR. CARRUTHERS: Okay. Anyway, it's good to talk about distinction, but what does the process look like? I am going to follow Andre Punt et al. paper in 2014 called "Best Practices", and they just called it that, which I thought was great, and I'm going -- Every paper I write, I'm just going to call it "Best Practices", and just say that, but, anyway, it is quite a good guide to MSE, and, basically, a starting point, and a really key issue for you guys to think about now, and not in detailed terms, or definitive terms, but, in general, what do you want? What is good, and what is bad? Like, if you had a good year, what would it look like? If you had a bad year, what would it look like? If you could characterize the next ten years, what would be good, and what would be bad, that kind of thing. Just in the broader sense, be thinking about that. That comes under performance metrics.

We're in phase one still, and what should the different operating models look like? Should they have this non-independence between species? Should they have different availability with weather conditions between years, i.e., very different availability for fleets at different times of year and things like that, and do they need that stuff, and then what data do we have to inform that structure? Like just an inventory, and we've got to do that, of all the metadata that is available, and like what can we use to inform operating models and make sure that we have plausible dynamics?

What uncertainties are we wishing to cover? The structure is good enough, and the data is available, but the data is linked those uncertainties, and can we use those three things to define operating models in phase two? Phase one is where we're at, in the broadest sense, but the phase two makes those operating models. It builds a set of numerous ones that can explain all the uncertainties we care about, preferably informed by data, and so that's just literally just building those things.

That could involve fitting, and so you might have a report. For every one of these operating models, you might have a report that says this is how well it fitted the data, and that would look a lot, probably, like an assessment fitting report, but it would be there, documented, that this one fits the data well, and so on.

There is basically two types of operating model, and it's probably worth just telling you now what they are. In most MSEs, they have what is called a reference set, and that would be all the things that you typically care most about, and they could be like sensitivity analyses in a stock assessment model. They could be the things that have been long-standing, ever-present concerns that you want to show robustness to, a primary basis for picking a management procedure, right, and these are the four things we've always worried about, and they go in your reference set, but you might have scenarios which are not necessarily well informed by data, and they might be scenarios which are future climate scenarios, or distribution scenarios, things which are interesting, and you would like your management procedure to be robust to, but you don't necessarily have really good empirical data to support. Those go into a robustness set.

The principal idea here is that you can get a bunch of MPs selected, a group, that will look pretty good in the reference set, and then you also subject them to the robustness set, and why not pick the one that also survives that additional test? MSE gives you probably the only way I know of building, finally, and we've always been talking about ecosystem-based fisheries management, and climate change, and, finally, we now have a system of, even though we don't necessarily believe that ecosystem model, and it could be Tony's non-independence between species model, or it could be some NGO's climate projection, but, finally, we can pick something that works otherwise the same, and pick it, that is also robust to this hypothetical scenario. Why would we not also do that?

It's the only framework I know, in fisheries, for getting ecosystem-based fisheries management implemented, which has basically been a struggle everywhere, and so you can also tick off, at the end of this, and say we found, additionally, ecosystem-ready, and climate-ready, management procedures, if you want to, and so that's the division between reference and robustness set, and I would also say that we might consider having a reference case, which is a single operating model that everyone feels comfortable with that is very much a single thing to play with quickly and easily, and that's the one that you could use to gauge against your Magnuson-Stevens

requirements. That could be like your best case assessment. It's just one, but I would think about having a reference case as well.

You might get to a phase where everyone looks at these operating models and goes, well, that's a load of crap, and that doesn't fit my data at all, and I don't want to see that in anything, or someone would say, well, actually, I think that's marginal, and it should be half as important as something else, and you might just go through a phase where you select -- Consider all the options and select the group -- Maybe put things in a robustness, or into a reference, set, but just go through that process of organizing what you think is plausible, based on the fittings of the data and other things.

Can they be weighted by plausibility, and, also, probably really importantly here, what management procedures are you willing to consider, and like what levers can you pull? We have already heard people talk about size limits and control of discarding levels and seasonal closures, spatial closures, access, and we've got all kinds of ideas going around about what this could look like, but what are these candidate management procedures that we would like to test? What do they look like?

Then we do the thing that we've already shown you, which is the closed-loop testing, and that's just the calculation, and that drops out of all of this, right, and we've got performance metrics, and we've got our operating models, and we've got our candidate management procedures, and we could push "go" on the calculation, and then we would get a set of results. Maybe, at the end of this, in phase five -- Of course, we've got to decide though, at this stage, in the testing, how we're going to actually interpret our performance metrics, and so everyone might have a different view still about what is good or bad, but managers have got to decide something.

At the end of the day, when they decide something, you will know why they chose what they chose. They will say that we were trading off this group against the other, and we chose this, or we found a management procedure that didn't have a big tradeoff, and that's why we chose it, or whatever it is, but you will know why they chose it.

Maybe, in phase five, at the end of this, you'll actually adopt it. You will adopt some rule for management, and one thing we haven't talked about is what happens next. You are using this thing, let's say year on year, for like six years or something, before you worry about revisiting your operating models, or maybe longer, maybe longer, but how can you have confidence that it's working? What you do is, when you chose to do it, and let's say it was a size limit and a closure or something, you can see what the cloud, or the future scenarios for data, look like in the simulation, and you can see what expected could happen.

What you can do is you can observe real data and see whether that matches up, and so, if you start to get data that differs from what you thought you would see, you can say, no, we're going to ring an alarm bell here, and something is not right. We're seeing data that we didn't expect to see when using this management procedure, and that's called exceptional circumstances. It's an empirical check, a quick check, that the data you're seeing look like the data you expected to see, and that all happens in that phase five.

If you do, if for some reason things look completely different, you can say, well, guess what? We've used the management procedure, but the problem is that the operating models somehow don't represent what is actually happening, and so you can sit back and revisit what operating

models should be used for advice, but, in this case, you only do it when you start to see an alarm bell go off, and so that's the process, here split into five phases.

Really, we're talking about these three things. This is what we want from you guys, right, what is good and what is bad for you guys, and what things are you worried about in the system? What uncertainties would you want your management system to be robust to and candidate management procedures? What things are available to be pulled, and have you got the data to inform them, and things like that, and so these are the three, in the broadest sense, that we've come here to discuss, and we've already had, actually, a huge amount of feedback from you guys. We gave a not dissimilar presentation to this not that long ago, to DFO, and it was just crickets, and we didn't hear anything from people, and so this has been good so far, but that's what we want to get from you guys, and so that's the last thing that I am presenting on.

MR. LORENZ: Thank you, Tom. I have one question, and I just want to dovetail into your presentation, and you brought it up at the end, and we have these various inputs into the systems, or the management controls, classic, old style, bag limits, size limits, and seasons. In the past decade, or decade-and-a-half, we then moved to things like in-season closures, and, most recently, coming on strong are accountability measures, which is a payback in another year, versus this year, with a statistical process, controlled mindset, which MSE seems to follow, and what is your opinion with respect to that?

It would seem like implementation of MSE would sort of, at its foundation, be sort of dictating that, hey, you've got to tone down a little on something like accountability measures, because you're changing the dial each -- You might be changing that dial each year of that data, and your input, in-season closures, is a little more cut-and-dried, and so a little comment on that, and it looks like you did a little less with MSE in the various management procedures that we see today.

DR. CARRUTHERS: I think that's -- The idea of having, like you're saying, accountability, is it's like an among-season compensation for -- Can you explain what you're calling --

MR. LORENZ: The accountability measures is, if we go over our annual catch limit, and that sort of thing, there is a point at the next year that you have to essentially -- You pay that back in a forward year, and so, if we have a given number this year, and we go over -- We used to close the season, but we can also owe, next year, a much lower --

DR. CARRUTHERS: The carryover, all the negative carryover in this case, and so, yes, I mean, you've got two options. You have a static management rule, with accountability measures to account for some -- That accounts for overages and underages, and it actually builds in dynamic adjustments, but it's using a rule between seasons, or you have that in the rule in the first place, using data, and I don't know, and you could test both. I think they both have aspects of being dynamic between years, and so I think you could test both.

The advantage of using the management procedure though is it's responding to data on availability and things like that, and so it's not a -- It's not a fudge after the fact, and it happens when you need it, and that's -- It would be interesting to see whether that's a better way of doing business, is to be responding to data, as opposed to just, you know, having a carryover or -- But I think both things can be looked at. If you want to test the status quo against something else, we can test that, yes.

MR. LORENZ: All right. Thank you. I'm opening it up to other questions, and thank you to the AP for allowing me to jump in like that. Cameron.

MR. SEBASTIAN: When you started out, you said the best way to do this is to have a drink with you afterwards, and so I will say that I buy the first round for everybody on the AP that would like to go over to the bar and have a drink afterwards, and that's an open -- That's an absolute open invitation, unless I am breaking any kind of rules, and, if I am, I really don't care anyway.

MR. LORENZ: You're on public record.

MR. SEBASTIAN: The other thing is does Red Bull sponsor you? I have noticed their advertising in a lot of your ads. If so, that's an awesome, awesome catch.

DR. CARRUTHERS: Red Bull on our webpage? I don't know, and it's news to me. You're inviting an Australian and a British person to the bar, and so this is brave, basically.

MR. SEBASTIAN: That is even better, because, internationally, that gets way better.

DR. CARRUTHERS: We'll see how it turns out. That's great, and I think we should have, and what do we call it, in-corridor discussions, and I think that would be a useful exercise, and I am open to that, for sure. Also, I would just say, to the members of the group, that our emails are going to be available to you, and so just, you know, whenever you want to shoot us off an inquiry or a question, just do that, and it's not a problem.

MR. LORENZ: Chip.

DR. COLLIER: No decisions would be made at those offline meetings.

MR. LORENZ: Thank you. I was going to ask if somebody wanted to comment on that. All right. Any questions, AP? Going once, twice. Okay. Chris beat you, Jack.

MR. MILITELLO: I guess the question is to Chip, and who decides what data goes in there, the guys that think that red snapper are overfished or us?

DR. COLLIER: I mean, it's going to be everybody, right, and we're going to have to use some information, in order to develop this model, and so it's going to be based on recommendations from you guys, as well as what information is available, and, unfortunately, MRIP is a piece of information that's available.

MR. MILITELLO: So we'll know like which data is in and not in? That will be part of it?

DR. COLLIER: Yes, and you guys not only state what information should be included, but, if there are issues with certain datasets, point them out. Do you think it's a biased-low estimate, or do you think it's just some years it's extremely variable, and that's the problem with the estimate that is going into it, and that can help inform these models and help kind of show the robustness to the management procedure that you're recommending.

MR. MILITELLO: Thanks for that.

DR. COLLIER: If that's right, Tom.

DR. CARRUTHERS: Yes, that's right, and so, if we have a system where we're fitting models to data, you can downweight some of those data, and you can make adjustments to the bias, and those can be considered different operating models, and you can see whether or not they make a difference. I think -- I really think that a priority here is to build a model, and very quickly -- I don't want to say quickly, but, in a streamlined way, get as many of these concerns in there, so that we can test and see whether they have any substantial impact, and then we can focus-in on those things, which are our efforts on those things which appear to be avenues that are critical to determining management performance.

MR. LORENZ: Jack.

MR. COX: Chris made -- I was just wanting to talk to them a little bit about timing on species and priorities, and you might have touched on that, and I'm not sure, but, you know, the council, a lot of times, will pick and choose to prioritize species for evaluation, or assessments, but I think the AP should weigh-in on that as well, what we feel like is important in our fisheries to prioritize for these type of things.

MR. LORENZ: Thank you, Jack. Anybody else with a question? Jimmy.

MR. HULL: Thank you, and so what's the next step for us? It sounds like we've already, you know, let this train out on the tracks running, and so where are we at, and where are we going now?

DR. COLLIER: Adrian is going to give a presentation on gag and red snapper, and he has developed MSEs for those, basic -- I am not certain exactly which stage of the model it is.

DR. CARRUTHERS: I think the point is we wanted to come to this meeting, quite early on in this process still, with a working prototype, just copied from the assessments, and not saying we believe those things or any of that stuff, but just so that you can see a working model, and see the types of outputs, because, only when you see a straw dog, can you poke at it and decide to like make changes, and so we just want to come to something, quickly, so that you guys can like to start to get an idea, because, otherwise, we're asking you to make an enormous leap in understanding what this thing could look like, and so that's all that Adrian did, is he just copied the assessment, and so he will talk about that.

MR. LORENZ: Thank you. Cameron.

MR. SEBASTIAN: You know, I've sat on a lot of these boards, for a lot of years, and I've to say that I am definitely -- I don't know if I'm excited, but the concept is very good, and, you know, to me, it sort of comes to -- Not belittling what you're doing, but, to me, no one likes the process that we currently have in place, and so it comes down to really what do we have to lose, which is absolutely nothing. All we could possibly do, from what you're proposing, is gain, as far as my overall viewpoint, and it could be really, really good for everyone involved.

DR. CARRUTHERS: Well, we certainly hope so, but it will rely on everyone being -- Let's say having Cameron levels of skepticism. I think all of you guys should stay focused on whether your viewpoints and things are being reflected, and I think it really could, but it will depend a lot on communication, for sure.

MR. LORENZ: All right. Thank you, Tom, and that concludes what you're presenting. I guess, to the AP, and to the staff here, we're running up about ten of twelve, and I think it would be appropriate for us to do the lunchbreak now. Otherwise, I presume that Adrian's presentation could take some time, and particularly with the questions, and can we do this and be back promptly at 1:00? All right. So we adjourn until 1:00. Thank you.

(Whereupon, a recess was taken.)

MR. LORENZ: All right, everyone. Snapper Grouper AP, welcome back. We will reconvene now, at 1:00. Just a quick housekeeping thing, just a reminder, and thank you to Dr. Tom Carruthers, that this overview of the MSE process -- I kind of checked with Myra, and this is -- The main reason for this is to learn and to ask questions to understand, and the council hasn't seen this, and so we're ahead of them, and so I just wanted to let you know that we have no particular deliverable today on this. As Tom had mentioned, things like the species, et cetera, that is coming, and that's not something we have to do, and so I just wanted to let you know that the stakes here are a little more relaxed, to learn and observe and make sure you understand the MSE process for the future.

We went -- We had good input, and we went a little longer than probably what would have been guessed, because we have no idea, and so, with that in mind, we do have an adjournment time published at 5:00 today, and, out of courtesy to the staff, we will not run past 5:30 today, and so I'll try to keep moving on some of that, and so I only say that with respect, so that, if there are questions or comments, at least on this, to be oriented, as well as we can, to the fact that all of us understand what's being presented, before we go, because we also do have to cover the gag and black grouper today, with Allie Iberle, and then we have the commercial logbook to cover, and so we'll try to do the best we can, and I think we have enough time, but I just wanted to bring that to you attention, that we keep a little timely, mainly so that we don't run too much over. Bringing us back, we now have Dr. Adrian Hordyk, and he's going to present to us, and I believe it's kind of a model for us, right? Thank you. An example. Thank you.

DR. HORDYK: Thanks, Chair. Hi, everyone, and I'm Adrian Hordyk, and it's really great to be here with you today, and this is one of my first times, in quite a while now, of hopping on a plane and going to a room full of people, and so it's really nice to be doing this in person.

I am going to be giving an overview of the MSE process, using the red snapper and gag grouper as an example, and so, really, I'm going to cover the same concepts and terminology that Tom spent the morning talking about, and so there is no new material here, but it's going to come from a slightly different angle, and with a different accent, and hopefully it makes things a little clearer, if some of you are still uncertain.

I've got two parts to my talk, and the first part is just very quick, and it's just a recap to go over the difference between stock assessment and management strategy evaluation, and I know that Tom spent quite a bit of time talking about this morning, and we had good discussion about it, and

so it will be quite brief, but the reason I'm doing that is, because, one, it's going to set the context of the rest of my talk, and, secondly, because we have found this is really important concept for people to understand, when we go into MSE, to realize that this is a different process than what we may be more familiar with with the typically sort of stock assessment process.

Then I'm going to move to an MSE process, a demonstration of what the process could look like, using the red snapper and the gag grouper as examples, and so these are my two objectives for this talk, is to demonstrate what this process could look like, just to give a strawman example of what this process could look like, that we could start building upon, and to highlight the key issues, or the key questions, and we've already talked about a bunch of them, but to sort of revisit them, and so things to think about, which we might not necessarily discuss more today, but, throughout this process, that will be things that we spend a lot of time talking about.

Before I get into that though, I just wanted to say that I'm really excited to be working here on this fishery, because I live up in Canada now, and the fishing there is like standing in a stream, and it's fun, but I come from Australia, and we do fishing like proper fishing, like you guys do, and so this is like aversion, or the Australian version, of catching red snapper and gag grouper, and it's like a slightly chubbier version of me fishing in northwest Australia, and, now, to give you something similar to that, we've got a photo of Tom there in Mexico, and so it's really great to be working on a fishery where there's like real fishing energy.

Contrasting stock assessment with management strategy evaluation, for a stock assessment, the key questions are really what is the current state of the stock, the historical state of the fish stock, and how many fish are in the water, and that's usually measured in biomass, and questions like is the stock overexploited, relative to some reference points, and should management regulations be changed, and this is the sorts of questions that the stock assessment is focused upon.

The output of the assessment process is an estimate of the key population parameters, the abundance, or how many fish are in the water, and the productivity, how quickly that population can naturally respond, or increase, if fishing pressure is reduced, for example, and so it characterizes the actual population, and then another output of an assessment is the current stock status relative to some reference points, and is the stock overexploited, and then those two pieces of information are used to provide advice to the managers, with short-term projections of the population state and subject to different harvest policies, like different TACs, and so this is something you're all probably very familiar with, and this is the standard sort of stock assessment paradigm.

The process can look different in every place, but it generally follows a similar sort of process, and you start with fishery data, coming in from the different -- Either fishery-dependent or fishery-independent data comes in, and that gets passed to a scientist, who basically they put the data into their model and do the assessment, and then the results come out, and they're presented to a stakeholder group, managers and other stakeholders, to discuss and interpret, and then some action comes out of that, if everything is straightforward, there's a management action.

Often what happens, in many cases, is the assessment is uncertain, or there is disagreement about the assessment, or the interpretation of the assessment, and so it's not clear what that action should be, and, in many cases, it means no action is taken at all, until the next round or something like that, and that was like Tom talked about this morning, and this was the problem that led to the

development of management strategy evaluation, to try and get around this roadblock that would end at the end of an assessment process, where everybody in the room couldn't agree on the assessment, and no one knew what to do, and that happened all over the world, and MSE was developed out of that, to solve that problem.

The management strategy evaluation approach, and so a different question. The key question here is what management policy, or sometimes called a management procedure, or a management strategy, but what policy for managing the fishery is most appropriate for this fishery, and so ask questions like what process should be used to convert fishery data into management advice, and is this process robust to uncertainty, and it answers questions like under what conditions is our management policy likely to fail, and, if it's working well now, what are the situations where it's likely to start to become problematic?

The output of an MSE is a reproducible and transparent process for selecting a management plan, and so we've come up with this management plan for these reasons. We want to achieve these things, and we believe this about our fishery, and, therefore, we're going to do these actions. It's an agreed process. The management plan is agreed upfront. At the end of an MSE process, you've got an agreed process of going from data to management advice, and, like I mentioned, it identifies the conditions where that management plan is likely to work and where it's likely to fail, or where it's likely to require revision, and so it's a lot of work upfront, but it tries to answer all those questions, so that you can focus on the things that really matter.

I am going to go through the process for an MSE, what this can look like in contrast with a stock assessment, and it starts with the same -- As we've already heard, it starts with the fishery, and it always starts with the same data coming from the fishery, but what's different is what gets done with that data. Instead of going into one assessment model, the data gets used to develop operating models, like Tom spoke about, and this is stakeholders develop different models, different hypotheses, about the dynamics of the fishery.

From there, we also develop management policies, or management procedures. Again, like Tom talked about this morning, a stakeholder group like this can develop different proposals for different ways to manage the fisheries, and we call them MPs, MP 1 and MP 2, and they can have names, and the group develops a whole list of potential methods, and they're called candidate approaches, for management. Once we've got those two pieces of information, the models, and the management procedures, they go into the closed-loop evaluation, which we talked a lot about this morning, and the results that come out of that is to quantify the performance of these management procedures for each of these operating models.

The results are that we can see how likely each of these management procedures is likely to work, or how well it's likely to work, under the conditions of each of these operating models, and then the action at the end of that is the selection of a management. From this list of candidate management procedures, the group can pick one and say we're going to pick this management approach, because this is the one that is most likely to get us what we want, and it's the most robust to uncertainty, and it's going to keep the most people the most happy.

The key difference here is this entire process is a stakeholder-driven process. The only part that sort of is the closed-loop simulation evaluation is where we go off and put all these numbers in our

calculator, and it runs the calculations and spits out the answers again, but the rest of it, all the points that go into it, is driven by the group.

There is four areas, really, where it involves collaboration with the stakeholder group, and one is develop operating models, develop the candidate management plans, determine the evaluation criteria, the performance metrics, and then to do the final evaluation, to interpret the results, and so I'm going to go through each of these four pieces, these four components, with an example, using the gag grouper and the red snapper, and just to demonstrate what that process can look like, but, like I said before, it's just a demonstration of a starting point, and so don't worry too much about any -- There is no results here, and this is mainly just made up.

We start with the operating models, and the operating model -- We've talked a lot about them this morning, but, just in summary, it's a plausible description of the properties of a fisheries system, and so it describes the fish stock, the biology of a population, and also the fishing activities, the exploitation, that stock is subject to, and so our model, the operating model, looks something like this, if you have it for a species, and the stock component of that model describes the biology, the spatial distribution, the movement, all the things that relate to the biology of that fish species.

Then the exploitation, or descriptions of the characteristics of the different fishing fleets that catch that stock, and so it could be many different fishing fleets with different properties, different gear types, and maybe they fish with different amounts of seasonal effort patterns, and maybe there is different spatial distribution or targeting, and some fleets might target one species over another, and all of that gets captured together, and at least one set of assumptions or one description of the fishery is captured into one operating model.

For a multispecies fishery like this one, we do the same thing, and we do another model for the second stock in here of gag grouper, and all the same pieces of information go into doing an operating model for that species, but, of course, like we spoke about, the complicating factor is those interactions, and these things aren't independent, and so there is spatial overlap of the species, and there might be preferential targeting, and the real question we need to get at is how will management regulations for one stock impact the other, and so that's the complexity here, when you start doing a multispecies MSE, and it's no longer -- You need to consider that the management actions on one stock are going to impact, or potentially impact, other stocks.

This is where the uncertainties come in with multiple operating models, and so you can have uncertainties in the stock characteristics and in the fleet characteristics, and so, for the stock, there might be uncertainty in the biological parameters, kind of in the spatial distribution, the abundance, the discard mortality, anything related to the stock that is uncertain, or there is multiple plausible hypotheses, can get captured in a set of alternative operating models, and the same thing goes for different fleets, characterizing the fishing fleets that target those stocks. There may be alternative explanations, or hypotheses, for how those fleets operate.

Then we capture those uncertainties in multiple operating models, and, for example, Model Number 2 may have different assumptions about the stock abundance, or maybe driven from some different data, and Model Number 3 may have a different spatial distribution of these species, and so on, and, of course, the models don't need to only have one factor, and there could be -- Model Number 2 could be a number of these different things combined, but the point is that each of these operating models is a hypothesis about the dynamics of the fishery, and so we're no longer worried

about which one of these is true and which one of these is false, but we just want to have as many of these that characterize the uncertainty in a fishery, and we need to have data to be able to develop these models, and so they could be based on something empirical, but it removes the issue that we've heard about in an assessment, where all the focus is trying to get on the right model, and, in this case, if there's a model that is plausible, and people consider, well, it could be true, it becomes another model. It becomes another operating model.

How do we build those operating models? Here, we've got an example, and Tom mentioned, before, that the easy way to do it is to import assessments, because an assessment already is an operating model, in a sense, that it has all the properties that we would need for an operating model, and like it estimates the biology of the stock and the characteristics of all the different fleets that target that stock, and so the simplest way, which is what I've done here, is to take these assessments, SEDAR 73 and SEDAR 71, the recent assessments for these two species, and used them as an operating model, and so, in this case, I am calling that Model Number 1.

The numbering of the models doesn't mean anything, in terms of order of importance, but it's just I'm just going to start with this, because it's the simplest one to do, and so these two pieces of information, from the stock assessments going into the model, the operating model, and we simulate the historical fishery. In this case, you can see, in the top -- The labels are very small on the plots, but the top is showing the spawning biomass from the beginning of the fishery to when the assessment was conducted in 2019, I think, or 2020, and the bottom shows the landings and the discards, as estimated by the assessment model. In this case, these plots are showing exactly what came out of the assessment, because the operating model is just based on that assessment.

Model Number 2 may use different data sources, or it may use different assumptions, either in that assessment, or a different model, but we need some process going from the data, the raw data, to a description of the fishery, but that can be with different data or with different models, and there is lots of different ways you can do that, and that's something we need to talk about, and that will feed into Model Number 2, and, again, a different version for Model Number 3, and so on.

Then, in those cases, each of those models will have a different characterization of the fishery, potentially at least, different estimates of the predicted spawning biomass of a time on the plot, or different predictions of the catches and discards, perhaps.

Once we've gone through that process, and it is an iterative process, we will start with building one, or a couple, of operating models, and it's usually a process where we start presenting some results, and people see some things in the models that they like, or they consider other alternatives, and we go another round and develop more models, but, at some point, we have a group of operating models, and these are what Tom referred to before as our reference operating models that we do the analysis on, and so the questions for the group to consider, for the operating model part of things, and we've talked about it a bit already, is which stocks do we include, what information is available to be able to build these operating models, what are the interactions between these stocks, and we talked about that a bit this morning, and, of course, what are the key uncertainties, and what is going to be the difference in these different operating models.

We can start, for example, with the assessment, and we can just build, like I've done there, build a Model Number 1, and what would be different in Model Number 2? What's the key uncertainty that would change to produce a second operating model, and so on.

The second part of the process is the management policy of our management procedures, and so this is the process where we go from the data to a management decision, and so in that box is a management procedure, and just data goes in, and it really specifies what data are going in and how those data are processed, and the raw data collected to some sort of data that can be used in a model, and then the rules, because the core part of management procedure is the management rules, and they are a set of rules that convert that data to management advice, and that could be static. It could be to set a size limit, or set this spatial closure, or some combination, or it could be adaptive.

In many cases, they are adaptive. They will take the data, and they update the management advice based on a signal in that data, and then the output of that is just management advice, whatever those rules may say, increase the TAC, or change this, or change that, and what's what we get out of the management procedure, and so how is this different to a traditional approach?

Well, an assessment can be a management procedure, but it's not always a management procedure, and management procedures can include an assessment, or there can be something much simpler, but there are three ways that a management procedure is different from a traditional stock assessment approach. The first is that an MP is reproducible, and that means, when you put the same data in the top, the same advice is going to come out the bottom, every single time, and so, if you have different people, you're always going to get the same result, because it's just a set of hard-coded rules that process the data, and there's no people inside there making decisions.

The second part is that it's agreed upon. Once you've got a management procedure that's been coded up, and it's been agreed upon, this is a set of rules, and so, once the data goes in, it gets processed according to those rules, and there isn't any changes to the way that data is handled inside the MP. It's hard-coded, and it's agreed upon, and the third part is what we're doing here, is simulation testing, and that means we have some confidence that this management procedure will achieve the objectives that we're trying to achieve, and that's not always the case.

You can do either of the first two parts, and you can build a procedure, like an assessment or something like that, that's reproducible and agreed upon, but, if you don't simulation test it, then you've got no reason, or no evidence, to suggest that this approach will do what you want it to do.

I've got a couple of examples of management procedures, and we'll start with a really simple one. Here, we can have data going in, and the data is just the catch per unit effort data from the fishery, and then we standardize that into an index of abundance, and then the rules to process that data are very simple, and it just says, if this index of abundance is above some target level, which you would specify -- If it's above that, then increase the catch limit by 10 percent, and, if it's below a limit level, then decrease it by 10 percent, and, if it's in between, just leave the TAC the same, and that's the rules.

Then the management bias is just to implement that catch limit every three years. Every three years, the data will be put into the MP, and it's very simple, and you do this on a pad of paper, and say, if it's above the target, increase the catch. If it's below the limit, decrease the catch. Otherwise, leave it the same, and it's very simple, but it's a perfectly acceptable management procedure, and this sort of management procedures, like this, are implied in some fisheries. How well it would work will depend a lot on the fishery.

It can get more complicated than that, especially if you have multiple gears, or multiple sectors, in a fishery, and so here's a more general example with commercial and recreational, and you can mine some data streams, catch rates, size composition, or it could be a bunch of different things, and then do the same approach, but you can develop different rules for either commercial or recreational or any different fleet structure that you may have, and set independent rules for them within the management procedure, and then, again, the management outcome is just to implement those rules for the different sectors of the fishery at the set management interval.

Then you can do the same thing if you have multiple species. You have data coming into the management procedure for multiple different species, and it's processed in whatever way the management procedure is prescribed, and it can set rules for the individual fleets and the individual fish stocks within that fishery, and so the management controls that are within this management procedure can be any combination of a spatial closure, a seasonal closure, a size limit, a bag limit, effort limits, and we talked about all different options this morning, but every management procedure is one proposal of either a set or one or more of these management controls for one or more of these fleets, and each different idea is another management procedure, and so, at the end of this, we'll have a list of candidate management procedures, ideas, proposals, for ways of managing this fishery, and that can be as simple or as complicated as we wish. These are developed from the stakeholder group, and each management procedure will be potentially different data and different rules for how to turn that data into management advice.

The questions to consider for this part is what data can we use to inform management? What are the feasible management options, like gear types, perhaps, or different stocks, and what can we feasibly implement in the fishery, and then what is the management update cycle, and all of these can have different answers, because each -- For example, management update cycle, the MSE process can look at what the value of having a shorter interval in a management cycle can be, and so you can update the management regulations every year, or every three years, or every five years, for example, and you can see what the tradeoffs are, and you might see more stability, if there is fewer changes, but it may not be as responsive, and so these are all different alternatives that we can consider in different management procedures.

The next part is the closed-loop evaluation, and Tom spent a bit of time on this morning, but I will just give you a quick example of what that could look like for one operating model, and so let's take, for example, Model Number 1, which we took from the assessment, or we built from the assessments, and the first part of this process is to simulate the fishery, and so on the bottom plot there is the biomass of those two stocks, and that is generated inside the management strategy evaluation framework, and, in this case, it's just exactly the same as predicted from the assessment, because that's what the operating model is built upon.

We have an operating model, and now we need a management procedure that we want to evaluate, and so, here, we've got a management procedure that's going to set rules for these two stocks, and it's got a five-year management cycle, and the management procedure could be anything, and we don't even need to worry about, right now, what it is, and it could be a size limit, a change of a time or seasonal closure, any of those things.

The process begins where we take the data from the fishery that's available right now, and we apply that management procedure to the data. We put the data in, and the management

recommendation will come out, and it will say do this, or do that. Then we implement that, and it could be an implementation module, like Tom mentioned this morning, and that means it looks at the enforcement of those management regulations and how well they're going to actually follow the fishery, and so that can adjust -- It can go from what the management recommendations coming out of the management procedure is to what's actually going to happen in the real world.

We can adjust that, and then that feeds back into the operating model, and it updates the dynamics in the operating model, and it says, well, this is what happened, and we changed the size limit, and we opened this area, and we increased the fishing season, and that's going to update the fishing dynamics that are in that operating model, and so now we're going to start a projection, and you can see the model has been projected forward for five years. The model has run for five years with those management actions in place that have been prescribed by that management procedure.

Then we simulate data from the model, and now we're in the projected world. We simulate data from our model and apply it back into the management procedure again, in a simulated world in five years' time, and so that's the closing the loop part of the closed-loop evaluation. It has gone around. Then we do another cycle, and we do the same thing. We apply that management procedure to the simulated data, and the management regulations will come out. They may be the same, or they may have changed. We implement them back into the fishery and update the model, and so the population has moved forward for five years, and then again in the cycle, and another cycle, for a period of time, twenty years or so.

Then this is only just one projection, but, of course, what we talked about this morning are the environmental conditions in the population are uncertain, and they're going to be different in the future, and so what we do is we run another simulation. Everything is identical in the historical period, and it's the same management procedure, applying the same rules, but this run now has just got different environmental conditions in the model, and so this can be driven by -- This can be different recruitment going into the fishery driven by different, for example, oceanographic conditions, and you may have a poor recruitment year, or a really great recruitment, and random variability is added to the model, and the properties of that random variability are characterized in the operating model, based on the data we observed in the past.

Then we add another simulation, and another, and another, until we have done enough simulations that we can capture all that random variation, that uncertainty into the future, and then, once we've got enough to be at a stable distribution, we can describe that, like I've got here, with the median line, the solid, and the shaded lines show the percentiles of the distribution. Once we have enough simulations, we can characterize the performance of these management procedures.

We do the same thing now for Management Procedure Number 2, and this is going to be a different set of rules, and now you can see the same process was followed, but the population behaved differently, or responded differently, and it's the same for Management Procedure Number 3, and so on. We do this process for all the management procedures that we have developed.

At the end of this process, we have something like this, and we've got the results. The historical period is the same for all of them, but the projections, with the shaded part, are different, and the only difference between them is the management procedure. Everything is identical in those models, and they all have the same random variability in environmental conditions in the future, but the only difference is the management set of rules that were applied, and so the difference in

performance that you're seeing, the difference in the stock projections, is due to the way these rules worked, how well these rules worked for this fishery.

The question then is how do we rank these management procedures? Which have good performance, and which have bad performance? To do that, we develop evaluation criteria, and evaluation criteria are just things that we care about, how to define good management outcomes and how to define bad management outcomes. If we look to projection plots like that, what metrics do we use to say that's a bad outcome or that's a good outcome?

We call these performance metrics, and these are quantitative measures of management outcomes that we want to achieve, or perhaps avoid, and they are generally determined by stakeholders. Some are required by law, to ensure, for example, sustainability of the resource, and they may differ between stakeholders. Different stakeholder groups may have different management outcomes that they are focused on, that they would like to achieve, and so the management strategy evaluation is used to evaluate those tradeoffs among those management procedures and try and find a set of rules that can achieve, best achieve, the desired management outcomes across all the different stakeholder groups.

I've got a very simple example here to show how we go from management procedure results, or the results of the MSE, to selecting, to choosing, a management procedure, choosing a set of rules, and so, for example, you might say, in order to be considered acceptable for management, a management procedure must demonstrate biological sustainability, and it must have, for example, a 90 percent probability that the stock remains above some limit reference point. It if it gets -- If it's less than 90 percent probability of it being above a limit reference point, we think it's too risky, and it can't be considered for management.

Maybe we're concerned about stability, and we want to say that we want to have no more than a 15 percent change in catch, or in effort, limits between management cycles, and we don't want to have large changes in management regulations between management cycles, because it's too disruptive, and then we might say, while satisfying those two, we want to have the highest catch that we can, and we want to get the most catch out of the fishery.

We can care about other things as well, for example catch composition, and we may want to have performance metrics that looks at the probability of catching trophy-sized fish, if want the population to be in such a state that there is a good chance that we can catch big fish, and that may be something that you care about, and there's lots of other things that could be considered, like the fraction of the catch that has to be discarded, the length of the fishing season, anything that's important that you would like to evaluate that we can use to determine the performance of a management procedure goes into this list, and these are things that we think are important, that you want to try and maximize.

The key points to consider for performance metrics is that they must be defined quantitatively, and so we need to have numbers that are associated with each one of these, and so, for example, a limit reference point may be defined as half of BMSY, and that's where it is used in some places, but, if we talk about a limit, or a target reference point, we need to define that in some way, some way that could be measured within the model.

Many metrics, many performance metrics, require associated probabilities, and so, because there's going to be uncertainty in it, we need to say something like we want to have at least a 90 percent probability of achieving this, or at least a 50 percent probability, or something like that, so that we've got a way of saying there is some probability of achieving this, but there is no -- There is going to be uncertainty.

We always like to frame performance metrics in a way so that high values mean better performance, and so, for things like stability, we look at the probability that the stability is less than something, and so a high probability is a good value, and high variability is a bad thing, and so we try to frame them all so that the numbers -- They're all the same, and so high numbers are good, and low numbers are bad, and you can include any number of performance metrics in an MSE process, but we recommend trying to limit it to between four and six, at the end, but I think it's worth getting down all the ideas that the group comes up with, and then perhaps try and refine that to a smaller number, and the reason we don't have too many performance metrics in the process is because it's going to make making a decision really difficult, when you've got to evaluate it against twelve different performance metrics, and so it is a good idea to try and limit it.

DR. CARRUTHERS: Just one note about that, is that there's another reason why you might want to go for a smaller number, and that is because we typically find that they're all really correlated past about four, and so you can include, in a big table, thirty different views on what good performance is, but, actually, those differences are very well characterized by just four or five, and so the point is there's another reason why you want to keep it simple, is because it usually can be characterized that way pretty easily.

One of the problems we have here is we have multiple species, and so, unlike a single-species assessment -- Like, for bluefin tuna, we have an east and a west stock, right, and so all of our metrics are multiplied out by the number of species, potentially, and so it's going to take some careful thought here to do that, but you will find that you can have a big table, with lots of things to look at, but, really, a smaller number characterizes difference, and it will be up to us to show you that, but there's no reason why you can't report a lot.

DR. HORDYK: So how do we calculate the performance of these? You know, we've got a set of performance metrics, and now how do we calculate the performance? How do we actually use these performance metrics to choose among these management procedures, and so, again, I've got a very simple example.

Let's say these were our performance metrics, and we want to have at least a 50 percent probability that the stock is above a target level, and so here is our projection from Management Procedure Number 1. The red and blue-dashed lines are the target level for these two stocks, respectively, and I think these are based on the assessment, but don't worry too much about the actual numbers, and it's all the performance. I intentionally made these management procedures performance-based, so I can prove the point, rather than these aren't projections for this fish stock.

In this case, both the stocks, you can see the projection, for both stocks, for Management Procedure Number 1, are well below the target levels for those two stocks, and so there is a low probability, well less than 50 percent. Management Procedure Number 3 is greater than 50 percent probability of being at that target level for those two stocks, and the median line is the thick line in the middle of that distribution, and it's above the dashed line for each of those stocks, and so that meets our

performance metric, and a second performance metric may just be to maximize overall catch, and so we want to get at least a 50 percent probability of being above those dashed lines, and we want to maximize overall catch, and so we can do projections of the catch, shown here on the right-hand side, and this is just showing the projection period from 2020 onwards, projected catches that are associated with these two management procedures, and you can see that Management Procedure Number 1 has a lower probability of the stock reaching the target level and a lower average yield.

Number 3 is a better option, because it has both -- It meets Performance Metric Number 1, it has a greater than 50 percent probability, and it has higher catches, and so, in this case, the conclusion would be really simple, and you would reject Management Procedure Number 1. It's too risky, for one, and it gets low catches, and you would consider Management Procedure Number 3, because it achieves the sustainable metric that you were after, and it gets higher catches.

To summarize calculating performance, we can perform this analysis for all the candidate management procedures across all the different operating models. We eliminate any management procedures that fail to meet any mandatory performance criteria, and that's usually related to sustainability, but it could be other things. If they fail to meet the minimum performance criteria, we just can't consider that for management, and then you examine the tradeoffs among the remaining management procedures. Some management approaches may result in, for example, larger, or greater, catch, average catch, but it may come with more variability, and so, over the long term, you get higher catches, but it's going to come at the cost of greater variability. Other management procedures may have the reverse, and that's a tradeoff that needs to be considered.

Then, from those results, we can identify the management procedures that perform the best, or have the most acceptable tradeoffs across the operating models, and so the action then is the last part of this process.

The stakeholder evaluate those tradeoffs amongst the management procedures, and we go through the elimination process first, and then you evaluate that tradeoff among the remaining, and there's not always a clear answer. There is not always a single best one. Sometimes a management approach will achieve more of this and less of that, and other management procedures will achieve the reverse, and so this is where a stakeholder group needs to weigh-up those tradeoffs amongst themselves and decide on what is the approach that is going to make the most people the most happy.

Then there's a selection from that, those results, and you can select a management procedure. We're going to choose this management approach, because it seems to do the best job at keeping, or achieving, our goals, and that management procedure is adopted for managing the fishery, and so, in principle then, the management of a fishery, for at least the next few management cycles, is just collecting the data as you specified in the management procedure, run the data through the management procedure, which can be quite simple, because it's a set of rules, and, whatever the management procedure -- Whatever recommendation it generates, that gets implemented into the fishery, and we continue the process.

All the decisions, all the hard work, has been made upfront, and now it's just a matter of implementing that approach, but there is some work that still needs to be done, in particular monitoring the fishery to detect unexpected changes in the stock dynamics, and so the simulations will show us how well these management procedures are expected to work, and what the fishery

is expected to look like under those conditions, but it's still useful to monitor the fishery, to see if things have radically changed, for one reason or another.

If, for some reason, we start getting observations from the fishery that are completely different to what was expected from the management evaluation, that would be an indication that you need to revisit the fishery, because the management procedure may not be working in the way that we expected, and maybe something has changed dramatically in the fishery that wasn't included in those operating models, and this is termed "exceptional circumstances", and we can talk more about this later on, but the idea is, once you have this process of adopting a management procedure, it's being --

People have used the analogy of autopilot in a plane. You know, you've got the rules, you've got the destination, and you've got the route that is going to get you there, and so, with a management procedure, you just follow that, and that should get you there, but you still want to monitor things, to look out the window, to make sure it's going in the right direction.

Okay, and so I'm just going to just review the -- Just recap, actually, those five different parts of the process. Operating models, the stakeholders get together and develop alternative plausible descriptions of the fishery dynamics. The key points to consider here are the stocks to include, key uncertainties in those descriptions of the fishery dynamics, the method and the data for generating those alternative operating models, and the interactions between the stocks. The management spatial distribution, for example, is going to be quite an important one, in this case.

The second part of the process is develop management procedures, and, again, the stakeholder groups get together and propose different candidate management procedures. The key points to consider here are the rules for converting data into management actions and what are feasible management actions by stock and gear type. We can certainly evaluate the value of management approaches that may not be feasible, because the results can tell you like, well, if you could do this -- We did this a lot in California, for example.

We weren't able to set catch limits, but we could use the MSE to say, well, what if we could set catch limits, and is there any value in doing that, but it's important, and useful, I think, to distinguish between things that can be implemented right now and things that you want to investigate the value of for potentially doing, but is not currently possible.

With management procedures, there is no good or bad ideas, and you can't predict the performance of a management procedure just from looking at it. You have to do this closed-loop evaluation, because every fishery is different, and it comes down to the operating model, the characteristics of the fish stock, how does the fishing fleet interact with that stock, how it's implemented in the fishery, and so some rules can work really great in one place, and terribly somewhere else, because, in every fishery, all those things are different.

The third part is the closed-loop evaluation, and all that information gets put into the calculator, essentially, and it calculates the performance, and then the key things to consider here, as we just spoke about, are the management objectives, what are we trying to aim for, performance metrics, what are the quantitative measures of those management objectives, and then we can evaluate those tradeoffs.

The result of this process is to identify a management procedure, and so the result of this process is not only the framework for doing this, but the goal is to select, or at least identify, a management approach that best meets the objectives. Under all the conditions that we've considered in the operating models, this is the management procedure that is most likely to meet our goals, and then the action would be to adopt a management procedure and use it to determine management actions in the future, based on the observed data that comes in.

That's it for the MSE process, and I've just got, I think, one or two slides here, and they're more sort of housekeeping stuff about the process. The closed-loop evaluation, we're proposing to do that in software, which Tom mentioned before, is called openMSE, and it's software that we developed for this purpose of doing management strategy evaluation for a whole range of different fisheries.

We started working on this because one of the reasons why MSE was slow to adopt, in many places, was because, every time someone wanted to do a management strategy evaluation, they had to develop the whole operating model, the whole calculator, specifically for their fishery, and that's a lot of work to do that for every fishery, and it takes a lot of time, and a lot of expense, and then, when they went to go do this somewhere else, they would have to do that whole process again, and so we saw that happening a lot.

We started work in California, in 2014 or so, and we started developing -- It was called something different then, but this idea of having -- At least let's develop a standardized framework, a calculator, that can be used in many different places, so we don't need to keep reinventing the wheel in every place, and so now it's called openMSE.

It's called "open" because it's open-source, and that means it's free to access, and you can download the software on that website, and it's also -- Open-source means that the code is all available, and so you can see under the hood, if you're interested, and all that stuff is online, and you can see how it runs, and you can download it onto your machine, change it, do whatever you like with it. The help documentation is all available at openmse.com, and that's the software that we are intending to use to do the closed-loop evaluation part of this.

For this particular project, all of the code, the analyses that are specific to this project, are also available online, at this link here, and I think, at the moment, it's a private repository, and so you need to have permission to access it, and the reason we've done that is just so that it's not allowed to the entire public, but I think, if you contact Chip, he can just add you to it, or I can do it, and then you can see all the code, and everything is going on in this project will be on that place, in that place.

Maybe more user-friendly, and more easy to access, is the website that Chip mentioned earlier, and that is based on the same -- Actually, on the information on that website is stored on that repository at the top, and that's just what we -- It's at that link there, and that's where we intend to put all the information that is relevant to this project, on that page, and so all the resources, papers, links to other projects, will go on there.

We have, I think, a trial specifications document, and, at the moment, and there is a link there, it's empty. The idea is that we would document this entire process, every decision that gets made, and it's a living document. It keeps getting updated as we develop operating models that we describe

in that place. We say this is Operating Model Number 1, and it's been developed using this method, with these data, and this is Operating Model Number 2, and that will continue to be refined, and that's available to anyone to see and to comment upon, and as a record of the decisions that are made by this group. The idea is, at the end of that, the end of this process, that document will describe the entire process, from beginning to end, and that's it, and so thank you for your attention.

MR. LORENZ: Thank you, Adrian, very much for that presentation on the multiple species management strategy evaluation, and I know a point that I got out of it is that multispecies, which is what we're always involved in, is a little more difficult with MSE, and it is a bit more of a challenge, and we'll be a little more precedent setting, in that it hasn't been used as much for multispecies. From the AP, are there any questions for Adrian on this example model that he's given? David.

MR. MOSS: So, just for clarity, when we say -- When you're constantly talking about like management policy, and the various management policies, to translate it to what we do, that could effectively be a regulation, whether it's a single hook, whether it's size limitations, whatever the case may be, correct?

DR. HORDYK: Yes, that's right. Exactly. It's any sort of management regulation, from gear type to special closures or anything in between.

MR. MOSS: So my question goes back to something that a couple of us have already asked, in some form or fashion. If we haven't -- I am trying to think of the best way to say this, and so, if we haven't implemented some of these management policies/regulations previously, how accurate, or how do we know how accurate, the output would be if some of these are implemented, and I don't know if I'm asking that correctly, but hopefully you get the gist of what I'm saying.

DR. HORDYK: I think I do. What we try to do is the operating models are conditioned on available data, and then we also try and model management procedures based on what we call status quo, and so whatever is happening now, and has happened in the past, and one way we can evaluate that is we run that model back in time, and we start from a period in the past, and we apply whatever rules were in place, to make sure the model is predicting what actually happened, and does that make sense, so that we can see that at least what is being applied now -- The model is accurately reflecting the current situation in the fishery.

Then we generally try, when we do management procedures, to include that approach, going forward, and so then you can compare any alternatives against the status quo, so you can see what is -- In some cases, you can find that the status quo is doing a very good job, in which case the MSE, the whole process, just gives you confidence that what is being done now is a good approach. In other cases, there might be ways of showing how to change that to get improved performance.

DR. COLLIER: Just to build on that, it's not likely that a single estimate would be used, and it would be a range of values that would likely go in that, and that's how you have that cloud of information, and then the median value is what would come out as your final impact, potentially.

MR. LORENZ: Any other questions for Adrian? Tony.

MR. CONSTANT: I was right along the same as David. If these variables are using past and present management methods, do we apply -- Do we need to apply others that may be on our minds, or it's obviously not computer generated.

DR. HORDYK: So the management methods? No, and so the idea of those is the alternatives can from this group, and so there can be things that have been done in the past, things that have been done elsewhere, or maybe an idea that you would like to see that hasn't been done, and they could be any of those things, but they're not generated, no.

MR. CONSTANT: So this group and the council -- We both put in our new ideas, fresher or better or whatever, and then apply them to what -- Then give us the cloud.

DR. HORDYK: Exactly, and so the idea is, and if I just go back to those plots, like these plots showing the performance, and I had a bunch of them, all the ideas -- We can go into it, and, at the beginning, when someone proposes a new idea, like let's manage it this way or manage it that way, no one will know -- Everyone believes it's going to be a good idea, but no one is going to know whether it is or not, and we certainly can't predict it either, and so definitely this is only showing the performance for one operating model, but it may be that, under a different set of circumstances, something doesn't perform as well, and so that's what the idea of the results show you.

It will show you how well is this idea going to work, and under what conditions will it work, and under what conditions is it likely to fail, and, if you can find something that is likely to work under a wide range of conditions -- For example, size limits often -- Other than the implementation issue, and the big thing with size limits is implementation and discards, but, if you ignore that for a second, you can get really robust results from a size limit, because it doesn't matter how little you know about the fishery. If you just know the size of maturity, and set a size limit above it, and don't catch a fish below it, you don't need to have any data, really, and you can get really good performance. Of course, the real world is much more complicated than that, but the MSE will show you -- The idea is to show you the difference in performance.

MR. LORENZ: Go ahead, Jimmy.

MR. HULL: Thank you. At the end of the process, when we get an MP, and I don't know if you should answer this or Chip, but so does our current SSC have to approve this as the best information available for management, or do they get to tinker with it in any way? Are they involved in this, before the council can act on this information?

DR. COLLIER: Yes, and the SSC is going to be the review body, and so we're going to have to figure out how to work this through the system, and I know NMFS is working on methods on how to address this through the current system, can we use an MSE and use that to develop an ABC, or is the ABC going to be coming from a single stock assessment, and so that type of stuff is going to be worked out in the management realm, upcoming, and they are getting guidance on that right now, but we are looking at a management strategy evaluation for the dolphin fishery that does not have a stock assessment, and so that could be developing ACLs from that, and maybe not ABCs, but maybe ACLs. We'll see. It's just uncertain on how this is going to work in the management system, but we think it could be a much more -- A much better way of trying to get different catch levels and more quickly adjust catch levels to what's being observed in the fishery.

MR. LORENZ: I am looking to my left. Was there anybody? David, did you want to come back in?

MR. MOSS: No, and Tony kind of -- Tony hit what I was asking.

MR. LORENZ: All right. Thank you. Cameron.

MR. SEBASTIAN: Going back to what you were saying about maturity and things of that nature, so you could run a test on -- This is just absolutely throwing it out there, but, if we said, hey, the most productive species for gag is anything over thirty-five inches, and we came back, and you ran your schematics on, hey, this is what this would look if no one kept gags over thirty-five inches, and that could factor into the overall stock?

DR. HORDYK: Yes, exactly, and so that's a great example of a management procedure. You might say, well, we want to know what would happen if we had a minimum size limit at this size, or a maximum size limit, and you couldn't keep it above this, and we could evaluate that. Then, of course, one of the uncertainties will be what happens to the fish that are below the minimum and above the maximum, and like are they going to be caught and discarded, and, if they do, are they going to die, and so these are uncertainties, which will affect the performance, but that's a great example of a management procedure that could be tested, a size limit for one stock or multiple stocks.

MR. LORENZ: Go ahead, Cameron. Continue on.

MR. SEBASTIAN: I would like to just -- You know, a tool like this I think could be extremely useful, especially when -- I mean, there's stuff back and forth between rod-and-reel and spearfishermen, and, you know, all this dancing going along, and, if you had something that, you know, the science says, hey, this size fish produces the most offspring, and spawns the most, and yet -- I'm a spear fisherman, and don't get me wrong, and, you know, we say, hey, this size fish can't be targeted by a certain group, because we're taking the biggest and the best fish off the market that reproduce the most, and, you know, that could be a very, very good tool to utilize.

MR. LORENZ: Thank you, Cameron. Any more questions? I want to thank Tom and Adrian, and I just have a question for Chip. With respect to the document that we were given to review, the AP discussion document, it stated these are things for us to think about before we get here, and is that truly what we wanted, and are we finished with this? Are we completed, or would you like maybe -- I wouldn't want to go too long, but maybe some bullet points on the questions you asked us to think about, or have we actually covered it, sort of with the discussion we've had and all the questions that were asked?

DR. COLLIER: I will leave that up to Adrian and Tom. I mean, I feel like you guys covered all kinds of information, and it's definitely a good starting point.

DR. CARRUTHERS: My sense is that this is an initial meeting, for you guys to just chew on it, basically, and no more than that, and not really be asked to think in a more detailed way than you already have, and I think it's fine. We covered the points that we wanted, and we got excellent feedback, and so, from my perspective, I am very encouraged, and I think we're in a good spot. We can worry about specifics another time, when people have a second bite at the ideas, and have

maybe seen some more examples, but I think this is as good as I could have hoped for, and this is great. Thanks, everybody, for that feedback.

MR. LORENZ: All right. Thank you, Tom and Adrian, and thank you to the AP. This was a very good session, and very interesting, and so thank you very much. Our next item on the agenda is Amendment 53, which will be covered by Allie Iberle, and I would just like to take a five-minute break, and, Allie, you can set up, and we'll be back, and so five minutes, but no later than 2:10.

DR. COLLIER: I did want to say thank you to Tom and Adrian for that explanation of MSEs. I thought that was one of the most in-depth and best-explained MSE that I have seen, and so thank you, guys.

(Whereupon, a recess was taken.)

MR. LORENZ: All right. Thank you, everyone. I've got 2:14, and we'll now have the discussion -- We've got a bit of work here, and we do have some deliverables under Amendment 53 for the gag and the black grouper, and Allie Iberle will be leading us into it. Thank you.

MS. IBERLE: All right. Before I jump in, I kind of want to just go over what the objective is for this amendment today, and so the council reviewed this in September, and kind of added a decent amount of things, and so what we want from the AP today is I will go through a brief background, and then I'll go action-by-action. Some of the actions, the council has selected preferreds, and some they have not, and so what we were wanting from you guys is to review the preferreds, give your opinion. If there isn't a selected preferred, feel free to recommend a selected preferred, and then they have some specific questions that they're going to ask of you, and I will go over those as we go through, and I will try to answer any questions that you guys have.

All right, and so a quick background, to get us started, and so gag was assessed in 2006, through SEDAR 10, and that assessment indicated that the stock was experiencing overfishing, and then, in 2014, that assessment was updated again, or it was updated, and, again, it was experiencing overfishing. Our most recent assessment, SEDAR 71, indicated that the stock is now experiencing overfishing and is overfished, and I will go through, once we get to Action 1, what that means for us.

In June of 2021, the council received the results of the assessment and then directed staff to start an amendment. Regarding that rebuilding plan, there was a little clarification that was needed and given at the September meeting on the Tmax for this stock, and so I added that on there, and so it just kind of took us out one meeting. Then we received our letter from NMFS on July 23 of 2021, and that just gave us our deadline.

A rough timeline, and I kind of chopped this a little bit, for time's sake, but, like I mentioned, we started in June of 2021. For the public hearings, this actually has deviated a little bit, and the council now plans to conduct public hearings in January, and so they will view the amendment in December, select preferreds, and then it will go out to public hearings in January, and then, at the March meeting, they will review those public hearing comments, and so that has kind of changed just a little bit, but they we are scheduled for final approval in March of 2023.

All right, and so, without further ado, I'm going to launch into the actions, and so Action 1 will establish a rebuilding plan for gag, and so, like I mentioned, that assessment, the most recent assessment, indicated that the stock is overfished and experiencing overfishing, and so, therefore, a rebuilding plan is needed, and gag currently does not have a rebuilding plan.

We have three alternatives, and Alternative 1 is not viable, and so that would not be establishing any rebuilding plan. That clarification that was provided on Tmax let us know that, in the absence of fishing mortality, the stock would rebuild in seven years, which kind of fenced us in on a ten-year timeframe, and so Alternative 2 is that shortest time period of seven years, and then Preferred Alternative 3 sets the rebuilding plan at ten years, using that Tmax, and so the end year of the rebuilding plan would be 2032.

Action 2 revises the ABC and OY, or, I'm sorry, the ABC, ACL, and OY for gag, and so we got that new stock assessment, and we have updated ABC levels, and so we're updating that the ABC, and then we're also incorporating the MRIP-FES landings into this as well.

Here are the alternatives for Action 2, and so Alternative 1 retains the current ACL, which is set equal to ABC. Preferred Alternative 2 would set the ACL and OY equal to the updated ABC, and so then we're just taking that updated ABC level and doing exactly what we did in the last amendment, and so no buffer there, but we would be incorporating MRIP-FES recreational landings estimates. Alternative 3 and Alternative 4 would provide a 5 and 10 percent buffer in between the ACL and OY and that updated ABC.

Then here are the numbers, and I'm not going to spend too, too much time going over all the numbers in this table, and they are included in your decision document, but I did want to kind of flash them up, so you can get a gauge on where those numbers are, and these are in pounds gutted weight. This fishery, the commercial and the recreational, are monitored in pounds gutted weight, and so you will see that unit throughout, and then the 2032 values will remain in place until modified.

This figure kind of gives you a visualization of how the fishery has been operating, and so that orange line is average total landings, inclusive of MRIP-FES landings, from 2015 to 2019, and then the blue bars are the updated ACLs under Preferred Alternative 2, and so you can see, in 2023, we've got a pretty big decrease from where the fishery has been operating to that updated catch level. However, in 2028, that catch level is back to the 2015 to 2019 average total catch, and we'll see this figure again when we look at the sector ACLs, to kind of give you another visualization.

For Action 3, we will revise the gag sector allocations and sector annual catch limits, and so there's a lot going on in this chart, and I'm going to break it into two parts, and so we've gone over the allocations for gag a couple of times, but I really breezed over Alternative 4, and, today, we're going to dig into that method a little bit, because I want the AP to be able to provide input on the council's preferred.

Alternative 1 would retain the current percentage allocations of 51 commercial and 49 percent recreational, and so that was calculated using a landings distribution from 1999 to 2003, but that used CHTS recreational landings estimates, and so what Alternative 2 would do would recalculate using that same method, and so the landings distribution from 1999 to 2003, but it would use

recreational landings estimates from the MRIP-FES survey, and that results in a 36.37 percent commercial allocation and a 63.63 recreational allocation.

Alternative 3 is using the Comprehensive ACL formula, and this was developed for unassessed stocks. However, it has been used for some assessed stocks, like red porgy, and you can see the formula there, and that results in a 43.06 percent commercial allocation and then a 56.94 recreational allocation. Alternative 4, we've been lovingly calling share-the-pain-share-the-gain, and I'm going to over why we call it that when I go over that in more detail, and so I'm going to leave that one for just a second, but we do have Sub-Alternative 4b as the preferred, currently.

Here are the tables with the actual catch levels for Alternative 1, 2, and then 3, and, again, these are in your decision document that is included in your briefing book, and so I'm not going to spend too much time here, because I want to dig into Alternative 4.

Alternative 4, that share-the-pain-share-the-gain method, was developed in December of 2021 by one of our council members, and so what it does is it looks at how the fishery has been operating, and so their preferred alternative uses a five-year average landings by sector, and so this example uses really like clean, even numbers, and this is a hypothetical example, just to walk through, so everyone understands how this method works, and so, in this example, say the commercial average landings from 2015 to 2019 was 100,000 pounds, where the recreational was 200,000 pounds, and so the total average landings was 300,000 pounds.

You take that 300,000 pounds, and you compare that to your updated catch levels, and so say this hypothetical fishery is taking a really big reduction in catch levels, like gag is, and so the year-one catch level is only 75,000 pounds, and so, based on the average 2015 to 2019 landings, a 75 percent reduction in overall harvest is needed, and so, in year-one, you take that 75 percent reduction, and each sector's ACL, or each sector's average five-year landings, are reduced by 75 percent, and so the commercial year-one ACL is reduced to 25,000, and then the recreational is reduced to 50,000. That calculation results in an allocation percentage, and so that kind of falls out as a 33 percent commercial allocation and a 67 percent recreational, in this example.

This is the share-the-pain portion of this allocation method, and so we've got a pretty large reduction in catch levels, and so we kind of shared that pain proportional to how each sector has been operating, and so the next portion is year-two, and throughout the rest of the rebuilding plan, and so that is share the gain, and so, each year, that catch level is increasing by a certain poundage, and so then what you do is take that increase in poundage and split it evenly between sectors, and so you were at 75,000 in year-one.

In year-two, you stepped up to 160,000 pounds, and so you've added 85,000 pounds to the total catch level, and so you're chopping that 85,000 pounds in two and adding that poundage to each sector's ACL, and so the commercial gets 42,500 more pounds, and the same with the recreational, and so that changes the percentage allocation slightly, and it's going to change each year, and it builds.

In year-three, you're up to 247,000 pounds, and so, that year, you increase 87,000 pounds, and these nice even numbers are based pretty closely on gag, and so that 85,000, or 87,000, pounds is pretty close to the increase that you are going to see each year for gag, and so, again, we see each sector's ACL is steadily increasing, and they're each receiving the same poundage increase each

year, and the allocation shifts slightly each year. At the end, year-five, and say that's the end in this hypothetical fishery, and you end up with 47/53 allocation, and then that would remain in place until modified, and so let's look at this in actual numbers for Amendment 53.

This is Alternative 4a, which is based on three years of average landings, and so I'm not going to spend too much time on this one, because this isn't the preferred, but, essentially, your two sub-alternatives either use a three-year average landings or a five-year, and the council has selected the five years as the preferred, and so you can look at the average commercial and recreational landings and then the total, and then this next chunk is the share-the-pain, and then this bottom chunk is the share-the-gain, and so year-one and then year-two through ten.

When you're looking at the actual percentages here, you start out at 39/61 commercial and rec, and then you would end at 48/52, and then Preferred Alternative 4b, which is based on five years of average landings, you're going to start out at a 49/51 during the share-the-pain, and then, in 2027, it shifts to a 50/50 allocation and remains that way until 2032, and then that would remain in place until modified, and, again, these charts are in your decision document, and they just are one big thing, one big massive chart, and I wanted to break it up, because I think it's a little easier to digest in pieces, but those numbers are in your materials.

I think -- Sorry. Let me go over this first, before I pause, and so this is the analysis. Again, this chart has a lot of -- Or this table has a lot of information, and so I want to direct your attention to the green rows on the bottom, and so that's the council's preferred, and then each row is a year, and so there is ten years of rebuilding plan. To save some time, and make sure that we were comprehensive, we looked at bookends, and so you're looking at 2023, and 2027 is our kind of middle-of-the-road there, and then 2032, and so beginning, middle, and end, and then what I want you to focus on is the -- We have this labeled as "closure date", and, currently, gag does have an in-season closure, as part of the AM, but I want to think of this more as when the ACL would be met and not necessarily a hard closure date.

This first box is for the recreational sector, and so, in 2023, we're looking at a pretty early closure, again just because of those reduced catch levels. In 2027, we're looking at mid to end of October, and then, by 2032, we're not expected to meet the ACL. Then, for the commercial sector, again a pretty early closure in 2023, and then no closures expected in 2027 or 2032. I am going to stop here, just to answer questions that are fresh in your mind from that allocation method and if you need me to go back over anything.

MR. LORENZ: I saw Jack Cox's hand up first.

MR. COX: I think you guys are pretty optimistic about your increasing catch levels, based on your amount of effort that will be increasing over time, and that's a little concerning to me, but I hope you're right. Rebuilding, to me, means something different than I think it does to the council, and we're talking size of fish and not just quantity of fish.

MR. LORENZ: Thank you, Jack. Andy.

MR. MAHONEY: What were you basing the recreational and the commercial trip limits on? Did you mention that, or did I miss that? Like is it one per boat or -- How much commercial?

MS. IBERLE: Sorry. I should have specified that, and so I want to look back in the decision document, and I apologize, and I was trying to make this as big as possible, to make sure that I have this right, but this is based off of the -- First, off of the ACL and OY equal to the updated ABC and then with the current bag limit of 1,000 pounds, with the step-down, but I want to -- I will check the decision document and make sure, and, if it is a different bag limit, I will let you know, but I don't believe it is.

MR. LORENZ: Okay. Yes, Jack.

MR. COX: I remember, in our -- We went through snowy, some time back, in 2013 or 2014, and I don't know if you all used -- Now that we're past that, and we were doing a chart somewhat similar with our increase in -- We were on a rebuild, and we were getting a bump of 10,000 pounds per year during that rebuild, and now we're in a situation where we're overfished and overfishing is occurring, and so we're right back where we were. I'm just bringing that back to the table.

MR. LORENZ: Randy.

MR. MCKINLEY: Then, if this is -- What they just said, is it correct then, but we're already -- I know we're going to be looking at taking the trips limits down, and the preferred is the 300 trip limit, and that's not taking this into account on this slide here, is it?

MS. IBERLE: I want to look at the decision document, and I will get that to you, and my apologies. I should have included that here.

MR. MCKINLEY: I mean, I guess what I'm getting at is a June 25 closure date for commercial, next year, just really would make me angry. I mean, I could go into a lot of reasons right now, but I don't know if this is the place. I mean, I'm just trying to ask questions on this, but so, if that doesn't reflect the 300-pound trip limit, then I'm okay with it, because it's going to -- That's not going to happen.

MS. IBERLE: This is under current management, and so the thousand-pound trip limit, and so our analysts -- I can actually bring this up, if the AP prefers, and so we were given a decision tool, and you can kind of plug-and-chug in that decision tool, for lack of better words, and so we can look at different closure dates under different season lengths and bag lengths, and so I can even get you those dates pretty quick, if you would like to see them.

MR. LORENZ: Selby.

MR. LEWIS: That's the preferred, 66 to, what, 33 percent, or 66 commercial -- I mean, 33 commercial and 66 recreational, but we don't have really any good recreational numbers?

MS. IBERLE: The preferred method would start out with a 49/51 allocation, but, currently, the 51 percent is to the commercial sector, and so we kind of flip-flop, and it would shift slightly, until it would settle at a 50/50 in 2032.

MR. LEWIS: Can you go back to that, because I thought it was -- The preferred was 66/33.

MS. IBERLE: The preferred -- I don't have the percentages, because they change each year, but the preferred right now is Sub-Alternative 4b, and so it's that share-the-pain-share-the-gain method, based on five-year average landings for each sector. This is Alternative 4a, and so it bases it off of three years of landings, instead of five, and so that's why this looks a little bit different, and so these were the two options that we were playing around with on how you can kind of tailor the share-the-pain-share-the-gain method, but we just wanted to come to the council with more than one option to run through that kind of method.

MR. LORENZ: Andy, and I apologies. I know you had your hand up a while longer, and I forgot. Sorry.

MR. FISH: Just to be clear, this is gag and black only, and not shallow-water grouper, which includes scamp and red grouper, correct?

MS. IBERLE: Sorry. I should have specified that, and so Amendment 53 is, first and foremost, in response to gag, the gag assessment and SEDAR 71. Black grouper came in in September, and we'll talk a little bit more about black grouper when we get to those actions, but it was included because of identification issues, and so the council had some discussions on identification issues, and so the catch levels and allocations for black grouper are not changing. Some of the recreational management measures will change, but the ACL and allocations will stay the same for black grouper.

MR. FISH: But this is gag?

MS. IBERLE: This is gag, correct.

MR. FISH: Not shallow-water grouper?

MS. IBERLE: No. This is gag only.

MR. LORENZ: Okay. Allie, carry on.

MS. IBERLE: All right, and so Action 4 will modify gag commercial management measures, and so we've got sub-actions underneath this action. Because of the updated catch levels, there is, obviously, a pretty decent reduction in harvest needed, and so these commercial management measures, or modifications to commercial management measures, will help constrain harvest to these new catch levels.

Sub-Action 4a modifies the commercial trip limit for gag, and so, currently, the trip limit is a thousand pounds gutted weight, until 75 percent of the commercial ACL is met, and then that steps down to 500 pounds. Alternative 2 is 200 pounds, and then we have Preferred Alternative 3 is 300, Alternative 4 is 400, Alternative 5 is 500, and then Alternative 6 was brought to the council in September, and so I mentioned that decision tool, and so what we did was we were looking at that decision tool and when the ACL was not expected to be met, and the council discussed putting in an increasing trip limit, and so looking at that decision tool, and, whatever year, starting with 300 pounds, that that trip limit wouldn't be exceeding the ACL, then the trip limit would increase.

One thing that I discussed during the council meeting, and I want to make sure is understood, is these dates, the way that they're written, regardless of how the stock rebuilds, the trip limit would increase on these dates, and so this would be codified hard and fast, and the years that are in here were based off of projected landings, and so, again, we're basing this off of projected landings, and so, in 2023, it's not projected that a 300-pound trip limit would exceed the commercial ACL, and so I kind of wanted to explain that.

When you're looking in your decision document, Table 13 shows kind of what those values were for each year, and so, for Alternative 6, you start at 300 pounds, step up to 500, and then back to 1,000 in 2027 and thereafter, and so the thousand-pound trip limit would then again remain in place until modified. Currently, the preferred alternative is still 300 pounds, and I don't know if you think it would be best to stop and take questions now. It's kind of up to you.

MR. LORENZ: Let's go that. I saw a few of the AP members chatting with each other, and so they could maybe come to you. I recognize Jimmy first.

MR. HULL: Thank you, Mr. Chairman, and so, if the Preferred Alternative 3 is chosen, 300 pounds, it's going to stay 300 pounds until -- The only way that can be changed, I believe, is with a management amendment, and so you're talking a couple of years to change from 300, and that may be why they were going to do the 6 as an option, and so I've got it. Okay.

MS. IBERLE: The trip limit actually can be changed through a framework amendment, and so this is one of the things that we talked about in September, and I think the schedule may have changed a little bit after the council meeting, but gag was scheduled to be assessed in 2025, and I am looking to -- I'm not sure if that's still -- If that schedule has remained the same, but say, after that assessment is done, and the council feels that it's appropriate to increase the trip limit, that could be done fairly quickly through a framework amendment, and so it would be faster than a full plan amendment, for just the management measures and no catch levels.

MR. HULL: Just a follow-up, Mr. Chairman, and so the framework amendment, in your guesstimation, what does that take? A year?

MS. IBERLE: Yes, roughly a year.

MR. HULL: Okay. Thank you.

MR. LORENZ: Randy.

MR. MCKINLEY: I guess she asked for questions, Bob, but is it questions or comments? I mean, some of this stuff, I would like to comment on, but I don't want to do it out of the framework of what you're doing, and so, I mean, I will try to stick to questions. I don't have a question at this time, but is there a point, when this is done, that we can make comments on this?

MR. LORENZ: Yes, and we'll play it by ear, and you're welcome to make a comment right now. Please.

MR. MCKINLEY: Not right this second.

MR. LORENZ: All right. Sebastian.

MR. SEBASTIAN: What's the historic landings for pounds per trip for grouper snapper fishing? I mean, are we talking -- I haven't seen anybody in my area, except the spearfishing guys, ever get their thousand pounds, within years and years, and so what is the average landing in the past few years?

MS. IBERLE: I forgot I had one more slide, looking at the analysis of this sub-action, and so the figure that's on your slide is from 2017 to 2019, looking at bins of pounds per trip, and so from one to 250 pounds, and so you've got 83 percent of the trips from that year range harvesting one to 250 pounds, and then it decreases from there, and then the table shows you the predicted change in landings for each of the trip limits. We didn't have an analysis of that increased trip limit for this presentation though, and so I apologize.

MR. LORENZ: All right, Allie. Do you want to carry on? I know we'll probably have a little more discussion on those trip limits and things.

MS. IBERLE: Sure thing. All right, and so Sub-Action 4b would modify the commercial spawning season closure for gag. You're going to see this action duplicated for the recreational sector for gag, and then you're going to see it again for black, and so keep that in mind. You're kind of going to see this slide over and over again, and so my apologies in advance.

I have tried to make this a little bit more visual, so it's not just a paragraph to read, and so Alternative 1 is currently the preferred. However, a caveat on that, and I will come back to it, and so this season is currently closed January through April, and it opens May 1, and it is open the rest of the year, and so green is open and red is closed.

Alternative 2 would extend the spawning season closure through the end of May, and Alternative 3 would include an additional month, but in the winter, and so you would still open on May 1, but you would be closing the last day of November, and then Alternative 4 combines 2 and 3, and so you get two additional closed months, one in May and one in December, and so this figure shows the commercial landings by month from 2017 to 2019, and then the projected landings, which is that red-dashed line, and so we're seeing the highest landings right when the season opens.

I mentioned that the preferred alternative right now is Alternative 1, no change. However, in September, the council really had some in-depth discussion about the spawning season closure, and they were seriously considering switching the preferred alternative, but they wanted to wait, to get feedback from the AP, and I know the AP has previously recommended extending that closure through May, and so one of the specific questions from the council would be how does the AP feel about the May closure, and do you feel that that would be wise, moving forward, and then the other thing that they discussed in September is regional closures, and so they kind of talked about how landings differ, right when that season starts, in different areas and whether or not a regional spawning season closure, and so differing for different states -- If that would be applicable. These are our specific questions that the council does want answered, and so I'm going to pause here, to get some feedback.

MR. LORENZ: Thank you, Allie, because you're going to get feedback. Randy.

MR. MCKINLEY: I would absolutely adamantly be opposed to it being closed in May. Retail businesses, I mean, I have spent a lot of time educating the public that we don't want to, you know, use imported fish. In your summer season, you've got three major holidays. If you closed in May, I wouldn't be able to provide fresh grouper from Memorial Day, which would be absolutely crazy, and I would even rather -- With all this other stuff, going down to a 300-pound trip limit, I would rather even see go down to 200, or 250, and then the weather in North Carolina --

I mean, we don't get many fishing days, and the wind seems to blow starting in January, and it goes through May, and it's not like a lot of commercial boats are going out in May and catching a lot of fish. It just doesn't happen, and, in fact, if you would look at how many gags are caught in North Carolina in May, it's not a lot of fish. Now, I am speaking for commercial. Recreational, I can see it being closed in May, but, for the North Carolina commercial fishermen, and us trying to provide fresh fish during that month, I would absolutely oppose a May closure.

MR. LORENZ: I think we ought to -- I would just make note, in the public record, that there was at least one statement coming from the commercial sector that they really don't want it for there, and they are not speaking for recreational, and that there could be a consideration there, and I will leave that open for now. Leave your hands up, everybody. I'm going to catch up. I've got Jack next.

MR. COX: Randy, I'm sorry, but I'm going to have to differ with you on this one. Fishing on gags for forty years, they're in pretty bad shape, and, working with scientists and stuff, we've noticed that there is quite a bit of spawning activity still going on, and it's still going on in May, and, being on the conservative side of gag, I would certainly like to see this thing rebuild as fast as possible, and so, you know, our snowies are really active this time of year, and we're doing pretty well on them in May, and we've got our reds, and we've got our scamps, and we do have some other groupers to bring in. I would hate to see it closed in May, but, man, this fishery -- I mean, it's in bad shape, and I'm going to do all I can to support a rebuild as fast as possible. Thank you.

MR. LORENZ: Thank you, Jack. Cameron.

MR. SEBASTIAN: Hitting the commercial and the recreational, from the commercial side, I would say we don't want to see it closed in May. You know, we've had four months where we can't hit them, and May has always been a good time of year for us to go, because it still is not our main recreational season yet, and then I will move to the recreational hat, and there is absolutely no way we want to see them closed in May as well, because that's -- We've already lost everything. Any real Gulf Stream fishing, we've lost, because of the speed limit restrictions, and so we need that money in May, to get fired up and get the engines running again for the season.

MR. LORENZ: Thank you. Jimmy.

MR. HULL: Thank you, Mr. Chairman. Jimmy Hull, north Florida, and we would be opposed to a closure in May. It's our -- For all he reasons stated already, and for us in north Florida, and that's our best chance to harvest, is right after the closure, because, after that, those fish migrate north, and it's just tougher, and that's our very best chance, and so we would be opposed to that.

MR. LORENZ: Thank you, Jimmy. David.

MR. MOSS: Thank you, Mr. Chairman. From a recreational standpoint, we would be opposed to a closure in May as well, for a few reasons, not the least of which being you're going to run into then a discard mortality issue, because all the other shallow-water groupers are open in May, and it's already a derby, when that does open, and so, while we don't get a ton of gags down south, further north, like in Jimmy's neck of the woods and stuff, you're going to get people that are going from reds and whatnot that are going to run into them, I'm sure, and discard them improperly, but I also, like Jack -- Again, this isn't exactly a bread-and-butter fishery for us down south, but I'm a little concerned at your optimism of how quickly this can be rebuilt, and I hope, especially for the guys up north, that that is accurate, but I'm not holding my breath.

MR. LORENZ: Thank you, David. I have Randy. Are you back?

MR. MCKINLEY: Just to comment on Jack, and, I mean, we've always been at the tail-end of the spawning, which I would say that, you know, it starts down south and moves that way, and so that would be concerning. There is a difference that Morehead is a lot closer for the snowy groupers and golden tiles, and, where we're at, in the lower part of North Carolina, you've got to go much further, and most of our two or three-day boats don't do that, but I'm with Jack on that, and I think that a lot of this is optimistic, the rebuilding, and I would hate to see that Preferred Number 6 on that other one, to bring the trip limits back up as quick as we could, but I think, with the smaller trip limits, and maybe what we talked about yesterday, some small MPAs, I think that would be sufficient, that we wouldn't have to close May. I mean, I would even agree with the first two weeks of May, a closure, but not the last two weeks. Thank you.

MR. LORENZ: Thank you, Randy, and I just want to jump in on one comment with this, as a recreational fisherman, and I saw that one of the alternatives, because we are discussing May, and I could see where this could go, would be the December closure, and, being in the southeast part of North Carolina, as Randy had mentioned, the weather is terrible, and there's a lot of times that you don't get out fishing, and December is the one time, the fall -- It's the end of when folks with a little lesser means in boats can go fishing on our little coquina rock piles and things like that.

I don't think we take a tremendous number of fish, when you only get out one or two days a month, but so I would just like to make just a note, for the public record, that I don't think we would be real happy about the December closure in North Carolina for recreational fishermen, and I will stay out of May for now. Selby.

MR. LEWIS: I would just say that I would prefer a 200-pound trip limit than closing May.

MR. LORENZ: Tony.

MR. CONSTANT: As the recreational sector, and, you know, we talked about this, I think it was back in April, and I was under the impression that May was the choice of the closures. I will -- I would have to agree with Jack on the one part that it seems like, in May, there is still a good bit of spawning going on, versus what I would consider the alternative of December, and there's not as much spawning started, and so, if we want to rebuild the fishery, we should probably look more at having to suffer through May, although I understand everybody's points, but I'm also looking at the graph you pulled up, and it said that 83 percent of the commercial catch was under 300 pounds anyway, and I understand that's on an average of the whole sector, but, at 83 percent, at under a

250-pound daily catch, we're already into that 300-pound reduction, and so it's almost redundant, I mean, other than it might hit a couple of boats, but, at a thousand pounds a day, it looks like only 2 percent of the overall commercial sector is catching it anyway. Something that I was curious is we started all the reductions on gag as Alternative 1, 2, 3, and 4 was the alternatives, and we skipped all the others, and is there a reason that we went straight to 4?

MS. IBERLE: My apologies, and I probably should have paused on those actions, but, if you want to go back to any of those, we can. I kind of just paused, because the allocation alternatives are kind of complex, and I wanted to make sure that I covered questions, before I moved off of them, but, if you want me to go back to any of the earlier slides, no problem.

MR. CONSTANT: No, and Alternatives 2 and 3 were pretty self-explanatory, but 4 needed quite a bit of --

MR. LORENZ: Thank you, Tony. Allie, go ahead.

MS. IBERLE: Selby, I wanted to make sure -- So you mentioned a 200-pound trip limit and then closing in May --

MR. LEWIS: Staying open in May, but a 200-pound trip limit.

MS. IBERLE: Thank you.

MR. LORENZ: Scott.

MR. AMICK: As far as for-hire, in my area, I wouldn't want to see it closed in May. As far as for-hire goes, December would be -- If it was closed in December, it wouldn't hurt the for-hire sector, but, as far as May, I don't want to see -- That's kind of when we get rolling pretty good with our trips, and we start in March, but we kind of need those grouper in May, to get those full-day trips going.

MR. LORENZ: Thank you, Scott. Vincent.

MR. BONURA: I just had a question, and so this is only gag, and not black, and the black are not included in the trip limits or the spawning or none of that?

MS. IBERLE: So you are going to see this action again for black grouper, and so, essentially, it's the same action applied to black grouper, the same alternatives, a mirror image, and then the same with the recreational component of gag, and so you're seeing this action essentially three times, for the commercial sector for gag, for the recreational sector for gag, and then for the recreational sector for black grouper.

Right now, the spawning season closures match for commercial and rec for gag, and we just split it, action-wise, in the amendment, and I think the council's intent, as of right now, would be to be selecting the same preferred on that, and I'm glad you brought that up, because the one caveat is that we don't have an action right now to modify the spawning season closure for commercial black grouper, and so there could kind of be this discrepancy, where you would have an alteration to the recreational spawning season for black grouper, but not the commercial, and so thank you.

MR. BONURA: Then, actually, what about -- I know the red grouper, in the Carolinas, are closed in May, and it's open in Florida and Georgia, and could that be an opportunity, or an option, for us as well in Florida?

MS. IBERLE: It very well could be, and, if the AP feels that that's something that would be appropriate for gag and black, that could be recommended to the council.

MR. LORENZ: All right. I have Jimmy.

MR. HULL: Just a clarifying question, and so, I mean, the shallow-water spawning season closure includes all those shallow-water groupers, and not just gag, and so you're not really talking about, oh, we maybe have these others open, if we extended it out to the month of May, and you're going to include all of those shallow-water grouper.

MS. IBERLE: So, as it stands right now, we would only be altering gag or black, and so, just like how red grouper -- Currently, as it sits now, all the shallow-water grouper, except for red grouper, open on May 1, and correct me, and I know you just stated it, but it's closed an extra month in the Carolinas for red grouper, correct? Yes. I've looked at it a million times, but -- So that same premise would happen if you extended the spawning season for gag, and so it would just be gag and/or black.

MR. LORENZ: Tony.

MR. CONSTANT: Is there a 75 percent reduction required with these actions? I mean, so we're looking at that big of a hit?

MS. IBERLE: Yes, and so there's around a 70 percent reduction from the way the fishery has been operating to the 2023 updated catch levels, yes.

MR. CONSTANT: Now, based on that 75 percent required, Alternative 2, that was up, that I was talking about earlier, does that Alternative 2 require a 300-pound trip limit for commercial, or does it stay as normal?

MS. IBERLE: Alternative 2 for which action? Sorry, but I want to make sure I'm --

MR. CONSTANT: We had Alternative 1, and Alternative 2 was the preferred option from the council, and it wasn't based on this Alternative 4?

MS. IBERLE: For the spawning season closure?

MR. CONSTANT: No, and I'm asking, if you got off of the Alternative 4, and went back to Alternative 2, and that wasn't quite as complicated as the 4 breakdown.

MS. IBERLE: For allocation?

MR. CONSTANT: Correct.

MS. IBERLE: Sorry about that. Okay, and so --

MR. CONSTANT: Did that require the commercial reduction to 300 pounds as well?

MS. IBERLE: So these alternatives only determine the allocation percentage, and so this is completely independent of trip limit. When you're looking at it from an analysis standpoint, obviously, you want to factor everything in, to kind of get that precise, you know, season closure, or when that sector is going to meet the ACL, or the sector ACL, but this is just how the percentages will kind of fall out, depending on different allocation methods. Does that make sense?

MR. CONSTANT: It does, but I don't think you're following me. I am looking at Alternative 3, or Action 3, but we're based on Alternative -- If we went back to the original screen on Amendment 53, you had four options, and Alternative 1 was no action, and Alternative 2 was the preferred action, and then we worked down to 3 and 4 and then -- The Alternative 2 was the one that I am talking about, and it was a different breakdown of the sectors, from I think it was 37 percent commercial and sixty-something in rec.

MS. IBERLE: Which slide?

MR. HULL: It's Action 3, revise the gag sector allocation and sector annual catch limits, and I don't see a number on this slide here, but it's page 9 of 32.

MR. CONSTANT: Go up a little further. Right here is where I'm talking about, Alternative 2.

MR. HULL: On mine, it says 8 of 32. What are you trying to figure out?

MR. CONSTANT: On Alternative 2, and we're on Sub-Alternative 4, and, if you look at Alternative 2, and, if you go up even further, it was actually mentioned as the preferred method, and I'm just saying, if that was to stay in place, or we go to Alternative 2, would that require the commercial to reduce? If you go up even further, there is a breakdown of it right there.

MS. IBERLE: What's on the screen, is that what you're talking about?

MR. CONSTANT: Yes. If that is chosen, does that require a commercial reduction on daily catch?

MS. IBERLE: So this is the total ACL and OY, and so that 175,632 pounds is just the total poundage that you have, and so, essentially, think of it as like a pie, and so that one-hundred-and-seventy-five-thousand-and-change is your total pie, and that's before you split it out between the sectors, and so that preferred is -- What you're doing with these alternatives is you're picking do you want to set that total level, right up to the ABC, or do you want to put in, you know, a buffer for, really, any amount in between that ACL and ABC.

MR. LORENZ: Thank you, Tony, and we have three AP members on-deck for questions, and so, just so Harry knows, who is online, Harry, you're second in the queue of the AP members, and we have Kerry here, who wants to speak for us from the council's committee. Kerry.

MS. MARHEFKA: Sorry to interrupt, but I just want to make sure it's really clear, because I get the sense that maybe it's not super clear yet, and we, 100 percent, by law, have to take a reduction for gag, right, and so anything that comes -- Which is what you're seeing right there. Anything that we do with those numbers after that are based on more of what we want to do to lessen the economic and social impact of what we have to do, and so the 300-pound trip limit isn't -- We don't necessarily have to do it, if we do this, but what we're trying to do is figure out, based on all the input we're hearing here, do we want to have a higher trip limit, or do we want to have a longer season, and like everything after that number is just us trying to make the best out of a bad situation. This, we have to do, and, anything else -- We could not change anything after that, and then keep this same trip limit and just have a really short season. Then the other two, I think, the other alternatives we didn't choose, then account for buffers and things, had we chosen to put those in there.

MR. LORENZ: Thank you, Kerry. Jack.

MR. COX: Are the estimates on rebuilding here based on recreational effort as it is today, or is there any buffers put in with increasing effort over time?

MS. IBERLE: That I am -- I am getting nods from Myra, and I'm going to let Myra speak to that.

MS. BROUWER: These numbers, the stock assessment included the new recreational estimates that came out of the revised methodology, the Fishing Effort Survey, and so it's based on the newest stock assessment with those revised recreational estimates.

MR. COX: All right. Following up on that, if we note, over time, that this is a ten-year rebuilding schedule, over the next couple of years, and that changes, is this to be adjusted as well?

MS. BROUWER: So gag is scheduled, right now, for an operational assessment in 2025, and so that's when those numbers would get to be looked at again.

MR. LORENZ: Andy, go ahead, and then I'm going to place Harry in here.

MR. FISH: Right now, we're at 131,000 pounds of landed gag grouper, according to my commercial Fish Rules app, and is that 175,000 for 2023, is that commercial only, or commercial and rec, because if, next year, we go to 175,000 -- This year, we're not even catching 175,000.

MS. IBERLE: That is the total.

MR. FISH: Commercial and --

MS. IBERLE: Yes, and that's for everybody.

MR. FISH: Commercial is going to be 25,000 pounds, because it was 33 percent.

MS. IBERLE: Under the preferred alternative for allocations, this would be year-one catch levels, and then this would be the commercial catch levels for year-two outward, and then the recreational for year-two outward.

MR. FISH: So year-one is 85,000 pounds, commercial?

MS. IBERLE: Commercial, yes, under the ACL being set equal to the updated ABC and the share-the-pain-share-the-gain based on five years, and so this is kind of where it tiers, and so these are the preferreds that the council has that result in these catch -- Like in the catch levels that will most likely get put in place, unless those preferreds are changed.

MR. FISH: I think that's very optimistic, at that reduction.

MR. LORENZ: Thank you, Andy, and, at this time, online, I would like to recognize Harry Morales, recreational fishing. Harry, are you there?

MR. MORALES: I know, in the Hilton Head area, that they are definitely overfished, and I think May is a very important month for us to get started. My suggestion, or my hope, is there are a few things that we, as an AP, can agree on, and the first one, that Tony brought up, and I think a 200-pound limit on the commercial side is a step forward, versus the 300 that is suggested.

Second, I know that -- I know that there is a lot of spawning that is still taking place in the month of May, and is it possible for us to agree to maybe go into one week into May and give us some part of December, as a way of helping increase the effort of spawning? You know, I agree that we need to -- We're going to have to compromise, and we've got to do things to help that fish rebuild, and so giving up a little bit may be the thing to do, and hopefully we can at least quickly agree on something, or at least a couple of points, and then move on from there, and that's my suggestion.

MR. LORENZ: All right. Thank you, Harry, and just one note that I would like to make based on Jimmy said, when he was asking about whether we have a shallow-water grouper closure, and, in North Carolina specifically, since we are closed on red, if you were to close gag, essentially that is a shallow-water grouper closure, I believe, for us, and I don't think there's any other -- Those are the two we have, and I don't think we get any blacks, and I just wanted to note that. Tony.

MR. CONSTANT: Real quick, if I'm understanding this too, recreational is giving up 15 percent of its catch, and, currently, we're at 67 percent, and we're looking at 51.

MS. IBERLE: Actually, the allocation would flip, and so, currently, the allocation is 51 percent commercial and 49 percent rec, and, the way the share-the-pain-share-the-gain -- In year-one, you would actually have 49 percent commercial and 51 percent rec, and so you would actually be increasing the rec allocation at first, and then, in 2027, it would shift to 50/50 and remain in place throughout the rebuilding plan, and then there on after until modified.

MR. LORENZ: Scott.

MR. AMICK: How does this affect the bag limits, as far as recreational and for-hire? I mean, would this change in an allocation, and what does that do for the bag limits?

MS. IBERLE: The next actions will be to look at the recreational management measures. The council has -- We kind of changed things up a little bit in September, and I will go over that in just a minute, and so the allocation -- The sector ACLs under the allocation action don't -- Like Kerry was mentioning, we don't have to change any bag limits, and the reason that we're looking at that

is to help constrain harvest, so that we can have a longer season, because, if you're leaving the current bag limit in place, you will most likely have a pretty early closure, until catch levels increase back to where the fishery was operating at. Does that answer your question? Okay.

MR. LORENZ: Okay, Allie. No further questions from the AP at this time. We can continue on.

MS. IBERLE: All right. Like I mentioned, Action 5, and this suite of sub-actions within this, deals with recreational management measures for gag only, and so, like I mentioned, we're trying to constrain harvest to these reduced catch levels, and so Sub-Action 5a would establish a vessel limit for gag, and so, currently, there is no vessel limit for gag. The bag limit is one per person per day, and that is gag or black, within the aggregate, and no vessel limit.

Alternative 2a and 2b pertain only to the private recreational component, and then would be either a two-fish-per-vessel-per-day or a four-fish-per-vessel-per-day. Alternative 3 pertains only to the for-hire component, and, again, you either have a two or four-fish vessel, but this is per trip, and so the council discussed this in September, and what their goal was for this was, if a for-hire vessel is taking multiple trips per day, they are wanting to ensure that passengers on trip-one and trip-two could retain a gag, if the vessel is taking more than one trip, because the two fish per vessel per day -- If you took a trip in the morning, and you caught two gag, and then you went back out, that vessel limit would have already been met, and so then you wouldn't be able to retain any gag on the second trip, and so that was the intention of these alternatives. I am going to pause here, just for any discussion on this one, before I move to the next one.

MR. LORENZ: Any comments on these alternatives of a vessel limit per day for the private recreational sector and the vessel trip limit for the for-hire sector? Any comments here? Anybody for-hire? Andy.

MR. MAHONEY: When you say per day, that doesn't mean that you could go for three days and have two, or does it?

MS. IBERLE: It's just per day, and so, if you went out five times, and if you caught two gag on your first trip out, that would be -- You would have met your limit.

MR. MAHONEY: I meant like on an overnight trip. I'm sorry.

MS. IBERLE: I am not exactly sure how that would work, but I would assume that, if you were on an overnight trip, that you would have two gag per vessel on day-one and then two gag per vessel on day-two.

MR. MAHONEY: I see that as being abused.

MS. IBERLE: Okay, and so concerns over --

MR. MAHONEY: I have concerns with that.

MS. IBERLE: Okay.

MR. LORENZ: Tony.

MR. CONSTANT: I feel that it will be abused, as it did with cobia, but I would be in favor of the b alternative for both sectors, meaning four fish per day, and not per trip, a boat limit.

MR. LORENZ: Cameron.

MR. SEBASTIAN: I guess, when we start to see the four per boat, or whatever it is, that's great if you've got a six-pack, but, if you've got sixty guys on your boat, then that's kind of a different -- That's a little different schematic going on there, and, you know, granted, as far as we're concerned, as far as the headboat companies, I would say our biggest thing is as long as we can retain a certain amount for a certain number of people. When we catch whatever it is, and, hey, you can have two per twenty people, or whatever, then we shut it down, and everything after that has to be thrown back and descended properly.

MS. IBERLE: The council currently doesn't have a preferred for this action, and I've got some notes up there. However, I think it might be beneficial to record kind of a consensus recommendation from the AP, to kind of take back to the council, especially as they're going to be picking a preferred for this in December, and that might be beneficial.

MR. CONSTANT: The preferred trip would be the b section, where there is four per boat per day, and I know there was also a two, an a, option.

MR. LORENZ: Jack, go ahead.

MR. COX: I mean, I'm a commercial guy, but I'm just saying that, if we're all taking a hit, and we're really trying to rebuild this fishery, and we care about conservation, for the recreational, they need to take what is most restrictive.

MR. LORENZ: All right, and, based on Allie's request that we come up with, I guess, a sort of preliminary guidance recommendation on the private recreational, versus the for-hire sector, we'll go forward with that with conversation. At the risk of being shot at by my colleagues, I just will state one thing that -- Depending on how that goes, we'll start to get into a little bit of sector breakup within the recreational sector, if it's not aligned with the amount of fish per boat. I personally am okay with that, and I will share Jack's thought.

With the share-the-pain-share-the-gain, it is possible, and I'm just throwing it out there, but it's possible for us to consider the private boats, private recreational anglers, if we're going to start heading down the road towards sector separation, within the recreational sub-sector with separation, that we could go -- Some of us could have two fish per boat, because we're often just three anglers on a single console, and that gives the six-pack folks, that are out there making a living -- They could get four fish, and that's a little more share-the-pain-share-the-gain, to me, and so I just would like to offer that, that that's something that could be out there, but we are going to towards separating the two sectors, depending on where we take this. David, I believe you had a comment, on my left, and I would give you the floor.

MR. MOSS: Thank you. Two questions, the first being what -- Forgive me for not being able to find it, but where is recreational versus the ACL, or where were they last year, or the last reported year or whatever? Do you know?

MS. IBERLE: I would have to look that up, but I'm sure someone on the outside of the room could look that up quick. I don't believe they exceeded the ACL, and I don't think they have exceeded the ACL in recent years, but I will look to somebody jumping on ACL monitoring, really quick, to look that up for me.

MR. MOSS: Then my only other -- Do we need to make that a motion, a recommendation?

MS. IBERLE: I don't think it needs to be a formal motion, but I kind of put some options up there, and I kind of heard a little bit of both, and that's why I have question-marks on them, and so I just want to make sure that we get this fleshed out, before we move off of it, but I don't think we need a formal motion. You can make a formal motion, and there's nothing stopping you though.

MR. LORENZ: Andy.

MR. FISH: I would think, if I had a recreational interest, and a lot of my buddies do, that I would want something small that could extend my fishing season farther into the year. If some people are taking -- If an option is four fish, I might only be able to fish until June 15, or whatever, and I think people -- If we do make a motion, they might want to consider that, the more fish we're allowed, it's all going to go into the nerd count society, and just a pun in there.

MS. IBERLE: Nerd count?

MR. FISH: That's his words. They're going to factor that into -- I would rather fish the six months of the season, versus the one month of the season and be disgruntled and having discards and all that kind of stuff. That's what I would stress.

MR. LORENZ: Thank you, Andy. Cameron.

MR. SEBASTIAN: I am all for extending the season. All I'm saying is, from the big charter/headboat company perspective, if I'm looking at -- It's hard to say four fish per vessel for a six-pack when we've got three twenty-passenger vessels, and we have three sixty-plus passenger vessels, and so some -- You know, how do we scale up, and I'm definitely not sitting here saying that we need to scale up to four per vessel for each six people, and, to me, that seems -- I think that's high, but, you know, I think there should be something in our recommendations to account for that, because, I mean, carrying sixty people is a whole hell of a lot different than carrying six people. Basically, when our sixty hear that we can only keep four per boat, I am not going to go anymore.

MR. LORENZ: Cameron, the situation with the headboats is quite unique, and, again, another sub-sector that's quite different from six-packs, or even private, and so I might ask you, and could you noodle around and maybe throw something on the table, since Allie has asked us to please try to come up with something to start? I will recognize Jack.

MR. COX: Cameron, to your point, we've got to share the same pain you're talking about, because we've got boats that stay at-sea for four or five days, and they've got expenses exceeding, you know, $1,500 or $2,000, and they're only allowed to have a 300-pound trip limit, and so, you know, we're going to have to take the hit. I mean, those guys can't hardly make a living on a 500-

pound trip limit, but they're going to have to scale back down to 300, and it's the same kind of scenario you're talking about.

MR. LORENZ: Tony.

MR. CONSTANT: I think, every time this is in effect, the water gets real muddy. When I was a charter/for-hire, I pushed this and pushed it, and I'm very much in favor of separating the sector, but, when we don't, it gets muddy, and I think, until we do, we've got to keep it as it is, and I hate that for all the charter/for-hire, but I think that -- I agree that we need to separate, but it's not.

MR. LORENZ: We have Mike Schmidtke that wants to make a comment, or address us. Mike.

DR. SCHMIDTKE: Thanks, Bob. Just in response to David's question about the recreational catch versus the ACL, the recreational catch has not exceeded 100,000 pounds, and the ACL is currently 348,000, and so less than a third, for the last three years, each of the last three years.

MR. LORENZ: On my right, did I see a hand up? Did I see yours, Jimmy, by any chance? Okay. Please, David, go ahead.

MR. MOSS: Thank you for that, Mike, and listen. I want to help as much, as anybody here, and, again, I do feel a little bit bad, because this isn't a fishery that we typically have, but, if we're catching less than a third of what the current ACL is, what difference is dropping down to two fish per vessel going to do? It's somewhat of a rhetorical question, and I don't know -- You know, maybe that is the answer, and maybe that's a big help, and I don't know, but, if we're, allegedly, catching less than a third of the total ACL every year, or for the last three years, is that going to have any kind of desired effect? To that end, what else can we do?

MR. LORENZ: Tony.

MR. CONSTANT: David, along those lines, I was thinking the same way. If we kept our catch limit for recreational similar, or four, for the headboat, and I hate to say this, because we may never get it back, but what if we gave a part of that percentage to commercial?

MR. LORENZ: It always can be made as a recommendation.

MR. CONSTANT: You know, if we're not catching but a third of it, what if we gave, I don't know, say 10 percent, 5 to 10 percent?

MR. MOSS: I don't entirely disagree with you, Tony, but my thought has always been that it's not a bad thing to leave fish in the water, and so I don't entirely disagree with you, completely, on principle, but my general thought is it's not the worst thing in the world to leave fish in the water, and so, if we're not catching them, but whatever data we have, you know, certainly the commercial sector is going to be a lot more efficient in catching them, and I would rather us not catch them, and leave them in the water, than give them to somebody that we know probably is going to catch them.

MR. LORENZ: I would like to just make kind of a recommendation, maybe for guidance to the council, rather than us make a motion, and I don't think we're at that point yet, but could we, as

the AP, put sort of an AP points of focus with respect to this, because we've got these like three sub-sectors, that maybe we come up with three bullet points, and we would vote on it. For recreational, the vessel limit per day, and put a for-hire vessel limit per trip, and they can be different, and I think, for Cameron, if he wishes to, if you want to throw something in there for consideration of the headboats, we could have that as another bullet point, and then I say, on a conservation point, with the -- We still are held to the one-fish-per-person, and so you do end up, if you just have a for-hire or recreational boat, and you have two people, or three people, you are going to keep less than four fish, or, by yourself, you're only keeping one, and would we be open to that, to try to give some guidance, just to get started? I don't think we're ready for a motion, unless somebody wishes to, but how are we for that? Tony.

MR. CONSTANT: Going along with all of this, what if we approached as a sector separation, to get charter/for-hire and private recreational apart, and then give a part of that fishery -- You could keep it at per person, even for a private boat, but you could give part of the annual catch to create this new sub-sector.

MR. LORENZ: Go ahead, David.

MR. MOSS: Again, I'm not necessarily opposed to it, but I do believe that then you would have to divide up ACL amongst the charter/for-hire, and that gets -- I mean, it's not something to -- I mean, I will lean on actual council people, but I don't think it's something that we're going to be able to do, and/or even recommend here, but, I mean, moving down the road, perhaps. I would also like to say that, for the record, I am not necessarily against the two-fish-per-vessel limit, but I was just asking the question of what payback do we get for that, and is that enough.

MR. LORENZ: Cameron.

MR. SEBASTIAN: Right now, I mean, the limit is one gag per day per person, and so, I mean, if you made it simple, like you cut it in half, or cut it -- What does it need to be cut to, a quarter? I mean, if we had ten guys onboard, we could keep three fish for ten guys, and, I mean, does that make sense, and it's just based on a percentage of passengers onboard the vessel?

MR. LORENZ: It is obviously trickly, without going towards some of what Tony's thoughts were, is like would we be initiating some sort of recommendation, or to start considering, sector separation within the recreational sector, and I don't know what that opens up, to other amendments and that sort of thing, procedurally. That will just be a comment from me, and I would like to recognize Harry Morales to speak. Go ahead, Harry. You're pretty good at some of this stuff.

MR. MORALES: Thank you, Chairman. I think, first of all, we seem to have an agreement on there are three sectors, to speak of. There is the private fishermen, myself, and there is the for-hire fishermen, the six packs, if you want to call it, and then there's the headboats, and so there is three different categories, and, as a group, I think we can make that kind of a recommendation, that the council -- The first thing is that we consider that.

The second thing, if I'm looking at this chart, and I am looking at 30 percent and 45 percent, and 75 percent of the MRIP -- The fishermen are catching one or none for the grouper, and so, if we promote four per vessel, we're not doing anything. We're not doing anything to help the fishery,

and, in fact, you could say that one or two, at a very maximum, on the private side. On the for-hire side -- As a matter of a fact, I would say private is one per vessel, and for-hire is two per vessel, and then I agree that a headboat, that has X number of people, you have to have some kind of division, whether it's one out of four, and the captain can then figure out what to do, and at least some people are catching fish, and we're all contributing to the rebuilding.

MR. LORENZ: Thank you, Harry. Robert, did you have a comment? As an ex-headboat captain, I would like to hear from you.

MR. FREEMAN: I wish I was more confident that we are actually under-catching the recreational limit. I think we've commented, several times, in the last two days, about the reliability of the data that we have on how many of those fish are coming in, and so I would discount that being that we're leaving fish in the water, from the recreational standpoint.

The other thing is I would hate to be still in business, and I am booking trips, and the first two grouper that come in the boat, and the other four guys don't get any. I would be highly opposed to boat number limits, and make it, you know, passenger-wise, because that's going to be a real tough sell, when you tell that fella to put his rod down, or whatever, and the guy next to him just caught a grouper, and it just doesn't make sense.

MR. LORENZ: Thank you. Cameron, you had your hand up, and you also operate headboats.

MR. SEBASTIAN: I would say -- You know, I am definitely in favor of protecting the species, and so, I mean, I would say, from our end, we could do a pretty large reduction in the overall numbers, and, instead of a one-to-one -- Maybe I need some help vetting out the numbers, and so, if we have between ten and twenty passengers, we can keep six fish. The cap, if we're going thirty, over thirty, passengers, we can keep ten fish, total. I just need to sort of work out the numbers on what would work for the panel to recommend, because, in our business, you know, we catch some, and it's a very fine line that, hey -- You know, if they hear they can only keep two, or four, per headboat, then that's going to create big damage.

I get that we need to reduce it, and so, I mean, I think we could come up with something where we reduce it by a certain number, or have a flat number, with how many head we have per boat. I know, in South Carolina, out of the total number of headboats, we have like six of them, or seven of them, which is like 70 or 80 percent.

MR. LORENZ: Thank you, Cameron. Kerry has asked to step in here to comment.

MS. MARHEFKA: Okay. Harry hit the nail on the head when he called in, and so I just want to refocus everyone back to that, and specific to your point, Cameron. If you look at the data on that chart, there is only a very small percentage of trips right now that catch four or more with headboats, and so, if you give four, or anything greater than four, you're achieving absolutely no reduction. This table is really where it's at, because we have to have a reduction in effort. It's just where we're at. It sucks, and we have to do it, and we don't have a choice.

It basically comes down to deciding do you want more fish in a shorter time period or less fish over a longer time period, and we're doing it with the commercial industry, and it's going to need to be done in the recreational sector as well, and to look at this chart is the only way you're going

to know whether a reduction is being achieved, and, if you look right there, basically, greater than 60 percent of trips now, including headboat, only catch more than one gag, and so there would be no reduction, if we stay higher, and we just have to.

By law, we have to, and so, you know, to the extent that you guys can help us figure out, and have a conversation about whether or not you would rather have -- You know, as a sector, you would rather have a longer season and less fish, or a shorter season and more fish, that would really help us inform our discussion at the council level, but we have to make a reduction. There is just no choice.

MR. LORENZ: Thank you, Kerry. Actually, I've got an idea, and I'm going to make an executive decision, and we're heading for primary season here, to vote for our national leaders, and we have actually four things that Allie has just asked us -- We've been asked for guidance, and we are advisors, and so let's do a little advising.

What I would like to do is kind of take an informal primary vote of yea, nay, abstain. If you don't like that particular option, vote it down, or abstain, if you want to wait for your later one, and let's see if we can get some numbers to give to the council, because I have a funny feeling that we could talk for hours on this, and I think it could give some guidance, just to where I think, and we've got like eighteen minds here, of where we might want to go, and so, Allie, thank you. You're setting that up just the way I want, if nobody minds. That gives us a lot of options, and I was going to probably take each one. Is there anybody that would have a comment that is totally unreasonable, and may I proceed, or any other options?

MR. CONSTANT: As a charter/for-hire, as a six-pack, he can only keep one, or two, per vessel? That's two per six people, or are we saying --

MR. LORENZ: Yes, and the first one would -- It would synchronize them together, but I guess another would be -- Then we have the second one.

MR. CONSTANT: I guess my point is we could roll that over to a headboat. If it's a charter/for-hire, if it's keeping, whatever, one or two per six people, then shouldn't a headboat keep one or two per six people, if it's the charter/for-hire sector? It multiples, and so, for eighteen, you would keep three or six.

MS. IBERLE: Are you talking about using the condition for head count for --

MR. CONSTANT: Sure. If it's charter/for-hire, it's charter/for-hire, and so keep it per single boat and multiply it for a headboat.

MS. IBERLE: So this would be --

MR. LORENZ: Headboat is just a multiplier of the for-hire, the six-pack, number.

MS. IBERLE: So this option would be one fish per vessel per day for private, and then, for for-hire, everybody, charter and headboat, it would division per head count, with what I have in parentheses? I just want to make sure that I'm getting that.

MR. CONSTANT: Yes.

MS. IBERLE: Okay. Perfect. I can go ahead and alter that.

MR. LORENZ: Chris, did you want to quickly make a statement?

MR. MILITELLO: But will these make a reduction, from what she just talked about? If it's not going to reduce anything, when why are we voting on it?

MR. LORENZ: They are in line with what Allie had presented as some sort of reduction, unless -- The only thing that isn't there, that would be much more -- No, we do have it. We have it, and that first recommendation is definitely a reduction. All right. I am going to do a hand count here on the first recommendation of two fish per day for a vessel that is private and for-hire, and we're synchronizing that. Hands that would be in favor of that. Vote for your best, and then abstain.

I am going to -- I am getting a little tangled up. Two fish per vessel per day for private and for-hire, those in favor, yes. With James, that's ten, ten yea. Now no. Who is voting no? We're still on the first one, two per day. Three, and so we have three no, and Harry did not vote twice, right? Thank you, Christina. Now abstaining. Who is abstaining? Four abstaining. Nobody online abstaining. All right. For that option, you've kind of given the council guidance that a majority says, hey, go with the first one, but there are other opinions.

Let's go with the second, if necessary, two fish per vessel per day private, and we're given four per vessel for-hire, and all those in favor of that option as a yea, please vote. I've got zero on that. Now no, and I guess that's telling me, but anybody formally no? All right, and who is abstaining, that didn't vote before? Nobody is abstaining. All right, and so that's one we don't want. Then the one that will give -- That we're actually advising the council to go to work is one fish per vessel per day private, and the for-hire would be the two, and I'm messing this up here.

MS. IBERLE: The for-hire would be -- It would be the per customers. For for-hire, it would be per head count, and so, if you had ten to twenty people, it would be a six-fish vessel limit, and then, if you had thirty-plus people, you would have a ten-fish vessel limit.

MR. LORENZ: The other thing I would like on this is where would we be on the six-pack?

MS. IBERLE: So that would be -- Everything was lumped into for-hire, and so that includes everybody besides private rec, the way it's written right now, but we can alter it, if that's not how the AP intends it.

MR. LORENZ: All right. On this option, one fish per vessel per day private, and so that's quite a restriction, and then, for-hire, the division is per the head count, and ten to twenty people get six fish, and thirty-plus gets ten fish, and I guess here's where you could vote twice. Scott, go ahead.

MR. AMICK: Where does the six-pack fall? Did I miss that? I see the ten to twenty people, and where does the six-pack fall?

MR. LORENZ: That's what I was wondering about, and we have to throw the six-pack in there.

MS. IBERLE: So does the AP have a specific -- That makes sense, but does the AP have a specific recommendation for a vessel limit for the six-pack?

MR. LORENZ: Let's go with two, because we had a lot of yeas on the two.

MS. IBERLE: How does that read?

MR. LORENZ: One fish per vessel per day private, and charter is two fish per vessel per day, and, for for-hire, a division by head count. We've had a lot of voting here, and anybody a yea on that one? Eight yeas on that, and that's good guidance, really. Now no. Based on David's recommendation, let's do this for the last one. It's just advising, and the next one -- I guess may I make a motion, or could somebody do it, but I would like to say the council to consider vessel limits based on the anglers, the number of anglers on the boat, and then the council consider, and this is opening up to sector separation, in a way.

To the AP, the reason I'm putting this -- I'm putting it in as a motion, based on what David said, but I cannot make a motion, but here was what was my logic, thought, is. I would like to throw something to the council for consideration, and it's just like the first two ideas, and so it would just be an idea. It can be a motion, or we can go back to an idea, but how do you all think about that we, as an AP, advisory panel, that we advise, or recommend, the council consider the gag recreational limit to be one fish per vessel per day for the private component and two fish per vessel for the charter component, and, depending on the customer count for the headboats.

I guess some feedback, and does that sound like a way to possibly go in the future, or let's just kill this off and walk away? If somebody likes it, please take it from me from here and make a motion, and maybe we can get a vote on this. Thank you, David Moss. **What's on the screen is a recommendation by David Moss.** Do I have a second? It is seconded by Cameron Sebastian.

MR. SEBASTIAN: Just one housecleaning thing, and I would be fine with going from ten to thirty people, because then we leave a gap. There's a gap between twenty and thirty, and do you see what I'm saying?

MS. IBERLE: Yes.

MR. SEBASTIAN: Yes, and so there's a gap, and it's like, well, okay, what does this mean, and so just for housekeeping purposes.

MR. LORENZ: It's six fish per ten people.

MR. SEBASTIAN: And the same thing -- You know, I'm good with, below ten people, just keeping it at two per boat.

MR. LORENZ: David, do you want to help him out there? I think what he's looking for is six fish per ten people.

MR. SEBASTIAN: Well, ten to thirty people, I would say. Ten to thirty is six, and over thirty is ten.

MR. MOSS: Below ten is two.

MS. IBERLE: So that's good with you, as the motion maker, that alteration? Okay. I just wanted to make sure, because you made the motion, and then you're good, because you seconded it? Okay. Perfect. Just making sure.

MR. LORENZ: The motion is up there, and I don't need to re-read it. It's up there on the screen, and it's just a vote as advice to the council. How many are in favor of this motion?

MR. HULL: Could we have one or two seconds of discussion?

MR. LORENZ: I am so sorry. I didn't allow discussion. Yes, Jimmy. Go ahead.

MR. HULL: I will start. Thank you, Mr. Chairman. Do those numbers give a reduction that we need to give? I mean, does that somewhat give some reduction? I'm kind of lost in it all now, and I think it does. Am I right or wrong?'

MR. LORENZ: David.

MR. MOSS: Right now, there's no vessel limit, and it's just two per person per day, and one can be a black and one can be a gag. Well, one gag, and so two either black or gag. Sorry. I always have to include that down south, and so, right now, it's one per person per day, and so, if you've got, you know, five people on your boat or whatever, then you can conceivably have five fish, and this drops it down to one.

MR. LORENZ: Tony.

MR. CONSTANT: I am opposed to the one-fish reduction on boat limit per recreational people.

MR. LORENZ: All right. Noted, Tony. Andrew.

MR. FISH: Some of these boats in the recreational, like in the red snapper, they will pile on twelve people, and would that come into play, or is it just for the headboats, with a headboat permit? There is going to be people for looking for angles.

MR. LORENZ: There always will. Maybe take a vote on this, and I did note that Tony did not like the one fish per vessel for the private recreational angler.

MR. CONSTANT: Is the two fish per vessel charter -- It says charter component, and is that per day or per trip? It's per day, correct? It says it on the first one.

MR. MOSS: I mean, I'm okay with that, but I know that there are certain areas where you can keep a two -- Like, if you're out overnight, you can keep a two-day limit, and so that would still count as --

MR. LORENZ: All right. Another comment? I see, Harry, you have your hand raised. Harry.

MR. MORALES: Mr. Chairman, thank you. I really don't feel we're -- I think we're kicking the can down the road, personally, and that's number one. Number two, I think the charter guys have to be per trip, and not per day, because a lot of charter guys in Hilton Head are going out twice, and so I think that's the case, but that first chart that showed 75 percent are only catching one, or none, and headboats are only catching one, that's where I think we need to be, and so, as written, I'm opposed to it. Thank you.

MR. LORENZ: All right. Thank you, Harry, and, to the whole AP, we do have the very first recommendation that we did get ten positive votes, three negatives, and four abstentions. The other ones are also out there for council consideration, and this just says to consider, and so it's going to take a while, but let's see what they say. I mean, we were actually introducing sector separation. **All in favor of this motion, which is a recommendation, please raise your hand.**

MS. IBERLE: Only vote one time.

MR. MOSS: Well, you can make another motion.

MR. LORENZ: Hands up again. All right. We only -- **Harry has told us he is opposed, and, Harry, I presume you're a no, and so we have five yea. Those opposed, no. I have one here, and, Harry, with your vote, I have two.**

MR. MORALES: Yes, and I vote no.

MR. LORENZ: **We have three opposed, and how many are abstaining? Seven abstentions, and so that's a strong --** That's kind of a statement that this would need a lot more work, to me. We have eight abstaining.

MS. IBERLE: Now you can make another motion.

MR. LORENZ: Does anyone wish to make a new motion with respect to this? I guess these are recommendations. Ritchie.

MR. GOMEZ: Not a motion, and just a question to Cameron. I mean, do you ever meet that quota? Could you do that? Could do that, as a headboat? Can you catch six fish per ten to thirty people, and, I mean, does that happen for you?

MR. SEBASTIAN: You know, if they hit a hotspot, it can happen. You know, the biggest thing is the perception from our customers that they can still have the opportunity to catch fish. Whether they do or not is a whole other story, but it's the perception, and so, if the word would get that out that you can keep two grouper, two grays, per headboat, the economic impact on us would be pretty catastrophic, because, once again, it's the perception of what they can and cannot do, and, with that being said, we have reduced the numbers of trips we've been running, because it's not cost-effective anymore to go to the Gulf Stream on the big headboats, almost.

MR. LORENZ: Robert.

MR. FREEMAN: I would like to suggest that, no matter what, just one fish per three passengers, whether it's recreational or private boat or whatever, and it keeps the math kind of simple, and

maybe what Cameron is reiterating there, what I saw, you can reduce the limits to where they can't have as many fish, but don't get it to the point that they can't have one of those target species, because these guys are not driving down here from New York for nothing, but, if they know they can have a trophy grouper, or something, then they're going to come on, and so fishermen are optimists, and we don't want to take that away from them.

MR. LORENZ: Well, that's a good idea, Robert, and it's pretty simple, and do you want to make a motion that, for the recreational sector, we don't have to break it down into anything, and it's one fish per every three people on a boat, the question being, when you get to these odd numbers, do you round up or round down?

MR. FREEMAN: That would be the point, and I think some of the recent things I've seen is eliminating the crew being allowed to have a catch, which I'm not in favor of, but, if it keeps us in business, then that's the goal.

MR. LORENZ: Well, we have that coming, about the captain and crew.

MS. IBERLE: I want to make sure -- Is that a motion? Okay, and then so do I have it up here how you intended that?

MR. LORENZ: One fish per three people on a vessel, and that's per vessel. Tony.

MR. CONSTANT: If the boat was four or five, is that still one fish?

MR. LORENZ: That's what I am wrestling with. Do we round down or round up?

MR. CONSTANT: That would be the question. Do you have to have six to have two fish?

MR. LORENZ: Question noted, and, with that complexity, do we have a second on this motion, as it's written, to recommend the council consider the gag recreational bag limit be one fish per three people on a vessel, and do we have a second? No second, and so the recommended motion doesn't carry. Jack.

MR. COX: I've just got something on the subject, and why do we let ourselves get in situations like this in fisheries management? I mean, think about all the time that we -- When we start seeing ourselves get in a situation, and we all can agree that, hey, we've got a fishery coming up here that's not looking so good, why do we get behind the eight-ball and beat ourselves to death on stuff like this? We're too smart for that. I mean, the council's job is to fix problems, and I think our job is to say, hey, council, we've got a problem coming up, and we want to fix this before we get here. Thank you.

MR. LORENZ: Okay. Thank you, Jack. We have many more things, and so we'll return to Allie.

MS. IBERLE: All right, and I know we didn't have a formal motion go through, but I captured some notes, and I captured this discussion, and then you've had two council members here, and so we'll make sure that we package this up and relay it to the council, and so I'm going to regroup here.

The next action for gag, for the recreational sector, is going to be that same spawning season closure modification that we talked about for commercial, and so, again, the same alternatives, and the same preferred. However, the council, again, is thinking about possibly switching that preferred to extending the spawning season closure through May, and I believe that the council's intention was to keep the commercial and recreational spawning season closure the same. As it is right now, both preferreds are Preferred Alternative 1, and so that is Action 5b.

I'm going to keep going to 5c, just so we can get through all of the recreational actions, and so we had the captain and crew bag limit mentioned, and so Action 5c would prohibit the retention of gag by captain and crew. We've got two alternatives. Alternative 1 would continue to allow the retention of gag by captain and crew, and Alternative 2 would prohibit the retention of gag by captain and crew. Do you want me to go ahead and go through AMs, or do you want me to pause? I will look to you, Chair.

MR. LORENZ: I think it's important, because Robert Freeman brought it up, and let's focus on the captain and crew. That's a fairly simple thing to comprehend and just make a decision on, and so let's go back to that slide and have any discussion. Prohibit the retention of gag by captain and crew, there are two alternatives there, correct, and you would be looking for a motion from us on what we prefer?

MS. IBERLE: Right now, they -- This action was added in September, and so the council doesn't currently have a preferred, and so we're looking for guidance, any suggestions on what you think the council should select as the preferred, any other suggestions pertaining to this action or the spawning season closure action, but I think we've discussed that a decent amount, and I don't think -- Unless the AP feels that the recreational spawning season closure should be different from the commercial.

MR. LORENZ: Okay. Thank you. Jimmy.

MR. HULL: Thank you, Mr. Chairman. **I would like to make a motion that this AP advises the council for Alternative 2 as their preferred for Sub-Action 5c, and I'll see if I can get someone to second that for discussion.**

MR. CONSTANT: I will second that.

MR. LORENZ: Motion by Jimmy Hull that we recommend the council consider Alternative 2. Second by Tony Constant. Is there discussion? Thank you, Jimmy. David.

MR. MOSS: Thank you. I agree with this, and I see no problems with it. You know, I understand that some captains and crew are going to want to keep it, but, if we're looking to make some adjustments to what it is that we're doing on the water, I mean, we've got to go somewhere. Thus far, we've kind of just thrown a bunch of stuff against the wall, and none of it has stuck, and so this is the first actual step that we're taking as a recommendation, which is good, and I agree with it.

MR. LORENZ: All right. I saw Scott.

MR. AMICK: I am completely against taking bag limits away from captain and crew, but, considering that we're talking about two-fish boat limits for for-hire vessels -- I mean, you're not going to take -- If you've got two gag, you're not taking away from your six fellas, and that's kind of how I see it, but, as a general consensus, I am not -- I am completely opposed to taking bag limits away from captain and crew.

MR. LORENZ: Noted, Scott. Thank you. Other comments or discussion on Jimmy's motion?

MR COX: Could you bring the -- I would like to see the alternative again, please, on the screen.

MR. LORENZ: Are you okay, Jack? It's pretty simple. A simple motion. Okay. Let's take a vote. All right. **The motion is to recommend the council consider Alternative 2 as the preferred for Sub-Action 5c, and that comes to no retention by the captain and crew. Those in favor, or yea, hands, sixteen. Anybody opposed? Nobody opposed. Abstaining, anybody abstaining? Nobody abstaining. The motion passes.** Thank you very much, Jimmy. Andrew.

MR. FISH: Is this just for gag? Like is this going to include beeliners, like the no retention, or is this every grouper snapper? Just gag? Okay.

MR. LORENZ: It's Amendment 53, Andrew, which is gag.

MS. IBERLE: All right. I am going to go ahead and go over accountability measures, and so Action 6 would modify the recreational accountability measures only, and so only recreational, for gag only, and there's a lot of moving parts in this amendment, and so I want to make sure it's -- I'm trying to make this as least confusing as possible.

There's a lot going on with this table, and so I'm going to start on the top row, and so the current AMs have -- It's split into two parts, and I like to think of it in two chunks, an in-season and a post-season. Currently, if the recreational landings reach, or are projected to reach, the rec ACL, that current season closes. Then there is a payback provision in the post-season, but it has to -- There is three triggers that have to be met before that payback goes into effect. The recreational landings have to reach the recreational ACL, the total ACL has to be exceeded, and the stock has to be overfished, and so you have to have all three of those situations happen to have a payback.

Alternative 2 is pretty simple, and this would have NMFS annually announce the recreational season start and end dates, and I believe that there's a little bit of a typo on my part, and so the start date would be whatever the end of the spawning season closure would be, and so I believe that should just be end date.

Then Alternative 3 would remove that in-season closure, and so I'm kind of comparing to the status quo, and so you're completely removing that in-season accountability measure, and then that payback provision in the post-season would only be dependent on the recreational landings exceeding the recreational ACL, and so you're no longer tied to the total ACL or to stock status, and then Preferred Alternative 4 would retain the in-season closure, and so the current season would close if the rec ACL is met, or expected to be met, and it would essentially uncouple that post-season AM, and so you would have a payback if, only if, the recreational landings reach, or are expected to reach, the recreational ACL, and so I like to think of Alternative 3 and 4 as kind of mismatched versions of the status quo, but I will pause there for any questions on AMs.

MR. LORENZ: Questions on the AM, or comments? David.

MR. MOSS: Thank you. Just to confirm, with Preferred Alternative 4, it's an in-season closure, and so, if they're projected to reach the landings in, for the sake of argument, October, it would close in October through the following May? Okay. Thank you.

MR. LORENZ: Tony.

MR. CONSTANT: Along the same line, is that based on projected, and so it's not based on actual landings?

MS. IBERLE: The recreational landings come in in waves, and so the waves is how NMFS projects when the ACL would be met.

MR. LORENZ: Anybody else with a question? David.

MR. MOSS: No question, but, considering that -- **You know, along what Jack said, that, you know, we look at all this stuff, and we realize that we need to take measures to retain these fisheries, and then we don't, and I would like to make a motion to recommend Preferred Alternative 4.** You know, if we don't take some heartache, all of us, now, then, eventually, we're just not going to be able to fish at all, and, I mean, it's getting closer and closer to that as it is, and so, if we don't start doing some of these things now, then it's going to be here a lot sooner than we would all like.

MR. HULL: If that was a motion, I will second.

MR. LORENZ: All right. For clarity, David, would you repeat that? I got a little lost. I'm sorry, and I hope nobody else is.

MR. MOSS: Exactly what Allie has up there, and just a motion for the AP to recommend to the council Preferred Alternative 4, with all the trials and tribulations that go with it.

MR. LORENZ: Thank you, David, and, Jimmy, you second that?

MR. HULL: I do.

MR. LORENZ: All right. Is there discussion of this motion? All right. Without discussion, we'll take a vote. **All those in favor that we recommend the council continue to consider Preferred Alternative 4 as the preferred for Sub-Action 6, raise your hand, fifteen; those opposed, nobody opposed; those abstaining, we have one abstaining.** Thank you. Thank you, David and Jimmy. Proceed, Allie.

MS. IBERLE: All right. This brings us into the black grouper portion of Amendment 53, and so, again, Amendment 53 is primarily in response to new catch levels for gag grouper. However, in September, the council discussed identification issues between black grouper and gag grouper, only in the recreational sector, and so all of the actions that pertain to black grouper are going to mirror those for recreational gag.

The goal was to prevent any issues with gag being caught and misidentified, and so Action 7 modifies the recreational management measures for black grouper, and so we're going to go into sub-actions. This is going to look familiar. Action 7a would establish a vessel limit for black grouper, and, at this time, the council's intention, in September, was to have black grouper recreational management measures really closely mirror gag, so that, if a fish was misidentified, then it wouldn't be -- It would help contribute to the rebuilding, if misidentification did occur.

The same alternatives as gag, and, currently, the black grouper bag limit is one fish per person, no more than one gag or black within that grouper aggregate, and Alternative 2, a and b, was that private recreational vessel limit per day of either two or four fish, and then Alternatives 3a and b only pertain to the for-hire, in that same two fish per vessel, but here it's per trip, and, again, the council had the discussion on trying to prevent -- Trying to allow customers to retain gag on separate trips. I know we had a lot of discussion on the vessel limit for gag, and so I can pause here and turn it over to the AP.

MR. LORENZ: What we have here is alignment for the purpose of a potential identification problem. If it weren't for that, I am to presume that we would not be talking about the black grouper at this time. All right. Correct, and so I guess just a thought that I had, and then I will ask for your input, is that, you know, basically, we dovetail -- Everything we talked about for gag follows, unless we so wish to go with Alternative 1, and that's just my thought, and I am just going to kick off discussion. I see David.

MR. MOSS: Thank you, Mr. Chair. I was going to make a motion to do that, and I don't know if we can, if we can have a motion to mirror for all of the three sub-actions, but my question, before we even do that, is did we come up with -- I don't think we did, right, in all that going on, establishing a vessel limit recommendation?

MS. IBERLE: (Ms. Iberle's comments are not audible on the recording.)

MR. LORENZ: We nailed nothing down, and we simply passed on an idea.

MR. MOSS: So, to that end, is it okay if I jump ahead to Sub-Action 7b and 7c, or do we want to go through this one first?

MR. LORENZ: Allie, please run through them. That would be good.

MS. IBERLE: Sure, and so what I will do is just go through the rest of the sub-actions, and that will conclude all of the actions for this amendment, and so, like I mentioned, 7a was that vessel limit for black grouper, and, also, before we go forward, I want to mention that we do not have preferreds. Again, we had a lot of discussion in September, and we kind of put together these actions and alternatives, and tweaked some stuff, and so the council doesn't currently have a preferred for this suite of sub-actions.

Again, this is the third time seeing this slide, and it's the same suite of alternatives for modifying that recreational -- The shallow-water grouper spawning season for black grouper only, and this is where we -- We discussed it with the council in September, that, with gag, we have an action for commercial and recreational. However, for black grouper, we don't have an action that would

modify the commercial black grouper spawning season closure, and the intention was to prevent ID issues in the recreational sector only, and so keep in mind that, if this -- If any alternative other than Preferred Alternative 1 was chosen, then you would have a differing spawning season closure for black grouper for the commercial sector, versus the recreational, but the ID issues were noted only for the recreational sector.

Then, finally, Sub-Action 7c is that captain and crew bag limit, and, again, only two alternatives here, and, currently, captain and crew can retain black grouper, and so that's Alternative 1, no action, and then Alternative 2 would prohibit the retention of black grouper by captain and crew, and that's it.

MR. LORENZ: Questions? I will go to Tony first.

MR. CONSTANT: I am a little astonished that we're trying to manage a species, versus a handful of people misidentifying something, and why would this council be trying to manage a species based on somebody doesn't know what it is? We've got an app that -- What is, Fish ID, and, I mean, let's put out a flyer with the picture on it, and why do we need to change management codes for somebody that -- This makes no sense to me.

MR. LORENZ: Thank you, Tony. I'm with your trend of thought and some reason, of why do we need to talk about black, but, David.

MR. MOSS: Thank you, Mr. Chairman. Tony, the unfortunate truth is, down south especially, it gets misidentified a lot more often than you would like to believe, number one, and, number two, and I was going to say this having to do with actually the -- With the vessel limit, but, you know, while we don't necessarily see an issue with black yet, I see no reason why we can't be at least a little bit proactive with some of these, so that we're not, you know, three years down the road with our hair on fire, saying, hey, I told you so, and this species is in trouble, as we are for so many others, but, to that end -- Well, if somebody else has something to say, before I make a motion, I guess go ahead.

MR. LORENZ: Ritchie.

MR. GOMEZ: I think, as it is right now, isn't it two fish per person for charter/for-hire, and captain and crew can't keep fish?

MS. IBERLE: For black grouper? There is a grouper aggregate, and I believe it used to be two grouper, and no more than two could be gag or black, and then it was reduced to one, and so no more than -- If you catch a gag, then you've met the aggregate, or, if you catch a black, then you've met the aggregate, and so it's one per person per day for either of those species.

MR. GOMEZ: Captain and crew is excluded?

MS. IBERLE: I am looking at Myra. Yes, they can retain, and sorry. I was getting a little confused, and so that applies to everybody, and so I don't see a situation where a captain, or a crew member, would retain one over a customer, but, the way it's written now, they could, legally.

MR. LORENZ: Anybody with a comment here? David.

MR. MOSS: No comment. **I will just make a motion for Sub-b, Preferred Alternative 1, no action, and mainly to mirror the gag recommendations that we made.**

MS. IBERLE: It was Alternative 1 for which sub-action?

MR. MOSS: **For 7b.** Sorry.

MS. IBERLE: 7b, just to kind of orient everybody, the motion recommended Preferred Alternative 1, no action, for Sub-Action 7b, and so not changing the spawning season closure for black grouper, for the recreational sector only.

MR. LORENZ: Ok. Thank you, and so motion by David Moss to recommend the council consider Alternative 1, no action, for 7b as a preferred alternative. Ritchie.

MR. GOMEZ: Okay, and so the president of the charter boat association in Key West wanted me to ask that we actually bring back a month, May, the reasoning being that we are catching more black grouper in the Lower Keys, and I believe even in the Middle Keys now, and so we're trying to bring back one month.

MR. LORENZ: Okay. Thank you, Ritchie. Noted, and we might bring you back. We have a motion on the table, and do I have a second for what we have? Vincent, are you seconding? Okay. Vincent is seconding. The motion has been seconded, and are there comments and discussion? Ritchie, we know yours, about wanting to do an alteration, and so I think that's advising against this. Anyone else with a question or comment, before we take it to a vote? All right. **The motion is to recommend the council consider Alternative 1, no action, for Action 7b as the preferred. Those in favor, yea, raise your hand, eight; those not in favor, no, two; those abstaining, two. It's a tie, and so I get to vote.**

MS. IBERLE: It passes, because you've got eight.

MR. LORENZ: I'm sorry. Thank you. **The motion passes.** Thank you.

MS. IBERLE: At this point, that was a motion for Action 7b, which is the black grouper spawning season closure, and so, if the AP has any thoughts, motions, recommendations, for 7a, which was the vessel limit for black grouper, and then 7c, which was the captain and crew, is where we're kind of at right now.

MR. LORENZ: That would include no action, right, for those two, meaning we're leaving the black grouper alone, but go ahead, David.

MR. MOSS: **For 7c, I would like to make a motion for Alternative 2, for captain and crew to not be able to retain their limit.** Well, as it's written. Again, to mirror -- Well, for other reasons too, but to mirror what we did with gag.

MR. LORENZ: We have a motion for Alternative 2 for 7c. Do I have a second on that motion? Jimmy, did you second?

MR. HULL: I will second it.

MR. LORENZ: Jimmy Hull seconds the motion. Is there discussion? Andrew.

MR. FISH: Can we put the actual motion that we're recommending, so we can see it and read it ourselves? It's kind of getting --

MS. IBERLE: This is the action we've got a motion on right now. My apologies. Thank you.

MR. LORENZ: Andrew, it's captain and crew doesn't retain anything with this. Any other questions or comments, before a vote? **The motion is to recommend the council consider Alternative 2 in 7c as the preferred, and it's the no retention by captain and crew for black grouper. Those in favor, thirteen; no, no one; abstentions, I see two abstentions.** Thank you. **The motion carries.**

MS. IBERLE: I think that wraps it up for Amendment 53, unless the AP has any other --

MR. BONURA: I just wanted to recommend to the council to continue to exclude any and all commercial black grouper in Amendment 53.

MR. LORENZ: That's a recommendation?

MR. BONURA: Yes, I guess a recommendation, because, as of now, there isn't any commercial actions in here, and so just, I guess, continue to exclude any actions for commercial black grouper.

MR. LORENZ: Okay. Thank you, Vincent. All right, Allie. I think we're finished. We're done.

MS. IBERLE: Thank you so much for all of your input, and we'll make sure that the council gets all of your feedback, and we'll review that in December, and so thank you very much.

MR. LORENZ: Thank you, everybody on the AP. I want to take a five-minute break, as we have Myra set up for the commercial electronic logbook amendment, and Myra can carry us forward as you wish today. I think we get 5:30 as long as we'll go, and we'll adjourn for five minutes, or break for five minutes.

(Whereupon, a recess was taken.)

MR. LORENZ: All right. I am going to call the AP meeting back to order, so we can get started, and we do have one thing to clean up, and there was an error made in the gag and black grouper, as far as a motion goes, and the results are more positive, and so I'm going to give that to Allie, just to clear up with everybody.

MS. IBERLE: **I wanted to clarify that I recorded this as the motion fails, looking at this abstentions, and so we have five in favor, three not in favor, and eight abstentions, and so this motion did pass, and so I'm going correct that for the record, and then you will have a formal recommendation for vessel limit to go to the council, and so I just wanted to make sure that was corrected on the record.** Thank you.

MR. LORENZ: Thank you, Allie. Myra. The commercial electronic logbook amendment is the next item on the agenda, and it will be introduced to us by Myra Brouwer. Myra, it's all yours.

MS. BROUWER: Thank you, Bob. This is Attachment 5a in your briefing book, and so I've got two attachments for you, the presentation, which I will run through quickly, because I know I'm standing between you and happy hour, and so it's been a long day, and so I just wanted to give you guys an update on what the council has been working on regarding moving the current paper logbooks that the commercial vessels in the South Atlantic and the Gulf use, which are part of the Coastal Logbook Program, and so that's what this is about.

As you know, the logbook program has been collecting information from commercial vessels in both areas for some time, and I believe it's been in place, for snapper grouper, since about 2004, and coastal migratory pelagics is I think 1985, and that was the very first FMP for which it was required, and the council has been working, or trying to go from the paper logbook to an electronic logbook, for some time. They began talking about this back in 2012, I believe, and this is going to be a joint amendment with the Gulf of Mexico Fishery Management Council, and so it's going to be amending several FMPs.

In our region, vessels that hold snapper grouper, dolphin wahoo, or CMP permits are required to fill in that logbook, and it's then submitted within seven days of the completion of your trip to the Southeast Fisheries Science Center. There is a subset of commercial vessels that are selected to report, in addition, discard information. 20 percent of the vessels, every year, are selected to report this information, and you are sent a letter in the mail saying you've been selected, and the same thing for the economic survey.

That is not going to change, and so that's going to be -- It's going to continue to be the same, and this amendment is not going to change that, but it is going to modify, as I said, four different FMPs, South Atlantic Snapper Grouper, Atlantic Dolphin Wahoo, Atlantic and Gulf of Mexico CMP, and the Gulf Reef Fish FMP from the Gulf. It's simply going to require that the commercial logbooks go from being submitted on a paper form to an electronic form, and it's not going to change anything else. That is kind of the first step, and so that's really all we're talking about, is it's getting a different platform, other than paper.

Benefits that hopefully are going to materialize is this is going to accommodate vessels that have multiple permits, and so they have dual permits in different regions. Right now, there are vessels that are still having to fill out separate logbooks, and so this is going to hopefully get to that one-stop reporting.

There are still going to be some discrepancies, and I was talking to -- We had a meeting of the Mackerel Cobia Advisory Panel a couple of weeks ago, and one of the things the guys brought up is that, in the Greater Atlantic Region, in GARFO, they are required to submit an estimate of their catch before offloading, and so they have to send that information in before offloading, whereas, in our region, you have to wait seven days, and so that is not changing, and so they pointed out that that's going to continue to be a little bit a discrepancy, but, you know, like I said, the main goal here is to just get to that electronic platform, and then whatever else needs to be changed, down the line, I think the councils will have to address those things later.

We are hoping to get better compliance, with this change, and have the permit renewal be more timely, and then, ultimately, of course, get better information for management, and so, in terms of what will change for you guys, there's going to be a series -- There are several data fields that are currently required, and so I'm going to walk you through a spreadsheet. It's a little bit painful, but we're not going to spend very much time on it, and it's basically just to highlight what's going to be different.

The electronic version of the logbook is not collecting different information, but it's just that it has to be collected in a different way, to accommodate that platform, and so the data fields are going to continue to be standardized through the Atlantic Coastal Cooperative Statistics Program, ACCSP, and then the data will continue to be made available to NMFS from ACCSP.

The voluntary portions of the logbook, and so the discard information and the electronic information, that is, like I said, not going to change, and it's going to be collected a little bit differently for discards, and it's going to be reported through disposition of the catch, and so you're not going to have a separate logbook for discards, and it's going to be all integrated into the same thing.

I have already kind of explained this, and the streamlining of the data is very important, because it's a partnership through ACCSP, and so it's all been standardized, over many years, and so it's important to keep that consistency across agencies, federal and state agencies, that use the information for managing fisheries, and so it's also important to accommodate vessels that are going to have different permits in different regions, so that all the same information is being collected.

This timing is what the council saw in September, and I have a feeling, or I know, I'm going to be asking the council to reconsider this timeline. We had a meeting of the plan development team a couple of days ago, and it's going to be a lengthy amendment to put together, mainly because of the requirements of the documentation that needs to go in there, and the action is actually pretty easy and uncomplicated, but we have to consolidate a lot of background information on four different fishery management plans, and there needs to be an analysis of all the economics of those fisheries, and so it's going to take us a little bit longer, but we are still hoping that, by early 2024, NMFS will have what they need to implement the electronic reporting.

The draft amendment is being developed, and we are obtaining input from you guys, and, like I said, we talked to the Mackerel Cobia AP, to you guys, and the Gulf of Mexico folks are getting their advisors together, and the Gulf Reef Fish received a presentation on it, and so there's going to be an opportunity to provide comment to both councils, through public hearings, and those are likely going to happen sometime in early 2023, spring of 2023.

I have -- I am going to bring up the spreadsheet, but I also, depending on time, and if there's interest, I have a link here to a YouTube video that was put together by a captain in the Mid-Atlantic, and it kind of showcases how to use eTRIPS, which is, if I didn't mention it already, the platform that is most likely going to be the one that everybody uses, and that's something that has been developed, in cooperation with ACCSP, and the Science Center has been piloting and testing that application, and so there's a video that kind of quickly shows you how easy it is to input the data on the electronic logbook.

As you all know, and, I mean, we're all very familiar with applications, mobile applications, and so one of the good things about this platform is there is going to be favorites, right, that sort of get, in certain fields, auto-populated, so that you don't have to fill in that information over and over and over again, and so it makes the process a lot more expedient.

There is also a link to a document that I didn't put it in your briefing book, but it was provided to the council, and it was basically just a list of questions and answers, questions that council members have asked, and other folks, and it gets kind of lengthy to go over the whole thing, and so I just put the link in there, if you're interested, and I'm sure there are other questions, and I will do my best to try to answer those.

While I'm pulling up my spreadsheet -- Let me just get through this, really quickly, and so this is Attachment 6b, and, like I said, it's a lot of information, and it's not pretty to look at, but, basically, you've got several columns, and Column A here is the coastal logbook data fields on paper, and Column B is going to have your data fields that are currently on the eTRIPS application, and so the green fields are the ones that are going to be additional, but, as I said earlier, it's not really different information, but it's just that it needs to be collected a different way, to continue to be in the same standardized manner for everybody, and so you can see that there is a few green fields, and there are also some red ones, that are the ones that are going to go away, and so, if you tally them up, the difference is mainly going to be for vessels that have been selected to provide economic information, and so you have a few more fields here that didn't used to be collected before.

There is one that is going to go away, and this spreadsheet also gives you information on what -- You know, what the description is of the data that's being collected, and what it's used for, and the entry type, and so whether it's going to be from a drop-down menu or a calendar or a clock or what have you, and so you can sort of anticipate the kind of information that you're going to be asked. This is available in your briefing book, and you can take a look at it whenever you have time, and so, at this point, I will pause, and, Mr. Chair, if you all want, I can try to bring up that little video clip, if anybody is interested. If not, we can just go straight to questions.

MR. LORENZ: All right. I will let Jack take that first question, and I think we would want to see the video clip, and is that correct? I see a lot of nodding. Okay.

MR. COX: I am just going to go on record and say more accountability for the commercial fishery. I mean, come on, recreational guys. Step it up.

MR. LORENZ: Thank you, Jack. I'll see what I can do. Okay. While Myra is bringing that up, anybody on the AP wants to -- Okay. We've got it.

MS. BROUWER: I am fast-forwarding to where I think -- It's kind of a lengthy video, but I am going to show you the part where he is entering his trip.

(Whereupon, a video clip was played and not transcribed.)

MS. BROUWER: That was just, like I said, a portion of the clip, and the link is in the presentation, and so, if you want to spend time and hear the questions that were asked of Rick, when he provided this presentation, you're more than welcome, and I don't want to play it, especially also because

the sound is not coming through the webinar, and so the folks on the webinar are not getting the narrative, and so, anyway, that is what I have for you, and, at this point, any recommendations, or any comments, or any considerations that you may want the council to know would be great, and, if I can answer any questions, I will do my best.

MR. LORENZ: Thank you, Myra. During the presentation, I did have Andy Fish, who was raising his hand, and it may be in relationship to what he was seeing. Go ahead, Andy.

MR. FISH: The 20 percent, where we do fill out the bottom, the financial part, it seems like, every so many years or whatever, we also get another letter in the mail, stating that you have to do this survey, and they want like all that information, but they want it all tallied up for the year and all that kind of stuff, and is that going to be able to get that information from there, or is that a scam, or is -- You know what I mean? I mean, sometimes I don't know whether to believe something I get, and it says that my permits won't be renewed unless I fill out this financial information.

MR. LORENZ: Kerry, come to the microphone.

MS. MARHEFKA: It's not a scam. I mean, if it's a scam, I've fallen for it too, and what he is talking about is there's an end-of-the-year financial form, where you do -- 20 percent will get the bycatch reduction form, and 20 percent will get the -- That's what I meant, the discards, and then 20 percent will get the trip financial information, and then you get this end-of-the-year thing, and I don't know about you, but I happen to always fall in the 20 percent, and so I can't imagine that that -- That this is going to get us out of doing the end-of-the-year thing, when you're selected. I suspect, and I hope we can find that out, but I suspect we're still going to have to do the end-of-the-year form, when you're selected for that.

MR. LORENZ: Thank you, Andy and Kerry. I have Jimmy Hull over here.

MR. HULL: Thank you, Mr. Chairman, and thank you, Kerry, and thank you, Andy. Yes, and I think that the economic has a lot more in it than just reporting your catch, and there's like the boatyard, all of your -- It's a spreadsheet of all of your expenses for everything, you know, but it would be nice if you could have your tally of your income side of it from there, and that would be cool, if it would combine all that and give it to you quickly, rather than flipping through all your logbooks.

Then the other thing is, Mr. Chairman, I would like to just make a recommendation to the council that they continue to pursue this with vigor, and try to get by the timeline that they have there, which I think was 2025. If they can make it happen, the sooner the better, from my point of view, and hopefully from the other guys on the AP. Thank you.

MR. LORENZ: Yes, and that might -- Myra, Jimmy's statement was pursue it with vigor and get-'er-done soon. Thanks, Jimmy. Jack.

MR. COX: I want to make sure that they have everything that -- Here's the deal with the Permits Office and stuff. Man, they are a mess down there, because -- They are an absolute mess, and I have called them on it so many times. They've got five permits attached to my name that I don't even belong to me, and I get it straight, and then it comes back, and they say that we need this, and we need that, and I'm like, look, I don't own these permits, and this has been ongoing and ongoing,

and so, if they're not ready for this, they don't need to send it out, because it's going to be a mess, because they just go to show that NOAA needs a contractor, somebody out there that knows what they're doing, to do some of these things, because they don't do a very good job with it.

MR. LORENZ: Thank you, Jack. Vincent, you commented before, and go ahead.

MR. BONURA: I just had a question of if there was anything put into the logbook program, the eTRIPS or whatever, to have multiple fishing vessels on the app, or how is that going to work, if you own multiple boats, or multiple permits, and you're, you know, having to put in trips for multiple boats at one time?

MS. BROUWER: That's one of the things that is going to be facilitated by going electronic, that you're going to be able to have multiple permits and only submit on one platform, and so, like I said earlier, there are still going to be some things that are a little bit different, like this timing issue about when you need to submit your trip report, but, other than that, yes, and the idea is to have a one-stop reporting for multiple permits.

MR. BONURA: Okay, and, well, the only thing I'm worried about is what if the permits are in multiple corporations, multiple names, multiple this, that, and the other, to where you've got to have multiple IDs and email addresses and everything else, and it becomes more complicated than the paper logbooks, which I can have the BlueFIN on my computer here, and I put the fish in, and then I have all my paper logbooks lined up, and I write them in, and I'm done, and it's easy, as opposed to having to have multiple IDs, or IP addresses, because of the extra permitting and permits and corporations, I guess.

MS. BROUWER: Thanks, Vincent, for that. I am making a note, so that I can hopefully get an answer to that question and let you know, but, right now, I don't know how that's going to be handled.

MR. LORENZ: Vincent, thank you. It sounds like you --

MR. BONURA: The only reason I say that is because I think the charter/headboat permitting had some major issues with that, at the beginning, where you had to have multiple email addresses, in order to report on multiple permits that you owned, on like -- I mean, if you had like eight charter boats, and they were all -- You couldn't actually go on -- Each one had to have its own email address.

MR. LORENZ: All right. Thank you. A recreational fisherman wants to comment. Harry, go ahead and comment. You're recognized.

MR. MORALES: Thank you, Mr. Chairman. Myra, what I would strongly suggest, and what we do in our industry, is a master sub-relationship, or a chain relationship, and so, on our end, if we have several entities that we have to put together, we create a corporate account, and we tie those separate entities to the corporate account, and that allows these commercial guys to be able to navigate between their different ships, or their different companies, and put everything all together.

MR. LORENZ: Thank you, Harry. Anybody else with comments or questions or suggestions here on the electronic logbooks, or the logbooks? That looks like it, Myra, unless you have something you want to say to us.

MS. BROUWER: Thank you, guys.

MR. LORENZ: All right. Tomorrow, we start with Ritchie's favorite subject, and we'll be getting an update on the Florida Keys Sanctuary restoration blueprint, and we'll go into the vessel speed reduction.

MR. GOMEZ: I can't wait.

MR. LORENZ: Then any other updates. Mike wants to say something.

DR. SCHMIDTKE: Thanks, Bob. I just wanted to point out to people that I did send you an email, earlier today, for that Florida Keys topic, and the council had a webinar meeting in September of this year, and we have kind of a trimmed-down video of the presentations that were given and some of the council's discussion related to the Florida Keys item, and I know we sent out an email, and some of you did attend that webinar, but, for those of you that didn't, if you have time, tonight, to just take a look at that video, it is on the meeting webpage.

If you scroll down to Agenda Item Number 7, which is the Florida Keys item, you will see the video embedded on our website, and you can just click on it there, and you can view it, and it looks like Myra might be pulling that up, just to give folks an idea, and so a little bit of homework, but I'm not prepared, or planning, to go through the entire presentation. The intent was so that those who wanted to tune-in earlier, in September, as well as those that wanted to kind of check this out -- You can take a look at that, and you can come prepared to give any comments that you would like to give on that item for the council's consideration.

MR. LORENZ: Thank you, Mike. Cameron, did you have a closing comment?

MR. SEBASTIAN: Yes, and just a reminder that the first round is on me at the bar after this, and so you can head over that way, and everybody has got a drink on me.

MR. LORENZ: Wow. Thank you, Cameron. All right. We are adjourned until 9:00 a.m. tomorrow. Thank you, everyone.

(Whereupon, the meeting recessed on October 19, 2022.)

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OCTOBER 20, 2022

THURSDAY MORNING SESSION

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The Snapper Grouper Advisory Panel of the South Atlantic Fishery Management Council reconvened at the Town & Country Inn and Suites, Charleston, South Carolina, on October 20, 2022, and was called to order by Mr. Bob Lorenz.

MR. LORENZ: Good morning to everyone. It's Thursday, October 20, at 9:00 a.m., and we'll begin the Snapper Grouper AP meeting, and good morning to everybody on the AP, staff, council members, and anyone else who may be listening in. We're going to have a slight alteration in the agenda this morning, and it's nothing major, and it's due to accommodating some AP members and some staff members with respect to timing.

The agenda will be slightly rejiggered in its queue, and we will be circling back first to best fishing practices, which is a piece under Amendment 35, which we discussed on Tuesday afternoon. We're then going to move to the presentation, or discussion, of the speed limit, and then we will do the Florida Keys Sanctuary, and thank you, Ritchie, and Ritchie says it's mean a lot to him to rejigger it a little further back in the agenda, and he's staying. We'll have the updates that are here, the presentations under other updates, some time for Other Business, and I think there's a thing or two that I have certainly heard from folks previous to this morning that may want to bring something up, and then we will end with public comment, should there be any, and there are no public in the room at this time, and we'll see who is online. With that, I would like to get started and I guess hand it over to Mike for the best fishing practices.

DR. SCHMIDTKE: All right. Thank you, and so, coming back to the Reg Amendment 35 document, and I'm going to jump us all the way down to the end, the last section, that is looking at best fishing practices, and so kind of the story related to this is, in September, the council directed that an appendix be added to Reg Amendment 35 that would describe the ongoing outreach and education efforts on best fishing practices.

One of the ones that gets the most attention is the use of descending devices, and there is a regulation associated with the descending devices, but there are several other best fishing practices that are included in the council's best fishing practices document, and they're shown on the BFP webpage that is linked in your Reg 35 document, and so there's a whole slew of different things that the council is trying to encourage people to do that are aimed at improving survivorship of fish after they have been caught, when they are being released.

This action is not a regulatory measure. The inclusion of this appendix is not a regulation-type of thing, but what it is is we're trying to -- We're at a point, and I think it was actually brought up earlier this meeting, and somebody was describing -- It might have been Harry, describing the use of a descending device, and they kind of had to learn on the fly how to use it, and, right now, we're at a point where we're trying to increase the education in that frame, of you know, yes, promote the attention to descending devices, so people are aware of the regulatory side, but then also promote the proper use of them and educate people on the proper use of them, as well as the other BFPs that are included.

We are expecting these efforts to have some contribution to reducing dead releases in the snapper grouper fishery and contributing to ending overfishing for several snapper grouper species, and red snapper is one of the ones that gets the attention, but remember we have several others that are overfished and do have a decent number of dead releases that are included in those assessments,

and so we're hoping that, by promoting this, that there will be contributions towards reducing those dead releases.

Included in your document, there is a summary of the current best fishing practices outreach efforts, the goals and objectives that are there and some strategies that are used, and we have people in the room here, and Ashley Oliver kind of takes the lead, and, Ashley, if you could raise your hand, and she's in that corner, and she kind of takes the lead on being the boots on the ground for these best fishing practices efforts, going to the tackle shops and working with community leaders in these fishing seminars, and we also are coming up with different types of strategies, like taking riders out, and social media influencers, trying to build up media in that way that can promote these practices, and so there's a whole summary there of things that have been -- That are ongoing, activities completed this year, and some of the upcoming events that will be happening.

The point of this appendix is to describe that these are all of the things -- This is all the effort that is going into this right now for the council, and the council is interested in -- Okay, they know, once they see, and they know what's going into it now, and how can this be expanded, and how can we grow this, so that best fishing practices are even more widely applied in the fishery, and we can have more sustainable catch and releases within this fishery.

We have some discussion questions that we would like to pose to you, just to kind of get a gauge on what you all you see, and, you know, you're our eyes and ears on the water, and you're the ones who are observing if people are using these BFPs right now, and where is there room to grow in this, so that we can, you know, direct our efforts, and direct our attention, towards the areas that really need it, need it the most, and so there's four discussion questions there, and, if we could just kind of go down the line and maybe take some notes related to that, and then that type of information can be included in the appendix and be brought to the council. The first of these is, based on your observations, how prominently are best fishing practices used when fishing for snapper grouper species?

MR. LORENZ: Do you want comment on that particular bullet point right now, Mike? All right, AP. Any input on what you're seeing out there on the water with friends and family and others on how these best fishing practices are used with snapper grouper species? Tony, kick us off.

MR. CONSTANT: The fishermen that are, I would say, tournament-quality fishermen, that are fishing for themselves for snapper grouper they do a pretty good job of it, overall. They're educated, and half of them are charter captains, charter/for-hire, but I am seeing probably 50 percent of the general public using this 100 percent of the time. It's shocking, to me, how it's education.

I don't know the answer, and it bugs me, because I've been thinking about it a lot, and I feel that maybe videos, and I don't know. It's a struggle for me, because I feel that the education is not getting out, and I don't think it's anybody's fault, and I'm just trying to think about -- I think we have to educate that general angler a little bit better.

MR. LORENZ: Thank you, Tony. Jack.

DR. SCHMIDTKE: A follow-up?

MR. LORENZ: Mike has a follow-up.

DR. SCHMIDTKE: Just to follow-up on your comment, Tony, for the general public, would you -- In your observation, is that typically folks that are going out on like charter trips, that may be coming you, you know, from inshore, or out of the area, or is this private boat owners that are typically more resident to the area?

MR. CONSTANT: It's definitely not the charter/for-hire. I'm assuming that they are using them. I don't go out with the charter/for-hire anymore, or I'm not around them as much, especially on the water, but they are more the tournament fishermen that I was originally talking about. They are educated, and they are using them. The new boat owner, the people that are new to the area, or not necessarily new, but, yes, locals that have boats that are hitting the water, and pounding it, and not using it 100 percent of the time, and not having the knowledge on how to use it, just like Harry was speaking of.

MR. LORENZ: Jack.

MR. COX: I mean, I don't feel like very many that I know use it, or have them on the boat, and I'm being very frank about it, because a lot of people really don't know how to vent a fish. You know, they will grab a knife, or a pair of scissors, that is on the boat, but, you know, the SeaQualizer is very nice to use, but it's expensive, because it's got a longline clip on it, and you pop it right on your weight and send the fish back down, but, I mean, I know this might be kind of farfetched, but, to really get something like this -- This is really important stuff that will enhance our fisheries, is if we had -- When you go to renew your permit, and if the recreational industry had a permit that they had to renew, there would be a little online class, or a ten-minute video, that you had to take before you could renew your permit to identify that you have taken this little class and you understand this tool and how important it is.

There is benefits that come -- You know, you guys hear me talk about the permitting and this and that, but, if you use that permit as leverage in the industry, to promote education, because a lot of our classes, whether we have a carry concealed weapon or whatever it is, we have to take classes and learn how to do effectively what we're trying to do, and I just think it would give more leverage to the industry to try to move forward with what we're doing here. Thank you.

MR. LORENZ: All right. I would like to recognize Harry Morales online, and I know Harry has some thoughts on this, and he has interacted with a number of the charter fleet. Harry, if you're there, you're on.

MR. MORALES: Well, first of all, let me say that I go along with Tony, and the charter fleet -- Every one of those captains not only knows how to use either the descending device and the venting tool, and they take great care in showing their customers what needs to be done, in order to get that fish back down safely, and that has to be known. I would say that, for the private fishermen, that's where we are running weak, and this may not be in the right order, but, you know, by now, every dock possible should have signage that talks about the descending device and/or the venting tool. That is, I think, the biggest thing that we need to do, is to make sure that any boat that is going offshore has that equipment. It's the law.

You know, click it or ticket, and, I mean, there's things that we've already done in other parts of our lives to get people aware of the fact that this is not an option, and this is a requirement, and this is the law. This is what you have to do. In terms of the education, as I said before, you know, the descending devices that I use have, you know, fifty feet, a hundred feet, and 150 feet. Well, you know, I can fish in those different waters, but, if you don't adjust that tool, that fish is not going to come off that clip.

You know, in terms of education, you have a bloated fish that you did not vent, and you put him on that tool, and he's buoyant. If you don't put enough weight to send that fish back down, I mean some weight, you're not going to get him down, and all the time that he's up out of the water, or at the surface of the water, is time that's going to potentially kill him if you don't get him back down.

Those devices, by the way, they need to be lubricated, because, after saltwater usage for a while, you can try to use it and not be able to close it on the fish's lip, and so those are the things that I would say that, from an education standpoint, in terms of, you know, every tackle shop that sells bait for going offshore is an opportunity. Every fishing club -- You know, in South Carolina, Mark Pinkus, for example, he holds a couple of tournaments that are bringing in, you know, quite a few fishermen, and these are all opportunities for us to be able to educate the public on the need for this, that this is how we're going to get our fishery open again, and so that's what I have to say.

MR. LORENZ: Thank you, Harry. I would like to turn to Jimmy Hull.

MR. HULL: Thank you, Mr. Chairman. From my observations, all of the professional fishermen in our area have been descending, sending them back down, so to speak, and they've been doing that for a long time, and a lot of the people that -- Most of the people that live in the coastal area that fish private recreationally, they know about it, and they're doing it. They're learning more about it all the time, and I think it's -- The need is for the people that come from say inland, and trailer their boats over, and they're not quite in the loop as much, because they're not in the coastal area, but the people that live on the water, around the fishing communities, they're in the know, and they're using them, and all the professionals are definitely using them.

MR. LORENZ: Thank you, Jimmy. Ritchie.

MR. GOMEZ: Good morning. In the charter boat industry, they are using them more and more, which is kind of surprising to me, but it's happening, and so that's a good thing. In the recreational area, I mean, it's getting better, but it's still a problem. I was talking to a friend of mine, recently, and I think, if I interviewed ten people, I would hear somewhere along this same kind of quote of, bro, I go out once a month, and you think I'm going to bother with this descending device bullshit? I catch a handful of fish, and I come home. If I have to carry it on the boat, I will, but I will be damned if I'm going to use it. I hear that a lot.

MR. LORENZ: Thank you, Ritchie. Enlightening. Cameron.

MR. SEBASTIAN: You know, I mean, I've got to say that we run a relatively large company, and I know a lot of the fishermen in the area, and I would say it's miniscule how much of those guys really use the descending devices. You know, I can tell them, all day long, that, hey, we need you to do this, and we need you to do that, and they just -- When they're in the groove, and whether

it's commercial, or whether it's charter/headboat, a six-pack, you know, it's tough for -- Those guys just sometimes don't buy into it, and so even my guys -- I can tell them until I'm blue in the face, and I tell them, hey, don't smoke crack, don't come to work, don't do drugs, don't be alcoholic, don't kill people, don't overdose, and, shit, they do that all the time, and so, I mean, I'm just telling you the cold, hard facts of fishing and the people we have in our fishing industry right there in the North Carolina/South Carolina border area.

You know, I think, some of this education -- Some of the guys would buy into it, and they would use them a lot more, but I've just got to get them to buy into it, and so it might be an outreach program, and how do I get all these idiots together to do an outreach program? I don't know. Maybe beer and burgers, and you come up and you do a -- But that might work, I mean, because all you need is a couple of them to buy in, and then, if -- My thought is, hey, if we can show the customer how valuable it is, and turn that into a good thing for the customer to be involved with, then we would get more buy-in with it.

You know, the guys who are frickin' filleting and releasing red snapper on commercial trips, they're not going to send anything back down, because they don't really give a damn rat's ass, and I'm not saying that's everybody, but, I mean, there are guys in our area who have twenty years of tickets for illegal stuff, and somehow they're still out there fishing, and I just don't get that at all, but the drone strikes come back in really good form here, a drone strike on somebody who does that, and then everybody else gets it.

MR. LORENZ: Thank you, Cameron. That was even more enlightening. I think he beat you there, Ritchie. Next is David. Can you top him?

MR. MOSS: I don't even know if I can talk after that. I wish -- Maybe I am talking to the wrong people, or I guess the right people, but I don't know many people that use them, descending devices, in particular, regularly, unfortunately. I would say, of all the fisheries complexes that we have, snapper grouper is probably the one that, in general, they use best fishing management practices the least, and it's the one where, with the exception of maybe mahi, that you will see fish flopping around on the deck, that you will see people doing kind of everything that you tell them not to do with a given fish.

I have spoken to quite a few people who have fairly intimate knowledge of this endeavor, and I've done radio spots, and I've done podcasts, and I've spoken to TV personalities, and, basically, across-the-board, not a one of them uses it, and almost all of them have said, yes, I know I should, but they don't. There were -- Of those podcast and radio spots and all that good stuff, probably half of them had no idea that there was a regulation.

The unfortunate truth is that the vast majority -- At least in Florida, the vast majority of anglers, on the recreational side, and this even goes to some charter captains, don't understand the differentiation between FWC and the council and who has jurisdiction over what, and so they will ask me, well, is that an FWC regulation, and then I have to explain to them that, well, no, and this is a council regulation, and so, if you're fishing beyond three miles, this is where it comes into play, and then, of course, they ask me, well, who is the council, the FWC council? Well, no, the South Atlantic Council.

Yes, the outreach is absolutely necessary. They've done a great job thus far. The fact of the matter is that their reach is only so far, and their budget is only so much, and there's only so much that they can do. On top of that, there's only so much that a lot of people are going to want to listen to, and you try to talk to anglers about, well, dead discards are the main reason why we have the red snapper season that we have right now, and they just kind of get a blank face and look at you and say, look -- I mean, I'm paraphrasing, but I don't trust what they're telling me right now, and so why am I going to do anything to, quote, unquote, help, especially for this extra effort.

That is probably the biggest hurdle right there, and then, as somebody said, and I think it might have been Cameron, and, you know, if you get a couple of people onboard, you're absolutely right, and it's just got to be the right people, and I have used the examples of like sailfish in our area, where it's not illegal to keep a sailfish, but you try and do it. You try and bring one back to the dock anymore and see the ridicule that you're going to get from people online, from people at the dock, all that good stuff, and we have to figure out a way to make that a reality in this fishery as well. Otherwise, we're not going to be able to fish anymore.

MR. LORENZ: Thank you, David. Selby.

MR. LEWIS: In my area, until we have enforcement, we don't even need them, because everybody keeps their catch, and it's just -- It's so sad, because, until you have a teenager on Facebook, you will not realize what is going on, because teenagers post everything, and there are so many boats in our area that are just keeping everything. I have at least one person, every couple of weeks, call me and try to sell me fish that do not have a license.

MR. LORENZ: Oh boy. Thank you, Selby. I'm going to catch up, and everybody put their hands back up. The list is getting longer, and I'm going to recognize Ritchie now again.

MR. GOMEZ: I was just going to say that I like Jack's idea, and, you know, that all goes to permitting for recreational fishermen. I mean, if they had to take a class -- You know, a lot of people don't really want to learn, but, if you're forced to learn, then you do learn.

MR. LORENZ: Thank you, Ritchie. Tony.

MR. CONSTANT: I agree with Jack, too, and I think that that needs to be part of the process, and you need to watch a video, and have some instruction, and take a quiz, or a test, or ten questions or something, so that you're made to understand, but another thing is the verbiage. I hear, all the time, that we've got to have a descending device onboard, and it has to be rigged and ready when you're using it.

As a charter/for-hire, I have a habit of always taking a bag, even when I'm fishing with somebody else, a small bag, and I have a descending device and a venting tool in there, and these guys will have them in a drawer, and you pull up a snapper or a grouper, and you go, where's your stuff, and it has to have a one-pound weight on it, ready to use, and it's no good when it's in a drawer.

MR. LORENZ: Thank you, Tony. Randy.

MR. MCKINLEY: I agree with what Selby says, and, really, this pessimistic outlook on all this stuff here -- I think, to me, the only solution that could even possibly do is to separate out the

charter fleet and then just have closed areas, a lot bigger closed areas, for recreational, and a lot shorter seasons, because, if they're not going to comply, then there's no way that we're ever going to get anywhere that we need to be, and I know that the recreational fishing industry is huge, and powerful, but, I mean, they brought it on themselves, by listening to this. Thank you.

MR. LORENZ: Chris.

MR. MILITELLO: It's just -- I think what needs to happen is it's just an education thing, a social media thing, a seminar or a video that you've got to watch when you get your license, and you've just got to keep pounding it, and it's not going to -- Everyone is not going to do it, just like someone is going to keep an undersized fish, or an out-of-season fish, and I think you've just got to -- You know, the social media thing is huge, like Selby said, and we've just got to keep hammering at that, and keep it going. You're never going to get everyone to do it, and there's always that idiot out there that's not going to listen, and we can't just throw our hands up and say, well, no one is going to listen, and forget it, and let's just -- You know, you've just got to keep -- You've got to keep the social media thing going, and visiting the fishing clubs, and signs at the ramps, and keep at it.

MR. LORENZ: I was looking to my left, and somebody raised -- It was not Andrew Fish. Okay. Scott.

MR. AMICK: In my operation, I use a descending device fairly often, pretty commonly, on my full-day trips, primarily for red snapper that are thirty inches or larger, which is becoming more and more common I am seeing, and then the fish that are -- The majority of the fish we're catching are twenty-five inches or less, and a lot of them are sixteen, eighteen, twenty inches, and those fish, in the range, the depth, that I fish in, a hundred foot of water or so, you can toss back with just venting, a lot of times, and they've got plenty of juice left in them to make it to the bottom fine. Those bigger fish, we make a big effort on getting them back to the bottom, and I don't like seeing them floating up, and so the descending devices has made a big difference in getting a lot of those bigger fish back to the bottom healthy.

I do like what Jack said about the video, much like we have to do like a five-minute video with the sharks, when we do the shark permit, and then you take a two-minute quiz or whatnot, and I think it would make a difference on where to vent. I have fished with guys before recreationally, outside of my charters, that have been fishing for years, and I watch them vent a snapper, and I can tell you that a handful of them aren't going to make it, because of where they're sticking them, and so education -- That little video and a permit, or something like that, for those guys would go a long way.

MR. LORENZ: Cameron.

MR. SEBASTIAN: Yes, I think the video idea, just like Scott said, but not just -- I mean, all fisheries, recreational, if that permitting comes around, and federal, you know, and then it would be sort of up to me to make sure I get my guys together and watch the video and do that stuff, and, you know, it would at least inform them, much more, on exactly the value of what they're doing, if they want to keep their jobs and want to be able to keep fishing eight or nine months out of the year, instead of two months out of the year, and so that would actually --

I would be in favor of some type of descending video for any federal charter/for-hire or federal commercial to take, because, I mean, you know, everybody bangs a lot on the recreational guys, and I really don't know what they take, but, like I said, I know guys who have been twenty years, just fine after fine, and we're not talking that he's getting fined for five pounds over, and he's getting fined for a thousand pounds of fillets hidden underneath his bunks, and he's still rolling, and he still has his permits, and he's still going, and so it's broken on both sides.

MR. LORENZ: Thank you, Cameron. I see, up on the screen, that Harry has his hand raised. If that's true, Harry, you're recognized to speak. Harry had made a comment, and he basically agrees with David Moss on this situation, where a lot of the private anglers, the recreational anglers, do not know the SAFMC and the things we do and the differences between the organizations. Thank you, Harry. David, you had one more comment?

MR. MOSS: Just a point of clarification. When I was saying that almost nobody that I speak to uses them, I'm speaking about charter captains as well, and it's not widely used in virtually any of the charter folks that I speak to. There is one person, down in the Keys, that I know that uses them all the time, and he's actually a headboat captain, and it's -- I mean, he was at my wedding, and he's one of my best friends, and that's kind of it, and he sends me videos all the time, just to give me crap about it, and says, here, shut up, and I'm doing it, but that's the only person that I know that uses them with any regularity, and I've talked to quite a few people from Islamorada up through where I live, which is in Palm Beach.

MR. LORENZ: Thank you, David. Go ahead, Jimmy.

MR. HULL: Thank you, Mr. Chairman. Do you have up there, as a bullet point, a recommendation for some type of a video for renewal, a recommendation that they implement some type of a video for renewing your permits, for commercial permits? If not, I think that's a good recommendation that something -- Because, as mentioned, to renew your shark permit, you have to look at a shark video, ID and release video, and so that could be very helpful on the commercial side, and on the charter/headboat side, when they renew, also. That's going to cover a lot of people right there that fish all the time. I mean, we could make a motion, but I think this is good enough right here, the advisory, and council members are here, and that's a really good idea.

MR. LORENZ: Mike, I guess, for us, when we report, it might be nice to say that was a strong recommendation from the group that has come up. Thank you, Jimmy. All right. Mike, back to you for the second bullet point.

DR. SCHMIDTKE: Thank you, Bob, and I think we've kind of already hit some of this, and so no need to restate, if you've already stated some of the user groups that are not aware of, or are not typically using best fishing practices, and, I mean, I think we have a lot in there of, you know, there is some mix, depending on the area, of the private and then, in some areas, the additional -- You know, the for-hire as well. I guess is there anything that hasn't been stated already about particular user groups that are not typically using best fishing practices, or may not be aware of them?

MR. LORENZ: Scott.

MR. AMICK: I would just like to say that I think a lot of people -- At least in my area, the amount of red snapper that we're seeing, the idea of using a descending device to release the volume of fish that you're catching, while you're trying to catch your thirteen-inch sea bass, or your twelve-inch vermilion, and the amount of the reds that you're seeing -- It doesn't make sense to use that, and so I think, if you had a way of putting an emphasis on when to use it, and when it's okay not to use it, would be good, because like, for me, on a six-pack trip, for a ten-hour -- Like, if I'm catching sixty, seventy, eighty reds in a trip, and that's not uncommon, and I don't even bat an eye at it, you can imagine releasing fifty or sixty reds on a descending device, and it would take all day, on a trolling weight with a descending device, but, anyway, that's my -- To put emphasis on when the best time to use those devices are.

MR. LORENZ: Thank you. Jimmy.

MR. HULL: Just a question about that, and so you're probably venting those animals though, aren't you, instead of using the descending device?

MR. AMICK: 100 percent, yes. If I'm deeper than eighty foot of water, I'm venting them and sending them back, and it's the bigger fish that generally take more energy to come to the top, and that's the ones that I'm using the descending device on.

MR. HULL: I agree with you, and that's what we do also, and the other thing is that, a lot of these devices that they sell in the tackle shops and stuff, they're not adequate for a big animal out in the tide and the current, and, I mean, we rig our own, with a sash weight and an inverted hook clipped to it, and sixty foot of line, and sometimes more line, if we're in deep water, and you need some weight to get those animals down. If you catch a really big animal, like a 150 or 200-pound grouper, and it's blown up, you're really going to need a lot of weight. I mean, it's just not going to get it with that little stuff, and it doesn't -- You need some weight.

MR. LORENZ: Thank you, Jimmy. David, go ahead.

MR. MOSS: Just I will say this on the record, and so there's been some not official studies done, but you could say unofficial, and, typically, you want about a pound of weight for every five pounds of fish, is what we have kind of seen as adequate, that will get these down. You can rig up multiple descending devices on the same rod, and I do it on a kite rod, which makes it pretty easy, a kite rod with a conventional, and it is fairly easy to just drop them down and bring them back up.

One of the things, for a lot of this outreach, is there's a million different ways to use a descending device, and one of them that I've seen actually some of the headboats use to catch like a lot of beeliners and stuff is they will take a milk crate, and they will bolt basically heavy weights to what would be the top of the milk crate, essentially, and put a bunch of the smaller fish in there, and turn it upside down and drop it down.

One of the things that we have tried to do, on my friend's headboat, is kind of gamify it, and like the kids love to just be involved in something, some way somehow, and so, while everybody else is catching fish, give the descended fish, and, in this case, it was usually short red groupers or muttons, to the kids, and let them drop it down and reel it back up, and they actually get super

excited just doing something like that, and so there are ways to go about this, even if you're into catching a whole ton of fish throughout the day.

One of the other things to be sort of aware of is they have found, in a lot of cases, that vented fish will go down like one atmosphere, twenty or thirty feet or so, when you don't see them, especially the bigger ones, and then they will stall out, because not all the gas was released, and so, even though it's out of our eyeshot, and we think that it went down, and it really didn't, and it becomes ripe for predation, and the last little thing that I will say is there was recently -- I think it was a published study, and I would have to check, but 300 or 400 fish released off of North Carolina, and they were studying shark predation, and they didn't have one case of shark predation, and so, the people that say that we're just giving them to the sharks, for whatever reason, the sharks don't like them going down, and they like them when they come up, but then will ignore them going down, and there is some video floating around too of red grouper, and I think it was red grouper, and it might have been a mutton, going right past like two bull sharks that were just staring at it, and they didn't even bat an eye, and they were just watching the fish go down.

When it's used, it works, and it's effective, or they are effective, and the sharks don't like them just yet, and I was actually to one of the few captains that I've seen in Jupiter who does use them regularly, and he was given one by FWC quite a few years ago, when they did their initial study. The first day he went out, and this is in Jupiter, which is a very heavy shark area, the first day he went out, he thought it was awesome, and he wanted to use them, and so he went and bought another one, because he knew that it wouldn't last, and, ten years later, he has the same one, and he just rinses it in fresh water every day when he comes home, and he uses them every day, which is great, but, for whatever reason, sharks don't like them, and you can rig them with wire, if you really wanted to, if you're really worried about it.

The last thing I will say is, you know, some people have worried about the expense, because the most expensive, or more expensive, one is the SeaQualizer, which is like around sixty-bucks, or something like that, and most of these guys have boats that are -- I will just say well in excess of sixty-dollars, and that's not breaking the bank for them. If they need to spend an extra sixty-bucks on a gadget, just put it on the tab.

MR. LORENZ: Thank you, David. Anyone else? I think back to you, Mike, to carry further.

DR. SCHMIDTKE: All right. Thank you. Now I think we're going to be moving more into kind of like the outreach and communication, and we talked about the user groups that may not be practicing these practices, or may not be getting the information to this point, but now we're going to get into some questions, as far as how do we start reaching those people, and so the first question here is, given -- Whatever additional resources are necessary that the council would have to do, but, given all those things, you know, go into place, what new outreach and communication methods would be most effective to spread information on best fishing practices?

We've had some discussion about a video tied to a permit, and so that's certainly noted already, and there's been some mentions of social media. If there are specific types of social media, that's something that would be very helpful, and kind of a way that you can frame this for yourself is how do you receive most of your fishing-related information, and are you part of, you know, some type of email chain, or are you -- What social media groups and platforms are you getting fishing information from, that type of -- That type of information.

MR. LORENZ: Thank you, Mike. Our first two commenters are online, James and Harry. James, you're up and recognized to speak.

MR. PASKIEWICZ: Thanks, Bob. I'm mainly a top-water fisherman, but, for a new idea, for maybe some new outreach, maybe get with some boat manufacturers that typically cater to first-time boat buyers, and maybe include a descending device in the sale of the boat, maybe with a video and something in a waiting area, and that may inform some of these first-time anglers that there is proper ways to do things, and that's my information on a new idea. Thank you.

MR. LORENZ: Thank you, James. I believe you have concluded. Thank you. Harry, you're up.

MR. MORALES: I would say, as a private angler, I have gone to YouTube, and I know my friends have gone to YouTube, for everything from how to tie a Bimini to, you know, how to effectively do a hayward twist and how to fish for muttons, and, I mean, it, for me, is the number-one platform, from a fishing -- How to tie various knots, and that's where I go for my education, and so the videos that you're talking about, at the end of the day, you know, have to find themselves there, and you need to recruit influencers that end up having a following, and/or the council is going to have to have a celebrity that is promoting a lot of the best fishing practices.

You know, I agree with the venting, and I've been on some guys' boats, and it's like, you know what, you just killed that fish. I mean, you stabbed him, and people have to know how to use the devices, how to care for the devices, so that we protect the fishery. Thank you.

MR. LORENZ: Thank you very much, Harry, and just one thing I can say is that, you know, I read some of the more major sportfishing publications, and, actually, one of the gentlemen from one of the publications was in the Florida Keys making comment, at Key West, and they're all over this. They are very positive, and they are constantly referencing this issue with barotrauma and the use of descending devices, and so somehow we need to get through the muck to get more people to just do what a lot of people are asking, and I can't say there is a lot of average -- At least in the private recreational fishing, that there are people that don't know this exists. I mean, it's in their face, and so you see the publications sitting around on a marina coffee table, and right in there it is, and so thank you. A comment from the chair. Any more comment from anybody here around the table? I see no hands raised on the -- Go ahead, David.

MR. MOSS: I guess I will talk again. Sorry, guys. The only thing that I will say is this is one of those long-game scenarios that just is going to have to be a constant barrage, and, you know, I held up the example of like sailfish, and, I mean, that wasn't an overnight thing, and, you know, that was over twenty years, or something like that, where now you see release flags all over the place, as opposed to people bringing sailfish back on the pinboards, but it's a little bit of an uphill battle, because what I hear, especially as I get further north in the state, is quite literally people saying, so you want me to descend one of these rare-event protected red snapper that I am never going to see again, and obviously they are saying it in jest.

I mean, at the end of the day, this is like most of the reason why we're talking about this, and it's pretty tough. You know, I just kind of shrug my shoulders and say, yes, because what else am I going to say, but that's usually the pushback that you get, is people saying that we're going to get -- We're trying to descend and save these endangered red snapper that I can't get away from, but

I guess my advice would be that it just is going to have to be a constant barrage, constantly saying the same thing over and over again, from a multitude of different outlets, YouTube, Instagram, celebrities, magazines, all that good stuff, until it finally sinks in.

MR. LORENZ: Cameron.

MR. SEBASTIAN: I agree with David. You know, we've seen, in our area, that, if somebody brings in a legal big shark, and posts it up, they get frickin' hammered and railed, period, end of story, and that's just the general public, and so, if we make the public aware of the importance of it, over time, they will be going on the boats, and it will catch on, and so I agree with that. Somehow, if we can just show the major advantage of it, or show the major disadvantage of not doing it, that, hey, you're going to be out of your fisheries, the fisheries are going to be extinct, and you're going to be sitting on the dock fishing for catfish off the dock, and then people will start to get it, when they understand that it's going to really, really hurt the long-term stuff, and people will buy into it, over time.

MR. LORENZ: Selby.

MR. LEWIS: A major problem we have is college kids. They're at an age where their parents let them use the boat, and they don't care, and how do we get the word out to them, and so that's going to be totally social media, and not to be a male chauvinist, but put a video of bikini girls, or some of those other sites that everybody looks at. That's the only way they're going to pay attention and see it, because they don't care to learn.

MR. LORENZ: Thank you, Selby. I had a thought, if I may just share it, and I'm going to go back to a term that General Schwarzkopf made years ago in Grenada, with our little invasion down there to straighten something out, but, with what I'm hearing, I was kind of a little sad, and my experience has been a little bit more of what Harry's is, that the private recreational fishermen know, and it's more due to just clumsiness and things with using it, and maybe laziness, and what I am seeing a lot of is belligerence, but I'm hearing, from some of you, there is belligerence, and I think maybe publication, coming from maybe the South Atlantic Fishery Management Council, could be what I will just call Dock and Awe.

It may be time to get down to -- We had Jessica come over to us, while we were deliberating on Amendment 35, that, you know, we're thinking of going with status quo on one of the situations, and I believe we were into the hooks then, saying, look, I'm just telling you that the council must do something to reduce take, to reduce dead discards, and there's just no way around it, and it has to happen, and I think that needs to get out.

I mean, we're so close that, I mean, I wouldn't be shocked if the Regional Administrator shuts things down, and we're getting to the point that, if we don't do something soon, the only way to fall into compliance with what's being interpreted as the Magnuson-Stevens Act is going to be closures, be it they be selected as critical areas and that sort of thing, and, if we don't get to address the problems that you all have talked about, we're heading to some methods that most people probably aren't going to like, and it's just going to go there.

I would like to -- I think a little more tough talk coming from the regulators and the council is probably now needed, and we've got to wake people up. Do this or stop fishing, and, you know,

there are some of us where, you know, this is getting involved, and it's getting harder and harder to fish, and so maybe we'll back out, or back down, from this sort of a thing, and that is a way also to reduce effort, but I'm going to go with a little shock and awe, and it's time to start talking and telling tough. Thank you. Anybody else? Thank you. Mike.

DR. SCHMIDTKE: All right. Thank you, and now we're going to get hopefully a little bit more specific, and so we're talked, you know, kind of what are the general sources, what are the platforms, what are some of those things that people are getting information from, and people put forward the idea of, you know, influencers, or YouTube, and I guess this next question is getting into what industry groups, what individuals, could be helpful collaborators in spreading information, and who are people, groups, that you seek out for fishing-related information, and we're looking for specific things.

For example, if you go on YouTube very often, is there a YouTube channel that you subscribe to, that you go to over and over again, for many, many different fishing-related types of information? Who are some of the people that you follow in the industry, that, you know, you watch their videos, and you try to imitate some of their practices, and who are some of these people, or these groups, that we can target to collaborate with, to help in getting this outreach out to as many people as possible?

MR. LORENZ: I just would -- Mike, I just want to ask you some questions, and it's perfectly okay to do things like name names of organizations and people, because some are businesses, and have things for sale, and that kind of is an endorsement coming -- Is that okay, procedurally?

DR. SCHMIDTKE: Yes. I mean, that is exactly what we're looking for, and, I mean, this conversation here is not, you know, anybody making a deal with anybody, and it's trying to understand that these are people that could be helpful collaborators, and, you know, any type of discussions of how they would help promote this would have to happen afterwards, but we're trying to get individual people that we can connect with out here, because, right now, I mean, there's only so many places that Ashley can go and talk to tackle shops, but we need people within the industry that can be spreading this, and, you know, kind of having some of the things that you all have talked about, the things of bringing in a large shark, bringing in a sailfish, or something like that, and the response that people give to that, and we need people that are already in the industry, that are going to be believable, that can promote these types of things, and so we are looking for specific names, or specific companies, or be as specific as you can be.

MR. LORENZ: Thank you, Mike. I just wanted some clarity on that, because I have avoided doing that, to-date. Jack.

MR. COX: This might be a little bit off-base from that, but, last week, I met with NC DMF Marine Law Enforcement, and I met with a captain and a council member, and I like to do that before we have these AP meetings, just to kind of talk about what we're going to be doing and things that might help them.

I asked the captain, and I said, you know, in terms of what we're talking about here, with the venting tools and the barotrauma tools, how many of your officers actually go out in the field and know what to look for, and are they doing it, and he didn't really respond, but I don't think, from his reaction to my question, that they're doing anything.

Ashley, I think that that would be a good place for you to start, would be to send our enforcement officers, captains, some information, and have them educate their officers, because that's the captain's job, is to be a leader of the officers, and maybe copy the, you know, the director of our state agencies about what we're talking about trying to do here. Usually, when people start getting violations, the word will start spreading pretty quick among their user groups, but maybe just something that those captains will distribute, and you know kind of where I'm going with this, and I think that would be a good place to start. Thank you.

MR. LORENZ: Thank you, Jack. Scott.

MR. AMICK: Yes, sir, and I just want to touch on social platforms, and so, as far as -- Let's take Facebook, for instance, and, geographically, there is groups that are for specific areas, inshore and offshore, but there is Facebook groups. In Savannah, we have one that's run by a local guy, and we have like 20,000 or 30,000 members in that one Facebook group, and, you know, the majority of them are fishermen, and some of them are just there just to see what's going on, and Charleston has one that I follow, and, around Jacksonville, they have another one, and those groups -- If you can find a way to get those videos, or information, into those groups, you would be -- You know, those guys that are fishing regularly are looking at those pages, to kind of get an idea of what's going on before they're heading out, and it would be beneficial to get them in those pages.

Now, as far as influencers and stuff like that, coming from -- It would be better taken by the public coming from somebody outside of the SAFMC, because, if you go look at comments in regard to this SAFMC by the general public, they're not real pretty. If you want to get an example, go to where they let you know that you're going to have two days of snapper season in 2022, and just go read some of the comments below that post, but, as far as those Facebook groups, and then having some sort of outsider, whether it be an influencer or a fishing brand or whatever, just to put those videos out, just as an educational thing, and it would go over better, I believe, in the general public, than if it came directly from the South Atlantic.

MR. LORENZ: Andrew.

MR. FISH: Me and my peer group, one of the apps I use, the weather apps, is the Windy app, and I look at the NOAA buoy, for wherever I want to go fishing, about thirty times a day, it seems like. When I go to close my thing, I've got nothing buy buoy data everywhere, that and the Fish Rules app, and the commercial app for fishing, where you check stock status and ACLs and all that, and a lot of fishermen use that, because those are something that's not really social media, but that I use.

MR. LORENZ: Thank you. I'm just catching up here on the queue list, and I think Jimmy.

MR. HULL: Thank you, Mr. Chairman. I agree with Andrew, and we use weather apps, and buoy apps, all the time. Guys of my generation, we're not into the social media stuff, and we're just using information on wind and tides and currents and weather. The other thing I would ask is, when MRIP -- When they intercept an angler for, you know, their data collection, do they ask them, on their releases, if they used descending devices, or vented their releases, and do you know? The reason is ask is because, if they did, then you could get some type of an example back, observed, from, yes, I did use descending devices, or, no, I did not, or something, rather than us

guessing if they're using them, and at least there would be some actual question as to when they intercept them.

DR. SCHMIDTKE: I don't believe that's one of the data fields in the MRIP data collection. That is something that, you know, just kind of pivoting off of that, just because it's relevant to it, is that's one of the purposes of SAFMC Release, is to get information on the use of descending devices and when those are coming in, and so, for those of you that -- I know many of you are signed up for SAFMC Release, but we want to continue to push that, and promote that, and try to get more data points in, because, the more that we can get in, knowing about the usage, via that app, that's some information that comes directly to us, and, as we're able to build it up, then that's something that can be used to inform, going forward.

MR. LORENZ: In the queue, Cameron.

MR. SEBASTIAN: I would definitely say, if we could somehow get in with the most popular information apps, like weather buoys or Windy, and that would be a great outreach. Another thing that has to be exceedingly clear and concise is the message, and so one thing that, you know, I think that fishermen would understand is a mature gag, going back down who lives, is going to produce so many eggs and how many offspring that could -- I mean, literally just focus on the eggs, focus on the result of what bang do they get for their buck, for the effort.

The bang they get for their buck is you get more eggs in the water, and more fish in there, and that's something they understand. Now, granted, whatever the number is, 95 percent of them will never make it, but that doesn't matter. The point is, when they see, if I release this grouper during December through May 1, and it survives, and it reproduces, and it lays its eggs -- Whatever that number is, and I have no idea, but you put out that it's going to lay 30,000 eggs, and, even for someone who might not be the brightest in the world, that's something they can grasp, and that's something they can wrap their heads around.

MR. LORENZ: Thank you, Cameron. I have Chris.

MR. MILITELLO: Ashley, have you talked to Fly Navarro at all? Do you know who that is? He's like a social media guru, and he's pretty good, and I think we should -- I can get in touch with him, if we need to.

MS. WIEGAND: We, years ago, had planned on doing some work with Fly Navarro, and so we've met with him, and spoken with him, on a couple of occasions, and we did his podcast, a couple of years ago. We had planned to go out on the boat with him. Unfortunately, this little thing called the pandemic hit, which made it a little bit harder to get out and about, but we certainly do intend to reach back out to him, and Ashley can talk to you guys a little bit about the charter trips that we've been planning with a variety of sort of social media influencers, writers, et cetera, with certainly Fly Navarro being someone that we would reach back out to.

MR. LORENZ: Thank you. Tony.

MR. CONSTANT: Thinking about the distributors and stuff, Shimano and Penn should both be interested in getting this message out, and it's crucial to their sales alone, and, knowing how their

structures are, Shimano is a really good fit for this, and they have a brand-new facility, just up the road, and I believe both of you all have been there before too, haven't you, speaking?

MS. WIEGAND: (Ms. Wiegand's comment is not audible on the recording.)

MR. CONSTANT: Okay, and it was somebody from -- I have met with somebody from the council, but Shimano has a lot of outreach, and since they have moved to Charleston, Shimano America, and it's a great facility, and just a possibility, and it benefits them to sell more tackle.

MR. LORENZ: Thank you, Tony. Jimmy.

MR. HULL: Thank you, Mr. Chairman. Just the other thing that came up, after we talked about -- All fishermen are getting weather information, whether it's on the internet, on their VHF radio, The Weather Channel, and, just thinking about the VHF, you hear about the whale closure, and the areas that are inactive on The Weather Channel when it happens, and it's a -- You could have a quick blob, on all of these things, that this rule is here, and you need to use it, and so that they just get -- Again, just constantly hitting them with stuff.

The other thing is I know that the staff goes to ICAST in Orlando, and so, obviously, you are pounding this to all those people that are selling all this stuff, and so, I mean, I think it's just like has been said, and it's just continuously hitting them, and maybe in new places, and weather really comes -- We all look at the weather, all the time, in different ways to look at it.

MR. LORENZ: Mike, if I may jump in here, with just a few thoughts, coming from the old school, or not just the old school, but actually becoming an old man, bringing a few of the things that I have noted over the years, or people that I have watched, but, as far as influencers, there is George Poveromo and *Saltwater Sportsman*. George, for twenty-some years, has done a roadshow, starting every January, through March, and he will probably start in the Keys soon, and he's a big proponent, and, George, if you're actually listening, and we could reach out, and you get him to state a few things, when he's on the road, or even in a show, and there would be an excellent source that a lot of folks respect.

In the Florida Keys, and I confuse some of the gentlemen there, the publisher and then the key editor, but the *Florida Sportsman*, and he was, I believe, the publisher, and it was on public record down in the Florida Keys, but contact them, and, again, I'm going to go back to my shock and awe, that, if we approach some of these fellas, to just put in their minds, when they're writing, that it's getting kind of critical here, particularly where people are belligerent, that you can't do that, and that may help.

I know I get *Florida Sportsman* myself, and, in the very back, there are regional forecasts for Florida, and there are ten or twelve captains that write in, and a few of them, when you start in south Florida and the Keys, they could be contacted, so they flip anything in on the importance of descending devices.

I was in with the council, and, Julia, I forget the name, but, when we were doing citizen science, up in Raleigh, at the national convention for citizen science, there was a group, and a fellow on our team, and I forget who he is, and I think he's with The Bonefish Association, but he was with some kind of association, and reach out to him, and he also does -- I think he focuses now on the

Caribbean, and I just forget his name, but he was on our team, six of us, the one that presented. Brett Fitzgerald. Yes. The people like Brett are very good for that.

It may not be pleasing to everybody here, but some talk to CCA, and, I mean, we do know that CCA is kind of leading the charge in changing things, to make access easier, and that may be against what the management councils like, but, in the Gulf, their ideas are kind of infiltrating over here to the east coast, but talk to them, you know, in their national publication, and wake up and get people onboard with this, and it will help gain more access.

We have the NGOs, The American Sportfishing Association, and, I mean, they cover everybody, including steelhead fishing in The Great Lakes, but they send a representative to every council meeting, and they make their public comment, and it may be time to call a little powwow, at a council meeting, and get them together and impress upon them, and I'm going to go with the shock and awe. I mean, it's getting serious, and so there's just a few that I have to offer. Thank you for allowing me to speak. David.

MR. MOSS: Sorry to talk again, but perhaps some of you have figured out that I'm pretty heavily vested in this endeavor, and so I have actually spoken to quite a few people on that list, myself, and George Poveromo was nice enough to -- He actually wrote an article, maybe about a month ago or something, and he posted it on his social media platforms, and it was great, and the unfortunate truth is that that's going to now fade into oblivion, and nobody else is going to say anything about it for a little while.

Not to be Negative Nancy with all this, but, with all of these influencers, with all of these TV shows, with *Florida Sportsman*, with all this stuff, there is one thing that is going to move the needle with all of them, because, when they take time to talk about a descending device, that is time that they are not taking that a paid advertiser would be taking up, and so the unfortunate truth is that, with all of these things, there is one thing that is missing from the equation, that there's not much that we, as a committee, or as an advisory panel, can do about it, but most of these people, and not all of them, but most of these people -- There has got to be some money behind it somewhere, because, again, every second that they are talking about something that we want them to talk about, it's a second that is taking away from a potential paid advertiser, and so just so that we remember that.

MR. LORENZ: Thank you, David. The realism is always another part of it, and I think we also -- We actually have an NGO seat on this AP, and I think we need to get that filled with somebody that can come here and is capable of also speaking to us, and what David has said, to bring some realism to some of the ideas that we may have. Harry, you're recognized to speak.

MR. MORALES: Thank you. I posted something that, for me, has always been a reality. If you want to change behavior, then you're going to have to hit them in the pocketbook, and I think it was Jimmy that brought up the enforcement, and so, at the end of the day, when someone gets boarded, and they have been bottom fishing, and they don't have the descending device and/or venting tools, if they're -- I mean, I don't even know what the heck the fine is, and is there a fine for not having it, but, at the end of the day, that spreads like wildfire, and so, if we want to get serious about this, in my opinion, the number one influencer is going to be the enforcement of this regulation.

A concerted effort, the same way the state police, or local highway police, do, you know speed traps and everything, and, if you want to slow down the speed on the highway, just have several, you know, police cars all over the place, and what happens? The speed drops in a heartbeat. That's how we're going to get it. When somebody comes to the dock and says, hey, DNR just hit me with a $250 fine, because, you know, I had the descending device -- As a matter of a fact, I didn't even have it, and so what's he going to do? Next time, he's absolutely going to go out there and buy it. While we can do the education and everything else like that, which is going to help, if we want to change behavior, you're going to have to hit them in the pocketbook, and it's that simple. Thank you.

MR. LORENZ: Thank you, Harry. Returning to David Moss.

MR. MOSS: Thank you. Yes, I completely agree with Harry, that you've got to him them in the pocketbook, in a few different areas, and I also want to turn from being Mr. Doom and Gloom for a second and just commend Ashley. She has, I know, been working really hard on this, and she's gone to tackle shops, and even helped them set up displays, with descending devices and things like that, and so I do want to commend Ashley, and the council, for their efforts on this, and I know that they're doing everything that they can with what they have, and so I don't want it to be complete doom and gloom, but I also, again, being immersed in this, know the realities of a lot of this stuff, and so good job.

MR. LORENZ: Thank you, David. That looks like the end of our comment and input, Mike. Are you satisfied with this section? Andrew, sorry.

MR. FISH: Some of the other paid apps would be like RipCharts, Windfinder, some of the -- The RipCharts is the one where you go in and you get satellite imagery and plankton and all that kind of stuff, but I was just putting more names out there.

MR. LORENZ: Thank you, Andrew. Anyone else with any input on this? It gets to be an emotional item, in some ways. All right. Thank you. You okay, Mike? Are we ready to move on to another topic? Okay. Christina, are you introducing this? Thank you, and I'm going to step out for about ten minutes. I had an issue last night with the hotel, and I'm going to finish up and check out, and so I need to leave for about ten minutes. Would it be better for all of us to check out? Okay. Let's do a ten-minute break and reconvene by 10:25, and I will start earlier if everybody is here. Thank you.

(Whereupon, a recess was taken.)

MR. LORENZ: Hello, everyone. Can we settle back down? We're about a minute or two late on our break, and we need to get back and started. Lots of people are going to start to need to leave. Okay. Our AP is back in session, and the topic now that we are going to introduce are the proposed speed regulations to protect the North American right whales, and I will hand things over to Christina Wiegand to get us going.

MS. WIEGAND: Thanks. Good morning, everyone, and so I'm going to talk about everyone's favorite charismatic megafauna, the North Atlantic right whale, and I'm sure, as many of you all are aware, NOAA Fisheries is currently proposing some changes to their vessel speed regulations,

in order to further reduce the likelihood of these North Atlantic right whales getting struck by vessels.

The proposed rule aims to do a few things, and this will be affecting areas within the South Atlantic. First, they are broadening the spatial boundaries and timing of seasonal speed restriction areas, and this is especially going to impact those of you who fish off of North Carolina. There used to be just sort of small spots along the North Carolina coast that were seasonal zones, and it's now the entirety of the coast, as well as all the way down through South Carolina, Georgia, and northern Florida, and I can pull up a map here in a second, if you guys are interested in looking at that.

Additionally, they are expanding the mandatory speed restriction of ten knots or less to include most vessels that are thirty-five to sixty-five feet in length, and so, currently, it's just for vessels that are sixty-five feet or greater. If this proposed rule goes into effect, it would drop down to vessels thirty-five feet or greater. Additionally, they will be creating mandatory dynamic speed zones that establish a ten-knot transit zone when right whales are found in an area, or detected in area, and are thought to be likely to stay in that area for an amount of time and they aren't already a ten-knot restriction.

We did talk to the council about this at their September meeting, and I would like to sort of make it clear that this is not a council regulation, and this is a regulation that is coming down from the National Marine Fisheries Service Protected Resources Division, and so the extent that the council is involved in this is that they can provide comment, the same way that you all can provide comment as members of the public.

One of the things, upon reviewing this proposed rule, is they recommended that NMFS spend a significant amount of time conducting outreach with the boating and fishing communities, including additional opportunities for public comment, and they also noted concerns about available law enforcement and if there would be sort of a switch from law enforcement enforcing fishing regulations to focus on these speed restrictions.

Finally, they suggested a couple of different alternative regulations, one being spending additional money to monitor whales, to allow for dynamic zones only, as opposed to the stationary seasonal management zones. They also talked about partnering with other groups to provide boats with real-time information on whale locations, and, finally, limiting the scope of current regulations to include only vessels with inboard motors and exclude vessels with outboard motors, and so, before I get into the questions, I did just want to scroll down and sort of show you guys some data we pulled together from the Permits Office.

Focusing on snapper grouper, here you can see there's this -- Green are the vessels that would not be affected by this regulation, and, in the blue, that's vessels that are currently affected, and so vessels sixty-five feet in length or greater, and then, in red, these are the vessels that are not currently affected, but would be affected by the new speed regulation, if it were to go into place, and we scroll down a little bit more, and you can sort of see how that breaks down, in terms of permits by the SG 1, SG 2, and the charter permit. Do note that these are not additive, to get to total permits, because one vessel may have multiple permits onboard.

With that, the council is currently in the process of drafting the letter they are going to send to the National Marine Fisheries Service, providing comment on this proposed rule, and so they wanted to get input from this AP on how the proposed regulations may affect fishing specifically for snapper grouper species and if the AP had any suggestions on regulations that would both acknowledge and protect the North Atlantic right whale, which is in a dire situation. However, without such a large cost to the fishing industry, and so, with that, I will turn it over to you guys to provide input to the council to include in their comment letter.

MR. LORENZ: Here is our opportunity for input for a comment letter, and I presume they can make comments also, and we can, anyone here, and we are able to -- Would they be able to also state that I am a member of the Snapper Grouper AP, showing some credibility?

MS. WIEGAND: Yes, absolutely, and so any comments you make here today will be summarized. If you guys would like to make comments individually, you absolutely can, and the deadline for comments is October 31, and so the end of the month, and you can make them through the regulations.gov webpage, and certainly, in making that comment, you could acknowledge that you are a Snapper Grouper Advisory Panel member.

MR. LORENZ: Thank you, Christina. Cameron.

MR. SEBASTIAN: Cameron Sebastian, charter/headboat, commercial, all that good kind of stuff, and so, you know, we were impacted greatly by the sixty-five-plus rule, and that pretty much cut our offshore fishing trips down to 25 to 30 percent in March, or February, March, April, and May, because, basically, guys just aren't going to ride down and go out on a headboat and not catch a whole lot of fish, if you can't make it all the way out to the Gulf Stream.

The thirty-five to sixty-five-foot rule would put great, great economic pressure on us. I mean, you know, I think, if we looked around the room right now, and I can ask everybody, and how many places, how many fishermen, used to have a pretty strong headboat stuff in your area, everybody is going to raise their hand that, hey, we used to have headboats, and then, if we say, hey, how many people these days have headboats in your area, the hands are going to almost disappear, and so the question becomes, you know -- For me, it's -- I'm all for conservation, and I am all for saving, and I'm all for saving the whales, and the whales have been around for tens of thousands of years, and headboats have been around for thirty or forty years, and we're going to go extinct. That's plain and simple. At the end of the day, we're going to go extinct, way before the whales do, and this is just another deal that we're going to get dealt, if this goes through, without some realistic, real-world applications.

I would be in favor of talking about dynamic zones that are set up if whales are spotted, and then this rule kicks in. I mean, my opinion is a vessel, no matter what the size, I mean no matter what mechanical features, inboard or outboard, or the speed, they're maneuverable enough, and the captain has field of vision enough, to see what's coming ahead of him, and can maneuver around them, overall. I mean, I believe the study says, hey, there have been two fatalities in ten years, and there have been, whatever, so many fishing charter companies that have gone out of business in that number of years, but I think we would be much better off if we could focus on a specific trigger that, if a whale is spotted in this area, hey, this goes to your ten-knot speed zone for so many days in that area.

Then the other thing is, for god's sakes, these things are bouncing all around up north, and why the hell can't they damn tag most of them and frigging see where the hell they are on -- You know, they do it with the great whites, and they're all over the Northeast, in Boston and all those areas up there, and they have whale watching tours five times a day, and they should be able to tag a ton of these things, and so there are lots of things besides the cut-and-dried ten knots, thirty-five-foot vessels and above. To me, that is absolutely ludicrous and insane economically detrimental.

I mean, you're going to go to, hey, basically the haves and the have-nots. If you have to pay me to take you out on my boat, you're out. If you can afford enough money to buy your own boat, you're in, and the whole ocean is yours, and so this is a deal where, you know, this rule is going to say, hey, if you've got the money, you can still fish, but, if you ain't got the money, and you're lower middle class, you're off the table for this time of year.

MR. LORENZ: Thank you, Cameron. Very interesting, and just a note, something I noted, in case anybody is interested, because I have followed this a little bit, and Red Munden, who used to be on our AP, was involved with these endangered species, and the whales, previously, but one of the things I noted, and I mentioned two publications, *The Florida Sportsman*, or it might even be in the most current *Saltwater Sportsman*, and, you know, they said the fishermen up north have been beaten to death, the lobster fishermen, with the whales and the entanglements, and so we're now to speed restrictions.

Interesting enough, the last right whale, I believe, was in 2021, and I'm not sure exactly the area, and it was somewhere up in the Northeast, between Montauk and Massachusetts, and it was a calf right whale hit by a sportfishing sedan. The boat later sunk, got into port and got up a river or something, and there's a picture of it sunk and the whale dead on the beach, and so it is interesting that there's private boats that have hit these whales. Sorry. Jack, please.

MR. COX: Not so much a comment, but a question. Why -- So are you telling me that a twenty-five-foot outboard, that's running thirty or forty knots, is not going to jeopardize that whale, but a thirty-five-foot, ten or fifteen or twenty-knot, boat is? I don't understand the logic behind that, because, the inlet that we have, on a busy weekend, there is several thousands of boats that go out of Morehead City Inlet, of all different sizes, and so I would like to know the answer to that. What makes one boat priority over another one? It's just a crazy thing, to me, that, you know, it's going to be the end of us, the turtles and the whales.

MR. LORENZ: Thank you, Jack. Randy.

MR. MCKINLEY: I agree with Cameron. I mean, why would this regulation not be just a nighttime regulation? There's no way that you're not going to -- I mean, the whales that I have seen -- I see them way in plenty of time, and is there any reason that this is not just a nighttime? I know it's coming from NOAA.

MR. LORENZ: Thank you, Randy. Tony.

MR. CONSTANT: I'm curious, and is there a range? Is it from the beach, or is it from five miles out, or does it have an endgame? Is it out to twenty or forty? Do you know those answers?

MS. WIEGAND: So, I guess to get at a couple of questions that have been asked, I am not sure why thirty-five feet specifically was chosen, but there was a desire to move to smaller vessels, vessels smaller than sixty-five inches, because a compliance report that came out in June or July of 2020 noted that it was actually many of the smaller vessels that were having interactions with whales, and there was a need to regulate those vessels.

To Randy's question, that was something that came up during public comment during the council meeting, that perhaps these regulations only be in place during low-visibility times. I will say, if you look at the environmental impact statement that was prepared for this proposed rule, one of the things they note is that, in the Southeast in particular, when these whales are calving, they sort of tend to hang out sort of, you know, right at surface level, and they can sometimes be hard to spot, and that, the collisions that have been reported, the vessel operators have noted that they did not see the whale before colliding with them, which is likely safe to assume, since I don't think you guys are out there trying to intentionally hit whales and ruin your very expensive vessels. Then, to Tony's question, it depends on where you are along the coast. If you look at this map, it can range from, you know, shore to twenty-five or thirty miles, depending on where you are along the coast.

MR. CONSTANT: So it does come all the way into the beach?

MS. WIEGAND: If you're interested in the exact coordinates, I can send you those.

MR. LORENZ: Jimmy, did you have your hand up?

MR. HULL: Thank you, Mr. Chairman. Some of the things we're hearing here are maybe some ways that they can buffer this down somewhat, and I think that's what we need to do, is try to figure a way to do that, and give them some ideas. One of the ideas, for me, would be, in north Florida, if the weather really gets cold, we will get the whales down there, and they calve, but they're right up on the beach. They're very close, and they're not offshore, and they're around -- The biggest funnel areas are going to be around the inlets, and so, I mean, I could see where, you know, you could say, around an inlet, you need to have a speed zone, and everybody needs to slow down around an inlet anyway, because there's lots of dangerous things that can happen.

I mean, I would recommend that they tone it down and concentrate on areas around inlets and then, also, the dynamic zones, no question about it. They are tracking these whales, and they've got apps that you can go to, where these whales have been sighted right now, and everybody is looking for these whales. They've got planes, and they've got drones, and so, you know, they need to tone it down and just have these zones change. When an area is hot, then you post it, and you inform people that that's now a slow-speed zone, because there is whales in the area, rather than this broad brush that they have.

As far as the size of the vessels, I mean, I agree, and, I mean, these outboards, they are more powerful than these inboard boats that we have, okay, and they've got four engines on them, most of these guys, and they're hauling butt, and I would hate to get hit by one of them, and so it's too much of a broad brush, go to dynamic zones, and around inlets would be a concentration area, because that's where all of these vessels are coming and going from, and, by the way, the strike that you referenced was off of St. Augustine, unless there was another one north, but that's where

that calf was hit, just north of -- Like he was close to the buoys, coming in, at low visibility, and he hit that calf, and so that's what I have so far.

MR. LORENZ: Thank you, Jimmy, and thank you for correcting me, as I swore that I read it in the New England section, but you're probably correct, and the picture of it in the waterway -- It got through the inlet, and it got back in. Cameron.

MR. SEBASTIAN: I mean, I would definitely agree that the broad brush -- I mean, that's like saying, hey, we've got an endangered red squirrel that runs across 95, and let's slow the speed limit on 95 to forty miles an hour, and that would never pass, but this is from Florida all the way up the east coast, and, you know, we can get pushed around, and get locked into it, and so it really needs to, you know, focus on where they are.

I mean, I've been fishing out in our area for thirty-five years, and I have seen three, ever, in thirty-five years, ever, and so, you know, that's a pretty small number for all the times that -- I have talked to my older captains, and they're like, yes, I've seen one, or I've seen four, and so the number in our area is miniscule, and I just don't see the broad-brush approach really helping out in our area, and so, like Jimmy said, if we focus on where are they, and you shut down an area, or not shut it down, for god's sake, and scratch that. Scratch that totally. You slow it down in a certain area, and maybe even a swath. If the whales are spotted, a four-mile swath going out ten miles, something along those lines, is doable.

From our business standpoint, it's when the public says, hey, I can't go get my fish out at thirty-five miles, because it's going to take me two hours to get it, and the charter/headboat has a lot of stuff going on, and, just so the council knows, when they say you cannot go twenty miles with a sixty-five-passenger vessel -- Our captains can work no more than a twelve-hour day, and so that throws into, if we're going to try to get out to where we really want to go, we've got to put on an extra whole crew to really get there, and so this is a -- You know, the sixty-five-foot rule was devastating, and this would be just catastrophic, because, if we don't have those funds coming in in the spring, I mean, I can't even imagine what we have to raise our prices to just to make our business continue the rest of the season.

The more dynamic approach of you spot it, and they're here, and they're seen, I'm all for it. Slow it down, and give us a parameter where we can transit for a certain distance, and I would say five or ten miles, and the twenty-mile stuff is just -- In our area, it just absolutely would kill us, if we had to slow down. We would lose everything, everything until it opens back up, and nobody is going to go Gulf Stream fishing, period, and it's all going to be wiped out. I'm looking at my charts, and that's like, rough, off the top of my head, $150,000 in revenue just erased, just like that, gone, and everybody looks around, and so, right now, everybody in this room, you're about half my total staff, all right, and so that would mean that half of my staff is not going to start working until May, and so a major economic impact, not just on the business, but on everybody who works for me as well.

MR. LORENZ: Thank you, Cameron. Jimmy.

MR. HULL: I agree totally with everything he said, and, from my area, we fall into that sliver of yellow at the very southern end of it, just north of the Cape, and so, depending on how far offshore that is, at this time, which, obviously, could be expanded, but, if it's anywhere past a few miles,

you're going to destroy our charter fishery for all day trips, as he's saying, offshore, because they're running thirty or thirty-five miles.

If you have to go ten knots or less for any long time, it's just going to ruin it. They're not going to be able to do it. They're not going to be able to get offshore quick enough to do that, and so it's going to have a huge economic impact on the six-pack boats as well as headboats, and most of the charter fishing boats in our area are going to be -- Six-pack boats are going to be above the thirty-foot size, and so it's going to impact them. It's going to ruin them.

MR. LORENZ: Thank you, Jimmy. Anyone else around the table want to make a comment? Captain Bobby.

MR. FREEMAN: I didn't grow this gray hair just to have seniority, but I have fished out of Morehead City for fifty years, and I started in 1972, in a boat that had a compass and a little neon flasher. In all those years, and I don't know, 25,000 or 30,000 hours, I have seen two whales off of the point at Cape Lookout. This is another case of making a rule that don't make sense, and, obviously, we don't have the enforcement there to deal with it, and so I'm just not in favor any action that restricts the fishermen any more so than they already are, and it's just a devastation on headboats, and now we're shrinking the size of the boats that it's going to impact, and so it's just too significant for the benefit that's going to be derived.

MR. LORENZ: Thank you, Robert. Scott.

MR. AMICK: I just want to make the comment that there is a pilot convention for the shipping import and export for the east coast, a convention happening right now, in Charleston, and one of the major topics is the same exact thing that we're talking about here, and so it's affecting a lot of people and not -- I mean, obviously, outside of our industry, but it's getting a lot of traction from all over.

MR. LORENZ: Thank you, Scott. We have Harry wishing to make a comment, and he's online. Harry, you're recognized.

MR. MORALES: Yes, Mr. Chairman. I'm a newcomer, because I've only been fishing since 2005, and I have never been fortunate to see a whale. I have tried to, but I haven't. I guess my question is, if we're having drones and all these things looking for them, as an AP, shouldn't we recommending the dynamic slow-down, for example, with the Coast Guard being able to send out those notices that they do over the airwaves, so that, yes, you could post it on websites and whatever, but, if you're already on the water, and the Coast Guard comes blasting the message that, you know, the Fripp Island area has a current whale spotting, and please slow down, and I think that kind of dynamic cooperation -- You know, boats will slow down for that little period of time, and then they can speed back up. Thank you.

MR. LORENZ: Thank you, Harry. Jimmy.

MR. HULL: To that, I mean, are we jotting down any of this information, or do we need to make a -- Okay. Good, because those ideas of the dynamic zone I think are really important, and, also, for me, and I don't know if everybody else agrees, but concentrate around those, and around inlets, you know, where there's a funnel. You know, a mile around the inlet, or whatever, something

that, yes, it's reasonable, because we've got lots of boats here, and there is lots of activity, and maybe there it will be something that they could accept, and maybe reduce some of this broad brush, and so it's good you're taking it down. Thank you.

MR. LORENZ: That inlet idea is excellent. I mean, even for safety, and, I mean, we all know how crazy the inlets get, and, in North Carolina, I mean, we're all out there, and we're fishing, and they're running through with the north-south yacht traffic, and we've got the shrimpers working the tides, and we really could use slow spots there, maybe two miles, and so that's a great, strong point. Does anyone else have something to say to comment on this?

I am probably going to comment, and I don't want to take anybody off-base here, but one thing that has fascinated me by this, and listening to Cameron and Robert Freeman and others, why -- Hopefully technology can help solve this. I mean, my 2020 pickup truck, if I'm barreling down the road and not paying attention, if I have the feature on, I'm not going to hit you. It's going to slow me down, and do this and stop, and it's not that expensive, I would presume, and so hopefully somebody, among the manufacturers, can -- Maybe there's something we can put on these boats, and, you know, like Jimmy is talking about, and they've got this thirty-six-foot Regulators and things, with three 300-horsepower engines and all, and, you know, you can easily integrate something that is going to shut those things down, I presume, because they certainly can autopilot and everything else, and so I don't want to take us off-point, but that's been one of my thoughts.

I mean, technology is causing us to do so much speaking here on like red snapper, and maybe somebody can apply it to our boats to help save an endangered species, and I don't know, and it's just a personal thought. Cameron.

MR. SEBASTIAN: Well, that's a great point, Robert. I mean, I would have to imagine that, you know, the right satellite could pick up almost any frickin' movement there is up and down the entire east coast with ease, and so how can that technology be used to do a dynamic area on where the whales are, and then I would say, whatever the council is looking for, we make a motion that, hey, the dynamic -- Only use dynamic zones for vessels thirty-five to sixty-five feet, and create a slot whatever, a mile wide, or two miles wide, out to five or ten nautical miles. Something along those lines I think would be much more realistic than the brush from a quarter up Florida all the way to the end of Virginia, for sure, but, the technology, I think you're right. The technology is there, but it's just can somebody get the access to utilize that technology to save the charter/headboat industry.

MR. LORENZ: Cameron, would you -- Nice summary. Would you like to make such a motion, asking for the council to put in their letter certain points, even bullet points, and I'm sure you have people around the table that will help you, and do you want to go that way?

MR. SEBASTIAN: Yes, that would be fine, and, I mean, I would also ask the council for the direction in this matter, because, ultimately, they're going to be the ones who really kick the can up the chain, and so, yes, I would say -- You know, the ideas are pretty simple, and only dynamic zones around inlets, once whales have been spotted, for vessels thirty-five to sixty-four feet, because we know they're not going to backtrack the sixty-five foot. You would have to do probably sixty-five to thirty-four feet, because sixty-five already shot for twenty miles in South Carolina.

MR. LORENZ: Any other bullet points? We have the inlet issue. Jimmy.

MR. HULL: Yes, and I would like to add concentrate possibly just around inlets, you know any expansions, because they already have some of these in place, correct, and they're reducing the size limit of the vessels, but concentrate just around inlets where all the boat activity funnels, you know, and you have a higher concentration of possible hitting a whale, but, in defense of that, that would -- You said, I believe, that there's been two incidents of sportfishing boats, or fishing boats, hitting whales? I thought I heard you say that, initially.

MS. WIEGAND: I can't remember the exact number of vessel strike incidents that have occurred, specifically with vessels lower than sixty-four feet, and I want to believe it's eight, but that's not just in the Southeast. That's up and down the entire coast.

MR. HULL: So there has been eight, and so --

MS. WIEGAND: It's not necessarily just sportfishing vessels, but it's sort of any vessel.

MR. HULL: Anything that's below sixty-feet, and so that -- The question then is how far offshore were those strikes, and so, if the evidence is they're really close to shore, then that's where you need to stay, is close to shore, and not go offshore so far, where -- You know, in my area, we don't see them far offshore, and we see them right on the beach, or around an inlet, and so, you know, that could be different up the line. I think you're on the right track.

The other thing I would say is all the economic damage that we're talking about, that we know is going to happen if this goes through, and I can tell you that I was involved with black sea bass traps and the right whale issues with the last Regional Administrator, and, when it finally came down to, okay, what are we going to do, because you're going to destroy this little fishery, it was like, Jimmy, your numbers, what does it cost to make a right whale, was his answer, and it was like, it doesn't matter, and this is too valuable, and you're going to go by the wayside because of this, and so, you know, it's a tough one, because the protected resources -- That's kind of the way they look at it. There is no loss that equals the loss of a right whale, to them.

MR. LORENZ: Jack.

MR. COX: Reading this, it says use dynamic management zones only for vessels thirty-five to sixty foot, and, there again, I'm asking why is that limited to thirty-five and not less? I mean, these boats -- These million-dollar center consoles that are thirty-four, or thirty-three foot, or thirty-two foot, Onslow Bays, to me, they're more of a problem than the bigger, slower boats.

MR. LORENZ: Okay. Tony.

MR. CONSTANT: Just regarding this, my understanding is that the majority of the eight strikes were vessels over eight foot of draft, that most of these were deep-draft boats, and I think only two were vessels that don't draft that kind of depth, which tells you a lot about the boat.

MR. COX: To that point, any time I've ever seen a whale, they're breaching, or coming to the surface, and so they're not up there --

MR. CONSTANT: The point is we can see them and maneuver.

MR. COX: Well, not when you're running thirty-five knots at night. We've got two or three king tournaments every weekend, and those boats are in the dark, running fifty miles an hour, and they've got these Garmin screens that big in front of them, and consoles that tall, and they don't see, and they scare the hell out of me going out there.

MR. LORENZ: Andrew.

MR. FISH: I would like to also see a status quo, as we are right now, recommendation. I mean, I've got some Maine buddies that fish, and they're going to get hit hard with all their vertical traps and all this stuff, and there's already -- I know they're trying to make steps towards this, and maybe there's enough there that we can maintain status quo with the rest of this.

MR. LORENZ: Would that be better, Andrew, to say consider status quo, and it doesn't look like they're going to go there though, but --

MR. FISH: Right. I'm just -- As an option.

MR. LORENZ: Christina.

MS. WIEGAND: To provide a little bit of background, one of the many reasons that this regulation, among others that are being discussed, are coming down the line is because the agency is required, by law, to have a 90 percent reduction in risk of serious injury and mortality to these North Atlantic right whales.

MR. LORENZ: Jack.

MR. COX: I mean, I would, like I said, be more comfortable changing that for vessels twenty-five to sixty-foot in length, just because I know what goes on in the inlets. I don't think you should just pick on a bigger vessel, just because, most of the time, the bigger boats are slower, and they have less impact on them, and I know -- I'm just --

MR. LORENZ: We do -- I would say it's a draft motion, but essentially, with team effort here, we've tried to put together a motion just recommending what the council could put in their letter, and do we want to formalize this as a motion and second it and vote on it, and Christina can take it to the council? Does someone want to take possession of the motion, make the motion? **Cameron has made the motion, and David Moss has seconded the motion.** Christina wishes to comment.

MS. WIEGAND: **Just to read the motion into the record, it reads: Recommend the council include the following in their North Atlantic right whale comment letter: use dynamic management zones only for vessels twenty-five to sixty-four feet in length; concentrate speed restrictions around only inlets where boating activity funnels; describe the economic consequences to snapper grouper fishing, especially the charter/headboat industry; leverage new technology to be better monitor real-time North Atlantic right whale locations.**

MR. LORENZ: Thank you, Christina. These are commonsense recommendations, and it was a team effort, and so I guess I will go with the more simple matter. **Is there anyone opposed to this motion, in presenting it to our council as written? There is no one opposed. Is there anyone abstaining? The motion is approved.** Back to you, Christina.

MS. WIEGAND: That's all I have for you guys, unless there is anything else that you would like to add for me to take to the council. Otherwise, thank you for this discussion. I will say that our Mackerel Cobia Advisory Panel, which met last week, had very similar recommendations to this AP, and so we will work on incorporating this into a letter that the council will the review and approve.

MR. LORENZ: Thank you, Christina, and thank you, AP. There were some interesting things that I learned. All right. Christina, you're up again, with the Florida Keys. No? Mike. I'm sorry, Mike. We are now going to speak on the Florida Keys Sanctuary restoration blueprint, and Mike is going to present to us.

DR. SCHMIDTKE: All right, and so I'm going to pull up the website, just because I know that we may be having some reference to the video that was posted, and so I emailed everyone yesterday, with just information that we had posted a video to the meeting webpage about this agenda item, and it was a trimmed video from the council meeting on this topic, and so some of you attended the council meeting that met on September 21 and had the discussions about this, and others of you hopefully had a chance to just take a look at the video last night.

I am not going to be going through the full presentation of this, but the full presentation is included in your briefing book, and we'll be able to refer to it as you make your comments, but the basic gist of this is there have been some proposed expansions of the Florida Keys National Marine Sanctuary, and they are included. As you look through here, there is a description of the fishery and the economic factors down in the Keys, and I just wanted to get to one of the maps, and there are several maps throughout this presentation that outline some of the existing and the proposed new boundaries and the regulations that would apply within those boundaries, and so I encourage you just to make reference of that as we're looking at these comments.

Similar to the vessel speed limit regulation, this is something that is outside of the council, and this isn't something that the council has come up with, but it is something that the council can provide input on. Right now, it's at the proposed rule stage, and it has not gone final, from the NMFS end, but they are accepting comments on it, and, as of right now, there was a comment period that I believe was scheduled to end in October, and we have requested an extension of the comment period, and we've not gotten a response yet on that extension, but Florida FWC requested a similar extension, and they were granted an extension through February, and so that's kind of what we're thinking, along similar lines, and so we are preparing a letter that will be sent in response to the proposed rule, and we're trying to develop what should be in that letter, and so some of your comments would help inform that, how this would affect the fisheries, especially the snapper grouper fishery, and I know another one that it affects is, I believe, the spiny lobster fishery down towards the Florida Keys.

The objective today here is to just hear your comments on this and what would you like the council to provide comment on in their letter, when they respond to what's been proposed in these

regulations, and so, with that, I will pause and open the floor and be ready to take down some notes.

MR. LORENZ: Okay. We'll open the floor to suggestion for comments for the council letter with respect to the sanctuary proposed expansion. To kick us off, Cameron first.

MR. SEBASTIAN: Obviously, I'm from the Carolinas, and so I have absolutely no idea what the hell is going on in the Keys, but I do need to get the information, because it's going to have, I'm assuming, a very large economic impact, and so, if anyone is from that area, I guess, you know, help me out here with exactly what this is going to do to you guys down further south.

MR. LORENZ: Richard, a comment back to Cameron?

MR. GOMEZ: (Mr. Gomez's comment is not audible on the recording.)

MR. LORENZ: All right. May I move to Jimmy Hull? He says he has something quick.

MR. HULL: Thank you, Mr. Chairman. No, I would just recommend that the council's response include, you know, ways to protect and enhance the traditional fishing industry, whether it's recreational or commercial, in the Florida Keys, through this new proposed regulations to address the risk to the environment down there, but, I mean, you have to really, really make an effort to protect the industry. You know, they say they do, and they recognize it, but we need to keep pushing that, to protect this industry in the Florida Keys, the fishing industry in general. Thanks. Include that in the response. Thank you, sir.

MR. LORENZ: Thank you. Yes, focus on the economic impacts. Ritchie.

MR. GOMEZ: I have so much to say, but I'm going to try and do it in a couple of segments, and maybe we could get some comments back, which can kind of move me along. You know, Cameron, not only has it -- Is it going to affect us, these new regulations, and, I mean, we've been affected since 1996, and so we've been dealing with the effects of the sanctuary for some time, and not to say that it isn't a noble organization, because it is, but the problem, for us, has always been that they single out fishermen, to me, as the lowest-hanging branch, the one without the power, and they're absolutely right, unfortunately.

We've been kind of getting complacent, for many years, and, because of that, we seem to pay the price, and, you know, no matter how much commonsense that we try to bring to the table, we're just listened to in a very complacent manner, and so we never really get -- We never really get anywhere with the sanctuary. To us fishermen, especially offshore and inshore on the Atlantic side, and it's not because we want to do, and it's not because we can't get behind them in numerous ways, but it's because they never get behind us.

At some point, I want to have Mike play something for me, but let's leave that alone for now, and I'm going to give you a twenty-mile span of coral reef, and I am going to tell you what happens on each coral reef, and, understanding that these reefs are very important to us, for fishing purposes, not only for catching action for the clients, but we also do catch snapper and grouper at these areas by not anchoring. Because they're low-water reefs, we can actually catch snapper and

grouper without anchoring, and just slow trolling, and so think of this is a twenty-mile span of where charter boat fishermen can fish on a half a day.

The Western Dry Rocks is fishing and diving, and, now, these are all low-water reefs, just to give you some idea. They are low-water reefs, and so, therefore, fish gather there in large numbers, and so Western Dry Rocks is fishing and diving, and the next one in line is Sand Key, and that's fishing, but low take, and diving. Eastern Dry Rocks is fishing and diving, and Rock Key, next to it, is fishing and diving, and Nine-Foot Shoal, next to that, is fishing and diving. Toppino Buoy is fishing and diving, and then we get to Eastern Sambo, and no fishing, but diving, and, no, Western Sambo. The next one up is Eastern, and that's no fishing or diving, and so I'm going to stop there.

Now, also, take this into consideration. If I am fishing at Western Dry Rocks, and a dive boat approaches me, there are numerous buoys that he can grab onto, and, if he grabs onto a buoy where I was fishing, then, basically, I'm out, and that happens all the time, and so, all the time, fishermen are pushed out of this, the area, and, now, in 1997, they did all these boundaries, and they said it was going to be experimental, and so, you know, obviously, we had to take it, but they never gave anything back, and they never experimented with divers, and so all these areas you can still dive at, but you can't fish at many of them. If we're going to experiment, why didn't we make one, or two, reefs just fishing?

If you look at the overall picture, why did they really take anything from us, because, in the grand scheme of things, fishermen are the less-invasive of any other group in this whole area, and we're talking about the pollution and runoff and farming and development, all these things that are affecting the reef that have basically killed -- Over 90 percent of our reef is dead now, and so who pays the price, over and over again? It's the fishermen, and that will be a beginning. Thank you.

MR. LORENZ: I would like to just ask one question to Mike, and maybe even the council members, maybe to help Ritchie out and get his point across, and, Ritchie, I presume you may have made personal comment, but I know that we produce a transcript from this proceeding, and is it possible that we could put a priority that, at the conclusion of this meeting, that we get whatever part of the transcript is going to be with respect to what Ritchie said, and would that be able to be produced and accumulated, and maybe Ritchie could take a look at it, and, when the council does make their statement, is it possible to add his statement as an appendix, that this came from a formal advisory panel for the South Atlantic Council, and is that something that could be done, at least to assure Ritchie and those fellas down there, those people down there, get their day in court?

DR. SCHMIDTKE: So I think, timing-wise, if we get the extension that we're kind of expecting, timing-wise, we should be able to have the transcript for this meeting, at least the draft transcript, and, obviously, it wouldn't be the approved final, but we would at least have the draft transcript available to us when the council is developing their letter. Whether it's included as an appendix, that's something that would need to be decided by the council, because, ultimately, they will decide what goes into the letter, but that's something that, yes, if it's extended out to February, we will at least have the information, the draft transcript, available.

MR. LORENZ: All right. Then I would like to request that that be considered, when that's done, and I know there are hundreds of organizations commenting, and this is an AP selected by the council, and it affects people with economic value added in our region, and, yes, I would like to make a request that, when that transcript is made, that at least a cutout of what Ritchie has said be

formalized, and I don't know how it's used, but it could be put in the back, as an appendix, or a reference, and they have received thousands and thousands of pages of commentary, and I think this would be good, and Ritchie stated it very well, and I would like to see that get upfront, if possible. Thank you. Ritchie, do you want the floor back, or does anybody else have a comment? Okay. Let's get some support for you. Tony.

MR. CONSTANT: I have never lived in the Keys, and I'm South Carolina, but I have fished them all my life, since I was a young man, and I have never seen a place, in the world, that has been devasted by overgrowth, runoff, and development that I have seen in the Keys, and, that said, I'm a licensed hundred-ton captain, but I'm also an unlimited commercial contractor, licensed in the state, and so I see it, every time I go there.

In the 1990s, I used to travel the Florida Bay, from Marathon over to the Everglades City and back, and all throughout, and that place was great, and now it's dead. In my opinion, this is in the wrong court, and it's like Richard said, and we are taking the fishermen out of the equation, and the fishermen are the least-invasive item here. I actually showed Richard a study that is going on right now between Florida Institute University and the Bonefish, Tarpon Bonefish, where they tested 108 bonefish and found pharmaceuticals in every one of them.

Ninety-seven, I think it was, and it might have been eighty-seven, of those bonefish had blood pressure medicine in them from the runoff, and we, as Americans, have expensive urine, and our processing plants don't process it.

Now, that said, we also have all these dive boats, and the tourism aspect of the Florida Keys -- I went there twice last year, and the tourism knocks it out, and the dive boat is on every one of these reefs, and half of those people take a trinket home with them. Well, I wouldn't go that far. I would say 5 percent, but that 5 percent of that trinket was because the guy in front of him stepped on it and broke it, and this happens as cumulative. If one person from Indiana is diving and picks up a piece of broken reef, well, it's so cumulative that now it's all dying, but it's not the fishermen, and I just feel that this is being handled in the wrong court.

MR. GOMEZ: Don't forget that they leave a trinket, too.

MR. LORENZ: Thank you, Tony. Randy, you're recognized.

MR. MCKINLEY: This is for Richard, and it looked like that they're taking away -- Is a thousand more square miles? Maybe I didn't look at it right on that chart, but it looked like that they were expanding outward, and it was going to take all your fishing areas. Is that correct, or is that just a small part of what you fish?

MR. GOMEZ: So it's far from all our fishing, and it is just a small part, but it's one more part, and, you know, I mean, we're more than willing to work with them, if they would work with us. I was on the sanctuary for two years, on their advisory board, and, you know, this whole blueprint was kind of -- Not kept a secret, because we knew it was going to come out, and, the whole two years that I was with the sanctuary, this blueprint was in the works, but it was never discussed at any meetings, and just that it was coming along.

What was discussed, at most of the meetings, was water quality and things that really matter, but the fact is that, you know, that's a big one, isn't it, and how do we deal with that, in reality? We can talk about that all day long, but, to actually make a dent, it's near impossible, right, and we've already lost most of our reef, and water quality in the Lower Keys, in the Florida Bay, is horrible. It's nothing compared to what it used to be, and so that was the essence of most of our meetings, a very noble cause, but, at the end of the day, fishermen get to pay the price again.

MR. LORENZ: Thank you, Ritchie. Anybody else with a comment or want to help out? All right, Mike. I think that -- Sure.

MR. GOMEZ: I am hoping that Michael can play a part of that meeting, where one gentleman that was making comments had a list of questions for the president, I mean the chairman, and Beth Dieveney, and I worked closely with them for those couple of years, and they're very nice people, but, when you hear this question-and-answer thing, you're going to understand exactly what I'm talking about with the evasive way in which they answered, and the non-committal way in which they answered, and it's all because the sanctuary is more of a special interest group.

You know, it's who is funding us, and who are we going to protect, and who are we not going to protect, and I don't think it started out that way, but, in my personal opinion, that is what has become of it, and so, if I'm going to live by new rules, I'm going to want to be surrounded with people like this, and not a special interest group, and on that sanctuary board, the AP, there is probably three or four fishermen, surrounded by scientists and environmentalists, and, when you look at who sponsors the Florida Keys National Marine Sanctuary, you're going to see that they're ass deep in environmental groups, and that's part of our problem. Can you play that, Mike?

DR. SCHMIDTKE: Yes, and, just for the public that are listening in on the meeting, I am going to have the mic on, and so hopefully you can hear the audio from this, but, in case you can't, you can reference the audio, and it's about the hour-and-three-minute mark of the video that is posted on the Snapper Grouper AP webpage.

(A video was played and was not transcribed.)

DR. SCHMIDTKE: All right. I think that was what Ritchie wanted played. Okay.

MR. LORENZ: I'm sorry, Ritchie. I was trying to look something up to help you out later. Ritchie.

MR. GOMEZ: No worries. Believe it or not, that gentleman, because he was in front of the South Atlantic Council looking on, got more real answers than I have ever been able to get. I have been asking these same questions in closed-door meetings, and in public comments, for years, and I never got anything close to that kind of answer, and that kind of answer -- I mean, how much sense does it really make?

I mean, obviously, we are less invasive than divers, and, now, I don't -- I mean, I am here to pick on divers, because it's just so black-and-white, and divers actually do hurt the reef in numerous ways, but, if this whole thing is an experiment, and I have asked this question a hundred different ways, but, if all of this is to protect the habitat, the reef, and we're trying to see what is good and what is bad, besides what we can't stop, why haven't we ever been given any reefs? Until things

like that are answered in a better way, until they become at a reality, how can the fishermen of the Lower Keys support a group of -- Support the sanctuary, when they won't even attempt to look at us differently?

MR. LORENZ: Thank you, Ritchie. A comment, Tony?

MR. CONSTANT: One quick comment towards another phase of this is stormwater runoff, with development. In Beaufort County, South Carolina, our tax base is based on your impervious and pervious soils, which is the absorption of water, so it won't run off into our marshes and waterways. The amount of development in the Keys, with VRBOs, and ARBs, and just in general, is phenomenal, and it's follow the money, and you will find that the runoff is detrimental to not only the reef, but to the algae growth in that area.

MR. LORENZ: Thank you, Tony. Anyone else? Cameron.

MR. SEBASTIAN: Obviously, we operate a pretty decent-sized scuba diving company as well, and, in your particular area, I would say fishing or diving -- I'm with you, and neither one of them seem to be the real problem, and the problem is coming from something else if, for thirty years, they've had the protected area and nothing has gotten better. Something else is going on there, and it's not going to be banning you, and it's not going to be banning the divers, and it's probably going to be dealing with runoff and stuff, and we've discussed this before in meetings, and it's stuff that, hey, we can pitch it here, but, outside of these meetings, nobody is really going to put the foot down on it, and it's just going to continue to happen.

MR. LORENZ: David.

MR. MOSS: I've been going out of the Keys all my life, quite literally, and nobody is wrong here, in anything that they have said, but one of the things, Cameron, to remember is, and Tony hit on it a little bit, but the amount of growth that we have seen in the Keys, over the last -- Even the last ten or fifteen years has been -- I mean, it's obscene, and, I mean, it's progress, I guess, but it's -- It can't handle what it's got now, from a tourist standpoint, from a resident standpoint, and most of those residents aren't even full-time residents, and they just have, you know, their weekend houses down there or whatever, but so it's -- The issues with the Keys are really all of the above, and a lot of it is just because it's just -- I mean, it's become a destination.

Then, especially even over the last couple of years, when a lot of people didn't want to travel international, they had no problems driving down to the Keys, especially from all points south Florida, and, like I said, one of my best friends runs a partyboat down there, and they have had to actually cap the number of guests that they get on the partyboat, well, due to COVID, but they have kept it that way, because it's just -- It's a good problem to have, I guess, but they've been so busy, and like this is normally their downtime, and they haven't had any downtime, and there is just constantly more and more people moving down there. Again, in a lot of respects, it's a good problem to have, but, unfortunately, the reefs there just can't handle what we've been doing to them for years and years.

MR. LORENZ: Thank you, David. You know, I kind of share what you had said, and, in fact, Ritchie and I had a conversation last night, where I was reminiscing of my days at the university, at the Florida Institute of Technology, where I did study marine biology, and how I went to the

Keys, and what Key Largo was like, and Islamorada, and, you know, talking about it, and, gosh, I wish it was like it was in 1973, and, low and behold, Ritchie was in high school or something, and so I'm one that misses the way it was, but it is, you know, what it is today, but, Ritchie, what I will pledge is I feel very strongly about us capturing what this AP said.

You've got a lot of support here, and that you get your day in court. Where the council meeting is going to be held, I can literally walk to it, and it will be in Wrightsville Beach in December, and, if we can get this extension, I will ask the council chair, and anybody I can, and I feel strongly about getting this cut of the critical things that were stated here summarized that are in the transcript, and I will ask, or beg, the council, and they don't have to necessarily agree with everything, but just to put it in as a back appendix of raw data of what we said, and they can read it, wherever the powers that be will, and so at least your voice is heard, because we are the underdog in this.

I mean, I have followed this from day-one, and, you know, nobody is taking on big sugar or anything else, even with your other problems in Florida on the coast, and we know what development has done, uncontrolled, and we're not going to beat that, and so what I see is it kind of reminds me of, for you, and the folks that love the Keys, and want to use it, and don't forget that we are a little bit -- We're asking for consumptive use, and that's what they are hitting, direct consumptive use, and saving it really just to look at or whatever.

You know, this reminds me of the winter sport curling, Canadian, the curling thing, and that's where you are, and that puck is going to come down, and all any of us are going to be are like -- The council is frantically that broom on the ice, to try to skew that puck a little bit, one way or another, and, hopefully, when it ends up, it can be a little more friendly than where you think it's going to go, and so thank you. Jimmy.

MR. HULL: Thank you, Mr. Chairman. It sounds like the council could also, you know, inform this with saying, you know, expanding no-fishing areas isn't going to do anything to solve the problems of the degradation of the Keys, by turning this area and saying you cannot fish there. It sounds to me like, if they're going to expand the sanctuary, they should expand it on land and take and implement things in development and implement refitting areas -- Requiring refitting of -- You know, if there's a certain amount of money that's going to be spent on remodeling structure, or infrastructure, then they have to abide by new policies that could help reduce runoff, reduce this, and reduce that, and so it sounds like they need to expand the sanctuary's oversight inland and not in the water. Then we can maybe make a dent in something, and that's my thought.

MR. LORENZ: Thank you, Jimmy. On my left was a comment, and was that David, or was that Ritchie? Richard, you're recognized.

MR. GOMEZ: This one is number three of twenty-eight.

DR. SCHMIDTKE: Are you looking in the presentation? I can run over and see what you're looking at. Ritchie, I'm not sure that I have that one in this presentation that's on here.

MR. GOMEZ: Okay. Well, I think I could explain. Basically, what I was going to say is that there's all kinds of area that we could get behind as fishermen, and there's a lot of proposed area in the back country of Key West, on the Gulf side, in between the islands, you know, and that map

right there doesn't really show the intricacy of all the islands along the Lower Keys on the Gulf side, but the offshore and inshore fishermen of the Keys can get behind so much of that, and the area that -- You know, a lot of this shit don't make sense, but we're okay with it, but the area that is going to affect us, if we could see it on the small map that I'm looking at right now, we would see that it's very small, and not much area is going to be taken from us, but it's a super important area, just like the ones that have already been taken, and so I don't know if this is the time for a motion or not, but I think we've got some good information out there, and, if it is, I would like to make one. If not, we can put it off for now.

MR. LORENZ: Ritchie, you may make a motion and see where it goes.

MR. GOMEZ: Okay. **Maybe someone could help me raise it, but I would like to make a motion that the Snapper Grouper AP does not support any more fishing closures --** I can't hear you.

MR. CONSTANT: **With possibly more research towards development and runoff and development causes?**

MR. GOMEZ: Correct. **Can we put that in there? Also, one more.**

MR. LORENZ: Is that it, Ritchie? I will read it.

MR. GOMEZ: **And diving.**

MR. LORENZ: Okay, Ritchie. The motion, which you have made, is the Snapper Grouper AP does not support any additional fishing closures without further research into other factors affecting the Florida Keys Sanctuary, which examples are development, runoff, diving, et cetera, and that's what want it to say?

MR. GOMEZ: I would like to add a little more. Furthermore -- Water quality, also, in parentheses. Furthermore -- What I am trying to say, right now, is we could be more supportive if some of these dive spots became fishing spots, some of these dive areas, because, you know, when Beth was speaking about that 4 percent, versus 90 percent, really, along that coral reef line on the Lower Keys, there is only one tiny little reef that is non-fishing, or diving, and so there are other areas where a dive boat would not go that could be non-fishing or diving, but there is no reason why a commercial dive boat would be there.

MR. LORENZ: That's interesting, Ritchie. **I think, as a motion, you could probably take the word "furthermore" out, to just make it a little cleaner.** I think it's just another sentence and another statement. Okay. I won't re-read it, in the interest of time, or I guess I should. Are you satisfied now, Ritchie?

MR. GOMEZ: Yes.

MR. LORENZ: All right. **Ritchie has put forth a motion that the Snapper Grouper AP does not support any additional fishing closures without further research into other factors affecting the Florida Keys Sanctuary (development, runoff, diving, water quality, et cetera). The AP also recommends that some of the managed areas be considered for fishing activities**

only (diving would be excluded). Is there a second on Ritchie's motion? Tony Constant seconded. Any quick discussion or comment in support or anything of this motion, before we vote? Andrew.

MR. FISH: As a diver, maybe I would like to see it where, instead of even more dividing, maybe just bring the equalities back to all the spots that you might be not allowed to fish, or am I missing something?

MR. GOMEZ: Well, you know, the problem -- The problem is that, when a fisherman is in this area, then, all of a sudden, a diver comes in, and we're pushed out, because we're too close to the diver.

MR. LORENZ: Are you okay, Andy? May I take a vote on this motion? I've got nods around the table, and I am going to count this one, just out of interest. **All in favor of this motion, raise your hand, twelve; any nays, zero no; anyone abstaining, one abstention. This motion passes, which is really a suggestion to the council, I guess, in their letter.** Okay. Thank you. I hope this works for you, Ritchie. Okay. Harry Morales has his hand raised. Harry, you're recognized to speak to us.

MR. MORALES: Thank you, Mr. Chairman. I guess this is a question for Ritchie, and is that a hard-and-fast rule, that, when a dive boat comes near you, you have to move, and wouldn't it better if both had equal rights to the area, and so first come and first serve? That's a question, I guess, and I'm just trying to understand. Thank you.

MR. GOMEZ: That's a good question. We've had numerous yelling matches, but the diver always prevails, unless we want to get physical.

MR. LORENZ: David Moss.

MR. MOSS: It's not a law, per se, but what happens is, if you're fishing on a spot, especially if you're snapper grouper fishing, and a dive boat will pull right up to you, and you might as well stop fishing. There is no point in continuing to fish there, and it's time to move on, and, as Ritchie said, you can yell and scream and hope that it doesn't get physical, but, in the end, you're going to lose, because the divers are going to be in the water, and you're done.

MR. LORENZ: Ritchie.

MR. GOMEZ: Once the divers are in the water, you're supposed to maintain a certain amount of feet away from them, and that's what happens to us.

MR. MORALES: Just one additional question, and, as an AP, would it not make sense, in fairness to all, when there's a fishing vessel bottom fishing, or whatever vessel is there first, regardless of if it's a diver or a fisherman, that the rule of the sea would be that you have to stay X feet, mile, whatever the hell, apart, so that we're both enjoying the ocean?

MR. LORENZ: Harry, we have a comment back to you, and I know, in North Carolina, we have such rules, and the amount of feet is actually specified, but, Cameron.

MR. SEBASTIAN: Being a dive vessel operator, if you're a professional operator, the reality is there are only -- In my personal opinion, there are only so many areas that we can really take a larger group of people to go diving on, and so, in our area, it's exceedingly limited. It's nothing like you have in the Keys, but, for some of the operators down there, I'm sure there are like places that are much more conducive to the diving than the fishing, and the way I look at it, where we are, is, hey, there are a ton of other fishing spots, but, really, for us, there are very few dive spots where a professional company can take people to go diving, and I don't know if it's the same down there, but that's our mindset where we are, is that we're limited, very limited, to where we can take a multi-passenger vessel for diving.

MR. LORENZ: Thank you, Cameron. David.

MR. MOSS: Thank you, and so I've only seen this once in the Keys, and I've seen it numerous times up in south Florida, where I'm at, but one of the other tricks that they love to do is they will basically do like a drift dive, and so the boat will drop a bunch of divers off in a spot, and the boat will meander up current, and the divers -- You will see like a line of dive flags bobbing in the water, that can sometimes go for -- I don't know, but maybe a half-mile or so, and so you're done there, and like you can't go anywhere near that whole area, that whole tract of reef, that whole -- That's it, and it's almost like, you know, they just spread their elbows out, and you're done, and go elsewhere, go further offshore or something like that, but I've only seen it happen once in the Keys, and it happens more often than I would like to mention down in south Florida, where I'm at.

MR. LORENZ: Thank you, David. Richard, are we concluded to move on? Okay. We're getting towards the end here. Thank you very much, everyone, and that will conclude our discussions on the update of the Florida Keys Sanctuary restoration blueprint, and thank you to everybody, and we hope we can offer the folk down there some help. The next item on our agenda, and I actually asked for this, just because, actually, I was on the committee as an observer, and it was the SEDAR 76, black sea bass, and just a quick update from Kathleen.

MS. HOWINGTON: To clarify, I am going to give you the full SEDAR update on what's going on and what's going to be happening, and then Mike actually has some questions that the SEDAR 76, black sea bass, panel has raised during their conversations that we would love to be able to get your feedback on, and so one moment for me, while I pull up --

All right, and so, for those of you that don't know, this is the SEDAR website, and we actually have gotten a little bit of a facelift, and so, if you want to look at any recent documents that were uploaded, or any upcoming events, those are actually now on the front page, and so, if you know that a webinar is coming up that day, and you've forgotten to register, you can actually click on that and register right away, and that will hopefully ease everything in.

As usual, the quick links, on the right, are the best way to get to stuff, and so that's how you're going to get to all the assessments that are currently ongoing, but what I wanted to pull up was this, and this is the current schedule for SEDAR, and, now, of course, this is not just South Atlantic, and this is Gulf, Caribbean, HMS, all of the cooperators we work with, but I wanted to kind of give you a heads-up on what has been going on.

In SEDAR 68, and that's scamp, it's still scheduled to be completed in November of this year, and so we're going to be getting that assessment, and that's the operational that followed-up the research track, and so that's just adding in new data, and that will be coming to you. Right now, it's on time, and 76, black sea bass, is ongoing. Robert and Cameron are our observers, and so thank you, guys, for being there. We have three more webinars, and then we're going to be getting that SAR in March of next year, and so that will be going to the SSC in April, and then you'll be seeing stuff at the council in June.

There is also 82, and that's gray triggerfish, that is a research track, and we just finished our data workshop, and that report is going to be released in January, and then we're going to be moving on to assessment, and with a review workshop in December of next year, and so you're going to be seeing something in the year 2024 about that, and so this is how far in advance I have to think about a lot of these, and so keep in mind that I offer that, and that is Harry and Jack, and so thank you all for being there and for giving your input on the webinars.

We have a red grouper assessment starting up, and that's going to be starting in December of this year, and there are no participants for that, and that's just a Science Center turn-the-crank, and we're trying to get something new, and you'll be getting that in December of next year, and then SEDAR 79, mutton, is scheduled to be in 2023, and, right now, we have David Moss and Ritchie Gomez as our observers for that, and so, again, thank you, all.

It is extremely important, as you're about to see, when Mike comes up here and asks questions from the assessment panel, to have fishermen on these webinars, to be able to get your input. I recognize, a lot of the time, it's you sitting there for three hours bored out of your mind, but, when we need you guys, we really need you guys to be able to help us out, and so I want to thank everyone that has volunteered to participate, and thank you to everyone who has been there.

The things that I want you to keep up, before we go to the SEDAR 76, black sea bass, questions are there are a couple of assessments that I am going to be sending out emails for, requesting observers. There's a tilefish assessment coming up in 2023, and, specifically, I'm going to be asking anyone that has any expertise in life history, if you've been a part of any kind of survey, like short bottom longline, SADL, or a CRP pilot, please, you know, try to be willing to participate as an observer, and you will be getting that email in November. I might have people, and I need to get a pen.

MR. BONURA: I was just going to say that I was participating in the longline -- In the SADL survey, and I would be interested in helping you out, if you would like.

MS. HOWINGTON: Thank you very much. I would appreciate that, and I will follow-up with you after this. Then blueline tilefish is going to be also occurring in 2024. Just to confuse everyone, we're doing tilefish and blueline tilefish in the exact same year, and they're going to overlap, and so keep that in mind, and I am going to be sending an email out at the end of November for blueline tilefish, and that is going to be asking for expertise for stuff happening north of Cape Hatteras, actually, and that's our biggest concern right now with blueline tilefish, is seeing what's going on north of Cape Hatteras, if there is any new kind of landings streams, if there is increased abundance, and that's what we're focusing on for that, and so, if you're interested, again, that email will be coming out in about a month-and-a-half, and let me know.

Then, finally, and I know that I'm about to get a lot of people saying they're interested in this one, and the red snapper research track is coming up, and so, if you are interested in being an observer for the red snapper research track, you're going to be getting that email in March, and so it's before you guys meet up again. As usual, I will be sending out the email, and I'll ask if you're interested, and I will give you a schedule, which is why I'm not sending the emails out for any of these right now, because I don't have a schedule, and please just keep that in mind and don't ignore my emails, please, because we love having our fishermen on there, and I know they're long and lengthy, and so I ask for your forgiveness. That is it for a SEDAR update.

MR. LORENZ: All right. Thank you, Kathleen. In the interest of time here, I believe that you wanted to present some questions for some answers here to the AP, and we're running later, and maybe, to make it easier for you, you will send out the questions to us, to the AP, in an email, and we would return email to you?

DR. SCHMIDTKE: Yes, and so I will handle sending those questions out, and so these questions, just to give people a little bit of orientation, they're having to do with the discard mortality rate associated with black sea bass. If you will remember, for red snapper, we kind of set up the discard mortality rate in these time blocks, based on changes in fishing behavior and changes in regulations that happened over time, and so, as these changes happened, it altered the discard mortality rate so that it got lower over time, and we're trying to evaluate if that's a similar type of situation for black sea bass.

I will be asking some questions via email, and I just wanted to note that our observers on that assessment are Bob and Cameron, and so, especially if the two of you could chime-in on that, then that would be very helpful, but I will send it out to the entire AP, so that, any of you that have observations on the black sea bass fishery, if you could provide your comments related to that, and we'll compile those and provide those to the analysts.

That includes kind of the whole gambit of regulations and behaviors that have happened to try to reduce discards, things like circle hooks, descending devices, venting practices, things like that, all of the changes that have happened over the last ten to twenty years, and we're trying to develop what does that timeline look like in those changes.

MR. LORENZ: All right. Is everybody with the AP okay with that? I just wanted to leave a minute for anybody to comment that has -- I wanted to say this real quick, and I don't want to wait, but is there anybody with a question or a comment quickly? Scott.

MR. AMICK: I was going to wait and make a comment about sea bass, but sea bass makes up a good portion of my fishery, in my for-hire, out of Savannah, and what I am seeing is that thirteen-inch size limit is really affecting -- Like, when you're talking about discards, the majority of the guys that are fishing for sea bass are fishing inside thirty miles, inside twenty miles, where a lot of those fish are not reaching that thirteen-inch size limit.

We catch them in the wintertime, in the colder months, and we'll see those thirteen-inch sea bass, but, for most of the season, we're having to go a lot further out to catch those thirteen-inch fish. My comment, at the end of this, and I was going to do it in new business, but, since we're on sea bass, I might as well go ahead and say it now, and I would like to urge the council to look at going from thirteen inches to twelve inches on the sea bass, and I think it would greatly benefit not just

the for-hire guys, but the recreational guys that aren't even able to make it out to that thirty or forty-mile range that I fish in a full day, where I am catching thirteen-inch sea bass, but, I mean, in the information that I could find, we're not even getting to 40 percent of the ACL for sea bass, and then the discards are 95 percent, which, I mean, is telling you that that thirteen inches is making a big difference.

MR. LORENZ: Thank you, Scott. A quick response here by Mike.

DR. SCHMIDTKE: Thanks, Scott, and that's something -- I guess, in terms of the assessment, there is something to note there, considering the timeline of the size limit changes and how that has progressed and how that has affected the discarding in the black sea bass fishery, and we can make sure that that gets noted.

In terms of the regulatory changes, that is something -- This is your first meeting on this panel, but the -- I think it was maybe two meetings ago that the AP filled out what's called a fishery performance report, and that's something where the AP talks through the different management measures that are affecting a fishery ahead of a stock assessment, and the one that was completed for black sea bass -- That is something that the AP has noted in the fishery performance report, and so that has been noted and made available to the analysts, and it also is available to the council, when they have their response to the stock assessment, their management response that would follow it, and so that is -- I know that is included there, because that's been kind of one of the longer-standing items that has been brought up by the AP, and they have continued to put that up.

MR. LORENZ: Thank you, Mike, and thank you, Kathleen. That will conclude our discussion of SEDAR and black sea bass, and apologies to Kathleen that we're running so long, and we have snapper, red snapper and gag grouper, and so all in the same meeting. All right. The next update on the agenda will be the update on citizen science by Julia Byrd.

MS. BYRD: Hi, guys, and I know we're getting towards the end of the meeting, and so I'm going to cut this presentation real short and just give you a quick update on what's going on and kind of show you where you can look to get more information elsewhere. The first thing that I wanted to mention is I'm really excited that we brought on a new staff member to help with citizen science, and that is Meg Withers, who is over there, and so Meg came on in the summer, and she is working the most on our SAFMC Release project, which is trying to get more information on released grouper and red snapper, and so she's also helping with a ton of different things, and so I just wanted to introduce her to all of you guys and just say we've been so excited, and she's been a huge help since coming onboard.

I wanted to share information on a new project that's getting underway this month that we got funding for, working with a group called REEF, which is a citizen science non-profit that works with recreational divers, and so this project is developing kind of a handheld stereo camera that divers can use to capture video, and then that video can be analyzed to get the size of fish, and so we're hoping that that will help us collect some length information on some of our data-limited fish species, and so that's kicking off this month, and so the project is really focusing on the development of that camera and then piloting it, testing it, down in the Florida Keys, and we're hoping to get some information on lengths of some of the data-limited grouper, hogfish, some of those sorts of species.

Very quickly, Chip mentioned this yesterday, but the Southeast Fisheries Science Center, and so NOAA Fisheries, is doing a management strategy evaluation on dolphin, and so similar to what's going on with snapper grouper, but they're doing it on dolphin, and so one of the first steps in this process is they are holding workshops with fishermen and other stakeholders to get information on kind of what their preferences are and priorities and concerns for the fishery, and so meetings were held in south Florida a couple of weeks ago, and there is going to be meetings in kind of the New England in early November and then in the Carolinas and Virginia in January, and so I just wanted to make you all aware of those.

Next, we've been working on a project with Rick Bonney, who is kind of our citizen science -- I call him our Citizen Science Yoda, and he's our kind of expert, and he's been working with the program, and he has been helping us collect some kind of baseline information on people's kind of attitudes towards kind of the citizen science and citizen science data being used in kind of management, and so he interviewed a small group of fishermen and scientists and managers to collect information, and then we're going to be using that information to develop a broader survey to get information from a larger group of fishermen, scientists, and managers.

I know there is some people sitting around the table that participated in that, and so there's a link here that the kind of results from the interviews are available, and they're available at this link, which is in your presentation, if you all are interested in checking that out.

Next, very quickly, the SAFMC Release project, and Mike mentioned this earlier. This is a project that's really trying to get at collecting more information on released shallow-water grouper and red snapper, and we're really interested in things like the size of those fish and then descending device usage, did you vent the fish, and what depth was the fish caught at, things that are going to help us better understand how many of those released fish survive, and so, in the presentation, I will mention that we've really been pushing outreach and partnering with Ashely and the best fishing practices campaign. Meg and Ashley have been out on the road, visiting tackle shops and doing seminars, and we're really trying to kind of pair those two projects, because one of the things that you really need to know is how many people are using these descending devices, and the Release project gives you a way to tell us that.

There is a couple of slides of data that have been collected the project. Again, since we're running short of time, you guys can check those out, and, if you have any questions, I am happy to answer them.

Then the last project that I was hoping to tell you kind of more about today was FISHstory, and this was our pilot project that's been using historical photos to gather information on kind of the fisheries before catch monitoring programs were in place, and so from the kind of 1940s, and 1950s, and 1960s, and the pilot project kind of wrapped up, and so I was going to walk through a bunch of different slides, to kind of show you the results from that survey, but I think, because of time, I'm just going to hit a few slides and let you know where you can find more information, if you're interested.

I do want to take a second to say this FISHstory project wouldn't have been possible without so many amazing partners and volunteers, in particular Rusty Hudson, who I know sat around this table with many of you for a long time, and he provided all of his family's fishing photos for this

project, and he has been super involved, as well as Ken Brennan, Amber von Harten, Allie Iberle, and Chip Collier were instrumental for this project.

In general, the project had three components, and we were kind of digitizing and archiving historic fishing photos, and we, as part of the pilot, digitized over 1,300 photos. For the second part of the project, we were getting for-hire catch composition information, and we used an online crowdsourcing platform called Zooniverse, and so we would put these photos kind of on a website, and members of the public would help us kind of identify and count the fish and the people in the photos.

We had over 2,100 volunteers participate in the project, and they made over 35,000 classifications, and "classifications" just means kind of individual species identifications and counts, and then we had a validation team, made up of kind of fishermen and scientists, and some of the fishermen sitting around this table kind of helped with this component of the project. When volunteers looked a photo, and they thought that different species were in the photo, the validation team would go back and look at that photo, to verify what was in it, and then kind of the third component was to estimate the size of fish in the photos based on kind of the lumber in the leaderboard where the fish were hanging.

We developed this method, and we tested it on king mackerel, and, in all of the photos in our archive, king mackerel were measured, and so we were able to make length compositions, and so I'm going to flip through a bunch of result sort of slides and just get to kind of what the key findings were, and I will also let you know, if you're interested in checking out the results, you can look in this presentation, but, if you go to the council's website, on our FISHstory webpage, there are links that will take you to kind of a quick overview of our findings, and then there is also a recording of a seminar that we did on the findings, if you want to check it out.

You know, the key takeaways were the methods that were developed as part of this project, kind of to analyze these historic photos, show a lot of promise. Volunteers can make valuable contributions, but identifying fish in these photos can be hard. I think we thought -- We have learned, through the pilot, a lot of ways that we may be able to simplify kind of data collection in these photos, and I think the work we did in the pilot is going to make the project more efficient, moving forward, and we found, you know, there are many fishermen who have photos who are willing to share them for a project like this. I know there is a captain sitting, Bobby Freeman, over there, who provided a bunch of photos to us, to help move this project forward as well.

Just kind of next steps is we're -- We will find out, in a couple of weeks actually, if we got a grant to kind of continue the project, and one of the most exciting things about this project is that it seemed to work well as a pilot, and we want to move it to a full-scale project, and some of the assessment scientists at NOAA Fisheries reached out to us and said, hey, I think this could provide really valuable information for an assessment. If we can get photos from areas -- So all the photos for this pilot were from Rusty, and so they're from Daytona Beach.

If we can get photos from a larger area along the South Atlantic coast, and, right now, our photos run from 1949 to the mid-1970s. If we can get photos through the 1980s, we might be able to put kind of an index together that could be used in a stock assessment, and, if we can kind of make that index run through the 1980s, then you can compare it to the headboat logbook survey data and see how they kind of relate to one another and calibrate one to another. Then, also, kind of as a

next step, the length information -- We have measured all of the king mackerel in the photos, and the next species we're hoping to tackle are red snapper, and we're hoping that that information can be considered in the upcoming stock assessment that will be happening.

That's a quick snapshot of the FISHstory project, but it's been on the coolest projects that I've been able to work on, and I think we'll be able to produce really valuable data from it that could be kind of useful to management, and so that's a quick snapshot of everything that's going on, and thanks for listening. I know it's the end of the meeting, and so I appreciate your time.

MR. LORENZ: Thank you, Julia. We have a question from Jimmy, or a comment.

MR. HULL: Just a comment, and, Julia, when did we initiate the citizen science program, the very beginning, what year? How many years has it been going?

MS. BYRD: So the first workshop was held in January of 2016, and then we kind of built the program for a couple of years, and the first pilot project kicked off in 2019.

MR. HULL: So look at what you've done in four or five years with this, and so congratulations to everybody involved in it. It's really, really good.

MS. BYRD: Thanks, you all, and it's -- I mean, many of you, so many people sitting around this room, this is a program and projects that are really -- There are lots and lots of different people that contribute, and I am just the lucky one who gets to be the mouthpiece, and so thank you very much for that, and I'll make sure to pass it on to everybody.

MR. LORENZ: Take credit, and you were the first council to do this, and so the others are going to look at it. Cameron.

MR. SEBASTIAN: Julia, I would be very interested to be involved with the camera, the scaling on it, for sure, especially if you have a grant and you're looking to -- If you could develop them to be mounted onto like a Dacor scooter system, where I could cover more territory and more ground rapidly.

MS. BYRD: So I will definitely maybe reach out to you after this, or talk to you for a second, Cameron, about this, because I think they're in the process of developing the tool right now, and so I think maybe it would be useful to get you involved in some of those discussions, moving forward, but I will kind of follow-up with you after this. Thanks.

MR. LORENZ: Thank you, Julia. Sorry for the short time, and I will comment a little tiny bit at the end. The last update we have is climate change scenario planning and Roger Pugliese.

MR. PUGLIESE: Good afternoon. I am going to kind of take the same course and be fairly brief in my update on this, because I think there's going to be a lot of opportunity for this and other panels to really weigh-in as the council moves forward in this collaboration, and what I wanted to do is just touch on a couple of the key slides and then point you to the process, and then there is going to be literally some opportunity for some input directly at the next council meeting, too.

What I was going to do is walk you through this collaboration, and that's the East Coast Climate Change Scenario Planning, and, a number of years ago, we actually had a working session with the New England and Mid-Atlantic Councils, in collaboration, talking about how to advance this discussion, and we were trying to get ahead of the curve, before everything happened, and, really, it was a lot brought on because things were happening in the Mid-Atlantic almost immediately.

That led to discussions and agreement from the different groups to move forward on two-tack path, to look at governance and management, as well as to look at the science and the technology that is going to be needed to address the issue, and so what happened is the Northeast Coordinating Council took on the initiative, in collaboration with the South Atlantic Council, and so we have partners from the South Atlantic Council, Mid-Atlantic Council, New England, NOAA Fisheries, at the regions and the centers, in addition to the Atlantic States Marine Fisheries Commission, looking at the entire scope of the management process that is advancing and what the councils and the commissions will have to do, in cooperation with NOAA, to move forward.

I will just touch on a couple of the key foundational aspects of it, and the objective of this is to explore how the east coast fisheries governance and management issues will be affected by climate change and how it's going to affect the fisheries and stock availability and distributions, and we're already seeing some of these, in summaries, and some more significant than others.

Also, to advance a set of tools and processes to provide some flexible and robust fishery management strategies, to really promote fisheries conservation and resilient fishing communities and address uncertainty, and I think that's going to be the biggest ticket right now, is, every time you listen to anything new, most of it is negative, and so that's not necessarily a good thing, and so the challenges, I think, are only going to get greater.

What this whole process is, and this is kind of the quick version, is it started back when we had orientation, and we were looking at objectives at how to address some of the issues that I had talked about, and we went to scoping, to begin to compile the information on what some of these forces, these drivers, and what people were seeing in the fisheries and what could be affected over the next twenty years, and so, as a summary documentation on the scoping effort, we moved forward into exploration, really to analyze some of these, and what really were some of the biggest drivers?

What that did is led to a creation phase, which was a workshop phase, which we had some of the members on this panel be able to participate in, where they built narratives for advancing our understanding, kind of the broad spectrum, and look at what the conditions would be, and they had to put their heads into twenty years into the future and what are the different types of conditions that could be -- Different challenges for conservation and management, and, as I mentioned, the workshop was held. We build the drivers, and we went through groups, and then we came up with the draft scenarios, and really provided the foundation from which to look at this different spectrum.

In order to do that, a couple of things had to happen. We had to build and identify really two critical uncertainties, and I think this drives the entire process we're talking about here. One is stock production in 2040 and the scale to be mostly maintained, or increasing, to mostly declining, and what happens to that, and, if you're having worsening scenarios, or low rates, on one side, and then you're having opportunity and expansion, potentially, on the other.

The other aspect was your ability to really monitor and understand what -- The ability of science to really assess what's going on, and so, again, you have the spectrum of the unpredictable to, you know, very predictable, investments that really provide an understanding and ability to actually take advantage of those capabilities as they move forward, and so what you end up with is a matrix, a four-sided matrix, and I will jump to exactly what it was.

You have, on one side, like ocean pioneers, where you kind of have a wild west of new ocean users, you know, people taking risks and really, ultimately, having positive conditions, because the population is good, but the ability to understand them is low, and so in order to -- You have to invest a lot to be able to deal with that. If you move down to the next tier on this area, the stress fractures, that's kind of the worst-case scenario, and so you have not only bad conditions, but you also have bad science and bad -- The inability to really understand it, and so you really have significant stresses, and you're probably past tipping points, and you are in a really serious condition, where you would be going with this.

That moves us to the far-lower-right side, which is that seafood lemonade area, and that really is where science is good, but, again, you have stock issues, and you have declining catches, and significant limits, which brings us up to kind of almost the -- It would almost be like a targeted type of thing, where you have checks and balances, where you have strong science, and it's combined with collaborative management, to really mitigate and adapt to climate-driven change in the ocean, and that really is saying that, you know, you have good conditions, and you have populations that are doing well, and you have the science that really can drive and tier everything, in collaboration with all the other ocean users in the system, to do the best you can to be able to maximize the opportunities for fishing and other activities in the ocean.

That gives you a snapshot of kind of what the scope of this effort is, and you can reference the presentation to get into the details, a little more of the details, and there will be full narratives that are going to be provided for the upcoming council meeting, and what I will just touch on now is really the next steps on this, and we went through some webinars that took those narratives and refined those and then went into -- We're, right now, in the applications phase, and what has happened is, now, those narratives are being advanced for discussion, and the commission I think is going to be first, really soon, and Atlantic States Commission will be meeting to discuss some of these things.

Then our council is going to be meeting in December, and we have a session that's going to be facilitated by the facilitator that's been working with us from the beginning in this process, where the council will really get an opportunity to get into the weeds on looking at these scenarios and beginning to understand and discuss what some of the challenges are.

Now, one thing I would like to point at is there will be an opportunity, during our public comment session, where we will have one slotted specifically for climate, and so you'll be able to look at a lot of the material that's provided for that December and be able to listen in, especially if you want to early comment into the system, and that's the way.

There's going to be a lot of opportunities, because then the next stage is really to go from our council discussions, and all the other groups, and consolidate that into a guiding document, and guiding discussions, that are going to happen at a big summit meeting that now is slated for

probably February 15 and 16, where we're going to have representatives from all the councils and commissions and NOAA to come together and discuss all of this in context and set the stage to provide input on how these different activities may be affecting the areas, both in the short-term, what some solutions may be for the short-term, near-term for the regional areas, and then for the entire coast, and begin to do --

A key component, I think, is the foundational information needs that are going to be able to drive these things, I mean, everything from permitting issues to seeing how the different survey systems can make sure that those can talk to each other, or at least be able to be combined and have better assessments, multispecies assessments, ecosystem information, you know, go to the next stages to really advance these types of things, and so that's the process that's been laid out, the opportunity, and it really is trying to -- You have to step back, and it was tough, when we did our workshop, to get people -- Because I know everybody is buried in their things today, and that's absolutely critical, but stepping back and seeing where we may be in the different spectrums here really provides you how critical some of these different information needs are going to be, to see this, or how, you know, debilitating they may be, or, if the populations are lower, you have to be prepared to be able to adjust those different types of strategies.

I think we're positioned, in the Southeast at least, or the South Atlantic, to have a little bit of input on kind of broader activities, because we're already involved in some of these, with our dolphin wahoo and managing through the Atlantic right now, with representation, with king and Spanish mackerel, managing up through the Mid-Atlantic region, and opportunities to understand how some of those work now, and can those be modified, and then the big ticket is how many of our snapper grouper species are going to be actually moving beyond where we are now and those discussions on where we go on that, and that's going to be the same way with all the different fisheries, as we address these, and what are some considerations, and what the challenges are, and I think that's going to be really useful, to have the fishermen's input on what you're seeing now and what some of the implications are.

If you see these different spectrums, how dramatic of a change, or what types of things should be implemented now, and I think that's also one of the keys, is things that can get done to set the stage for when we get to those next stages in the future, and so there are some specific links on the website that -- These are being run out in the Mid-Atlantic for all the system right now, that we can share and make sure that everybody is aware of some of the next steps and then how you can provide input, especially at the next council meeting, and I think that would be a good opportunity, to start.

After we get past that, I think there's going to be a full engagement of our advisors on how we go beyond this, because then it's going to be where the rubber meets the road on how you adjust, or modify, depending on what some of the considerations are, and so that's the quick and short version of a big process, and one that I think is going to be really critical, especially with the discussions we're having today, and I think the conditions of some of the different systems that are challenged already, and what the future means, if we get to this point, on how the fisheries are in those areas and doing some of the points you were talking about, is retaining the historical fishing opportunities, or figuring out ways to ensure that, you know, there is the capability that they can either move or work within the system to ensure that, you know, things are not lost in our system, but that's the quick-and-dirty version of a big opportunity to kind of look forward. We're

so buried in the day-to-day, and we need to do that, especially in this condition, I think, because, if we don't, we're going to get caught in really complicated systems, and so any questions?

MR. LORENZ: Any questions or comments for Roger? Jimmy.

MR. HULL: Thank you, Roger. So it seems like, obviously, this is going to be going on for a really long time, and this is basically the initial stages of getting going and gathering data and figuring out what we're going to do and how we're going to do and when we're going to do and develop a monitoring and the whole thing, and you've got all these strong councils, and the agency, involved in it, and so it seems that -- Obviously, you're going to be using management strategy evaluation approaches, I would think, with computer modeling, and to create all these potential things, to get an idea of what's happening and what are we going to do, and, I mean, it's going to be really complex.

MR. PUGLIESE: Yes, and I think, as we get down to those next tiers, but I think the idea here is to get and discuss those, knowing that you may have some of those tools, but think now about some of the challenges that are going to be there, and so they're going to force some of those tools, those capabilities, those needs, to be accomplished, because some of them may be getting in process, but our region, in the past, has been somewhat behind, in terms of getting some of those capabilities, and I think we have to all make sure that everybody is caught up, so that, as we move into this, some of the challenges get identified, or done, so that the idea is that -- Yes, to kind of identify that right upfront, to make sure that everything is available to get that.

You're right that, as we go down the road, some of those different techniques, but it may be everything from, you know, that to even we had discussions, during our just core team that works on this thing, about there may be simple ways to manage some species, and, you know, it's going to have the gamut of those that I think have to be considered as we move into the future.

MR. LORENZ: Cameron.

MR. SEBASTIAN: With what you guys are developing, I mean, is that going to have the potential to be merged directly into the MSE technology that we heard about yesterday and then create a forecast for how this affects that and everything can be merged together, and is that something that is possible?

MR. PUGLIESE: Those are some of the potential outcomes, or recommendations, that could come as you get down here to support the governance discussions, because most of this is focused on the governance, with those drivers, and that's why I said it's critical to understand what is going to be needed to advance those, and I think you're absolutely right that those are going to be some critical pieces that have to be done, and some of them are started in some areas, and some are way far -- Our region is just starting with some of these things, and some of the other ones have, you know, multiple iterations of ecosystem status reports and climate vulnerability analysis and all these types of things that we still don't totally have fully established.

Some of those have to be advanced further, so that we can get even further into some of these management strategies and the bigger picture and multispecies and ecosystem connections on these systems, because, without understanding some of that, I think it's going to be a real challenge to know, and, every time something shifts, it's going to be bumping to here, and bumping to there,

and you need to begin to look at the broader sense, to understand how that's going to affect all the management actions and the fishermen, and at least trying to look into the crystal ball and look outside of traditional fisheries, and so all the implications of all these other drivers.

We, a lot of times, don't -- We do it as a periphery, but here's an opportunity to really kind of engage, plus also opportunities. One of the things that I highlighted is the fact that, as you see all this ocean development, especially on renewables and different things, there is real opportunity here, not only for use, but also for monitoring capabilities.

If we can really get some, you know, commitments from some of these different things, some of these uncertainties we have, like acoustics and all the discussion we had on whales and everything, and, if you had acoustic monitoring throughout the entire region, some of these different things could be actually realized, some of the different approaches that we've been discussing, and, you know, with information I think comes power, and so, if we can get more engaged, and, if they're going to be part of the ocean community, that they contribute to fisheries, that would be a powerful statement, especially from an entire coastline, something like that coming.

MR. LORENZ: Thank you, Roger. Anybody else here? Thank you very much. That completes our other updates, and, just to the AP here, one of the things that I am wrestling with, having been on this AP, is, over the past few years, whenever we get into red snapper and grouper, the deliberations are very long, and these are the things the council actually asks us to do, and so we are gathered here to service those things, and they seem to take virtually all the time we're allotting for these meetings, and so I'm going to do a little thinking, and talking to Mike, on how we might handle things like not giving short shrift to our presenters for today, Kathleen and Julia. They had some great presentations, and Roger, that -- Some of these things that may be oriented a little more towards education, and maybe there's something we can do.

I know we run against limits, with travel and this and that, and hotel night overstays, if we were to blow this out to another half-day, and maybe we can break up into some things, if they're strictly kind of education, warm-us-up things, that we could have an online webinar session, an evening, and I'm going to through some of those things and just think of a way that we can cover these things, because this has some good stuff.

I mean, where we're talked and commented, sometimes with some real passion and emotion, they have some things in there that may have some answers and will light our brains up a little bit, and so I am going to look into that, and, if anybody has any thoughts, please bring them to me, and I will talk to Mike and see what we can do, if there is anything to -- You know, I always feel bad that this same kind of group tends to get cut a little short, and I just wanted to make note of that, and there's a lot of good stuff in there that we could use, and, you know how to do it without taking more time, more expense, and we'll work on it. Mike, should I hand it over to you, or should I go to our last agenda item? Okay.

The next agenda item is Other Business, and this is another thing that gets the short shrift, and I actually had a conversation with Harry, and he said that we're advisors, and why don't we come up with more agenda items, and, you know, here we are, and this is why it gets a little difficult, but so I suppose that Other Business would be things for the future, and does anybody have anything they want to get on our radar for Other Business? Speak now. Jimmy.

MR. HULL: Thank you, Mr. Chairman. I will make this short and sweet, because we're all wore out, but I was approached by some commercial fishermen from Mayport, in northeast Florida, and they wanted me to mention that, you know, in our vermilion fishery, which is one of our success stories in the snapper grouper fishery, that, recently, we had a 1,500-pound trip limit, and that was put in by an emergency action, for COVID reasons, I believe, and so we lost that 1,500 pounds, and we, effectively, went back to a thousand pounds.

They were asking me -- You know, they were looking at how much of the commercial vermilion ACL has been caught, and it's like 30. At that time, a week or two ago, it was like 30 percent, or something like that, and so they were looking at that, and they were worried about, you know, we're not catching our quota, and need to be able to catch more fish per trip, for lots of reasons, you know, to be more efficient, to be more profitable, to help keep crews, and you have a bigger income, and, you know, it's hard to get a crew.

You need winders on a vermilion trip, and, to take advantage of that stock, when we're going to be losing other opportunities in the future here, with snapper grouper species to catch on these type of trips, and, you know, the stock is rebuilt, and it is abundant, and you also burn less fuel, and it's less wear-and-tear on the vessels, and on the crews, and so they have lots of good reasons to find a way to increase the trip limit, if that was to happen, and, of course, I found out the only way that that can happen is through an amendment, a regulatory amendment, and that takes two or two-and-a-half years, something like that.

The idea was brought up of, well, what about stacking permits, and so you take two SG 1, and you stack them on one vessel, and, effectively, you would have a 2,000-pound trip limit, and so they wanted me to bring that up to the AP for discussion and thought, and we don't have to get into it deep now, because it could go for a long time, but I just wanted to bring that up, and the council members here -- There is reasons that you may not want to do it, and there is reasons that you may want to, and so maybe it's something we can talk about in the future.

I don't think the next stock assessment on vermilion is anytime soon, and so it's going to be a while before we have an opportunity to maybe look at that, and a quick way would be -- If you can even stack permits, and I don't know, and that's the question, and so I just wanted to put that out there, and that was it. Thank you.

MR. LORENZ: Thank you, Jimmy. I am going to have to get my queue going. I am going to go to Andrew. Everybody keep their hands up, and I will catch you all.

MR. FISH: I mean, this might be more work on the staff members, but it seems like we're all fishermen, and most of us get up early, and we can start before 9:00. I mean, we're coming a long way, and we're trying to pack a lot of stuff into really two working days, but I just wanted to say that.

MR. LORENZ: You have some support of that there. Harry had his hand up ahead, before I go to the right side here. Harry, you're recognized to speak.

MR. MORALES: Thank you, Mr. Chairman. I posted on the question part of the webinar, but a six-point -- Almost my take on MSE on what we should be -- What we should be considering as an AP, and, you know, I mean, from what Jimmy's comments were, and a lot of others, and, you

know, I've been struggling with, you know, how do I contribute, and how do I come up with -- Well, how do I contribute, and so the six points, real quickly, and this can be dealt with over time, but I feel strongly that the implementation of spatial closures by state, with expiration dates, which was already mentioned, is a very good idea.

Rotating these closed areas, within each state on a timely basis -- In the Caribbean, there are several countries that take blocks of areas, and there is just no fishing, no harvesting, in those areas for a given time, six months or a year, to allow that area to build, and, you know, I hear so much about, you know, recreational accountability and, you know, how do we know what they're doing, and, if you required an AIS on any fishing boat that is going to do bottom fishing, there is going to be a track of exactly where the hell that person was, and, if we go ahead with a recreational permit, with both educational and reporting requirements, this is going to get the guesswork out of, you know, what is it that we're doing.

As I was reading the Magnuson-Stevens Act, you know, Number 3, or 4, whatever it was, it talks about the requirement to rebuild habitat, and I previously introduced what's going on with the Reef Act that is really being driven by Florida, where, if it passes Congress, you know, Navy ships that are mothballed will end up becoming part of our reef system, and I think it's great, and the one thing that we really don't talk about, that I strongly believe in, is that we need to begin the real process of promoting aquaculture, and so, as an AP, this is my thinking of maybe a more holistic life cycle of, if all of these things are done, we will increase the fishing experience, or the positive fishing experience, over the next decade or so. Thank you.

MR. LORENZ: Thank you, Harry, for your thoughts. Some good stuff there. Recognizing Cameron.

MR. SEBASTIAN: Something that Jimmy touched on is either the stacking of the permits or I know that the permit down in Florida can be a nightmare anyway, but it seems to me, as they're moving online, with companies, and snapper grouper, that have multiple vessels within a corporation, sometimes we find it -- If we can switch our permit between vessels quicker. If we have an engine down, and now we're down for weeks, or a month, waiting for a ticket change to catch up with us, and so something like that might really be worth looking into the future.

The rolling closures on certain areas of bottom -- When I sat on the habitat, there were discussions, way back when, about having slots of, hey, from shore to X number of miles out, so many miles wide, close this for this period of time, and that could be something that we could really look at, and it rolls, and so one area is not hit so much over a time period.

MR. LORENZ: Right up the line. Selby.

MR. LEWIS: I have been kind of ill sitting here, and we're supposed to be using best science for making a decision, and we're changing people's lives. We're making a decision on gag grouper, and we have not looked at two of the major things that we could prove, in the last ten years, how many trips have been done, and what is the average catch.

Secondly, a study has not been done on spearfishing compared to rod-and-reel fishing, and, well, I did one myself, and my spearfishing boats, diving boats, catch 110 percent more than my rod-and-reel boats do, every day, and my rod-and-reel fishermen have 8.85-pound grouper, and my

spear fishermen average 18.22-pound grouper. That's just something that should have been discussed before we started messing with people's lives and making decisions, because there is a better way to go in conservation than what we're doing. Secondly, I support the 200-pound trip limit that we didn't get to talk about, and starting on May 15, for gag grouper.

MR. LORENZ: All right. Thank you, Selby. That's just the kind of thing that I wish we would get on the table more for longer.

MR. MCKINLEY: I would like to reiterate what Selby said, especially about that May 15, possibly, if they're not going to -- If the council would not consider the whole closure in May, especially to give us Memorial Day weekend, for businesses. This is more of a question for the council, and I think I'm the only one that ever brings this up, about the two-for-one, and I know the discussion was done, and I know the white paper was done, and I know the pros and cons of it, and I know that this isn't the environment that it's ever going to happen right now, but did, or will, the council ever set a target number that could possibly be done away with?

MR. LORENZ: Randy, are you addressing that to specific individuals? Kerry, thank you.

MS. MARHEFKA: You were staring at me, and so I didn't want to -- I lost rock-paper-scissors with Jessica. Obviously, it's something we've talked about for many years, and this body has talked about it for many years. I think you're right, in the way that I perceive the council is talking right now, is that we're -- You know, we're just trying to get the species that are, you know, under a statutory mandate to rebuild, and like that's what our time is being spent doing.

I suspect, and, again, I'm speaking off-the-cuff for how I feel, and I'm not speaking for the entire council, but what I think may happen is we're going to do the MSE first, for the recreational fishery, and I think that, you know, when we've talked about the long-term vision of the snapper grouper fishery, it is in that MSE process, and so, when we get to it for the commercial fishery, and we start talking about what do we want, you know, this commercial fishery to ideally look like some day, is when we would get back to discussing sort of what number of boats those have.

Again, we still have a good number of species that we're not rebuilding on, and so the discussions around the table, to my recollection, have been this isn't a time to increase commercial effort, when we're still trying to rebuild these species. That doesn't mean, if we do our job right, that there won't be a time to look at sort of the number of boats in the fishery, and I know that that's not a short-term answer, and I'm sorry, but that's just kind of --

MR. MCKINLEY: That's fine, and that's what I was thinking of, is the fact that this new management plan, the MSE, could really change things, and I know it's not going to happen in the next few years, but, in the long run, if there was a target -- I mean, there's just never been a number set, and I know that's probably going to take a lot of discussion, but, anyway, you've answered me fine. That's fine.

MR. LORENZ: Thank you. Mike, did you have a comment, following with Randy?

DR. SCHMIDTKE: I was just, I guess, confirming what Kerry's initial thought was, but when the council discussed the two-for-one, most recently in the white paper, it was, you know, written and brought before them, and their conclusion, at the end of that, was to put consideration of any

alterations to the two-for-one within the discussions that would follow the MSE and any management actions that follow that.

MR. LORENZ: Okay, and then, as a matter of record, Ritchie Gomez had just asked me, and I will follow-up with him in the future, but he had put down that he would be interested, I guess next time we meet or talk, and he wants to discuss some things on vermilion snapper, and so a possible agenda item, again, and the kind of things that we get to here that we should probably spend some more time on, and maybe some earlier starts, that kind of thing, and I think we have to do something to address these things that are top on everybody's minds, and our other topics, besides the normal flow of the council business, where we're asked to input, because you all are bringing up things that may be out in the future, or are heading out there, or are not being addressed, and maybe we can make this a cleaner process. Anyone else with other business? We have just one other agenda item that formally we must complete. Go ahead, Vincent.

MR. BONURA: I've got a couple of things, but I would add to Jimmy's, and I did have a couple of guys call me and ask about talking about the permit stacking as well, and then, once again, the barrelfish need to be looked at and added to our FMP, because they are in a decline in our area. The wreckfish, we definitely need to look further into removing the option of having to have quota that you own in order to lease it. For the future of the fishery, that's going to be a good thing, and we need to look into a golden tile permit shareholders meeting, or endorsement holders meeting, as well.

MR. LORENZ: Vincent, that's more kinds of things that we've got to get into kind of an open forum, or a roundtable discussion, because there was a council member that chatted to me about the barrelfish, and I will talk to you offline on that, but, yes, I think there's some things we all could clean up if we had a little more time. Anyone else? Okay.

The last formal item we must, by process, complete is an allowance for public comment, and so let it be noted that I am putting out there that, if there's anybody online that wishes to make public comment, now is the time. Do we have anybody, staff? Okay. We are receiving nothing, that there's anyone out there with public comment, and so one, two, three. Still nobody, and this meeting is adjourned. Thank you.

(Whereupon, the meeting adjourned on October 20, 2022.)

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Transcribed By
Amanda Thomas
November 28, 2022

SC AP Mtg - 10/18/22

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SG AP - 10/18/22

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Yes	Brouwer	Myra
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Yes	Chaya	01 Cindy
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Yes	DeVictor	Rick
Yes	Finch	Margaret
Yes	Foss	Kristin
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Yes	Glazier	Ed
Yes	Griner	00 Tim
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Yes	Neer	Julie
Yes	Newman	Thomas
Yes	Paskiewicz	James
Yes	Pellicer	Joseph
Yes	Poholek	Ariel
Yes	Privoznik	Sarah
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Yes	Snyder	Dave
Yes	Spanik	Kevin
Yes	Sweetman	CJ
Yes	Travis	Michael
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Yes	Wolfe	Wes

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Attendee Report: Meeting - October 18-20, 2022

Report Generated:

10/22/2022 01:45 PM EDT

Webinar ID	Actual Start Date/Time	Duration
257-345-979	10/19/2022 08:05 AM EDT	9 hours 3 minutes

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Yes	Barrineau	Marina
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Yes	Bell	00 Mel
Yes	Bianchi	Alan
Yes	Brouwer	Myra
Yes	Byrd	01Julia
Yes	Chaya	01 Cindy
Yes	Cox	Derek
Yes	Curtis	Judd
Yes	DeVictor	Rick
Yes	Finch	Margaret
Yes	Garrett	David
Yes	Glazier	Ed
Yes	Griner	00 Tim
Yes	Hadley	John
Yes	Helies	Frank
Yes	Horton	Chris
Yes	Howington	Kathleen
Yes	Huynh	Quang
Yes	Iberle	Allie
Yes	Iverson	Kim
Yes	Kellison	Todd
Yes	Klasnick	01Kelly
Yes	Lorenzen	Kai
Yes	Marhefka	00Kerry
Yes	Mehta	Nikhil
Yes	Morales	Harry
Yes	Neer	Julie
Yes	Nelson	Paul
Yes	Newman	Thomas
Yes	Oliver	Ashley
Yes	Paskiewicz	James
Yes	Pellicer	Joseph

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Yes	Privoznik	Sarah
Yes	Pugliese	01Roger
Yes	Rock	Jason
Yes	Schmidtke	01Michael
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Yes	Smart	Tracey
Yes	Smillie	01Nicholas
Yes	Snyder	Dave
Yes	Spanik	Kevin
Yes	Sweetman	CJ
Yes	Travis	Michael
Yes	Wiegand	01Christina
Yes	Withers	Meg
Yes	collier	chip
Yes	thomas	suz
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SG AP-10/20/22

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Report Generated:

10/22/2022 01:48 PM EDT

Webinar ID	Actual Start Date/Time	Duration
257-345-979	10/20/2022 07:47 AM EDT	5 hours 5 minutes

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Yes	Helies	Frank
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