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TABLE OF MOTIONS

PAGE 30: Motion under Action 2, Alternatives 2 and 3 of the Timing of Accountability Measures-Based Closures Amendment, to use the word "revisit" instead of the word "review" in the alternatives and also use the word "revisit" instead of "review" in the wording in Action 2. A revisitation of Action 1 would consist of a presentation to the council two years after implementation of the amendment, a council discussion, and provision of guidance to council staff regarding the potential need of a more formal review of any aspect of the amendment. The motion carried on page 33.

PAGE 34: Motion to add a new alternative of Timing of Accountability Measures-Based Closures Amendment. For species that already have a seasonal closure in place, close before or after the seasonal closure (continuous) for the number of days necessary to achieve the required reduction in landings. Give staff a technical editorial license to modify wording as necessary. The motion carried on page 37.

PAGE 73: Motion to adopt the recommendation of the SEDAR-46. The motion carried on page 75.

PAGE 79: Motion to allow variation in annual yield as an exercise following the recommendation by SEDAR-46. Annual yield CV equals 15 percent, as an exercise following the recommendation by SEDAR-46. The motion carried on page 81.

PAGE 90: Motion to accept the SSC's recommendation to remove dolphinfish and wahoo. The motion carried on page 90. The motion was reconsidered on page 164.

PAGE 91: Motion to remove guachancho from the list of species to be considered in the PR IBFMP. The motion carried on page 92.

38 PAGE 95: Motion to include in each of the IBFMPs a framework 39 measure to address changes in the species in the list of species 40 to be included for federal management. The motion carried on 41 page 95.

PAGE 99: Motion to establish two pre-decisional working groups, as recommended by the SSC, to work on developing the cluster analysis of species groups for Action 2 of the IBFMPs and to develop the concept and language for Action 3, develop ABC control rule and reference points for the U.S. Caribbean. The motion carried on page 99.

1	
2	PAGE 143: Motion to allocate \$7,500 to contribute to the hiring
3	of a liaison officer between the councils, NMFS, and Congress.
4	The motion carried on page 143.
5	
6	PAGE 182: Motion to include the dolphin and wahoo fish in the
7	draft list of species for federal management in all three
8	IBFMPs. The motion carried on page 182.
9	
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11	

1	CARIBBEAN FISHERY MANAGEMENT COUNCIL
2	154 TH REGULAR COUNCIL MEETING
3	Frenchmen's Reef and Morning Star Hotel
4	St. Thomas, USVI
5	
6	December 15-16, 2015
7	
8	The Caribbean Fishery Management Council convened at the
9	Frenchmen's Reef and Morning Star Hotel, St. Thomas, USVI,
10	Tuesday morning, December 15, 2015, and was called to order at
11	9:00 o'clock a.m. by Chairman Carlos Farchette.
12	
13	CALL TO ORDER
14	
15	CARLOS FARCHETTE: We are going to get started here and can
16	everybody please take their seats? Thank you. Good morning,
17	everyone. I want to welcome everyone to the $154^{ m th}$ Caribbean
18	Fishery Management Council meeting held at the Frenchmen's Reef
19	Resort on St. Thomas, U.S. Virgin Islands. It is December 15,
20	2015 and it's 9:03 a.m. We're going to do a roll call and I
21	will start on my right with Graciela.
22	will start on my right with Graciera.
23	GRACIELA GARCIA-MOLINER: Graciela Garcia-Moliner, council
	·
24	staff.
25	
26	BILL ARNOLD: Bill Arnold, NOAA Southeast Regional Office.
27	
28	BONNIE PONWITH: Bonnie Ponwith, NOAA Fisheries.
29	
30	IRIS LOWERY: Iris Lowery, NOAA General Counsel, Southeast
31	Section.
32	
33	ROY CRABTREE: Roy Crabtree, NOAA Fisheries.
34	
35	DIANA MARTINO: Diana Martino, council staff.
36	
37	MIGUEL ROLON: Miguel Rolon, council staff.
38	
39	CARLOS FARCHETTE: Carlos Farchette, Council Chair.
40	Managed Walter and Managed Health and Managed Managed Health
41	MARCOS HANKE: Marcos Hanke, Vice Chair.
42	MICHIEL CARCIA: Minusal Canada manusal manhan Busaka Rina
43	MIGUEL GARCIA: Miguel Garcia, council member, Puerto Rico.
44 45	DITTL COMET. Duth Comor DDND
45 46	RUTH GOMEZ: Ruth Gomez, DPNR.
46 47	TONY DIANCUADO. Tony Dianghard Ct Thomas/Ct John
4 / 48	TONY BLANCHARD: Tony Blanchard, St. Thomas/St. John, councilman.
10	COMICI IMMII.

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 2
    CARLOS VELAZQUEZ: Carlos Velazquez, council member, Puerto
 3
    Rico.
 4
 5
    TARA PREY: Lieutenant Junior Grade Tara Prey, U.S. Coast Guard.
 6
 7
    VIVIAN RUIZ: Vivian Ruiz, council staff.
 8
    JEFF RADONSKI: Jeff Radonski, NOAA Office of Enforcement.
 9
10
11
    LEN RIOS: Len Rios, NOAA Enforcement.
12
13
    HOWARD FORBES: Howard Forbes, DPNR Enforcement.
14
15
    NELSON CRESPO: Nelson Crespo, DAP, Puerto Rico.
16
17
    EDWARD SCHUSTER: Edward Schuster, DAP Chair, St. Croix.
18
19
    ALIDA ORTIZ: Alida Ortiz, Outreach and Education Advisory
20
    Panel.
21
    MARIA LOPEZ: Maria Lopez, NOAA Fisheries.
23
    JORGE GARCIA-SAIS: Reni Garcia, SSC.
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KATE QUIGLEY: Kate Quigley, council staff.

MARIA DE LOS A. IRIZARRY: María de los A. Irizarry, council staff.

HELENA ANTOUN: Helena Antoun, contractor.

YASMIN SANCHEZ: Yasmin Sanchez, Pew Charitable Trust.

WINSTON LEDEE: Winston Ledee, commercial fisherman.

JACK MCGOVERN: Jack McGovern, NOAA Fisheries.

TONY IAROCCI: Tony Iarocci, commercial fisherman.

ADOPTION OF THE AGENDA

CARLOS FARCHETTE: Okay. The Adoption of the Agenda, is there any -- There is a couple of things that we're going to change The SEDAR-46 workshop will be held just before the SSC report and we will move that down one spot. Any additional corrections or additions to the agenda? Hearing none, I guess we need a motion from someone to adopt the agenda.

MARCOS HANKE: Motion to adopt the agenda as read by the Chairman.

TONY BLANCHARD: Second.

CARLOS FARCHETTE: All in favor say aye. Any abstentions? Any nays? The motion carries. We need Helena to come forward for us and come stand right next to me here.

MIGUEL ROLON: Some of you don't know Helena, but one of the good ideas that Miguel Garcia had in the past is that he approached me a couple of years ago and he said, Miguel, we need somebody to be a liaison between the fishers, the Department of Natural Resources, and the council and I have a person there who has been working for us for some time and probably she will be able to accept that position and she did.

Helena Antoun has been working as a liaison officer between Puerto Rico and the council and the fishers and through her initiatives, we have been able to call it a success story of bringing the council's area of jurisdiction fishers of Puerto Rico to the table to learn about best practices to prepare the form that they have to submit to the laboratory for data collection and how to improve the way that they get the licenses and to make them aware of the issues that are relevant to their trade, from the biological point of view and the socioeconomic point of view, among other things.

She also was instrumental in having the Marine Resources Education Program meeting in Puerto Rico, in La Parguera, the first meeting. She was the contact person with the organizers and it was a very successful meeting thanks to her doing it and so today we want to give a token of our appreciation to Helena and we have a small token of appreciation and a cash award that is given to the council and at this time, we would like for the Chair to official give Helena her cash award.

CARLOS FARCHETTE: Thank you, Helena, and I've got to add to this, because Helena did an awesome job with the MRIP program and she is also working to get that going here on the U.S. Virgin Islands, for St. Thomas and St. Croix. It's either going to be we move some fishers from St. Thomas to St. Croix or from St. Croix to St. Thomas and have an MREP over in the USVI.

It's a great outreach and education for the fishermen and it lets them understand the science behind what we're doing with the fisheries and then they also get to impart their knowledge about the fisheries to us and so, Helena, I want to thank you.

HELENA ANTOUN: Thank you very much.

 CARLOS FARCHETTE: I also want to take this opportunity to acknowledge the new Director of Fish and Wildlife and Department of Planning and Natural Resources, Director Ruth Gomez. Welcome aboard and thank you.

Now we move into the Consideration of the 153rd Council Meeting Verbatim Transcripts. Does anybody have any corrections on the verbatim transcripts? I didn't see any, but it is open to anybody that has corrections or we can move forward for adoption of that. Hearing none, is there a motion?

CONSIDERATION OF THE 153RD COUNCIL MEETING VERBATIM TRANSCRIPTIONS

TONY BLANCHARD: Motion to adopt the verbatim transcripts.

MARCOS HANKE: Second.

CARLOS FARCHETTE: Okay. It's moved by Blanchard and seconded by Hanke. All in favor say aye; any nays; any abstentions. Hearing none, the motion carries. We will start with the Executive Director's Report and Miguel.

EXECUTIVE DIRECTOR'S REPORT

MIGUEL ROLON: Thank you, Mr. Chairman. This will be very quick, given that we have good discussions to do today. The first one is that the CCC, the Council Coordinating Committee, which is all the eight councils' Chairs and Vice Chairs and Executive Directors and Regional Directors and National Marine Fisheries Service Headquarters' representation, will be meeting here, actually in this same hotel, on May 23 to 27, that week.

This meeting is very important. It's a national meeting of all the councils and there we discuss issues that are of concern to the council and NMFS and the general public. This is the fortieth anniversary of the meeting and so we will have a special celebration in May and it expected that it will be attended by all council member representations and all the National Marine Fisheries Service officials. We will invite some key persons to the meeting and we will let you know in due time the progress of the meeting.

The trap reduction program people met yesterday and I believe

that they have some changes and so there will not be a presentation of an official request at this time from the government of the Virgin Islands on how to proceed with the trap fishing. We will allow them some time so the government of the Virgin Islands and the fishers will polish the document and the presentation they have to make to the council, or they requested to make to the council, in 2016.

The lobster program, which is also an ongoing project with the U.S. Virgin Island fishers and the government of the Virgin Islands, has been — The final action has been postponed until next year, 2016, and so probably by the next meeting in 2016, any of the two meetings in 2016, the first two meetings of the year, we expect to have a presentation and a request, a formal request, from the U.S. Virgin Islands regarding these two items, the trap reduction program and the spiny lobster program.

The other part is, first, we have not received anything from the budget and so we will give you the information as we receive it and we will discuss a little bit about it this afternoon and so the other part regarding the budget in 2016 is that the eight councils agreed to have a liaison officer between the council, Congress, and the Washington headquarters and they already have a person that can do that for us, but we need to hear from the council and we will discuss it this afternoon and then tomorrow we will make a final decision, but I need to have a vote from the council authorizing us to contribute to the contract part of the liaison officer between Congress and the councils and NMFS.

This will be something that will start in 2016 and the way that it's set up, each council will be allocated a certain time that we will be responsible for and we will issue a purchase order to that person and we will receive all the reports that contains proposed actions by Congress regarding MSA and proposed projects and anything that has to do with the legal issues regarding the Magnuson-Stevens Act, the mandate. Again, I will present that to the council this afternoon and tomorrow we need to hear a motion to have a final decision on this topic.

 We were supposed to have an evening with the fishers and that has been postponed. They have some last-minute issues. Remember at the last meeting we were invited, but the fishermen of St. Thomas told us that they would like to postpone that for the next meeting in 2016 that we visit the St. Thomas/St. John area.

In a nutshell, that's what we have and then for the council discussions today, we are not going to make any final decision

on any of the information that you are going to be presented today, but the staff needs to have some direction from the council on how to proceed.

We have some issues regarding the way that we collect the information and the way that we use that information for ACL levels, overfishing levels, et cetera. We will discuss that thoroughly.

I encourage the council members to stay focused on the discussion, but to not let question go unanswered. We need to develop the record for the next actions that we have to take in 2016. If you look at the agenda, we will have a report by the Southeast Fisheries Science Center regarding SEDAR-46 that will contain some information that you need to look at and give us some guidance of how you would like to proceed.

We have the AM-based seasonal closures and those are some of the sticky issues that we have to discuss today and please keep it to the discussion at hand and we will try to enlighten everybody here as to what is it that we need to do to achieve the mandate of the Magnuson Act regarding AMs and the information that we need to collect, et cetera, to establish the parameters for managing the fishery. That's all, Mr. Chairman.

CARLOS FARCHETTE: Thank you, Miguel. Okay. Next on the agenda we have the Report of Public Hearings on Timing of Accountability Measures-Based Closures Amendment. Bill, are you handling that or is it Kate? It's Bill or Graciela?

REPORT OF PUBLIC HEARINGS ON TIMING OF ACCOUNTABILITY MEASURES-BASED CLOSURES AMENDMENT

MIGUEL ROLON: Mr. Chairman, Graciela asked me to remind everybody that there is a fee increase for recreational fisher permits.

GRACIELA GARCIA-MOLINER: Yes, from twenty-five to twenty-nine dollars. It is going to probably continue to -- Seriously, we have to announce this, because in the EEZ you are supposed to have a recreational fishing license.

I am going to do a little summary first of what happened during the public hearings in Puerto Rico and the U.S. Virgin Islands regarding the timing of accountability measures-based closures.

The presentations were made by Kate in the Virgin Islands and myself in Puerto Rico. Maria and Kate have been working on the

document that you have in your briefing book and the one that was taken to public hearings and so the two actions that we are concerned with here are Action 1 to modify the timing for the implementation of AM-based closures in the EEZ and the second action is to specify how often to revisit the approach selected in Action 1. After the summary of the public hearings, Kate and Maria will discuss the changes that need to be done to Action 2.

These are the two actions that were taken to public hearings. I apologize for the Spanglish already and I didn't notice that we had an English and a Spanish and so there were three in Puerto Rico and two in the Virgin Islands during the month of November.

This is the summary of how many people actually commented on the actions and how many people were present at the meetings. It probably has been one of the most attended public hearings that we have hosted.

Now, most of the deponents were in favor of Action 1, Alternative 2 and the changes that need to be made is that the default way of accounting for the time that you need to close the fishery to repay for the amount that you went over the ACL begins on December 31 right now and we count backwards.

I will show you in a second what Alternative 2 is, which was the one presented that most people wanted to see addressed. That is to begin on September 30 and count backwards. As you can see, most of the people were in favor of that alternative and please note that in St. Thomas we had thirty-two commercial fishers represented by the president of the St. Thomas Fishermen's Association and in Puerto Rico, you had four presidents of different associations representing, as of right now, and a number of fishers from each of those associations.

Some of the results from the public hearings is that most people were in agreement that the summer months are the best months to have a closure, if that were going to happen.

There are a number of seasonal closures in place already and you will see one new alternative that came out of that thought. In Puerto Rico, again, it was brought to the attention of the council that the four coasts of Puerto Rico are very different in terms of the way they prosecute fisheries and the time of the year when they can actually go out fishing.

They were concerned that there have been a decreased number of fishers in most of the island and that there have been significant environmental changes that have impacted the local

fisheries and that there are safety issues, and this was specific for the north coast, when you have seas of over four to six-feet high. They will not go out, because the Atlantic tends to be more treacherous and that the basis of the ACLs are wrong.

They would like to see more collaboration between the fishers and the decision makers and that the fisheries in the area should be managed as small-scale fisheries rather than the way that they perceive they are managed now.

They would like to see more real-time information come their way, rather than the delay that we have in the landings that we are reported on and using to account for these overages. Someone actually said that the data should be audited on an annual basis and they were very concerned that there is still landings information that they consider are not real and that they should be dealt with before they are passed on to the Science Center and therefore passed on to the council and used for the information basis that we have.

Specifically in Mayaguez, including the mayor of the town of Cabo Rojo, was present at the meetings and they had requested that even at this time that we should have brought more information to the people to host more informal meetings to bring the information to them.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I've got a question for the council. I was looking at where you stated at the different areas in Puerto Rico they suggested having them be looked at differently because of the weather conditions.

I could agree with that, to a certain degree, because especially during the winter seasons, the Atlantic does kick up and I know it would cause -- It would have be more broken down and looked at more carefully in order to get this done, that we would section off Puerto Rico. Maybe they could get different alternatives as to when their season would close down if they are fishing a certain area.

CARLOS FARCHETTE: Miquel.

MIGUEL ROLON: The main point is that when you look at the Puerto Rico north coast fishers, they only fish about six months out of the year, because the rest of the time is unbearable, the weather conditions.

 They go from six to nine months and so they believe that if you have a closure that covers the entire area of Puerto Rico they will be more penalized than others, because you may close the season when they fish and that's a key point that I wanted to bring to the attention of the council.

TONY BLANCHARD: Yes and that's what I was saying. If that is the case, maybe we need to look at shutting them down at a different time period, if they have an overrun.

GRACIELA GARCIA-MOLINER: In fact, one of the -- A new alternative that was proposed, and I will get to that in a second and so hold on a second, but do you want to go over this? Let me pass this to Kate.

MIGUEL ROLON: Go to the alternative that they --

GRACIELA GARCIA-MOLINER: The new one?

MIGUEL ROLON: Proposed alternative.

GRACIELA GARCIA-MOLINER: This is one of the new alternatives that was proposed by the fishers at the public hearings. It was that if there was a need to apply the closure of any of these species that the fishery should then be closed during the seasonal closure that's already in place for those species.

The way that I think you could do this is that you could look at the information prior to establishing that seasonal closure, so prior to 2005, in most cases, and look at the amount that was harvested during those periods of time.

Those are closures that have to do with the reproductive biology of the species and so, for example, for the silk snapper, October, November, and December are specific to the highest peak in terms of the reproductive potential for that species.

What they are proposing is that if you overrun the ACL for silk, silk snapper, then go look at the information that you had prior to the seasonal closure and how much of that amount was taken during that time and then make sure that they are closed during that period of time that it's already closed. If you need to close more, then move backwards into the year. I am just saying this is something that was brought out at the public hearing and was discussed at that time.

CARLOS FARCHETTE: Kate.

 KATE QUIGLEY: I realize we're just going over what was presented at the public hearing, but just to give people a little bit of information, that's already accounted for, actually, by NMFS when they are figuring out the closure and how much the ACL went over and how many closure days we need.

Those closures, those reproductive closures, are already built into the model and the data that's looked at and so, unfortunately, this suggestion, while it might make sense to some, is already being accounted for and so I don't think it would work.

MIGUEL ROLON: Remember we are following the process. The fact that you have something on the screen doesn't mean that you have to run and approve it, but you have to discuss it and reject it, because we told them that already, but they wanted to hear something officially when the council, so when we get back to them through the workshop that we promised to have with them, we can explain that. They do not understand very well the concept of how this is included already or not and we have to explain that a little bit better and that's all.

CARLOS FARCHETTE: I have Marcos and then Bill.

MARCOS HANKE: There is a little variation on applying this concept that the fishermen brought to the table, which was some of them commented to me that if you have the three months of the year closure, but you have the graphic of the reproduction, that has the month before and the month after that are also important, if those two months are included, they are going to have an extra benefit to the fishery, because you are not just dealing with the catch and you are dealing with the catch in the moment in which they are reproducing and probably the beneficial effect to the fishery is much higher if that quantity of days could be reduced, if that's the mechanism that is used.

 BILL ARNOLD: You might want to look at this in a slightly different way. It's not really a closure, but it's an opening. How long can you allow the fishermen to fish before they achieve their allowable catch, their annual catch, limit?

There is no payback provision involved in any of this. There is no penalty for going over. Our accountability measure-based closures are designed to ensure that that annual catch limit is achieved, but not exceeded.

If you've already got a three-month closure, then you've basically got a nine-month open fishing season. If during that

nine-month open fishing season the annual catch limit is exceeded, based upon the three-year average that we used to make this determination, then we say, okay, you don't need that much time to collect the number of fish that this population can support.

We say instead we're going to give you an eight-month season and during those eight months, you will be able to catch your annual catch limit. You don't mess with the already in existence closure, because, as Kate said, that is already accounted for and it's inherent in this process that you are not -- There is no point in closing a closure.

You simply want to manage the open period that you presently have in place and if that's too long of an open period and it results in an overage, then give the fishers a shorter open period, because that's all the time it takes for them to achieve their annual catch limit.

That's just one of the many things that have been brought up in this presentation that have really important impacts on a lot of the discussions we're going to have today, but I wanted to get that one out right now.

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: In order to get rid of this part, the next step will be to include this and analyze it in the document or what is it that we should do with it?

CARLOS FARCHETTE: Roy.

ROY CRABTREE: I mean I think it's just a matter of explaining to them how it works. You can't close the fishery when it's already closed. That won't achieve what we're trying to do. You have to reduce, like Bill said, how many days they can fish and so I don't think we include that in the document. It's just a matter of explaining to them why that doesn't work.

CARLOS FARCHETTE: Mr. Chairman, what we should do is just drop the language that we are discussing here and include it in the explanation. I like Bill's approach of the glass half full, but the fishermen, you go there and they don't care about all the explanation. They tell you that you're going to close four months for whatever and then three months for us.

No matter how many workshops you do, they will still have that one, but at least they will be able to have better information

as to why we do things and so do we need to have any motion at all to disregard Alternative 5, or the suggested Alternative 5, because the alternative is not --

CARLOS FARCHETTE: I have Marcos, Blanchard, and Kate. Bill, did you have your hand up? Okay.

MARCOS HANKE: I would like a clarification. Roy, I have a question for you. On this, looking for the best mechanism to protect the fishery or to manage the fishery, for you, you see a three-month closure for reproduction adding a month that we know that they reproduce, but it's not the peak of the reproduction cycle, the same value that month for the resource as any other month of the year or do you prefer to add, let's say, as an example, twenty days to that closure, equivalent to a random month in which we know that they don't reproduce?

ROY CRABTREE: I suspect there are seasonal patterns in the catches and so if you close one month, it may not be the same as closing another month, because if you close a month when there is very little fishing activity, because of the weather or something like that, you are not going to get that much reproduction.

I mean, intuitively, yes, it seems to make sense if you close a fishery during the spawning season that that might be better than closing it outside of the spawning season, but I don't really know how to calculate what that benefit would be, but I guess, and maybe Bill could help us, but I guess it would be possible for species where we have spawning closures if we had to have a shorter season the following year that we could have the additional closure be adjacent to the spawning season closure, time-wise. Is that workable, Bill? I don't think that's an alternative in the amendment right now though, is it?

 MIGUEL ROLON: If I may, before Bill says something, remember, guys, that you are talking about two things that are different. They are closures, but they are for different reasons. One, you are protecting the biological reproduction of a fish and you want that biological product to be in the fishery. That has been taken care of already in the socioeconomic analysis of the fishery.

What you are doing with the AMs is that you are looking at the socioeconomics of the fishery and you are not going to help anything else with the biology of the fishery. You are talking about the socioeconomics of the fishery. That idea is okay, but it doesn't make any sense from the point of view of what we are

trying to achieve and that's why I like Bill's presentation.

We are disregarding three months out of the year, if that's what you close, for this particular species, because you need it for the reproduction. You have nine months open and so out of those nine months, if you go beyond the ACL, we have to make sure that you don't do it next year again and so you need to close a certain number of days for you to achieve that ACL next year. Don't confuse the two things. I personally believe that we should drop that one, but anyway.

CARLOS FARCHETTE: I have Blanchard and then Dr. Ponwith and then Kate.

TONY BLANCHARD: I could be completely off base, but I think what the fishermen are asking is not -- If they have to take a closure that they take it with that three-month closure. If there is a three-month closure on it, they want it to coincide with the closure that they would take and, in one way, that would make sense, because, just like Marcos said, the fish ain't going to all spawn at the same time.

You will find some coming earlier than others and some leaving later than others and so it would make more sense to either have it coming before or after, to make up for the overrun that they have, instead of having them close it for three months and then you figure they overrun it again and then you open it for two months and then close it for another month. Do you see what I am saying?

MIGUEL ROLON: Yes, I know, but this is -- Sometimes the best productive months, and you have to analyze that, but the best productive months are before or after those three-month closures.

TONY BLANCHARD: Right and I understand that.

MIGUEL ROLON: The fishermen are saying -- You know, if I'm a fisherman and I am waiting for the month outside of that area or that time of the year that it's closed, that's when I will make most of my money for that fishery and that's what Kate has done, is she took everything in consideration that has to do with the socioeconomics of the fishery during the entire year and so the three months are already closed.

It would be nice if you have a species that let's say you close from October to December and then January is really not that good and then you close in January, but what happens is your

fishery in January -- If your landings are not that big, then you will be having a closure longer than expected.

Alternative 2, most of the people who went to the hearings, except for the one in Mayaguez, they called for September 30 backwards. In theory, Graciela scared the hell out of some of them, because she said, well, you can go all the way to January 1 and that wasn't well taken, but, anyway, technically that is something that could happen.

The question to the council now is whether you want to have Alternative 5 or not in the document. Dr. Roy Crabtree is saying that that could be achieved by explaining to the fishers in more detail what is it that we consider when we are going to establish the AM.

Kate already told you that is part of the model that she developed and that's what was taken into consideration when she prepared the presentation that was taken to the fishers and so either we prepare ourselves to explain this better or we do something else with it, but it seems to me, for the discussion you have around the table, that you have enough -- I mean you have to discuss whether you want to accept this suggestion or not, so we can drop it or keep it.

CARLOS FARCHETTE: I have Dr. Ponwith.

BONNIE PONWITH: Thank you, Mr. Chair. I think most of what I was going to say you have covered already. You know I certainly concur with the thoughts that were brought up by Dr. Arnold and Dr. Crabtree that the one thing that would make this alternative effective would be if you added the words "immediately adjacent" into that narrative.

If you require an AM to go into place, that that AM happens immediately adjacent to the already existing spawning closure and what that does is avoids disrupting the fishery twice, but has all of the cons that you raised.

That may be the prime time of the fishery and so you would have to do an analysis looking at the value of the fishery at that time and also what the catch rates are, to determine the length and duration of that closure. It's just a matter of, from a socioeconomic standpoint, which is worse, to have a closure a second time, one for spawning and the other one for an AM, or to have the AM closure immediately adjacent to that.

That is, again, a socioeconomic issue and you would have to take

into consideration what those catch rates were around those times to know what the duration of that AM closure would have to be.

CARLOS FARCHETTE: I have Marcos and then Kate.

MARCOS HANKE: Miguel, I was not confusing the two concepts and the reasons for the spawning closure versus the AM for the ACL. Actually, I am looking, like Bonnie just says, to integrate them and to be more beneficial, if it's the case, after a socioeconomic analysis and science analysis of each fishery individually, to look for benefits for the fishermen, less days of closure, but more benefits to the fishery. This is the time for that discussion and that's why I brought the point to the table.

CARLOS FARCHETTE: Kate.

KATE QUIGLEY: So one of the things that we were trying to avoid early on was overlapping closures and having different closures for each species, because it would be difficult to enforce and it would be confusing, but under Alternative 4, we do have it. We do have different closures for each species and the council had talked about having Alternative 2 as the preferred, not only because the fishermen had voiced that they wanted it, particularly in St. Thomas and St. Croix, but also because you wouldn't have a different closure for each species.

While you could go ahead and consider a closure to follow or to come before a reproductive closure, it would just be more complex. That's not to say that it's wrong to do, but it would be quite complex.

We have analyzed this issue. I mean we've talked about this issue in the document and the document is large and I understand it's boring and most people are not going to read it and so it can be easily missed, but that is analyzed in the document.

CARLOS FARCHETTE: I have Velazquez.

CARLOS VELAZQUEZ: I am confused from the two things. For the closure of ACLs for these months, I don't understand this.

MIGUEL ROLON: The process is that you follow -- You use the statistics that you have and you establish the ACLs and then you monitor the ACLs and then you figure if you are over the ACL that you established or not.

 If you are over the ACL, then you have to have management remedial actions, and that's why they call them accountability management measures. The way that we have done it now, when you go over the ACL, you determine then how much landings you need to reduce to achieve the ACL level. That is what we're talking about. Let's say that you have an ACL of 200 pounds and you catch 300 pounds.

My example here is crude and elementary, but if you have one pound per day as your landing for a particular species and your ACL is 200 pounds and then you go over that 200 pounds during the year, that means that you have to close anything -- You would have to close 165 days during that year.

Then you have to decide, do we close 165 in the wintertime or summertime? That's what we are discussing here and so you already have the ACLs established and you will be discussing this meeting why we collect the information and how we process that information and what models can be applied.

At this time, what we are doing is in those times when you go over the ACL, you have a remedial action, which is reducing the numbers of days where the fishery is open. That's why I like Bill's approach to the explanation. You have three months of -- Let's say that you have the blue grouper and the blue grouper reproduces and the peak months are three months out of the year.

Kate already took into consideration those three months for the socioeconomic analysis and so you have nine months open and those nine months to achieve the ACL. In those nine months, you may go over the ACL and then you have to decide how many days you have to close during those nine months to achieve the ACL in the fishery to make sure that you don't go over the ACL for that particular fishery.

If the blue grouper needs to be closed for ten days out of those nine months, then you have to decide when to close those ten days. If you do nothing now, those ten days will be December 31 back to December 21.

In the case of the Virgin Islands, especially St. Thomas and St. John, those are months that are very important for the socioeconomics of the St. Thomas/St. John fishers and so they may prefer to have another time of the year to achieve the same closure. If you have ten days in the wintertime, you may need to have fifteen days in the summertime, because the fishing — The landings in the summer are less than the landings in the winter and that's where we are now.

CARLOS FARCHETTE: Kate.

KATE QUIGLEY: It is possible for particular species that have reproductive closures, we can go ahead and analyze having the closure occur immediately before or immediately after for particular species that are of concern and for particular species that have a reproductive closure already.

This is already done in the model, but we can focus on it more and showcase it more and then for the other species that don't have a reproductive closure, keep in place the preferred. That is possible to do without too much extra work and it's basically done in Alternative 4 anyway, but we can focus on that and make it something that people can see more easily than they would have been able to otherwise.

CARLOS FARCHETTE: Graciela.

GRACIELA GARCIA-MOLINER: I mean the whole issue is that people are really aware of the seasonal closures that are in place and everyone that was at the public hearings thinks that they have worked and that they have been very successful and so it's really a matter of evaluating these closures that have been in place for so long and looking at the information that we had prior to establishing these 2005 closures.

The thing is that the ACLs were actually based on the period of time prior to 2005, which had no regulations in place for most of these species, but that information still gives you a basis to look at the total landings that were due to fishing during the spawning aggregation in most cases, because that's -- You know most of the seasonal closures that the council has in place are during the months when fish really aggregate to spawn.

 They are concerned that they have been keeping up with the law and that they have been not fishing during the months of the seasonal closure. If you still go over the ACLs, then when you have to close the fishery, it impacts other times of the year when they don't have a seasonal closure and so most people perceive this as double -- As having to deal with two closures at the same time.

That's the concern and that's where they would like to have more information in terms of how the seasonal closures have worked and they have given you a larger population of spawning fish and therefore you should be getting more fish during the rest of the year. That's the background of this alternative.

CARLOS FARCHETTE: Okay. Thanks. Marcos.

MARCOS HANKE: I have a question to Miguel, because I intend to make a motion later, after the answer. Miguel, we have to instruct something about this Alternative 5 and then make a motion for a new alternative, let's say if I'm going to amend this Alternative 5 with the language that Bonnie suggests, that I think addresses my idea?

MIGUEL ROLON: This is the point, guys. The whole thing has been discussed in the big, thick document that Kate prepared and so you don't need a motion. You just need to read it.

In this case, that already has been considered in the models that have been prepared by Kate and so unless there is something in the model that has not been covered and that can be covered by this alternative, then you can have the alternative, but remember whenever you have an alternative that you have to discuss it in the document from all angles and since that has been discussed already, you don't need to have this alternative.

On the other hand, you can have the alternative and include the phrase that Bonnie proposed, "immediately after the closure", and that will be something that -- Although we discussed it in the document and we think it will show at least some feedback from the council and reaction to the constituents that you did that and perhaps it will take not much time of the staff to discuss that.

 It will be almost a cut and paste of the document that you have, but please read the document the next time so you don't have that discussion again and I confess that I haven't read the whole thing. I am too old to read all that stuff anymore, but I am not a voting council member.

 I have two suggestions, Marcos. If you want to consider this, please add the phrase that Bonnie proposed. If you have developed enough record that the council is satisfied with the comment made by Dr. Roy Crabtree that this is already discussed and it's just a matter of taking more information to the public and addressing this issue, especially at the workshop that we are going to have, and if that satisfies the council's essence in terms of what you want to do, that will be it and you don't need that alternative, but you need to have some feedback to the people, to the fishers, so that at the workshop you can explain this better to them, both in the Virgin Islands and in St.

48 Thomas.

If you look at it in the Virgin Islands, it seems that they understood this better, because the fishermen have been discussing this for some time and so they already accepted Alternative 2 and the other alternative as presented, but in the case of Puerto Rico -- Actually, even in the case of Puerto Rico, some of the fishers who went there understood it and they said September 30 backwards, but, anyway, it's your decision how you want to proceed.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: The alternatives in 4 don't fully capture what we're talking about here and so be careful about that. What the alternatives there say is you close during the month that has the highest or the lowest landings.

Obviously a closure is going to have the lowest landings, but it's already closed and so you cannot close during that month and so we don't have this fully captured and Kate has an alternative that she would like to present that I think does capture what they're talking about.

While some of what the fishermen have previously told us will not be achieved by taking this approach, personally, I see some advantages from their point of view in having a continuing closure, so that they don't have these two months on and two months off, et cetera, type of things and really, and I would like to hear enforcement's comments on this, but it seems to me from an enforcement point of view that it would be easier too.

Obviously this isn't going to work for every fishery, but for those that have closures, it could be workable and remember the beauty of island-based management. It could be something that you choose for Puerto Rico, but not for St. Thomas/St. John and not for St. Croix. That should be -- I mean it's an alternative that's out there for every island group, but it's not an all-ornothing type of proposition.

CARLOS FARCHETTE: Okay, Kate.

KATE QUIGLEY: I have some suggested language and this would be a new alternative, a new set of alternatives, Alternatives 4k, 4l, 4m, 4n, and 4o. Right now, you see we've got Alternatives 4a, 4c, 4e, 4g, and 4i and it considers each of the islands or island groups, splitting up Puerto Rico commercial and Puerto Rico recreational.

 Then we have another set that considers another way to do things and so now what I'm suggesting is a new set and these numbers might change, because we might have to figure things out, but it would be a new set of alternatives under Alternative 4 that would, again split it up by island or island group.

What it would say is for species that have seasonal reproductive closures already in place to close the days, necessary days, before or after the reproductive closure. That's what it would say and -- Continuous with the reproductive closure.

Now, just be aware that if a closure occurs and it lasts until November that you may not have enough time before the end of the year and so you might have to go to the other end and go for the beginning and so even though you want to have a closure in place following the reproductive closure, you might have to go before. There is caveats like that, but that would address, I think, the fishermen's concerns.

MIGUEL ROLON: Kate, in order for us to have it -- You don't have to do it exactly right now, but during the morning, can you write that so we can put it on the screen so the council can see it on the screen?

Mr. Chairman, if you accept that as a better approach to respond to the council's constituents' concerns, the fishers' concerns, then you can drop the language in Number 5 and then follow Kate's suggestion that will accommodate the thing and then remember when we prepare this that you will have to have a discussion as to the pros and cons of doing that.

This may not be applicable to all species and that's what she said before and so, at the beginning, people were thinking, okay, let's have one closure for all the species, but if we apply this, then it will be a different closure for different species in different areas.

CARLOS FARCHETTE: I have Marcos and then the U.S. Coast Guard.

MARCOS HANKE: I totally agree with what Kate stated and the mechanism that she used as an alternative and also I would like to table or to eliminate the alternative that was originally discussed, Alternative 5.

CARLOS FARCHETTE: U.S. Coast Guard.

TARA PREY: Thank you. I just want to -- From an enforcement point of view, these intermittent closures become increasingly

difficult to enforce. I understand what we're trying to achieve for the fishermen and give them the most allowable days, but training and whatnot and following these intermittent closures would be very difficult.

CARLOS FARCHETTE: Thank you. Okay. My only concern is like what Miguel said earlier. If something has been closed for -- If it needs to be closed for ten extra days, closing it before or after a closed season and the landings aren't good, that means you might be closing something for forty days instead of the ten days that was on the calendar before, but it's something to look at.

MARCOS HANKE: During the discussion, once we get to the real discussion, the nitty-gritty and all of deciding, what the fishermen and myself, some fishermen and myself, believe is that using this mechanism -- When applied to that species, we are creating a new added benefit to the fishery, to that species specifically, and maybe the quantity of days, we can discuss the quantity of days or something and I don't know, but at least what I am looking for is some extra benefit for the species, because we know that some of them, and I am not saying all, have some reproduction activity out from the protection that is assigned for the reproduction.

MIGUEL ROLON: That's the point that is wrong. The reason why you have three months is because the darned things reproduce in those three months and they go away to some other place and talk to better people and so what you are trying to achieve with the socioeconomics is closing and the possibility would be -- This is why I believe that we should concentrate on just eliminating the language or not, because this discussion will be for the next step and for the next step you have to have, in front of you in the document, a summary of the differences between these approaches, a couple of examples.

Right now, in the projected workshop that we are going to have, we will have me giving a briefing of this is what the council does and actually it has already been done by Iris and Mara and so I will take that presentation and give it to them again and Helena will talk about the ACLs, but then Graciela will give a presentation about the actual application of those mechanisms to the fishers that we have.

You may end up discussing fishery-by-fishery, species, or species groups in Puerto Rico and not so in the Virgin Islands. You have to decide at that time whether the alternatives that have the socioeconomic closure, let's call it that way, before

or after the biological closure, the spawning closure, is better for the fishery or not.

Usually, when you mix socioeconomics with biology, it doesn't pan out the way that you envision and I believe that your approach to having all of this discussed at the right time will be the best way to proceed by the council.

CARLOS FARCHETTE: Okay and so where do -- Velazquez.

CARLOS VELAZQUEZ: Do you have the so socioeconomic impacts -- Do you have the document?

MIGUEL ROLON: You have it in your briefing book. Anyway, Mr. Chairman, I believe the conclusion will be, Bill, if I follow, we will allow Kate to put together the three alternatives under 4 and we will drop the language for 5 at this time.

BILL ARNOLD: Kind of. What really 4c is doing is answering the fishermen's request for Alternative 5. It's just doing it in a little bit different way, but we are addressing their concerns, keeping in mind it's just an alternative and it doesn't have to end up being the preferred alternative and it doesn't have to be implemented. It can be implemented for one island and not another, but I think it's fair to respond to the fishermen's concerns and try to address them in the document and analyze what the pros and cons are of their suggested alternative approach.

MIGUEL ROLON: Do we need to do anything else at this time, officially?

GRACIELA GARCIA-MOLINER: There is the language already and so if you allow us to give it to Vivian so that she can put it on the screen.

 MIGUEL ROLON: At this time, probably what we need to do is to allow the staff to figure this out and work it out and then bring it back to the next council meeting, but do you need to have any motion?

BILL ARNOLD: I would prefer that you actually pass a motion on this so we can get it in the document and get moving on it. Our ultimate goal is to have this amended rule in place for 2017, so that we can actually do these closures and not have to stick with the December 31 thing in 2017.

We're going to have to do December 31 closures in 2016, but I

think it's a fair goal to try to get this done in 2017, even with this addition. Correct me if I'm wrong, but I think we can get this thing in place in time for 2017, but we need to keep moving on it and so please prepare a motion and vote on the motion and if it passes, get this thing in the document.

MIGUEL ROLON: Bill, can you give us your language of a motion for --

CARLOS FARCHETTE: I think Kate has that.

MIGUEL ROLON: She has the alternative, but I wanted just to phrase the motion. Can you do the whole thing, Kate?

KATE QUIGLEY: Sure. The alternative, we're sending it to Vivian right now, but the alternative would be for species that already have a seasonal closure in place to close before or after the seasonal closure (continuous) for the number of days necessary to achieve the required reduction in landings. Now, the IPT will put that among, probably, among the Alternative 4 alternatives, but that's what it would say.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: So that's the alternative, but the way these motions really need to be written is so that they can be understood two years from now standing alone, because generally these motions are standing out there by themselves and sometimes I read these motions just six months after the meeting and it's like what we were talking about? When we write these motions, we need to add all the language in the motion that's necessary so that that motion can be understood years from now.

MIGUEL ROLON: Can we table this until you guys write it and so we can have it on the screen?

KATE QUIGLEY: We should have it on the screen in just a minute, but just one more thing I need to say. We might change the wording of the alternative so that it's more clear.

MIGUEL ROLON: Okay. Let's do this. Stop for a while and you guys write it up the way that we need to have it on the screen and when you're ready, we will have it on the screen and we will vote on it. At this time, Mr. Chairman, we can move into the next presentation until you come back to this one, because we have somebody waiting for a presentation on SEDAR.

CARLOS FARCHETTE: Okay. That sounds good. All right. Go

ahead, Kate.

KATE QUIGLEY: So we haven't yet done the presentation that we had prepared for this amendment and so we still have some questions for the council and would you like to come back to that? It has to do with Action 2.

MIGUEL ROLON: Let's come back when you have the language that we need to consider, so they have the whole package.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: My only concern there is there may be other things that we need to discuss and that you would want us to come back with and so it might be better, just humbly stated, that we get through her entire presentation and make sure we've covered every component of that presentation and identified any issues with that presentation and then we can prep our responses to those issues and bring them all back as a package and settle the whole thing.

CARLOS FARCHETTE: I kind of agree.

MIGUEL ROLON: Kate, in your presentation, you have questions that need to be answered by the council?

KATE QUIGLEY: Yes.

MIGUEL ROLON: How many?

31 KATE QUIGLEY: One.

MIGUEL ROLON: Okay. Can we just ask that question in your presentation?

KATE QUIGLEY: Yes, I can go ahead and quickly do the presentation. It's only five slides and get guidance. Basically, the IPT is requesting guidance regarding Action 2.

If you recall, Action 1 is when should we have the closure and Action 2 is how often should we revisit Action 1? What we've got here is Action 2 is specify how often the approach to set the timing of AM-based closures selected in Action 1 should be revisited.

Now, we do have a preferred and the preferred is to revisit the approach selected no longer than two years from implementation and every two years thereafter and so the IPT started discussing this and what we realized is that we need a little bit of quidance regarding what does revisit mean?

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For example, revisiting the approach that sets the timeframe for AM closures could involve revisiting the dates selected, criteria for choosing the dates, or any other aspect of the rule.

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What the IPT would like is some sort of guidance specifying how the review revisting will proceed and so, for example, do you want a revisiting -- For example, it could go this way. Two years from implementation, we would bring up to the council that remember you implemented this two years ago and we will go over what's involved and we will make a presentation of what closures have occurred over the past two years and now we would like to know is there anything that you would like changed. That's one option.

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Now, the word "review" is much more in-depth and that could involve a written report and it could involve analysis. It would take more time and so what we're asking for is guidance on, first, are you looking for a revisiting or a review? One option is to revisit the action and then if you decide that there are issues and things that need to be discussed more, you can ask staff to go ahead and provide a report that reviews this amendment.

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What we just need is a little bit of guidance on what did you mean by the word "revisit"? Would you like an oral presentation of closure history over the past two years and verbal discussion by council members with public comment at a council meeting? Is that it and then we'll decide whether a review is needed? Is that what you were thinking or was it something else?

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MIGUEL ROLON: Kate, would be your recommendation?

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KATE QUIGLEY: What I think would make sense, from council years perspective, is for the to, two after implementation, have a presentation from council and NMFS saying, okay, this is how the program has been going over the past two years and here is the information that we have and does this work for you and ask for public comment, meaning public comment in the council meeting, and ask, does this amendment, does this action does this regulation seem to be working the way that it was intended to work?

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If the answer is yes, then you say okay, we have revisited it and we have done that and we have implemented Action 2. If not,

then identify the issues and ask for further analysis of some sort, further review, by staff and it's going to depend what the issue is what kind of further analysis that you would like. That's what I would recommend, is basically just revisit it after two years and decide whether a review, a written review, or further analysis is needed.

CARLOS FARCHETTE: I need a little whispering in the back, because we're kind of getting disturbed up front here, or you can just go right there in the exit hall. I like the idea to revisit it if necessary and review, but, Kate, should it have that wording in there in the alternative? Should it be revisit/review or just should it have something like that?

KATE QUIGLEY: I think your verbal guidance is probably enough for the IPT to understand what's needed. Right now, we have the words "revisit" and "review" and what we would like to do is change the wording for the alternative of "review" to "revisit" and then the council can decide whether they would like to have a more formal review in two years. We would like to change the word "review" to "revisit" and we can take your verbal guidance here and implement that.

CARLOS FARCHETTE: Okay. I am good with that. Do we need to motion that or can we just make that change?

IRIS LOWERY: I would just suggest that we have a motion to change the language of the alternative, so that it's on the record.

CARLOS FARCHETTE: Okay.

MIGUEL ROLON: Kate, can you dictate a motion to --

KATE QUIGLEY: The motion might say something like under Action 2, Alternatives 2 and 3, use the word "revisit" instead of the word "review" in the alternatives. I have got more when Vivian is ready. Also, use the word "revisit" instead of "review" in wording of Action 2.

MIGUEL ROLON: That will cover it, Kate?

KATE QUIGLEY: Just to be safe, I will add in one extra statement. A revisitation of Action 1 would consist of a presentation to the council two years after implementation of the amendment, a council discussion, and provision of guidance to council staff regarding the potential need of a more formal review of any aspect of the amendment.

MIGUEL ROLON: Is that it, Kate?

KATE QUIGLEY: Yes.

MIGUEL ROLON: Okay. We also have to take another motion and so I suggest that you guys write it and give it to Vivian so that we don't have to wait for the dictation. We need a so I move and a second and a vote.

TONY BLANCHARD: So moved.

CARLOS FARCHETTE: Is there a second?

15 CARLOS VELAZQUEZ: Second.

CARLOS FARCHETTE: Okay. The motion is to make a motion under Action 2, Alternatives 2 and 3, to use the word "revisit" instead of the word "review" in the alternatives and also use the word "revisit" instead of "review" in wording in Action 2. A revisitation of Action 1 would consist of a presentation to the council two years after implementation of the amendment, a council discussion, and provision of guidance to council staff regarding the potential need of a more formal review of any aspect of the amendment. The motion was made by Blanchard and then seconded by Velazquez. All in favor say abstentions; any nays. Hearing none, the motion carries.

GRACIELA GARCIA-MOLINER: The wording for the new alternative, Vivian already has it, if you want to look at it and put it as a motion.

KATE QUIGLEY: We're not ready and we just need to talk a little bit more about this next motion and so we'll go ahead and if we can just have a break at some point and we can come back to it, but I can go ahead and finish my presentation. It's one more slide.

CARLOS FARCHETTE: Yes.

KATE QUIGLEY: Okay and so all we have next is we just have a draft timeline. Basically, right now we are looking to bring the final document to the spring meeting for final action, spring/summer meeting, and have a final vote. Summer 2016 is amendment proposed rule comment period and spring of 2016, go ahead and the council revises and approves codified text and the council approves the amendment for secretarial review in late fall of 2016 and NOAA publishes the amendment final rule and

final rule is effective. We are looking for implementation in 2017.

CARLOS FARCHETTE: Bill.

 BILL ARNOLD: So this is a draft timeline and that's very important, because we don't know when the 2016 council meetings will be convened. Obviously that will influence this timeline and another thing that's going to affect the timeline specific for this amendment is that when we add this new alternative, and Iris may want to comment on this, but I believe we'll have to take it back to public hearings and at least give the public a chance to comment on it.

 I would suggest that to achieve that opportunity for public comment that we do the public hearings at the next council meeting. Now, the problem with that, obviously, is the next council meeting will be in St. Croix, I believe, and so that's just one island and you don't get to spread it around to the three islands and get input from the fishers on all three islands.

Take that as you will, but these are just things you need to keep in mind as we move this thing forward, again with the ultimate goal being to have this in place for 2017, so that they don't have to experience the December 31 required closure date yet again in 2017.

CARLOS FARCHETTE: Miquel.

MIGUEL ROLON: Mr. Chairman, I believe that this is important enough and if we need to go back to consult with the public that we do so and so we have -- In other words, we have the funds or hopefully we have the funds for next year to continue our operation and we can have a public hearing in Puerto Rico and a public hearing in St. Croix in conjunction with the council meeting, if that will do it, but if we need to have it before that, then we can have a round of public hearings in St. Croix, St. Thomas, and Puerto Rico.

Also, probably if we have something else that we need to take to the public in 2016, we can take the chance to ask the public at that time on other issues that you need to consult with the public, but I follow what Bill is saying.

 In order for us to -- Because the fishermen believe that with this round of public hearings that 2016 will be different from 2015, in terms of the closures. Most people do not know that

this is for 2017 if we go fast and it could be 2018 by the time we implement this, if we have some hurdles in the way that we cannot jump over.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: I have a comment on the motion when we get a chance to go back to it, the one that you guys just passed, if that's okay.

11 CARLOS FARCHETTE: We can do that now.

13 MIGUEL ROLON: On the motion that we just passed, Bill?

15 CARLOS FARCHETTE: Go ahead, Bill.

BILL ARNOLD: Okay. So this motion says to make a motion under Action 2, Alternatives 2 and 3. That doesn't tell me Action 2, Alternative 2 and 3 of what and we really need to have that in these motions so that, as I said, when we revisit these things months or years down the road there is no confusion as to what action or what alternative of what action in what amendment we're talking about. That's all. I just want to make sure they are clearly worded, all of the motions that we deal with.

CARLOS FARCHETTE: We can put that wording in now and probably just do an amendment to those guys that moved the motion, right, and get rid of it?

MIGUEL ROLON: We can just add some parentheses of the document presented to us.

CARLOS FARCHETTE: Bill, do you want to put the wording in there?

BILL ARNOLD: You don't really need the parentheses, but just 37 say "of the accountability-based closure amendment".

KATE QUIGLEY: So timing of accountability measure-based 40 closures amendment.

DIANA MARTINO: Maybe we should put to also use the word 43 "revisit" instead of "review" in the wording of Action 2?

45 CARLOS FARCHETTE: Okay.

MIGUEL ROLON: My worry is fighting with the "revisitation" and that's a word that doesn't exist in the dictionary or what?

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KATE QUIGLEY: Maybe I made it up. I am not sure, but I believe I've heard it before. It's just not showing up in Word, that's all. We can probably make it hyphenated. Re-visitation, if you want to get it accepted, or we can use different words if you are concerned about it, but we know what you mean.

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GRACIELA GARCIA-MOLINER: It's a word. It's in the Merriam-Webster Dictionary. It's fine and just leave "revisitation" there. It's just Word doesn't have it in its dictionary.

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MIGUEL ROLON: Word doesn't like it.

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CARLOS FARCHETTE: I have seen it before. We have to just --Everybody has to just agree on the new language or should we just leave it at that? Iris.

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IRIS LOWERY: I would suggest reading the new motion into the record and taking a vote, just so that it's there.

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CARLOS FARCHETTE: So the new motion that was already Okay. approved, the language, has been changed to make a motion under Action 2, Alternatives 2 and 3 of the Timing of Accountability Measures-Based Closures Amendment, to use the word "revisit" instead of the word "review" in the alternatives and also use the word "revisit" instead of "review" in the wording in Action A revisitation of Action 1 would consist of a presentation to the council two years after implementation of the amendment, a council discussion, and provision of guidance to council staff regarding the potential need of a more formal review of any aspect of the amendment. So all is good? All in favor of this new wording say aye. Good to go.

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We are going to do a ten-minute break. Shannon is on Go to Meeting and is getting ready to do her presentation for SEDAR-46 and we are also going to see the new language for the motion. Thank you.

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(Whereupon, a brief recess was taken.)

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CARLOS FARCHETTE: All right. Let's get back to work. I don't have a gavel. Okay. We are going to move forward, but before we do that, I want to welcome an Assistant RA, Regional Administrator, to Dr. Crabtree. Mr. McGovern, can you go ahead and do a little introduction of yourself? Thank you.

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JACK MCGOVERN: I am Jack McGovern and I'm the Assistant Regional Administrator with Sustainable Fisheries in St. Pete

and it's very good to be here, Mr. Chairman. Thank you.

CARLOS FARCHETTE: Thank you and welcome aboard.

BILL ARNOLD: Dr. McGovern. He worked hard to get that PhD.

CARLOS FARCHETTE: Okay. My humble apologies. Then we have Winston Ledee, who is taking the place of Julian Magras, because he couldn't be here today. He will be the Acting Chair of the DAP. He is the Vice Chair of the DAP. Dr. McGovern, is it your first time in the Caribbean?

JACK MCGOVERN: No sir. I was actually at the last council meeting in St. Croix in March or April of last year and it's very good to be here.

CARLOS FARCHETTE: Thanks. We have the new alternative that Kate was preparing for us and so do you all want to take a look at that and see if it's good to go and somebody can make a motion?

It reads: New alternative for species that already have a seasonal closure in place, close before or after the seasonal closure (continuous) for the number of days necessary to achieve the required reduction in landings.

MARCOS HANKE: I would like to adopt the language as a new motion.

TONY BLANCHARD: Second.

CARLOS FARCHETTE: Okay. Motion by Hanke and seconded by Blanchard. Bill.

 BILL ARNOLD: Okay and so that language you have in this new alternative, which would be Alternative 5, may not be perfect, but it's darned close. We will take that to our interdisciplinary plan team, which is the entire group of people that work on these amendments, and it may be tweaked slightly to address any concerns or analytical needs that they may have, but I think that that's going to be fine and it's not going to change the spirit of the alternative at all.

Then what we want to do is we want to take this thing back out to public hearings before the next council meeting, so that we can come back to that council meeting with the outcomes from the public hearings and, ideally, if everything is lined up properly, get final approval from the council to submit this for

secretarial review. That's our plan and I just want everybody to be aware that that's the plan, in case they may have any objections to that plan.

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CARLOS FARCHETTE: Marcos.

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MARCOS HANKE: Bill, on this interdisciplinary analysis that you guys are going to do about this new motion, please include any tradeoffs that could be in place by doing what the motion is presenting.

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BILL ARNOLD: So that's what the analyses are all about, looking pros and cons of each different alternative subalternative, so that you can take а balanced comprehensive view of what the best choice is to solve a That will be done, Marcos. problem.

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MIGUEL ROLON: Bill, what do you think is the timeframe that you need to achieve this? How many months?

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BILL ARNOLD: This won't take nearly as long as us getting the island-based FMP stuff together for the next council meeting and so I am not worried about that timeframe. Probably Kate or Maria may hit me for this, but you probably would have to have a council meeting within the next couple of weeks to cause them any time stress on this. I really think that even if we had a meeting in late March or early April that that would give them plenty of time to accomplish what needs to be done.

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MIGUEL ROLON: I think mostly about this -- If we go to public hearings, they have to have a document to take to public hearings.

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KATE QUIGLEY: Yes and so we can come up with that document within a month. That's definitely possible to do. The analyses -- The numbers are already in the document and we just need to rearrange things.

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GRACIELA GARCIA-MOLINER: We need the council to direct staff to have a free hand in rearranging the alternatives and editorial changes that need to be made.

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MIGUEL ROLON: Is that understood in the record?

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45 MARCOS HANKE: Yes, it is.

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CARLOS FARCHETTE: So moved, I guess. Iris.

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1 IRIS LOWERY: I would suggest adding language to that effect to 2 the motion and, additionally, just making sure, as Dr. Arnold 3 said before, to reference specifically what amendment you are 4 taking action on.

CARLOS FARCHETTE: Okay and so you mean replacing 5 and is that what you're referring to?

9 IRIS LOWERY: Rather than just saying "new alternative", I would 10 say "move to add a new alternative to the Timing --"

12 CARLOS FARCHETTE: So would that be Alternative 6 then?

14 IRIS LOWERY: I believe it would be Alternative 5.

CARLOS FARCHETTE: So you're replacing 5 with 6? I mean you are replacing 5 with the new alternative?

KATE QUIGLEY: We can just say "new alternative" and that's fine 20 and we will create a new alternative and word it.

22 CARLOS FARCHETTE: Okay.

KATE QUIGLEY: Vivian, at the end of that motion, you could put 25 "give staff editorial license to modify wording of the 26 alternatives".

28 MIGUEL ROLON: Technical editorial.

KATE QUIGLEY: As necessary.

 CARLOS FARCHETTE: Okay. The motion reads: Move to add a new alternative of Timing of Accountability Measures-Based Closures Amendment. For species that already have a seasonal closure in place, close before or after the seasonal closure (continuous) for the number of days necessary to achieve the required reduction in landings. Give staff a technical editorial license to modify wording as necessary. Moved by Hanke and seconded by Blanchard. All in favor say aye; any nays; any abstentions.

BILL ARNOLD: I think NOAA Law Enforcement would like to comment 42 on this, if that's okay.

44 CARLOS FARCHETTE: Okay.

JEFF RADONSKI: Thank you. I'm Jeff Radonski, Assistant Special 47 Agent in Charge with NOAA Enforcement. In looking at it and 48 listening, things I just wanted to bring forth from an

enforcement perspective is there's really two things that we need to have to be able to have enforceability.

One is traceability and accountability. Permitting and landing and trying to enforce closures strictly at sea, we do not have the resources and I can't speak for the Coast Guard, but it would limit their resources where they could, I think, effectively do patrol enforcement only.

We need to balance that. We need to be able to have shore-side enforcement as well and that would come into the traceability. On an international scale, that is where OLE is going, is trying to get traceability on seafood product that is going to market, so people know where it's coming from, that it's coming from a sustainable fishery, et cetera, et cetera. I think the public is looking for that more and so those are really just my comments and if anyone has any questions, that's fine.

CARLOS FARCHETTE: Thank you. No questions for law enforcement? Thanks. Since I didn't do the vote on this, I just wanted to verify that -- We already voted?

MARCOS HANKE: We voted.

25 CARLOS FARCHETTE: Okay.

MARCOS HANKE: Yes and I want to state that the language and what was voted is my intention and is correct.

CARLOS FARCHETTE: Okay. The motion carries then. Are we finished with Timing?

GRACIELA GARCIA-MOLINER: We are done with the Timing of Accountability Measures.

CARLOS FARCHETTE: Okay. Thank you. We are going to move to the SEDAR-46 Workshop with a presentation by Shannon on Go to Meeting.

SHANNON CALAY: Hi. Can you hear me?

CARLOS FARCHETTE: Good morning. We're going to put a microphone here so we all can hear you.

SEDAR-46 WORKSHOP REPORT

SHANNON CALAY: Thank you. I did want to acknowledge a few people who prepared these presentation materials with me and

that would be Nancie Cummings, who is leading the SEDAR-46 assessment, Skylar Sagarese, who is supporting that assessment, and Tom Caruthers, who provided a great deal of assistance at the meeting and also provided me with some information for this presentation.

Because SEDAR-46 is still in progress, I am going to go over some of how we would apply SEDAR-46 in the Caribbean and what is necessary in terms of management framework in order to apply data-limited approaches.

Why use data-limited approaches? These can be developed using the available data in the Caribbean. We have a toolkit called the Data-Limited Methods Toolkit, or DLM Toolkit, which contains fifty-seven different approaches at this time which can be used with limited data very rapidly.

These approaches do produce estimates of acceptable removals and so you can get estimates of both OFL or ABC, but you can also get automatically model diagnostics, sensitivity analyses, and you can test hypothesis testing and projections automatically using this toolkit.

By hypothesis testing, I mean that if you would like to know what might happen due to habitat degradation or due to an environmental episodic mortality event, this toolbox enables us to test those hypotheses for future yields.

Once these models are accepted by your SSC and by the Caribbean Council, data-limited approaches can be very rapidly updated and that will eventually increase throughput. We can also use the DLM toolkit to prioritize data collection activities, even if a stock assessment is not possible. The toolkit can provide you valuable information about your most important data collection activities to improve stock assessments.

There are a number of data-limited approaches that are already being used throughout the nation. As you see here in all the shaded regions, various data-limited approaches are in use now and so on the west coast, they do use a number of data-limited and data-moderate approaches.

 Their data quality is a little bit less limited than what we have here in the Southeast, but even within the Southeast, we are already using data-limited approaches, but, at this time, they are restricted to catch scalars, like the ORCS approach that you're using now in the Caribbean, which scales the recent landings history using buffers derived, in some cases, from the

ORCS approach.

SEDAR-46 is the Caribbean data-limited methods workshop and that process is currently in progress. Provisional model results were developed at a workshop in San Juan November 2 through 6 of 2015, but the final results of those models will not be available to the public until March of 2016.

Where are we now in the project schedule? As I said, we did host the data assessment workshop. It was hosted in San Juan, Puerto Rico on November 2 through 6. Yesterday, we had our first assessment webinar, where we went over some of the decisions and the work in progress that's occurring since the data workshop, but the assessment report itself will not be drafted until January 15 and it will not be reviewed until February of 2016.

After that review workshop, which does -- The reviewers will be both Center for Independent Expert panelists as well as SSC members. They will have an opportunity to review our work and make recommendations.

The review workshop report will not be finished until March 28, 2016. At that time, it will be submitted to the council and to SERO and to other members of the public who are interested in that report and posted to the SEDAR website.

 The November meeting was essentially a data triage meeting and the development of provisional models and so at that meeting, we of reviewed all the available data input, including the There was a document about commercial commercial landings. reporting compliance and we reviewed recreational landings and discards, the TIP length frequency information, the fisherydependent effort and/or CPUE, catch per unit effort. reviewed life history information and we reviewed the fisheryindependent workshop report.

We also had a meeting that was attended by fishermen and they participated by contributing information on their fishing operations, how they target animals, the selectivity of their fisheries, in terms of what size animals they target or what size animals can actually be selected by the gears that are in use in those fisheries, and also their perceived trends in fishing effort and the catch rate.

46 All of the documentation for these papers that I have referred 47 to are available on the SEDAR website, which I have cited here 48 in red, under SEDAR-46. You can see in much more detail exactly what data was available to us and we provided a number of graphical essentially illustrations of the data, to allow you to visualize the quality and quantity of data available to us.

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After we examined the data available to us, we selected six stocks, five different species. In St. Thomas, it was queen triggerfish and spiny lobster. In St. Croix, it was spiny lobster and stoplight parrotfish and in Puerto Rico, it was hogfish and yellowtail snapper.

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17 18 These species were chosen for a variety of reasons. We chose a few stock that we felt were more data moderate and we would have a better chance of using these methods. We chose a few stocks that were actually rather data limited, including stoplight parrotfish, for example, where we knew we had some data issues and the purpose of choosing a species like that was to test just how capable these models will be as the data becomes more and more unreliable. We want to know, is there a point at which even these data-limited approaches cannot be useful?

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I mean essentially there's a The input data is quite simple. and it looks very much like this spreadsheet possible spreadsheet is used for all fifty-seven of the approaches and so contained in this spreadsheet are the annual total removals, and that includes discards as well, if we have estimates of discards. So catches plus dead discards and an index, if it's available, various life history parameters, such as the length at 50 percent maturity, first growth at capture, the parameters, length/weight relationship, but also these quantities which are harder to derive, like the current overfishing level with regard to natural mortality and the current stock status, as opposed to virgin condition or unfished.

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These types of parameters are not directly available from the Caribbean and so they have to be derived through other sources and these are going to be areas that are very sensitive in the model and that we will have to examine whether these estimates are considered reliable and whether the model results are quite sensitive to them and so that remains to be done in this process. Currently, we are just using an estimate derived essentially from the available information, such as length frequency.

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I don't want to get into too much detail about that, except to say these are going to be very important quantities to review before we move forward with these model results for management purposes.

There are some requirements for interpretation of the model results and this is essentially why I wanted to make a presentation, because we could use some feedback from the Caribbean Council.

There are, as I mentioned, over fifty-seven different methods that are included in this toolkit and each of these methods will produce an estimate of what I actually think is more appropriately called acceptable biological catch, ABC. However, not all of these methods will be consistent with your management objectives.

Some of them will be very precautionary and will result in low yields and very high stock sizes, where others might be very risk prone and so in order to interpret the results that come out of the fifty-seven different available approaches, we need to have management objectives in place to develop the management advice.

What do I mean by management objectives? There are a number of them that have been identified in the literature and so you could have a target spawning stock biomass level and you could look at the frequency of stock collapse or you could look at the overfished stock status or probability of biomass increasing or rebuilding to a threshold. You could look at a target fishing mortality rate or a probability of overfishing. I am not going to say them all.

In terms of harvest metrics, you can look at what yield you want relative to the maximum sustainable yield in the long term and you can also look at what variability in yield you're willing to accept as a council. So are you willing to accept a yield that may fluctuate enormously over time or do you want stable catches?

In the SEDAR-46 data workshop, we did not look at the full suite, but we looked at a few and so the management objectives that were considered by SEDAR-46 were the probability of overfishing. We felt that that must be less than 50 percent, the probability that you're overfishing.

We also looked at the probability of overfished status and presumably you would prefer that your probability of an overfished status is also less than 50 percent and if you're going to use a metric like that, you need to define what overfished status means. An example is you could set a minimum stock size threshold at 50 percent of the biomass that occurs at

maximum sustainable yield.

We also looked at the allowable variation in annual yield, or what variability in catch you're willing to accept, and we looked at a 15 percent variation and so these are all areas that you could make modifications to.

The council may also wish to consider whether you prefer to have a certain desired yield, catch, as a fraction of the possible long-term maximum sustainable yield or what maximum probability of stock collapse you are willing to accept and there could also be other metrics that can be examined.

However, it's important to note that there are intrinsic tradeoffs that must be considered and so you can't necessarily with all fifty-seven models achieve all of these metrics simultaneously and I am going to show you that in a moment, but we are looking for a lot of input on this and so I will, I guess, come back to it at the end of the presentation, when you've seen the rest of the presentation, I think.

This is a full suite, perhaps, of models. There is a step that I haven't mentioned, which is we have to determine -- We have to do what's called a feasibility study and that just looks at the data we have available and it excludes models that cannot be run with the data we have available.

What you're left with in the Caribbean is about fifteen to seventeen models that we can still run with the data we have available to us and so this example I am showing you is not in fact from the Caribbean, but that's okay.

In this case, this is the suite of models and you will see all of the little acronyms on this table are just the acronyms of a model that can be run and where -- This is a diagram that shows the tradeoffs that I am talking about.

On the bottom, on the X-axis, you have the probability of overfishing and so some of these models, for example this one that says MMHCR, on the bottom right-hand side, has nearly probably a 90 percent probability of overfishing and so that would be an unacceptable model.

On the Y-axis, you have the relative yield as a fraction of the maximum sustainable yield and so there are some models you see that achieve a very small relative yield, 20 percent of what we think is the long-term MSY, for some of these models, for example, R control 2, in green.

 The first thing you want to do is choose the management metrics that are of use to you. For example, if you want to eliminate all the models with a more than 50 percent probability of overfishing, then you would eliminate all those models that I have covered here. If you want to eliminate models that do not achieve 60 percent of the long-term MSY, then you have -- What you're left with in this case is just that suite of models that just shows, in the upper left-hand quadrant -- Those would be, for example, the models that are consistent with your management objectives.

MIGUEL ROLON: Shannon, can you explain, in layman's terms, what it means of 50 percent probability of overfishing model?

SHANNON CALAY: All right and so essentially what we do is we take these models, management procedures, models, and we simulate -- We project them into the future and we simulate across the uncertainty in the parameters that are included in the model.

We determine how many of these models, basically as you simulate them into the future with the recommended catches that come out, would actually result in an over 50 percent probability that you are in fact overfishing and, to my -- I am not a lawyer and Shep would be greatly helpful, but from my understanding, Magnuson would exclude those models that have a greater than 50 percent probability of overfishing. They are likely to be illegal under U.S. law.

That one is probably kind of set in stone as a performance metric for these models. We wouldn't want to accept models that result in overfishing.

However, this relative yield that I am showing you, that seems to me to be a council decision, because you can accept models that don't achieve your long-term maximum sustainable yield. There is nothing legally requiring you, I suppose, but I just wanted to say that you probably would prefer models that do achieve some significant portion of a theoretical maximum sustainable yield.

You would create essentially your suite of performance metrics and maybe it's probability of overfishing and relative yield and maybe it's a different set of metrics and this is what is going to determine which models that we could use and actually are consistent with your performance metrics, your management objectives, in the Caribbean and those are the only models that

we would pursue in terms of producing management advice for the Caribbean.

CARLOS FARCHETTE: Shannon, I have a question from Bill or a comment.

BILL ARNOLD: Shannon, it's Bill Arnold. So given this example, and I know it's just an example and it's not even from the Caribbean, but why in this example would we not just pick FMSY reference up in the upper left-hand corner that gives you practically no probability of overfishing and a maximum relative yield? Are there other factors that need to be taken account of or is that what you would do?

SHANNON CALAY: If this was the set of performance metrics that the council chose, for example, and these were the results of the Caribbean assessment, then choosing that FMSY ref would be, I think, a very good selection, because it does achieve a high amount of the potential yield with a very low probability of overfishing and so that would be a logical selection if this were in fact Caribbean results and these were your performance metrics.

BILL ARNOLD: Right and, Shannon, there is no need to select more than one model, is there?

SHANNON CALAY: There is no need to select more than one model. The way that I kind of see this operating in the Caribbean is much like -- You know basically we will come -- I would like to see performance metrics codified, essentially, and these are the performance metrics for the Caribbean.

 We will then create the suite of models that conform with those performance metrics and that is what we would bring to the review workshop and to the SSC meeting and how exactly the SSC or the council decides to select from the candidate models is essentially still to be determined.

You know you could select the best performing model by looking at its performance with regard to your metrics and with regard to diagnostic plots, which I have not shown you, and you could select one or, in some cases, the Gulf Council has selected multiple states of nature and they have essentially merged those three or four models to create one management recommendation and so there is some flexibility that's allowed, as long as the models that are candidate models conform to your management metrics and have good diagnostic performance.

 What I am really boiling it down to is as long as they perform well, then it's, to some extent, an SSC and a council determination of how they want to handle the fact that there will be more than model that we'll be presenting.

CARLOS FARCHETTE: Shannon, I have Tony Blanchard, Marcos Hanke, and then Bonnie Ponwith.

TONY BLANCHARD: I just want to make a comment on what Bill said. Unlike other people, I don't believe in just picking one because it looks good on the board. Number one, she clearly stated this ain't the Caribbean and so we are in a class by ourselves.

I ain't putting my neck in the noose for anything that I ain't seeing working. I think it should be options on the board and we look at more than one and see how they work and maybe none of these might work for us, for whatever reason, but the point I am trying to bring across here is because it looks good on paper, it don't mean it will actually work for us and I don't feel like being a guinea pig and being selected to a test. I think we should look at the whole thing and figure out what works for here, if we decide to go down this road.

SHANNON CALAY: I do agree with you and it isn't our intention in the Southeast Fisheries Science Center to select only one model. What we would do is once the council determined what performance metrics they are interested in, we would give you all of the models that conform to those metrics and have good diagnostic performance, because those models already are legal under law and each one of those models would perform properly and would -- They would be conservative enough to be legal under law and so there is room for a determination of how much risk, for example, the council is willing to accept or what tradeoffs the council is willing to accept, because will already have eliminated models that are illegal and models that don't perform properly and models that don't conform to your particular management metrics and so you would still get a suite.

MIGUEL ROLON: Shannon, again, what is a performance metric, in layman's terms?

SHANNON CALAY: Performance metrics, I am using it in this case as the council would specify, for example, a probability of overfishing they are willing to accept. I am using it as the management objectives.

Another set of performance metrics would be the diagnostic

behavior of the model and that is really a technical conversation and so that's a matter for the review workshop and for the SSC to determine, whether the diagnostic behavior is acceptable.

CARLOS FARCHETTE: I have Marcos.

MARCOS HANKE: Good morning. The data requirements for each of those models that we need to judge there, they are the same? That is my first question. If they are different, I think it would be nice to know what are those differences, for us to decide.

The other observation is, like Tony Blanchard, I would like to see examples with the same numbers for any fishery, any species, with the different methods that are on the upper part of the table, over 60 percent of MSY, as examples for us to see the outcome of those methods.

Also, once we decide the metric, supply us the models that give us those metrics and maybe all of those supply the metrics to us, but if there is any difference for us not to lose the time and decide, okay, we decide this one, but then we go ahead and decide a different metric that this model will not be good for and all those guidance I need from you guys.

 SHANNON CALAY: Yes, we absolutely agree and I showed the SSC the actual table of all the data requirements of these models and they do not have the same data requirements. Some of these models are rather data moderate and require a great deal of data and others are very data limited and require, for example, only recent landings history and some estimate of depletion.

The requirements are quite different and there are diagnostics we will be examining to determine how sensitive these models are, for example, to uncertainty in the data and so some of these models we may determine are inappropriate for use in the Caribbean, because the data is too limited. That is number one.

Number two is we will be providing, through SEDAR, all of the feasible models and all of their performance metrics as part of this review workshop and we will also be ready to present that information to the SSC for their review as a full SSC and so the Science Center really only provides information and your SSC is tasked with determining whether that information is the best available science and whether it's useful in a management context.

 We provide the information and the SSC and the council make decisions and what was the last thing you said? There is one thing that I haven't responded to.

MARCOS HANKE: I think you did and one other comment, maybe. I think it's not a bad idea, because you just stated and clarified some of my perception, is that the data requirements for each of them are different. Once we decide that A and B, whatever model we decide are applicable, we should run two of them at the same time and to see over time how they work.

One of them was more data hungry and the other one was a little simpler one and I don't know if that's an exercise that's too much work to do, but just to test this in a wider range of options, just to see how it works, because we are learning about it.

SHANNON CALAY: That is absolutely possible and I mean the real slick thing about this data-limited toolbox is we can run all of the feasible models simultaneously and so it really does save a lot of time and it's a convenient tool for us to use for that kind of exploration.

CARLOS FARCHETTE: I have Dr. Ponwith.

BONNIE PONWITH: Thanks very much for the presentation thus far. I think it's been really enlightening and I know you've got a little bit more to go, but I just have some clarifying comments and then I will have a question for Shannon.

You know the council is really fortunate right now, because the council is going to be asked for input on this that's very specifically the council's job and then the SSC, in collaboration with the Science Center, will take a look at some of the scientific operations of these models and give the council advice, based on the scientific functioning of this.

Very specifically, what I am hearing in this presentation is that the council is going to be asked what level of risk they are willing to consider when looking at the probability of overfishing and that's going to be bounded by what the law says we need to stay within in its bounds, but there are still decisions within the legal aspects, in terms of that tolerance for risk.

Then the second thing is that proportion of MSY you want to target in terms of meeting those management objectives and so there are two pieces of information. The way this is going to work is the council will have some questions that it's the council's job to answer, those two questions.

Then the SSC will go to work, with the assistance of the Science Center, to do the analysis on those models and provide some additional information about those those models run, so that you can see how, of the short list of good models, how they behave relative to one another.

Again, it's comforting to know that we've got two very good teams, the management team making two important decisions and then the science team using those decisions to run the analyses that they need to complete those decisions.

This is good to see those two teams working together and so my question to Shannon is we have these two questions that need to go to the council for their input and it's regarding the probability of overfishing and the proportion of MSY as a management objective they would like to target.

My question to Shannon is when does the SSC need this information from the council to be able to do their part of the work?

SHANNON CALAY: Well, technically, our report is due at the end of March and so we would be ready to show these results to the SSC as early as April and in order to select models that are consistent with the council's management objectives, it would be helpful to have council input by that time.

Now, I realize the timing is difficult and so it may not be that decisions can be made at this meeting, but eventually -- You know the ideal process is to codify the management objectives so that we don't have to readdress them each time we perform a data-limited approach.

There is another thing that stands in the way of using these results, which I am going to get into later, but the first step is to identify the management objectives. Now, if that doesn't happen at this particular meeting, because the decision can't be made, for example, we can move forward. We just won't have the council's advice as to how to determine the candidate models that are most acceptable to the council within obviously the legal framework of Magnuson.

It won't be -- I mean the models will still be run and they will still be available. The discussion will just have to occur after the SSC meeting, at the council meeting, for example, and

I am really just here trying to, A, eliminate -- If we could make these decisions today, we would have a chance to focus on those candidate models that are most of interest to you, so it would eliminate some of the work we would have to do to look at the full suite of the feasible models, and, B, to get this idea that we do need these management objectives at some point, now or in the near future.

CARLOS FARCHETTE: Graciela.

GRACIELA GARCIA-MOLINER: Basically, it would be very fruitful to have council guidance, because at the SEDAR-46, the parameters that you are seeing here were provided by the people who were at the SEDAR-46 and so this is just only guidance at this stage, but it will be so much easier and faster to move the models along if we had an indication of where the council is heading to.

These things can change and they won't be written on stone until such a time that the council so decides, but at this stage, the Southeast Fisheries Science Center would benefit very much knowing where the council is heading.

MIGUEL ROLON: I propose, Mr. Chairman, to allow Shannon to finish and then we'll come back and discuss it.

SHANNON CALAY: Yes, I think that would -- We can come back to the management objectives. This is an example of what the results of these approaches look like and so this graph you see, these are just probability density functions and so sorry for the terminology, but of OFL, in pounds.

In this particular case, you see there are four different approaches, four different data-limited methods, plotted here. They all give you an OFL somewhere between zero and say 35,000 or 40,000 pounds.

 Now, the lines that are drawn down from the curve are just the median of each one of those and so that's median OFL from that approach and, in this case, we just put in a gray line on the far right at a hypothetical annual catch limit derived from only the recent landings history.

In this particular case, which is just a hypothetical example, the OFLs are -- You will note they are lower than the ACLs derived from our recent landings history alone. In this case, the different is quite disparate and I don't know yet what the final results will look like for the stocks that were selected

for SEDAR-46, because those models are still in progress, but I do want to mention here that, for example, this one that is very close to zero, that could be, for example, a model that just has a very, very low probability of overfishing and the tradeoff is that your yield is also very low and so that is one that could hypothetically be eliminated by setting your management objectives so we're clear on which models you will see in the suite of OFL estimates.

It is also possible that once we complete this process that we will determine, through the review workshop and the SSC, that at this time there is insufficient data to apply any methods and create management advice.

In that case, if that does occur, this package still has a very exciting function, in that we can use it to inform data collection planning. It has a function that we essentially would run which determines what data are required for the best performing methods and so we could use it prioritize data collection activities according to the feasibility of collecting specific types of data and what benefits there would be in terms of the corresponding model performance.

If this does take place, what we would kind of recommend is to use interim measures such as recent landings history, what you're using right now, while we essentially spin up the data collection to support the stock assessment.

 I am just saying that in the event that this process at this time is not accepted by the SSC or by the review workshop, due to the data limitations, we should still have in mind collecting the data we need to do this in the near future.

What are the next steps for SEDAR-46? We need to finalize all of the models. The review workshop is conducted February 23 to 25 in Miami and I believe Graciela told me we have three CIE reviewers and we will require three SSC reviewers.

We will or can present the full results to the full SSC after the report is available in April of 2016 or later and, at this point, if the SSC operates like the Gulf or the South Atlantic they would determine whether the results are best available science whether they useful and are to inform management.

Now, the next caveat is that in order to use the DLM approaches in a management context, there may be modifications required to the Caribbean management framework or FMP. Specifically, and

we've talked a little bit about this before, but right now, essentially we have species complexes and a complex ACL derived from recent landings history alone and that is rather strictly codified, in my opinion, in the FMP.

We may need a tiered control rule which allows ABC to be computed using stock assessment advice, should our SSC accept stock assessment advice as best available science. You could still retain the species complexes.

This is just a very cursory tiered control rule, similar to the Gulf Council and the South Atlantic Council. In the top tier, it would basically say if the SSC accepts the assessment for management advice then OFL would be determined from the accepted assessment outcome or outcomes and ABC could be reduced from OFL to account for scientific uncertainty.

If the SSC rejects the assessment, then you use an interim measure, such as that derived from recent landings history alone. That is essentially what the Gulf and South Atlantic have already done and they also have an additional tier in the middle, which is a data-limited tier, but those control rules were derived from the SSC in those cases and adopted by the council.

That's the end of the presentation. I included in the council's briefing document the Gulf of Mexico control rule, the ABC control rule. I don't know if you wanted to look at that now or later, but I guess Graciela is going to show it.

This is at least what the Gulf of Mexico control rule looked like at one time. It's been modified a few times, but you will see that top tier is for a quantitative stock assessment which provides an estimate of OFL and so it tells you how OFL is defined and how ABC is defined.

The second tier is actually intended for data-limited approaches and in the Gulf, the way this is written, we never used. To date, we have not used Tier 2, but Tier 3 is your recent landings history alone tier and in the Gulf, it has two, Tier 3a and 3b.

Tier 3a is for stocks that you do not believe the stock is overfished and you do not believe the stock could be undergoing overfishing and the SSC essentially evaluated each stock to determine if they felt that it was at risk of being overfished or overfishing.

 If it was thought to be healthy, then they actually allowed the landings to increase, but if they thought it could be overfished or undergoing overfishing, then they reduced. ABC is reduced from the recent landings history and that is essentially what the Gulf does and the South Atlantic does something quite similar.

This was created, like I said, by the SSC with input from the Science Center and adopted through a process with the council. I would imagine that there's a need to create something similar in the Caribbean, in order to use stock assessment results when they become available, because right now, there really is no framework for using stock assessment results in the Caribbean. That is the end of my presentation, except for the conversation about management objectives, which I believe was on Slide 12.

MIGUEL ROLON: Graciela and Shannon, what did the SSC do with this, if any, at the last meeting they had?

SHANNON CALAY: Well, I mean Bill can talk a great deal about it, but we basically realized that at some point there will be a need for a tiered control rule and so there was some discussion about how that could be accomplished, but right now, because there are no assessment results that are complete yet, the SSC has not made any decisions about model results.

What they have made decisions about is that, for the moment, they were willing to accept the management objectives recommended by SEDAR-46, pending council feedback and that, in order to use stock assessment results, ultimately we will need a tiered control rule. I think the proposal was to have some kind of an SSC working group to create a tiered control rule in cooperation with SERO and with SEFSC. Bill can correct me if he thinks that's not --

MIGUEL ROLON: Because for the council it's very difficult to take a decision today of something you don't know beans about it and the way it's presented is very difficult to follow, even if you are a scientist.

My proposal is something that we discussed with Graciela before. I believe that this group of scientists that is going to be looking at this to provide some light into the discussion for the council will be the next step and the council -- Because if you have a general overall objective from the council, you should be using the best available model that could be applied to this area under MSA for the benefit of the biology of the fisheries and the socioeconomics of the fisheries. That's kind

of a motherhood and apple pie thing.

But these people need some specific guidance and so my question to Shannon and Graciela and Bill is you are looking at possible management objectives and we are lucky, because the South Atlantic and the Gulf already did that and so they went through a lot of discussion about it and so we have a model to follow and we can tweak it so it can be applied to this area.

 The question at this time to Graciela and Shannon is that looking at possible management objectives, do you think that the council could be ready or do we have any benefit to give you guidance as to where we are directing the next steps?

For example, probability of overfishing less than 50 percent, let me get back to that a little bit. Here, in the same hotel, we were given a presentation several years ago by a very bright scientist and we were looking at a projection of 500 years, twenty-five years, and a hundred years of the fishery using models.

In one corner, you have the yield, the effort, and on the right you have the percent that you have to close or the percent of the shelf you have to close to achieve MSY, because people looked at the left side of it and they all applauded about it, but they forgot that they were closing 95 percent of the entire shelf area that was fishable.

 My point is that you have to really understand this before you make this decision and so at this time, you don't have to take a decision as such, but what we are looking for is some guidance as to where you want to go with this.

For example, Shannon already said that the law doesn't allow anything above 50 percent Iris sat like this and so I agree -- I mean we believe then that 50 percent that 50 percent and above is out of the question and we don't have to discuss that.

SHANNON CALAY: Right.

MIGUEL ROLON: So we are looking at SEDAR-46 recommendations and SEDAR-46 spent a whole week, scientists and people, looking at this and they are recommending to you a probability of overfishing of less than 50 percent and the probability -- That paragraph you have there.

SHANNON CALAY: Right.

 MIGUEL ROLON: If you agree with that, at least that will give the group some guidance to what will be the next steps, the schedule of work that they have. Then the council also may consider the desired yield as fraction of long-term MSY, maximum probability of stock collapse. I still need some more discussion about it so I can understand it and so I believe that you guys should do the same.

Ten or twenty years ago, and I don't remember, we asked the same question and we had some bright scientists who came and gave us a talk about this at La Parguera and it was Roy Crabtree. There, we showed the council the consequences of going one way or the other.

I guess that we are in the same place here, where the council needs to know, okay, don't be afraid to accept the management objectives of SEDAR-46, because you can change it. The council may also wish to consider these two, the desired yield as a fraction of long-term MSY and, Graciela or Shannon, can you explain that a little bit and what is it.

SHANNON CALAY: Essentially, some of these models may have a very low probability of overfishing, but they accomplish that by essentially setting your catches in the future quite low and so they basically could expect very low catches in the fishery and so you might want to eliminate those models that don't achieve at least some fraction of what we think the fisheries are capable of in the future.

It's just eliminating those models that are unnecessarily, by law, conservative. Presumably you would want to choose those models that are legal and that achieve as much yield as possible. That is usually what you would expect and so, for example, you could eliminate any models that don't allow at least 50 percent of the maximum sustainable yield long term to be -- That would be your ABC would be at least 50 percent of MSY and that would eliminate certain models that are just very conservative.

The reason I am saying this is it's a very unusual place to be in, because usually when we present stock assessments, we don't have to talk about these tradeoffs explicitly, but because of these data-limited approaches and the fact that we're running essentially up to twenty of them at a time, there may be cases where the choice of model is actually a decision about how much risk a council is willing to accept, because all of the models that we present as candidate models will already be legal under Magnuson and they will already be diagnostically acceptable.

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Then it really is how much yield does the council prefer to have, how much catch, and what variability in yield, from year to year, does the council prefer, because some models could be eliminated that, for example, have very variable catches from year to year, because perhaps the council prefers to have stable catches for the economic benefit of the fisheries.

Now, if you don't want to set metrics about those, that's fine and we can just go with what I believe to be the legally mandated metrics about preventing the overfished condition and not allowing overfishing and we could just -- We could just say let's just do straight up what I believe to be Magnuson rules and not worry about those other metrics for now and so you will see the full suite of feasible models and you will have to make those discussions about the management objectives at the time when you see all of the presentation of all the possible outcomes, after we have eliminated only those that are illegal under Magnuson.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: Shannon, so as it stands, there is two questions on the table for the council and one is to what overfishing risk do you wish to establish and the other is what percentage of the possible yield.

SHANNON CALAY: Yes, those two and there could be others, but --

BILL ARNOLD: Okay, but given that those two are sitting out there right now, it seems to me that we can deal with the one about the risk of overfishing, because if the legal requirement is less than 50 percent -- Please correct of where I'm wrong on this, but if the legal requirement is less than 50 percent, but the farther you get below 50 percent, the more restrictive your allowable catch is going to be, couldn't the council just go ahead and answer that question by saying we want 49.99 percent, or is that --

SHANNON CALAY: I believe so and if Roy disagrees with me or Bonnie disagrees with me, they should speak up, but I believe that anything that has less than 50 percent probability of overfishing is technically legal.

CARLOS FARCHETTE: I have Roy and then Iris.

47 ROY CRABTREE: I am curious to see what Iris is going to say 48 before I go. Do you want to comment on that, Iris?

 IRIS LOWERY: I think that the legal requirement is that overfishing shall not -- The probability of overfishing should not exceed 20 percent, but also, at least the guidance on this, says that it should be a lower value and so I don't know that we really want to say, because one of the goals under Magnuson is conservation, that we just want to say 0.1 percent lower than is allowed -- It sounds like there are, and maybe the models have different -- You know there might be one that has a higher yield and a lower probability of overfishing and so I don't think that we certainly want to set -- I would imagine that the council might not want to set a certain percent probability without more of a basis for that.

BILL ARNOLD: So two things real quick. You mean 50 percent and not 20 percent, I hope.

IRIS LOWERY: Sorry. I meant 50 percent, yes.

BILL ARNOLD: Just so that's clear.

IRIS LOWERY: That's what I meant. Yes, sorry.

BILL ARNOLD: The other thing is in our case there is no sense taking a shot in the dark and setting up much lower than 50 percent, because as long as you set it at 49.99, you will capture the models that work at 49.99 and all those models that work below that.

SHANNON CALAY: That's correct.

BILL ARNOLD: As far as the council is concerned, if they needed to answer that question, it seems to me that their answer would be 49.99 or less, rather than saying we're going to get the dartboard out and we're going to select 28.3 percent or 13.5 or whatever it may be, given that we would have a very difficult time making an objective determination of what that percentage should be, but I am asking and not telling.

IRIS LOWERY: Right and sorry and I think I misunderstood exactly what you were saying before, but right, I would agree with that approach.

CARLOS FARCHETTE: Roy.

46 ROY CRABTREE: Yes and so I think it might be fine to look at models that have a probability of less than 50 percent and go from there. It does seem to me though that -- I would want the

probability of overfishing to be less than 50 percent. I would think we would want to get in the 40 percent, 30 percent or 40 percent, something like that, but it's hard to say until you know what the consequences of that means in terms of what it does to the yield.

I also think, Shannon, that -- I would think we would want to catch 75 percent of MSY, or something in that ballpark, and so models that are going to give us very low fractions of MSY don't seem reasonable to me for what we would want to do.

I think as an initial cut at the minimum stock size threshold that we could look at 50 percent of BMSY and it seems to me that we would like to have some stability in these fisheries and not have the catch levels going up and down from year to year.

That is kind of my first cut as to where, in a general sense, I would think we would want to be, but it's really hard to say exactly until you take a look at some of the outcomes and see what it would really mean in terms of the fisheries.

SHANNON CALAY: Yes, I agree.

ROY CRABTREE: But that's just my initial opinion.

MIGUEL ROLON: But it's a good initial opinion, because, guys, this looks harmless, but the more vulnerability you have, that will translate in the future and it could translate in the future in longer closures and longer penalties for your fishery and so you have to shoot for something that gives you some stability and, at this time, what -- You know, personally, I believe the first part is okay. The second part, what percentage of the MSY you would like to look at, you don't have any element of judgment at this time unless you have a table in front of you that says, well, what will happen at 75, at 85, and at 95.

 In the lobster fishery, for example, people were looking at the possibility of catching as much as possible, but, given the uncertainty and the issues that we have, that's something that we should not do and so we cut it by 10 percent or something like that.

 Here is the same question. The first part would allow you to eliminate legally all those models and it's less work and so you concentrate -- The staff will concentrate on what is really workable here and so you if you follow the discussion that you have here, you want to be close, as much as possible, to 50

percent, in the first part of the question.

Then the second part, you need to have some kind of assessment of what are the implications of 75, 85, the different percentages of MSY.

If I were a fisherman, I would like to have as much as possible, as much as I can get, because that is my livelihood, but if you are a manager, which is what you are right now here, you are responsible for the resource and you are responsible for the socioeconomics of that resource and so you are looking for long-term management, as steady as possible, of this fishery and these numbers will offer you, with the information that we have, will offer you some guidance and so please correct me here, but can the council say then that the staff should go for the recommended SEDAR-46 and work on that and eliminate those models?

Bill also said that you don't want to get too close to the models that are too restrictive and so we should stick around the models that will give you 49 to 50 percent.

Then, again, for the council, is that's okay, if that's something that you can use, go ahead and do it at this time and remember that you are giving guidance and you are not taking final action on any of this, because they need some time to discuss it and when you see the report from the SSC in April, this will be cleared up a little bit.

Graciela, Bill, and Shannon, do you need specifics at this time for the second part, the fraction of the long-term MSY and the maximum probability of stock collapse?

SHANNON CALAY: I don't think we should even entertain at this moment the maximum probability of stock collapse, because we can compute that at any time and so if that's something you want to examine, we can show you, but I do think that, under the first set of bullet points, allowable variation in catch, a CV of 15 percent just means essentially you would have 15 percent variability from the median, from the mean, year to year and that is pretty tight.

That is not a lot of variability and it might in fact eliminate a number of models that have acceptable variation, but larger. So what is the maximum amount of variation that the council is willing to tolerate from year to year? Is it 15 percent or is it 30 percent?

 MIGUEL ROLON: Shannon, if you were deciding probability, what would you recommend? What would make sense for the council to follow?

SHANNON CALAY: All we're doing here is if a model had a variability, a CV, of 16 percent, for example, you would not see that result. It would be eliminated and so I don't want to unnecessarily eliminate things that may be of interest. You don't have to select it, ultimately, but I think I might choose a CV of 30 percent, just to avoid eliminating more models than we expect and so a CV of 30 percent, you could still select models that have less variability, should you choose to, but you will at least see them, instead of eliminating them.

ROY CRABTREE: It does seem to me that 15 percent is too low. I was thinking 25 or 30, in that neighborhood, but to expect our catches not to vary more than 15 percent doesn't seem realistic and I just think they will and so 30 percent sounds like a reasonable first cut to me, but it certainly needs to be higher, I think, than 15 percent.

CARLOS FARCHETTE: I have Bill chomping at the bit here and so Bill and then Blanchard.

BILL ARNOLD: A couple of things. One is there are two other control points here. What these models are going to output is your overfishing limit and then the SSC -- The scientific uncertainty component of this has to be factored in, to take that OFL down to the ABC. That's basically the SSC's job, because they provide the council with an ABC that cannot be exceeded.

 Then there is the management uncertainty that can be factored into this that reduces from your ABC down to your ACL and so there are other control points here and those could be zero percent. You can make your ABC equal to your OFL or you can make your ACL equal to your ABC, but, still, you also have those additional control points.

 The second thing is, again, I remind you of island-based management and I did, a couple of years ago, when we were talking about reduction factors, did a quick calculation of what the variability is in the St. Thomas fisheries, for a couple of those fisheries, and this is -- It was about 15 percent.

That doesn't mean I disagree with Shannon, because her point is well taken. You can put a higher percentage on there and collect more models. That doesn't mean you have to ultimately

favor those models or choose those models, but it just makes the playing field a little bit larger and so I am sympathetic and certainly probably in agreement, from what I know, with the idea of having a higher percentage of variability allowed to choose the models.

MIGUEL ROLON: Okay, guys. If I were you, with this brain power around the table and at the meeting, I would go with 30 percent, 50, and 50. That will give you the flexibility that you're looking at and, that way, you will be able to not throw away some of the models that will make sense here, some of the species.

 This toolkit that has fifty-plus models is something that we collect from the scientific literature that could be applied to the island situations that we have here and so I know it's kind of difficult to grasp all of this at this time and probably you have to go by faith or trust in the people around here, but you had a discussion already today that tells you that 50 percent or less is legal.

You have a scientific discussion and an exercise that Bill said that 15 to 30 percent is a good percent for the annual variation and maybe you will be ready to guide the staff to use 50 percent and 30 percent for the annual variation.

CARLOS FARCHETTE: I have Blanchard.

TONY BLANCHARD: I don't want to sound like a pessimist, but I am going to throw it out there. We refer to this as a toolbox, but did you ever buy a brand-new tool and you put it in your box and you always go back to the old tool, because the old tool is better than the brand-new tool and it's just a pumped up version to make it look better?

What I see here is we are looking at another way to analyze data and it's clearly stated that this is data-poor and it has not been tested in the Caribbean and so what I think we're doing here is grasping at straws. I don't know why we're grasping at them, but that's what it sounds like.

 I understand sometimes the need to take a different route to get a better idea, but remember, just like the new tool, it might look good and pretty and shiny and it don't mean it's going to work any better and so my thing is we talk about the probability and about maximum sustainable yield and everything and this is the Department of Commerce we deal with here and as far as I know, commerce is about moving money. Yes, you have to have to restrict to a certain degree, but remember that money has got to move. That's what commerce is about, unless I am completely lost in this whole thing here. We can't be too restrictive and we can't be too afraid.

Now, she brought up a whole screen of different scenarios and what I've seen here is just because of the mere fact that this has not been tested in the Caribbean, maybe the one that's actually looking at 60 percent, which ain't a good deal, might actually be the better deal for us.

I understand what you are saying, Miguel, but what I am saying is until something is tested, you can't say it's going to work or you can't say it ain't going to work. That is what I am saying and really, I feel like I am sitting down here and I'm being a guinea pig and being probed at for a new way of looking at something, for a new drug to test on me is what it sounds like.

Maybe I could be completely lost, because I ain't a scientist and I ain't speaking the same lingo, but, from my perspective here and the rest of the laymen, and I am sure they will tell you the same thing, we feel like a guinea pig.

MIGUEL ROLON: Trust me, if you don't do something, that guinea pig is going to die, because the law forces you -- If you do nothing now, nothing at all, you are forced by law to use the best available information that you have to establish these parameters and I kept saying this in 1970. The best available information now is the worst available information you could have and it's serious, but you don't know that until you have the models play with it.

 All the scientists are telling us at this time that we may need to apply better tools to the data-poor situation that you have, because, by law, you have to do it. If you have a species in the management unit, you have to have an ACL and the SSC spent about three hours discussing about two pounds of a fish and that's something that we should not -- That's a waste of time anyway, but here, we are not forcing you to make a decision that will lock you forever on it.

Here, what we need to know is, more or less, if you understand the concept, what will be the wish of the council as to what to pursue? Do you want to have models that will be more restrictive or do you want to have models that will be so wide that you don't know what the fisheries is doing between year to

year?

You may end up that if you choose a model that is too wobbly at this time, that gives you too much leeway, and something happens to that fishery and that fishery goes overfished, then you close the fishery. If the fishery suffers such a high overfishing situation or you go over the level that you are supposed to have, then you won't be able to -- I mean you will have to have more closures, more dates, in the long run.

 The thing is that whatever we do under the Magnuson Act has to be supported by the best available science, the best available models and the best available science, and that's what they are trying to do here.

It is difficult to grasp all of this without specific examples and I know that, but, believe me, this is one of those times that you have to pray that this will work and allow the scientists to give you more information for the next time.

The buffer between you and that guinea pig is the SSC. The SSC must have this information for them to make a scientific decision that will provide you with the information that you need as to how you are going to proceed. They won't be able to give you this at this time, because, as Shannon said and all the others on the panel here, we need to provide them more information for them to make a decision and that will take place in April and so that's where we are right now.

CARLOS FARCHETTE: Dr. Ponwith.

BONNIE PONWITH: Thank you, Mr. Chairman. Mr. Blanchard is expressing skepticism and I respect that, because that's part of science. That's how science is done and so we have new tools that we're using that are data-limited tools and the council has come to the SSC and to the Science Center and said find us tools that are explicitly tailored to the data circumstances we have in this region and that's what we're doing, but we have fifty-seven of them.

Today's decision and discussion among the council is not to set a catch level. So you don't have to worry about a catch level. This is your skepticism is serving you well and you don't want to set a catch level today.

Today, all we're doing is making decisions on management objectives that reduce us from fifty-seven models to a smaller number of models. Once we narrow down what models will serve

our purposes the best, then we can run those models and do exactly what you are asking. How do those models perform?

Rather than doing that fifty-seven times, we want to do that for only the models that meet the legal requirements of Magnuson and the rest of them we will leave out and then we can look at some of those other management objectives and use those objectives to narrow down the fifty-seven to a reasonable number of models and then see how they perform, so that you can see what you want to see, which is now that we've narrowed it down to this smaller subset, how do they perform in giving us catch level advice?

That's what we're trying today. I think you're exactly on the right track. That's what we're trying to do today by these questions.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I don't want to be misunderstood. Don't get me wrong and I am not saying that we shouldn't explore some of these, but what I am saying is because something is new, it don't mean that it's going to work better and I am just throwing that out there so we remember that, because this might look shiny, but that don't mean that it will work good. It just means that it looks shiny.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: Shannon, I hope you're still there. I just want to make sure that we're clear on this concept of application. The SSC submits this to the council -- I'm sorry. SEDAR submits it to the Council of Independent Experts and the SSC and they review it and their determination is that the models are either applicable or not or that they're applicable to a subset of the species and other species have to be analyzed in different ways or they say the models work, but we choose the species that they really work well for and others we apply different techniques or how does that work? I just want some clarification on that.

SHANNON CALAY: The review workshop is charged with reviewing all of the data inputs to determine whether we have the best data inputs and whether we are using them appropriately. They look at all of the assumptions we've made to determine whether they are the best possible assumptions and they look at the models themselves and look at the structure we've set up and so they actually evaluate every single step of the process to determine whether we have treated the data, the assumptions in the model, in the best possible way.

They are not really supposed to accept or reject an assessment. They are welcome to comment and criticize. You know if they feel that we've done something that is not defensible, they are certainly very welcome to say so in their reports, but, ultimately, that body of information about their evaluation of the data and the models and their comments regarding the data and the models, that all goes to the SSC, potentially in April or later, and it's the SSC's decision really to accept the model or not for management purposes.

So in the Gulf, for example, we've had some cases where the SSC had said yes, we accept that this is the best we can do at this time, but we don't accept that this is useful for management and so it's really the SSC's ultimate decision whether to use this information in a management context.

In the Gulf and the South Atlantic, the next step after a model is accepted is to determine what OFL and ABC are through some sort of control rule, which the SSCs constructed.

BILL ARNOLD: Sorry to interrupt, Shannon, but that's where the tiered approach comes into play, right?

SHANNON CALAY: Right.

 BILL ARNOLD: In that tiered approach, these data-limited models may be acceptable for a subset of the total number of species and complexes that we have to manage and so that tier, those models would be applied, but then there's still a bunch of species or species groups, potentially, out there which do not fit into that tier and then they would go to another tier and that next tier may be something like average catch over a certain period of time.

Even then, possibly, and maybe not likely, but possibly, some some species or species groups still may not fit and they would go to yet another tier that is expert judgment on how much we catch. Just tell me if that's a correct overview of this.

 SHANNON CALAY: Yes, I don't have any experience with the expert judgment category, but I know that the first two tiers you suggested are already in use at the South Atlantic and Gulf and so yes.

Then the expert judgment idea, you know there would have to be specific management metrics proposed that we were evaluating to determine how you might increase or reduce catch and whether --

You know the legal context of that is not something I am familiar with yet and so we would have to work with General Counsel to make sure a tier like that was written correctly to be legal under Magnuson.

BILL ARNOLD: I was just throwing out an example and don't worry about that. Maybe we don't do that.

SHANNON CALAY: It could be very useful, but I just don't have any direct experience with that particular idea.

MIGUEL ROLON: Guys, even the experts are having issues with one approach or the other and so at this time, let's try to make it simple. We want to get as much as possible that is legal and these models is like you having a toolbox and you have a flat tire and you have a bunch of large wrenches that you are not going to use. You look for the ones that will do the work for you.

That's more or less what we are trying to do here. Out of those fifty-seven wrenches that we have in the toolbox, we want to throw away those that it doesn't make any sense to use and also, this -- The variability issue, if we can do it with 25 to 30 percent of variability, that will give you the flexibility that you need and, again, you are not going to be locked into these numbers until you finish the exercise through 2016.

We have a goal of having some things already implemented by 2017 and so, at this time, I know that you have to take this by faith, until you see it in some other context. Your opportunity to see how this will be recommended to you will be in April, when the SSC takes all this in consideration and gives you the specific recommendations that you will need.

CARLOS FARCHETTE: I have Director Gomez and then Bill.

RUTH GOMEZ: First, let me say remember that I'm new to this process and it's been quite some time, but I keep hearing words like "data limited" and "data deficient" and so I guess my question is I know we want to come up with something and I agree with you, Miguel, that we need to do something now, but if all of this is based on data, then somebody just answer something for me.

 Did you guys take a good, hard look and see whether our data is good, deficient, or bad? Because I keep hearing we want to come up with this end result and we're going to do it using the data that's there, but then Bonnie said, well, it's data limited and

that makes me very nervous and I understand the skepticism that they have, but understand that for as long as I can remember, it's never easy to find that happy medium between science and making sure their livelihoods are protected, but, then again, I'm going to go back to your analogy and your analogy.

You go in the toolbox and you eliminate the tools that won't work to fix the flat tire, but then you come up with a new tool, because that looks like it's going to work, but then you drive fifty-yards down the road and the wheel falls off.

My thing is did you guys look at the data and if you did, was it extensive and is it going to work for what you're trying to accomplish, because the end result is we're trying to do something now, but you don't want to half do it now.

CARLOS FARCHETTE: Dr. Ponwith.

BONNIE PONWITH: That is an excellent question, an excellent question, because that is the context of this whole discussion. What we mean by data limited right now is we tried two different approaches.

One is taking the data that we do have and using traditional age-structured stock assessments that are done in other parts of the country and frequently what we see in that situation is that the data, the types of data, the depths of data, the length of the time series, are really inadequate to support those more sophisticated stock assessment approaches.

The other end of that continuum is the ORCS approach, which stands for only reliable catch, where you take landings data and buffer that by --

SHANNON CALAY: I am not sure if you can hear me, but I cannot hear the meeting anymore.

BONNIE PONWITH: Okay. Buffer that by some level of uncertainty. What we feel like, as part of this stock assessment, is we did an exhaustive look and it was called the data triage, where we went to every potential data holder we could find and pulled all those data together and did QA/QC and used that to make determinations on what type and what time series we had.

Basically what we've learned from that process is it is going to be hard in the future to use the more rigorous approach, but we can absolutely do better than only reliable catch and so this data-limited is that in-between ground.

The models that they have, the fifty-seven modeling approaches, picking which one of those fifty-seven is the right modeling approach will be determined based on a matrix we've developed for each of these platform species combinations of the quality and the time series of data.

What we can do then is tailor the selection of the model to the data availability, so that we can take full advantage of the data we do have without stretching those data beyond what is really scientifically advisable and finding the sweet spot.

This whole question, from the management perspective, is to narrow down and if we have a model that we know is just simply not appropriate, based on whether it meets the law or not or some of these other management objectives, we can throw those out and really focus on the ones that are closest to that sweet spot as possible and that takes full advantage of the data that we do have without stretching those data beyond what's reasonable or scientifically prudent.

RUTH GOMEZ: Can I ask another question? Maybe two or three slides back, you made mention to interim measures and data collection and I am big on data collection. When we were talking about coming up with what would work best and getting close to the sweet spot, for areas where we were data deficient, the interim measures, great. Skepticism this gentleman has, it's an ongoing and it's a historical thing and some valid and some weak, but when you take an assurance and you take skepticism, you always end up with the best result.

Maybe the thing you might want to tell them, instead of trying to, as Mr. Blanchard keeps making mention, fitting a square inside of a triangle, is tell them, listen, this is the best that we can do right now and it's what it is and it's the data that we have and this is the best models we can come up with to obtain that as close to the sweet spot, as you put it.

If it doesn't work or we need to do something, the data collection, we give you the assurance that we will make it available, to the best of our ability, because here is the thing. It is the responsibility of Dr. Crabtree and his crew to make sure that management plans in the Caribbean, Puerto Rico and the U.S. Virgin Islands, are based on the best data.

Sometimes you have to do something in the middle, because you have to do it now, but it may not be the best thing to do and it

may not be the best end result, but when you collect that data, we can get to that sweet spot and we don't have to skirt around it and we can hit it right in the middle and so give them the assurance that you're going to collect the data that they need in order to get to your sweet spot and not just try and do the best and do a mediocre job.

MIGUEL ROLON: That is precisely the whole point of this exercise. We want to minimize waste of time, money, and exercises in futility. By following your line of thought, you will then dispose of those models that don't apply to the data that we have here and are not even germane to the discussion, because they do not apply to what we have here.

The analysis that they are going to make will give you guidance as to whether the data that you collect is enough or not and whether you have to -- One of the slides that Shannon presented said if any of this works that we will still rely on catch and the way that we are doing it now and so we will go back and -- A safety net is we will go back to what Tony was saying.

If it doesn't work because -- It's shiny and all that, but if it doesn't work at the end, then we will go back to square one and we will do what we need to do to make it work and so at this time, again, what the scientists need to know from you is do you want to analyze the fifty-seven models or do you want to keep the analysis to those models that could be applied to this area, that could be legally applied to this area, and that's where the 50 percent issue comes in.

Do you want to have a lot of variability from year to year, exposing yourself to more restrictions from year to year, or do you want to have the buffers of 15, 20, or 30 percent and that will give you some steadiness in the way that you are managing the fishery? That's all we are asking here.

The second part is kind of tricky, because you cannot right now say I want to fish 100 percent of MSY, because the law will not allow you to have it and you have to have a buffer.

You could start a discussion by saying we would like the staff to make an analysis with an example of what will happen at 75 percent of MSY and 85 and 95 and then you make a decision at the end, but, at this time, picking one out of the blue doesn't make any sense, but the first part will give some direction to the Center and the scientists working on this. Remember that we mentioned a little committee and, Graciela, will you refresh our minds who will be on that committee?

GRACIELA GARCIA-MOLINER: The SSC recommended to form a working group composed of SERO, and so Bill and Maria and General Counsel; the Southeast Fisheries Science Center, Shannon and maybe Kevin; and the SSC, represented by Todd Gedamke and Richard Appeldoorn; and me, myself, and I.

MIGUEL ROLON: To do what?

GRACIELA GARCIA-MOLINER: To specifically develop the concept and language for Action 3, develop the ABC control rule and reference points for the U.S. Caribbean.

MIGUEL ROLON: What is the connection with this?

GRACIELA GARCIA-MOLINER: You need to look -- This is directly related also to the island-based fishery management plans and this is where everything gets all --

MIGUEL ROLON: Yes, but the connection with this is what?

GRACIELA GARCIA-MOLINER: So that we would know if these models, for example, would be part of the tiers that we would use or if we would go back to using the catch-only information that was used for setting the ACLs.

I need to make a parentheses here and remind you that because the ACLs were based on catch-only information and somewhat with the ORCS -- When Jim Berkson was part of the SSC, we had been requested to look at other ways of setting ACLs and this specifically addresses this issue and so SEDAR-46 is basically looking at another way of analyzing and evaluating the populations that we have here in the area, using models that have been used somewhere else, but for the same specific reason, with whatever information is available. That all comes back to going to Action 3 and setting up reference points to get to the ACLs. It all goes back to that.

 MIGUEL ROLON: Thank you, Graciela, because the council -- You made a decision three years ago and the decision was to ask Dr. Bonnie Ponwith to just do what she did, which was look at different models that could be applied here that would not be such a straight jacket that you won't be able to move, because that's what you have now.

What she has done and the scientists working with her and the other group that Graciela mentioned is to try to look for better legal ways to adapt the models to the data that we have. That's

all we are doing and so you have -- If you tell the staff to go with the 50 and the 30 percent, then that group that Graciela mentioned will work and will provide -- They will develop the models that you need and will develop the information and the examples that you need to make further decisions.

I suggest, Mr. Chairman, that we have a meeting at noon with Roy Crabtree and so to break here and you guys think about this in front of a hot dog that costs you eighteen-dollars. That is Reni's favorite.

 Then, after lunch, we can come back and be ready to give the decision and the guidance to the group and do you want to meet with you guys together at lunch time and discuss it a little further, I encourage you to meet with Bill and Graciela so you have more insight as to what this is all about.

CARLOS FARCHETTE: I have Bonnie. Are you good? Bill.

BILL ARNOLD: Just a quick comment. Before this meeting ends today or tomorrow, I want to make sure we have the complete process in place for how we're going to get to our endpoints on this, the steps and the meetings that are required to achieve those steps, and get us walked through this process, so that when we are scheduling the council meetings for 2016 and the SSC meetings that they are scheduled within this framework of the step-wise process to keep these FMPs moving forward. The FMPs don't move forward unless we can get Action 2 and Action 3 settled.

MIGUEL ROLON: Can we have the use of your brain and ask you to kind of outline and then we can follow --

BILL ARNOLD: Kind of, but it's going to have to be iterative with Shannon. I've got to make sure that the things I have in mind are what she needs and what the SSC needs, et cetera, et cetera.

MIGUEL ROLON: But Graciela and you will have a better grasp of that schedule and what it should be.

CARLOS FARCHETTE: I have Director Gomez.

RUTH GOMEZ: I have a quick question. You said there were fifty-seven models and of that fifty-seven, how many are legal?

BONNIE PONWITH: That is the very question we are trying to answer today and that is the -- We have to have, from what I

understand from counsel, is that we have to have a minimum of a 50 percent probability that we're going to end overfishing. That number of models that do not meet that requirement are automatically out and then it is does the council want 50 percent to be the level or I heard Dr. Crabtree say 40 percent or 30 percent and it's picking what probability of having ended overfishing, which is a legal requirement, the council would like.

Knowing the answer to that question tells us how many models are in the sweet spot, from that perspective. Then once we have that done, there is the second question of what percent of MSY, in terms of model performance, are you willing to live with and how much stability in the fluctuations in the catch levels are you willing to live with. The answer to those questions will determine how many models we are actually looking at.

CARLOS FARCHETTE: I have Graciela and then we will break for lunch.

GRACIELA GARCIA-MOLINER: With the information that we had, that we proposed at SEDAR-46, we ended up with seventeen models that were looked at and so it drops that dramatically depending on what you choose and so think about variation over time, in terms of how much you are willing to allow for that variation.

 That's the information that we produced at the SEDAR-46 and so now, if there is more guidance, for example, to increase the allowable variation in annual yield, as Dr. Crabtree had mentioned, to be more and if you want to harvest more of the MSY, up to 75 percent, then that would change the suite of models that would be available.

CARLOS FARCHETTE: We are going to break for lunch and be back at 1:30.

(Whereupon, the meeting recessed for lunch on December 15, 2015.)

December 15, 2015

TUESDAY AFTERNOON SESSION

The Caribbean Fishery Management Council reconvened at the

Frenchmen's Reef and Morning Star Hotel, St. Thomas, USVI, Tuesday afternoon, December 15, 2015, and was called to order at 1:30 o'clock p.m. by Chairman Carlos Farchette.

CARLOS FARCHETTE: We will start getting back to the meeting here in a couple of minutes. If we don't need a couple of minutes, we'll start right away. Okay. We have some things to finish with the SEDAR-46, I believe, before we continue or are we good with that? Okay. Continuing with SEDAR-46.

GRACIELA GARCIA-MOLINER: Does the council want to make any recommendations specific to the --

 MIGUEL ROLON: Yes, we want to make the recommendation, but please go back to the -- Okay, Mr. Chairman, here we are again and hopefully you discussed this with your sandwich. The SEDAR-46 recommended -- Again, let me explain what SEDAR-46 is. It's a group of scientists and fishers and some of you attended those meetings, partially or totally, the whole week, where they look at all possible scenarios of things that you can use for this area and they came up with that recommendation.

The recommendation, again, is legal and it gives you the flexibility. This morning, we were talking that perhaps our allowable variation in annual yield should be 25 to 30 rather than 15 and 15 is too strict and so maybe you can have a motion now to adopt that one and remember, nothing that you have here will preclude you from considering other alternatives in the future. It's just that we will give guidance to the staff that this is the way that we wanted to do it.

What this will do is that you will eliminate, out of the toolbox, forty of the fifty-seven-plus models and that will give more opportunity to be more efficient for the Center to focus on analysis of those seventeen models.

The allowable variation in annual yield, also, if you choose 25 to 30, they can then use that guidance to continue their work and maybe we should divide the question and then the second one, the council -- The yield and all that can be considered in a second part, but if you guys are ready, we would like to have a motion to give direction to the staff. Not all at the same time.

CARLOS FARCHETTE: So does somebody want to be brave and --

MARCOS HANKE: I would like to present the motion and maybe somebody can help me with the language. The only thing my

1 motion will be is to include -- I make a motion to include all 2 models that follow under the legal parameters discussed before.

I am requesting help on the language, but I discussed it with to ther people and this is the only thing that we feel comfortable or have the knowledge or the ability to support right now.

MIGUEL ROLON: The point is, Marcos, you have to translate that into a language that can be used, as we did before. Are you referring to the 50 and the 30 percent?

11 MARCOS HANKE: Yes.

MIGUEL ROLON: Okay and it's move to adopt the recommendation of the SEDAR-46 as follows and then you copy that. Graciela, do you have any quarrels with this one?

GRACIELA GARCIA-MOLINER: If you want them to continue what they 18 are doing right now, then that's it.

MIGUEL ROLON: Yes, but we need to answer or drop the question mark on the 50 percent MSY. Do people understand what people what 50 percent MSY means? The allowable biomass -- If you look at the models, you have a bell shape and so you have zero biomass to 100 biomass and usually the fishery top of the MSY is where you have 50 percent of the allowable biomass. If you have 1,000 fish, you don't want to fish all the -- The maximum sustainable yield usually is at the 500 level and that's what this means, 50 percent of the total biomass.

30 If you adopt this as a motion, you can drop the question mark of 31 50 percent MSY and that means that for some reason you like the 32 50 percent everywhere.

34 MARCOS HANKE: I have a question, a clarification question. 35 This is what was recommended by the --

MIGUEL ROLON: SEDAR-46.

39 MARCOS HANKE: The SEDAR-46 in terms of the minimum legal 40 parameters that we have to follow, correct?

42 MIGUEL ROLON: Yes.

GRACIELA GARCIA-MOLINER: That is what they did. They just took 45 -- You know this is the default values and plugged them in and 46 that was the decision that was made.

48 MIGUEL ROLON: You need a second.

TONY BLANCHARD: Second.

MIGUEL ROLON: Then for the discussion, we don't have to go into the whole discussion again, but what you are doing here is eliminating those models that you think should not be applied to this area.

 As Bill said, you want to get as close as possible to 50 and so you may end up with 49.99, but that's a technical thing. Then you should vote on this one and then we will follow with the other part.

CARLOS FARCHETTE: I have a question on this one. If they go with a probability of overfishing of less than 50 percent, they are going to take from that 50 percent all the way down or are they going to stop at any point, at 30 or 15?

MIGUEL ROLON: That's another thing that was mentioned by Bonnie. You don't want to go to the model that has 10 percent or 5 percent. It's too restrictive, but at least this way we will give some guidance to the group of how they are going to analyze all of this for your perusal some time in 2016.

CARLOS FARCHETTE: Any other discussion? Bonnie.

BONNIE PONWITH: So if I understand correctly, 50 percent of BMSY is the lowest MSST that is allowable, but I will request counsel on that one. The second -- Well, let me stop there.

ROY CRABTREE: Yes, that is the lowest that are provided by the guidelines, even though it is used pretty commonly in a lot of places, but, Billy, don't we have -- What do we have for MSSTs right now? We just don't have them?

 Part of the reason is we have never been able to calculate one. We could come up with theoretical formulas, but in the absence of an assessment or something like this, you didn't know what the biomass was and you couldn't calculate BMSY and so that's always been a problem. That's probably a starting point and we might go somewhere else at the end of the day.

CARLOS FARCHETTE: Bonnie.

BONNIE PONWITH: Then the follow-on question is we did talk about the variability of the advice and my question is, is there a desire to include a management objective for managing that variability as well?

MIGUEL ROLON: Yes, in the second motion.

CARLOS FARCHETTE: Okay. Hearing no further discussion, we will take this to a vote. All in favor say aye; any nays; any abstentions. Hearing none, the motion carries. We will go to the next one.

MIGUEL ROLON: Mr. Chairman, this is the second part of the question that Bonnie was addressing. This morning, it was discussed that perhaps 15 percent is too restrictive and maybe we should ask here of 25 to 30 percent. Remember, what that means is that if you have a hundred pounds per year, you are allowed in this way to have 115 next year or 185 the following year.

If you have thirty, that means that you are allowed for 130 or seventy and that will be your variation and so, given the datapoor situation that we have here, Dr. Roy Crabtree suggested that perhaps 25 or 30 percent will be more appropriate than 15 and so for that we need a motion and then include the -- The motion, for the sake of argument, could be that the council instruct the staff to follow the guidance of annual variation in average yield of a CV equal to 25 or 30 percent.

MARCOS HANKE: Miguel, I am going to repeat, but I just want to make sure that I understand. The hundred pounds of fish, if we have the 30 percent, the ACL and those limits will consider 130 pounds, correct?

MIGUEL ROLON: No, what it means is that you have -- This is for statistical analysis and all that, but if you translate that at the end, you will have a buffer, a buffer to play with.

MARCOS HANKE: Okay, a buffer that we allow.

MIGUEL ROLON: Not necessarily to allow, but you will have a buffer that you have to decide whether you allow it or not.

MARCOS HANKE: That's the part that I think everybody here is a little confused and we need to make sure that we understand.

 SHANNON CALAY: If I could jump in for a moment, the idea of a buffer between OFL and ABC, that would be determined by the scientific uncertainty from some of our sensitivity runs and other diagnostic outputs, but this question is a little bit different.

 The question about the variability in annual yield is really how much variation in catch from one year to the next the council and the fishermen desire to have, because some of these models will produce very stable results from one year to the next and some models, because they are more ad hoc in nature, they may allow very high yield in one year, but would result in very low catches the next year.

It's really about eliminating approaches that have this intrinsic variable nature and so this is more about It's more about what your fishermen desire to socioeconomics. have in terms of stability of catches from one year to the next and less about that buffer, which is determined by scientific uncertainty.

MARCOS HANKE: Okay. I am getting that and I am understanding and thank you for your intervention. Shannon, how do you calculate this uncertainty that we are discussing now then? How do you address that? How do you get to that number, the variability?

SHANNON CALAY: There is a slide which showed you OFL estimates and it had basically a curve, like a normal distribution, and then it had a median and that distribution of results is determined by the uncertainty in each one of your model inputs and so we can specify for each of the inputs the degree of uncertainty that we allow, so that if the result is very variable, the SSC could choose to use a buffer and the buffer — That's more about — I know this is very technical and I am trying not to get into too much technical detail, but it's difficult, because the SSCs, for example in the Gulf, have a whole ad hoc what they call the tiers and dimensions table that looks at what your model inputs are and how your model is structured and that's how they determine what the buffer should be. They use what's called a P* approach.

Then we take that distribution of model results that I showed you on one slide and we calculate what ABC would be, given the buffer that the SSC determines. We can still do that and there is no rule in place for how that would be done in the Caribbean, but the SSC could create a rule and we could apply it.

This question about the variability in annual yields has more to do with the intrinsic nature of some of these models that are contained in the toolbox that they could produce variable catches in the future. It could be that they produce high landings in one year, or high removals, and low the next, whereas other models would produce more stable outcomes.

 ROY CRABTREE: So, Shannon, this is like getting projections and you have a wide variation in the yields from year to year or are you talking about rerunning this thing every year and getting very different yields?

SHANNON CALAY: My understanding of this procedure is that we do something like a long-term projection in a simulation context and so we essentially -- In the simulation context is where we discover that some of these models produce very variable yields into the future, in projections, essentially.

ROY CRABTREE: All right. So we're used to putting an annual catch limit in place and having it be there for many years. In fact, we struggle to ever change it once we put it in place, but if you increase the amount of variance you've got there, then you're potentially going to have the catch limit changing a lot from one year to the next year and that's probably not going to set well with folks and so I am of the mind that we would prefer to have things be more stable from year to year and I am seeing Tony nod his head.

If we want to be fairly stable, Shannon, are we making a mistake if we just left it with 15 percent? I know earlier we talked about raising that a little bit, but I don't think we want to have widely fluctuating catch limits from year to year and have to be constantly changing them.

 SHANNON CALAY: I would agree with you. We can try 15 percent in the provisional models that we examine for SEDAR-46. We were still left with a suite of five or six or seven different models that met those criteria.

My only fear is that as these models are finalized that we may find that that criteria is too strict and we may need to relax it somewhat, but we can go forward with 15 percent and if in fact we're not left with any models that meet those criteria, we could adjust it.

ROY CRABTREE: I am kind of inclined with that and understand that the nature of the advice we're giving you right now is awfully loose, because I don't think we have a strong basis for making any of these decisions, really.

I think we're approaching this that we may have to rethink all of these things if it doesn't work out the way we think, but I think the guidance I'm getting from the council is we would like to keep things fairly stable and not have widely fluctuating

catches from year to year and so if that's consistent with 15 percent, then that seems reasonable to me.

CARLOS FARCHETTE: I've got Hanke and then Blanchard. Go ahead, Blanchard.

TONY BLANCHARD: I would have to agree with Dr. Crabtree there. I think we're looking for more stability and I could be completely wrong, but, to my understanding, we are just basically running these through to see what they look like on paper and so, really, we ain't subjecting ourselves to anything in concrete here and all we're doing is having them run the program through and we look and see what it looks like, unless I am completely wrong.

ROY CRABTREE: Add to that is this stuff is going to go to the SSC at some point and could translate into catch limits at some point, but I think these types of assumptions, we will be able to revisit them when we see what actually happens.

CARLOS FARCHETTE: Hanke.

MARCOS HANKE: Yes and I think it will be a very productive exercise for us as council members to see this exercise made with 15 percent and 30 percent and for us to have a chance to compare, instead of you guys even -- We really want to understand what is going on.

MIGUEL ROLON: You know Roy said 25 to 30 percent this morning and now, after the discussion, he believes that 15 percent should be the one. If you leave this alone, this recommendation, you can allow them to play them with the 15 percent, because, again, what you are doing here is reducing the number of models that don't play out very well here and you use the ones that are doing the -- That's what the recommendation of these two will do for you.

The reason I asked to divide the question is that annual variability in annual yield is something that is difficult to grasp if you are not a scientist who deals with stock assessments. Here, if your desire is to be as stable as possible, in terms of those numbers, then you can adopt the 15 percent. Remember, adopting here now or supporting this for the staff doesn't mean that that will be the end of it.

CARLOS FARCHETTE: Okay. Blanchard.

TONY BLANCHARD: I've got to agree with Hanke, because, me

1 personally, I don't think none of us here at this table or in 2 this room know exactly what it is going to turn out to look 3 like. Like he said, we want to see for ourselves what this 15 4 percent reduction looks like.

CARLOS FARCHETTE: Okay and so I guess we need a motion to accept this allowable variation.

TONY BLANCHARD: I would like to make a motion to allow the variation in the annual yield to be 15 percent.

12 CARLOS FARCHETTE: We need a second.

14 CARLOS VELAZQUEZ: Second.

16 CARLOS FARCHETTE: Second by Velazquez. Any -- Director.

RUTH GOMEZ: I think we need to put in there "as an exercise", because I don't want where we do this at 15 percent and somehow along the line it ends up before the SSC, because I think where we're going is 15 percent seems pretty much the general consensus right now, but we may want to take a look at some other percentage later on and so to make sure that we have the proper verbiage in the motion, I think we need to add the word "exercise".

CARLOS FARCHETTE: Do you want to --

TONY BLANCHARD: Yes, exercise.

31 MIGUEL ROLON: At the end of 15 percent, in parentheses?

CARLOS FARCHETTE: Right, as an exercise. Iris.

 IRIS LOWERY: Just before you vote on this motion and for the previous motion as well, I would just like to point out again that we should be referencing exactly what we're doing and so, for instance, the previous motion says to make a motion to include all models that follow the legal parameter. I would suggest saying something like "as recommended by SEDAR-46".

42 MIGUEL ROLON: That's what it says there, but do you want to put 43 the --

CARLOS FARCHETTE: So you want that verbiage on the second 46 motion also?

48 IRIS LOWERY: Yes, because as written, again, as Dr. Arnold

said, when we look at this in six months, I don't know that we will necessarily know exactly what that means.

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MIGUEL ROLON: Iris, can you help us here? Where do you want to put that language?

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IRIS LOWERY: I would just say -- Rather than "to make a
motion", can we just say "move to include"?

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10 CARLOS FARCHETTE: Are you talking about Number 3 or Number 4?

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12 IRIS LOWERY: Number 3. Motion to include all models that 13 follow -- There we go. I would say "as recommended by SEDAR-14 46".

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16 **MIGUEL ROLON:** As recommended by SEDAR-46. Is that it, Iris? 17 Then we copy the same on the second motion?

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19 IRIS LOWERY: Right and, Bill, can you help with the language? 20 Could we say "move to use allowable variation in the annual 21 yield"?

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23 **MIGUEL ROLON:** Can we say "motion to adopt the recommendation" 24 and the same thing as the first one and then the --

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26 IRIS LOWERY: My understanding is that this is not a recommendation, but I could be wrong on that.

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29 **MIGUEL ROLON:** It is a recommendation. It's part of the 30 recommendation.

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32 IRIS LOWERY: From the council, but not from --

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34 MIGUEL ROLON: From SEDAR-46.

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36 IRIS LOWERY: Okay. Then --

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MIGUEL ROLON: Motion to include -- As recommended by SEDAR-46.

Motion to allow variation in annual yield of 15 percent, as recommended by SEDAR-46 (as an exercise). Tony, do you accept the language as written?

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43 TONY BLANCHARD: Yes.

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45 MIGUEL ROLON: Okay. Then you need a second.

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47 CARLOS FARCHETTE: We need a second.

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CARLOS VELAZQUEZ: Second.

CARLO FARCHETTE: It's seconded by Velazquez. Any further discussion? Bonnie.

BONNIE PONWITH: It's just a technical point. The A and B are the probabilities and those would be sort of the management objectives and C is a definition. That's the definition and setting the definition of what overfished is and so that would be -- If you indent that as a condition of B, then it's correct. Just like that is good.

The management objective is to create a probability of overfished that's less than 50 percent and you don't want a higher probability that you are overfished higher than 50 percent. That puts you within the bounds of the law and then that minimum stock size threshold sets the definition of what overfished is.

CARLOS FARCHETTE: Okay and so on Number 3, is Hanke and Blanchard in agreement with the changes that we just made by Bonnie?

MARCOS HANKE: Yes.

CARLOS FARCHETTE: Okay. Good to go. Is there any further discussion on Number 4? Hearing none, I will take it to a vote. All in favor say aye.

MIGUEL ROLON: You have to read it for the record.

CARLOS FARCHETTE: Number 4 is motion to allow variation in annual yield as an exercise following the recommendation by SEDAR-46. Annual yield CV equals 15 percent, as an exercise following the recommendation by SEDAR-46. Now I will do the vote. All in favor say aye; any nays; any abstentions. Hearing none, the motion carries.

MIGUEL ROLON: The second part, Bill and Graciela and Shannon, what do you need from the council at this time on that one?

 SHANNON CALAY: You are talking about the second part as desired yield? We don't need anything at this time. What we will do is you have given us enough information to eliminate models that are illegal and eliminate models that have very high variability in annual yield and so what we'll be able to do is just present all the results to you and you will be able to see what the catches are in the future as a fraction of our long-term maximum

sustainable yield.

It may be that you don't want to consider models that don't give you a significant amount of yield with regards to long-term MSY and so we don't need anything else. We can proceed with what you've given us and at some point you may also wish to introduce additional management objectives or modify the ones that you've already stated.

MIGUEL ROLON: Shannon, anything else that you need from the council as part of your presentation?

SHANNON CALAY: It would be helpful to understand how the council would propose that we create a control rule with flexibility to use stock assessment results when they are deemed appropriate for use.

In the Gulf Council, that happened through an ABC control rule working group, which included the SSC, SERO, and the Science Center. That's just how they did it, but, right now, I think Bill and I are very willing to work together and if you want it to go on informally, that can happen, but we need some sort of a -- We need to -- Whether or not these particular models result in management advice, we are working towards the day when management advice will be hopefully useful in the Caribbean. At that time, we are going to need a control rule that allows us to use that advice in a management context and so --

MIGUEL ROLON: Shannon, I believe then that your suggestion of working together with Bill and maybe Graciela somehow hovering over it will do the trick for us and then at the next meeting we will have more discussion, especially after the SSC looks at all this and provides the council with advice.

SHANNON CALAY: Yes.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: Yes, I think that's definitely what we need, because the control rules get complicated and confusing and so I think a working group of Bill and Shannon and Graciela and maybe — I don't know, but someone else from the SSC or something, but just a small group of people that could work via phone calls and emails and come up with some suggestions for us, because we don't want to get into the weeds of all that. It's just too confusing.

Then we'll come back and look at it at the other meetings and I

am fine with the yields in terms of the fraction of MSY, but I am pretty sure we're going to want to catch a significant portion of MSY. We're not going to want to leave a lot of fish out in the water, ultimately, but that sounds good to me.

MIGUEL ROLON: So that's it, Shannon?

SHANNON CALAY: Yes, that's sufficient. Thank you very much.

MIGUEL ROLON: Your boss is here and so Christmas bonus will be waiting for you when you get to Miami.

CARLOS FARCHETTE: We have a question from Hanke before Shannon pulls out.

MARCOS HANKE: Shannon, I think it would be an interesting exercise before we implement all of this is to -- Once the model is decided or two models, whatever models, to run them before they get implemented and to test actually with a fishing year and is that something you guys are considering or that's the way it's going to be done or any opinion or anything you want to comment about this?

SHANNON CALAY: I think what you're suggesting is that we would create final models and they would produce an OFL recommendation.

MARCOS HANKE: Yes.

SHANNON CALAY: At some point, we would actually know what the realized landings were and then we could put that landings back into the model and run it, but I don't know what the -- To me, this conversation is more up to your SSC as to how useful they think these approaches are for management and when they are ready to use.

I don't know that I can comment on if we were to produce management results that are accepted by the SSC, would there be a possibility to delay them? I don't know the answer to that and maybe I am misunderstanding the question.

MIGUEL ROLON: That's something ahead of time and so we need to wait for them to finish this part and then the SSC to do their thing and then we can ask them, after the SSC gives their presentation, specifically for a dry run of the model, to see how it works.

CARLOS FARCHETTE: Bill.

 BILL ARNOLD: What we're talking about now are the SEDAR-46 outputs and how these data-limited models are developed further and we are going to, later today, if not tomorrow, talk about island-based FMP development.

When we talk about that, we will be talking about these topics and how we will develop them, time and procedure-wise, and so let's just wait until that conversation and we will address these issues.

CARLOS FARCHETTE: Okay.

MIGUEL ROLON: Actually, Mr. Chairman, that will be after the SSC Report and so we have the SSC Report next on the agenda. Reni, are you ready with the report?

CARLOS FARCHETTE: Okay. Thank you, Shannon. Excellent work and thanks a lot. We really appreciated that.

SHANNON CALAY: Thank you very much for your time.

CARLOS FARCHETTE: Okay and so we're moving next on the agenda to the SSC Report by Reni Garcia.

SSC REPORT

 JORGE GARCIA-SAIS: Good afternoon to you all. The SSC met the $7^{\rm th}$ to the $11^{\rm th}$, last week, to discuss some of the actions proposed for the island-based fishery management plans. The first action or issue that we discussed was to determine species to be included in the management plan.

Particularly the first approach was to try to weed out of that list species that we didn't think that needed to be managed, particularly we looked at the dolphin and the wahoo. This is the mahi-mahi and the wahoo. The recommendation is for this species to be removed from the list.

There are enough species for which we need reference points and that we will be determining reference points and also, a special consideration was that the catch of particularly these species within the management area of the Caribbean EEZ was small relatively to the catch of these species throughout the general area of distribution in the Caribbean.

Numbers that came up were probably on the order of between 4 and 10 percent that we are catching relatively to what is being

caught throughout the Caribbean and so we believe that although it is a really huge, big catch for us that it is small relative to the overall population size.

Also, the Commonwealth of Puerto Rico already has a regulation in place for managing a catch limit, particularly associated with the recreational fisheries, regardless of whether this fish has been caught within the EEZ or not, and so essentially we believe that, as it is now, that there are regulations in place that take care of the management of these species.

We had some discussion and some of the discussion was centered about basically a regional approach to the management of these species and so regional talking about the Caribbean region. So we recommended the council, the Caribbean Fishery Management Council, to try to engage other councils in an initiative for regional management of these pelagic highly-migratory species.

MIGUEL ROLON: Mr. Chairman, I believe that the SSC has a long list and maybe you want to address them one at a time or groups, but the dolphin and the wahoo has been a hot topic and do you want to address that one now and then we allow Reni to continue?

On that particular recommendation at the end, we already have done that twice. We had the three councils and we have the WECAFC and we had an international committee working with the darned thing and so the question is do you still want to include dolphin or wahoo here or not? The SSC is recommending not to include it in the FMPs in the three areas and they provided rationale from one to three.

In the case of that rationale, we are missing the U.S. Virgin Islands. Ruth, do you have any regulations regarding dolphinfish and wahoo? Will the Virgin Islands be affected or not if we do not include that in the management unit of any of the islands of the USVI? You can think about it while Reni --

CARLOS FARCHETTE: Roy and then Graciela.

ROY CRABTREE: It still, at least with dolphin, is one of our biggest fisheries and it does seem to me that we ought to manage it and it will be hard for us to engage with other councils and WECAFC and those kinds of things if we don't even include it in our management plan, I think.

I suspect if you went through the Caribbean that probably every country catches a very small fraction of the overall catch, but it's the sum of all those small fractions that adds up to the

catch and so my preference still, I think, is that it seems to me we ought to manage those two species.

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: The reason why it is not being managed is because tried that exercise with the three councils, the Gulf, the South Atlantic, and the Caribbean, and it didn't work. The agreement at that time was that we cannot manage it with the three councils.

 In the case of WECAFC, we had an effort in the 1980s, I guess it was, where we tried to manage the dolphin fishery throughout the entire range and it provided so many problems that the people decided to abandon that one.

Any fishery management has two components, a biological component and a socioeconomic component. You will not be able to do anything here that will affect the overall benefit of the biology of the fish. However, you still need to decide whether you will get into the allocation business with the dolphinfish and the wahoo in the EEZ. If you are going to do that in the fishery, you have to include it in the management unit of either the three of them or any of them and so the council has to decide whether we adopt or not the SSC recommendation, based on whatever rationale you have that will cut it under the MSA.

CARLOS FARCHETTE: Graciela or Bill.

 GRACIELA GARCIA-MOLINER: A couple of things. One is just to remind you of the way that these species were selected. It is a process that was developed by the SSC and if the species met or did not meet one of the four criterion that was listed, then it would be included or excluded.

The dolphinfish, because of its economic importance and being high in the landings and occurring in the EEZ, it actually met three of the criteria that the SSC had developed. The vote of the SSC, it's a consensus recommendation and it was not a unanimous vote. There were dissenting opinions on the matter. Specifically, the issue of allocation, it's one --

MIGUEL ROLON: Technically, in consensus, you have a -- By majority, you mean.

GRACIELA GARCIA-MOLINER: By majority, yes. The issue of allocation, that has to do with the fact that it's been brought to the council over and over again that the recreational harvest

of dolphin is very high and it actually floods the market of the commercial fishers. It's an issue that has been brought up to the council many, many times. By going through the criteria and evaluating the species in a very orderly fashion, that's why you had it on the list.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: Basically what she said. The SSC and the council established very specific criteria for choosing species to be managed. I don't think it's timely now to be tossing those criteria out or disregarding them. Dolphin met the criteria based upon economic value, which was kind of a restrictive criteria and not many species met it. This one was at the top of the list and so I just don't think -- If you are going to second guess dolphin's inclusion, then you can second guess the inclusion of every species on that list and we will never get done with this.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: Well, I am going to tend to back the SSC, because we are trying to control a species of fish that there is migratory, highly migratory, that move in and out of these waters every time they blink and so especially in the case of St. Thomas.

They move three miles off of St. Thomas and they're in BVI waters and so, really, are we let's say affecting the management of these fish? Are we affecting anything to do with these fish to any certain degree that we should be managing them, because of how they travel so far so quick? That's my question. I could understand managing something that you could control to a certain degree, but I can't see controlling this.

MIGUEL ROLON: By the way, talking about second guess, we second guess all the time, every time that we meet.

CARLOS FARCHETTE: Okay. I guess that was a question to me. The fact is there are more reasons to manage than just to control the population of a species and if you take that to the limit, there is a lot of species that occur in the Caribbean that also occur throughout a wide range from Hatteras to Brazil and the component, the actual percentage contribution of those species, including reef fish species, to the total population density can be very small.

Pick a species. There are numerous species for which -- Heck,

1 lobster is probably one of them, where the total catch, the 2 abundance, of lobsters in U.S. Caribbean waters probably a small percentage of the total abundance of lobsters, but that doesn't absolve us from managing them and managing can be designed to alleviate allocation issues.

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> Allocation issues have clearly been stated to us, from the Puerto Rico fishers, that regardless of whether they supposed to be selling dolphinfish or not Apparently dolphinfish are being brought to shore by recreational fishers and sold and they are being brought to shore on the order of thirty and fifty in a trip and seriously damaging, and this is fisher's statements, seriously damaging opportunities for the commercial fishers.

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18 19 There is an issue that needs to be addressed and maybe this is something that doesn't need to be addressed on every island, but every island has some relatively high level of dolphinfish landings or otherwise they wouldn't have met the criteria and they wouldn't be included.

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CARLOS FARCHETTE: That's a big problem on St. Croix, Blanchard.

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TONY BLANCHARD: To address the statement with the dolphinfish and being sold by the recreational, that's an enforcement issue and as to the -- It's not?

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ROY CRABTREE: There are no federal rules about dolphin at all and so federal -- We are not going to -- We don't manage it and so they're not going to enforce anything with it, because there aren't any rules to enforce. If you want to do something about the problem, the first thing you have to do is manage it and set some rules up about that.

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TONY **BLANCHARD:** When I say it's an enforcement recreational fishermen ain't supposed to be selling fish to begin with and that's what I am talking about.

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ROY CRABTREE: We have no rules about that.

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TONY BLANCHARD: No, this don't come under us. This comes under the Puerto Rican government or the VI government and that's what I am talking about.

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Right, but I mean if you think that's a problem, ROY CRABTREE: then you ought to have rules that affect that and then you pick up NOAA Law Enforcement and the Coast Guard to help enforce some

of those.

TONY BLANCHARD: Okay. As to addressing the state of the dolphin again, with the global warming, and I'm going to put this on the table, with the global warming we have seen fish stocks moving from one area into a completely different area.

For example, the lobsters in Maine, I've got a guy that wants to buy lobsters off of me and he said he had just come from Maine and he said because of the stock of lobsters in Maine they were so high that the prices had dropped dirt cheap and so remind me again -- We are trying to control a species of fish that is here now and gone tomorrow and how are we going to do that and it's also being affected by different governments, especially in the Caribbean, where you have one government here and the next government is on your doorstep and how do you control that to any degree?

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: You know I have my personal opinion regarding the dolphinfish and the wahoo, but I will keep it to myself and follow the procedure that you have here.

As an area that could happen with the dolphinfish, first, you won't be able to do anything to make it bigger or smaller regarding the biology of it, because of everything that has been said and then let's say that we do adopt the dolphin and the wahoo in the FMP. Then you have to have an ACL for those guys, using the seventeen models that we approved this morning, any of those.

Then you may end up saying Puerto Rico made a mistake, because one phone call changed the regulation from five dolphin per trip to thirty dolphin per trip, following no rationale whatsoever. Then you may end up having five dolphin per trip in the EEZ surrounding Puerto Rico and thirty within the area of Puerto Rico.

I would love to see the Coast Guard following that one and the NMFS Enforcement people. Those are the issues that will come into play and so, at this time, you either, as Graciela said, follow the outline that was put together some time ago or you go with the gut feeling of some of the SSC members that are telling you to drop it. This is what you need to decide and it has to be you guys.

CARLOS FARCHETTE: I do think that if we ever get a recreational

license program in the USVI that we can be able to control this illegal selling of fish and have a bag limit for recreational harvest, but we seem to be a long way away from there, although there is a draft plan. Blanchard. Before that, I noticed that we're really talking about dolphin, because of the high economic value, but wahoo falls in there too?

MIGUEL ROLON: Yes.

CARLOS FARCHETTE: Okay.

TONY BLANCHARD: Okay. I am going to move to adopt the SSC's recommendation and go by what they recommend, to remove them.

CARLOS FARCHETTE: We need a second.

MARCOS HANKE: Second.

CARLOS FARCHETTE: Second by Marcos Hanke. Any further discussion? Hearing none, I will take it to a vote. All in favor say aye; any nays, we have one; any abstentions. Hearing none, the motion carries and so we have one nay. Are we going to let Reni continue? Go ahead, Reni. In case everybody doesn't know Reni, he is an SSC member, just in case.

MIGUEL ROLON: Mr. Chairman, we forgot and it's my fault, but Reni is the Acting Chair for this meeting of the SSC, because Dr. Richard Appeldoorn couldn't make it. He had prior commitments.

JORGE GARCIA-SAIS: Mr. Chairman, just a comment that this discussion that came up here also came up in the SSC and the SSC concerned about the fact of the market flooding, particularly of mahi-mahi, by recreational fishermen. probably the main deciding criteria was the fact that there was a regulation in place and that regulation, we felt, was at least adequate for the time being and could -- There was a mechanism of regulation in place that perhaps would work toward the benefit of commercial fishermen in terms of the amount of mahimahi that could flood the markets.

Not knowing to what level that is being either enforced or being respected, but there is a regulation in place and that regulation really doesn't consider whether the catch was within state or federal waters. I am just clarifying.

CARLOS FARCHETTE: Okay. Can we bring up the screen again for 48 Reni to continue?

JORGE GARCIA-SAIS: Along the same lines, we were going through the list and we found a species, and this is the guachancho and it's the guachancho barracuda and this species we felt did not meet the criteria of being a species with a habitat within federal waters.

It's not the sennet, because we have three species of barracuda in Puerto Rico, great barracuda, the southern sennet, and the guachancho. This one, guachancho, is a smaller barracuda that is typical of brackish water systems and it's particularly common in bays and mostly in areas that are typically estuarine.

MIGUEL ROLON: Your main point, Reni, is they are not in the EEZ?

JORGE GARCIA-SAIS: They are not in the EEZ and so that's the rationale and we recommend the council to allow it to be removed from the management list.

CARLOS VELAZQUEZ: Guachancho is not in my area and it's called the picuda and it's the same or no?

JORGE GARCIA-SAIS: Picuda is the southern sennet. The guachancho is a smaller, darker barracuda that grows to about three or four pounds and it's typically caught with hook and line on embayments.

MIGUEL ROLON: Most fishers, when this -- The big barracuda and the other two are within the mangrove areas and they believe there is only one and actually, you need a trained ichthyologist to tell them apart at a certain size and that is why you don't see that name commonly used in Puerto Rico.

CARLOS FARCHETTE: Before we go any further, should we just take care of this right now and make a motion? Blanchard.

TONY BLANCHARD: I would make the motion to remove it, since it does not appear in federal waters.

MARCOS HANKE: Second.

MIGUEL ROLON: Motion to remove guachancho -- Bill, is that enough language for you to remember three years from now what the hell we're talking about or do we have to say something like the island-based FMP management unit or something like that or that is okay?

 BILL ARNOLD: The first question is do you mean all three island groups or do you just mean one of them? If so, which one?

GRACIELA GARCIA-MOLINER: This one is for Puerto Rico only, the recommendation. The previous one was for all island-based FMPs and so it won't be in any of the three island FMPs.

MIGUEL ROLON: Graciela, do you have the language? For the area of Puerto Rico?

 GRACIELA GARCIA-MOLINER: Yes, because where it says Action 1, determine species to be included in the Puerto Rico management plan, the motion is to remove it from the list of species to be considered in the PR IBFMP.

JORGE GARCIA-SAIS: May I recommend to include the scientific name, the species name, or you just fly with guachancho?

MIGUEL ROLON: We can put it in parentheses.

JORGE GARCIA-SAIS: In parentheses, yes, at least, because it's 22 a very well known fish.

GRACIELA GARCIA-MOLINER: Can we change "from" to "in", please? Management in the --

MIGUEL ROLON: It was seconded by who?

CARLOS FARCHETTE: It was seconded by Marcos Hanke. All in favor say aye; any nays; abstentions. Hearing none, the motion carries. It's back to the PowerPoint. Bill.

BILL ARNOLD: Just a comment on this. This is a perfectly good reason to remove it or not add it, because you look at your criteria and you say it didn't meet the criteria after all and so let's take it out. When we write up, as we have to do, these environmental impact statements, we have a clear rationale for the decision that was made, which is not the case for the dolphin and wahoo.

That's going to cause us difficulty in explaining why dolphin and wahoo met the criteria established by the SSC and the DAPs and the council and yet, in spite of all that, we decided not to manage them anyway.

46 That's going to be very tough for us to explain and provide a 47 sound rationale for, which is why I argue these things. It's 48 not because I love mahi, but because we have to make rational decisions based upon the stacking up of the other decisions we have made and that kind of consistency is really important to this process.

MIGUEL ROLON: Blame it on the SSC.

JORGE GARCIA-SAIS: Okay and so the next one. For species -- So for the SSC to be able to address changes in each of the island composition of species for management, what the SSC would like is the council to provide a framework measure to address any changes in the future that might come about in terms of the evaluation of the species under management. Essentially, some guidelines of framework measures and so for the SSC to continue evaluation of these species.

MIGUEL ROLON: Isn't it the framework that you guys didn't follow regarding the dolphin and the wahoo and why do you want it now again? Again, I have a personal opinion about the whole thing, but the process is the process.

GRACIELA GARCIA-MOLINER: In the other amendments and FMPs that you have, you have a framework approach as one of the management measures, which basically tells you that you can do X, Y, and Z that you've already developed in that FMP or in that amendment without having to go through the whole process and so in the case like this, it will be easy to remove if something happens or to add if, for example, the dolphinfish then becomes a problem and has an issue with the fishery that is local. Then you will have the framework approach basically to say that we are finding that there are problems with this fishery and that it needs to go into the list of federal management.

This is something that you already have in the other amendments, but it's a flexibility that the SSC will have, to look at the species and decide one way or the other, or recommend to the council one way or the other.

MIGUEL ROLON: Graciela, a framework is a framework and are you talking about the framework that we use and then we don't follow for the species in the management unit or are you talking a totally different framework, where you say what you just said?

GRACIELA GARCIA-MOLINER: The second.

MIGUEL ROLON: So if the council adopts this as is, everybody 46 will understand what is it that we need to do?

GRACIELA GARCIA-MOLINER: I think we would.

BILL ARNOLD: It would be reworded slightly. It would say the council moves to include, as a framework measure in the fishery management plans, a component to address changes in species composition or something along those lines, but you want to be specific to what kind of framework you're talking about, but, otherwise, it's pretty clean.

MIGUEL ROLON: Bill, can you help us?

CARLOS FARCHETTE: While you're doing that, by species composition you mean the size and --

JORGE GARCIA-SAIS: For example, if a new species comes to --

MIGUEL ROLON: Let's finish with possible language. Bill, can you help us there and dictate to Vivian?

BILL ARNOLD: The council moves to include as a framework measure in each of the island-based FMPs, and correct me if these should be in the EISs and not the FMPs, but these should be in the FMPs, right?

GRACIELA GARCIA-MOLINER: In the FMP, yes.

BILL ARNOLD: In each of the island-based FMPs -- Vivian, say to include in each of the IBFMPs a framework measure to address changes in the species -- In the list of species to be included for federal management -- All right. Is that clear to everybody?

CARLOS FARCHETTE: Yes, but I don't think we have ever done it in any FMP that I know of, where we used the framework to add species to the FMP. There is a lot more to adding a species to the FMP than just putting it on the list.

You would have to do annual catch limits and you would have to do status determination criteria and all the rest of the things that go with that and so you would have to make sure all of that is in the framework too and I guess we can ask Iris to research whether you can actually do this through a framework or not, because it's not clear to me.

IRIS LOWERY: I mean that would be my request. As I am sitting here, I don't have a concrete legal opinion as to whether or not this is something that can be done under Magnuson, but I can certainly look into that, if that's something you can come back to.

MIGUEL ROLON: We can add "provided it is legal under the Magnuson Act" at the end of the motion, or just drop it until the next meeting.

ROY CRABTREE: I think you can pass the motion, but we're going to come back to all of these things down the road and we can get advice from General Counsel at the next meeting.

10 CARLOS FARCHETTE: Okay. We need someone to say so moved and a 11 second on this.

TONY BLANCHARD: So moved.

15 CARLOS FARCHETTE: We need a second.

CARLOS VELAZQUEZ: Second.

CARLOS FARCHETTE: Any more discussion? Hearing none, I will take it to a vote. All in favor say aye; any nays; any abstentions. Hearing none, the motion carries.

JORGE GARCIA-SAIS: Okay. In looking at the species or stock complexes, we had a presentation by Mike Larkin in which he presented a cluster analysis of species under management and so we would -- The recommendation is for us, for the council, to mention these groups or form these groups or to allow these groups of the SSC to provide council review for expanding or going to a further analysis of these methods to look at potential groupings for management, instead of looking at single species.

 There is some groups that are being proposed within the SSC and we have talked about this a little bit before, of the SSC, and so that -- We can provide advice to the council for the potential management of species groups instead of looking at single species and this has been somehow -- We looked at this on the species groupings for the ACLs and we have some already management units based on a group of species, but we would like to look at other possibilities in terms of within the island-based management plans to look at these other potential species groups that allow better management of this group of species.

GRACIELA GARCIA-MOLINER: So the first attempt that was brought to the council was the cluster analysis and it was --

MIGUEL ROLON: Let Reni finish the report and then we can come back to the points, because I just talked to Reni and the first

ones were just to delete or accept species in the management unit, but these others are more action things to do in the future and so, Reni, will you please finish with the report and then we can come back?

JORGE GARCIA-SAIS: Okay. The SSC has further provided some suggestions on what these groups could be from SERO, including Bill and Maria and from the SEFSC, a representative from the SSC, and also from the council.

Essentially, it's for further development and analysis of these different techniques to make species associations that could lead to species group management instead of single species.

Also, the SSC recommended to ask the council to address ecosystem-based approaches with goals and quantifiable objectives of the island-based fishery management plans and particularly with what are the ultimate goals of establishing these island-based fishery management plans.

The SSC believes that there is not enough clarity in terms of where does the council want to go with this, in terms of the island-based management plans and so the SSC essentially is asking for some guidance and particularly recommendations in relation to ecosystem-based approaches, in particular.

MIGUEL ROLON: In essence, Reni, the SSC is recommending two groups to spell out and to work together and prepare this information for the council?

JORGE GARCIA-SAIS: Correct. It's to allow further -- Because I believe that Mike Larkin -- The work that he presented was essentially a first cut of the data and that within the discussion of his results came some further suggestions of analysis, using the same technique, using several other grouping strategies, for example, in terms of habitat and in terms of depth and in terms of fishing gears.

MIGUEL ROLON: Some of the members of that group work for either Bonnie Ponwith or Roy Crabtree and if the council passes a motion to accept the SSC recommendation to establish these two groups, will there be any constraints as to the use of that personnel from the Southeast Fisheries Science Center or the Regional Office?

BONNIE PONWITH: What would be important, I think, is to establish terms of reference so that we understand exactly what this group is being asked to do and have a better feel for what

the demands are going to be.

I would say that the Science Center is eager to support the SSC as they explore different approaches to productively providing sound scientific advice. It's just a matter of understanding what the objectives of these working groups are going to be and how long they will be established and that, I think, could be managed by creating a terms of reference.

Let me just say that I think exploring species groups is a smart idea. We have a lot of individual species and we have typical low latitude ecological conditions, which is a large number of species of small populations, and managing them individually can very, very challenging and so an alternative to that is to look at species groups.

Now, I will tell you that it's easier to make decisions about what species match one another ecologically, whether that matching is done by where they are in the food chain or what their habitat preferences are. That tends to be the easy part.

The hard part is making decisions about how you manage the harvest of those species as a group. If you set an ACL, do you set an ACL based on an indicator species within that group and say if this species is okay, we assume the rest of them are as well or do you create a composite ACL that looks across that complex and says that if we remove this amount of the complex then the remaining species in the complex are okay?

That, I think, is where the art comes in and absolutely if those are the types of discussions that are intended to be held, having Science Center collaborators in those discussions I think would be a very productive partnership.

JORGE GARCIA-SAIS: Mike's initial approach was to do the analysis based on presence or absence on trips, on individual trips, and so some of the discussion went around the fact that in one given trip fishermen not only fish by, for example, fish traps, but they may do trawling and they may engage in other fishing activities and so the grouping by gear came up as one of the logical further modifications of that analysis.

There are several that also had to do with habitat preferences, depth and others. In other words, it's an approach that the SSC believes that it requires further attention, further analysis.

BILL ARNOLD: I proposed the clusters group whatever we're calling it, working group. The idea behind this was to just

have a sounding board that Mike would have available to him so he's not stuck out there by himself doing all of this and the point was the SSC meets very infrequently and Mike needs much more frequent feedback and all we really wanted was for a couple of people for him to turn to to be able to discuss clustering approaches and concepts, et cetera, et cetera, and maybe tweaking the approach or trying a different method, et cetera, et cetera.

Shannon requested the working group for the reference points, basically for the same reason. The SSC doesn't meet often and we need SSC feedback and so we would like to have somebody we could turn to and call up and have available and willing and ready to answer the phone and talk to her about issues.

 Our vision of this, and Shannon can correct me if I'm wrong, but I think she will agree, but it was to keep it very informal and just to have a trust group that was available for us to fall back on until the next SSC meeting, because these things will be brought to an SSC meeting and discussed at the in-depth level that they will need to be discussed at.

All that was hoped for with these two groups was just to allow us to keep moving forward, instead of having to wait until an SSC meeting before we could make any substantial progress.

MIGUEL ROLON: Okay and can we harmonize the two in one motion that says that the council adopts the recommendations to establish these two working groups and the staff will provide the terms of reference for the two working groups to work on and Graciela will be in charge of putting together the terms of reference, in consultation with whomever she needs to consult with? It would be to move to establish two working groups, as recommended by the SSC, to work on -- Graciela, what are the two working groups?

GRACIELA GARCIA-MOLINER: You can say to work on developing the cluster analysis of species groups for Action 2 of the island-based FMPs and, because we have two working groups, to develop - All the way to U.S. Caribbean.

MIGUEL ROLON: Just copy and paste.

GRACIELA GARCIA-MOLINER: Perfect.

BILL ARNOLD: At the very top of that, where you say to establish two working groups, say two pre-decisional working groups. Perfect.

MIGUEL ROLON: If any of the members would like to move and second, we can --

5 MARCOS HANKE: I move the motion as it's stated on the screen.

MIGUEL ROLON: Second by --

CARLOS FARCHETTE: We need a second.

CARLOS VELAZQUEZ: Second.

CARLOS FARCHETTE: Okay. Any further discussion? The motion is move to establish two pre-decisional working groups, as recommended by the SSC, to work on developing the cluster analysis of species groups for Action 2 of the IBFMPs and to develop the concept and language for Action 3, develop ABC control rule and reference points for the U.S. Caribbean. It's moved by Hanke and seconded by Velasquez. Iris.

IRIS LOWERY: Can I just suggest that we maybe we remove the cluster analysis from the motion, just to give staff the freedom to use whatever analysis might be appropriate? I would just may remove "cluster".

CARLOS FARCHETTE: Okay. Hanke, are you good with that, removing the cluster, the word "cluster", Hanke and Velasquez? Just say yes.

MARCOS HANKE: Yes.

CARLOS FARCHETTE: Okay. All in favor say aye; any nays; any abstentions. Hearing none, the motion carries.

GRACIELA GARCIA-MOLINER: If I may, you have a recommendation by the SSC on ecosystem issues and so we do have a presentation that has to be given.

MIGUEL ROLON: We haven't finished with Reni's report.

41 GRACIELA GARCIA-MOLINER: I know, but you have one hanging --

MIGUEL ROLON: Reni, will you continue, very quick, your report?

JORGE GARCIA-SAIS: Sure. Regarding ACL overages for Puerto Rico, the first one is a recommendation by the SSC to request the council to delay the determination of the ACL overages to allow the SSC and the SEFSC to evaluate the data and make the

specific recommendations on Puerto Rico commercial Snapper Unit 2 and spiny lobster.

The issue is particularly new programs that changed gear and enhanced lobster fishing on the east and west coast of Puerto Rico and the fact that Snapper Unit 2 is a limited entry program and also one of the main concerns and issues is the expansion factors and the Science Center would like these expansion factors to be further explored to determine if these overages or changes in reporting have a direct relationship with these overages that have come up in this last year.

CARLOS FARCHETTE: Marcos.

MARCOS HANKE: I would like to make all this information on the board as a motion of mine, to determine a motion, please.

MIGUEL ROLON: Wait, wait. The reasons why. It's a motion to request -- That's a big motion.

MARCOS HANKE: It's my motion.

MIGUEL ROLON: I know it's easy to laugh about what Vivian is doing, but I challenge any of you to sit down and do what she is doing. I would never be able to do it. Mr. Chairman, will you read it, please?

CARLOS FARCHETTE: The motion is by Hanke and we need a second.

30 TONY BLANCHARD: Second.

CARLOS FARCHETTE: Is there discussion? Bill.

BILL ARNOLD: It can't be written like that and so do you want me to go ahead and fix it up a little for you?

MIGUEL ROLON: Yes.

BILL ARNOLD: Okay. We are not determining ACL overages. We are determining the cause of the ACL overages that have been identified. The question is, are those overages due to enhanced reporting or due to an actual increase in catch? We are running late on that process of making that determination.

What we're asking the council to do, and we're not really asking you and we're kind of just letting you know, because this is what's going to happen, that we won't make the determination as to whether it's due to enhanced reporting or an actual increase

in catch at this meeting, which is what we try to do each year.

In the December meeting, we come to the council and we say here is the overages and here is the ones that are due to enhanced reporting and so accountability measure-based seasonal shortenings won't be applied to these species and then here is this group of species for which it is not due to enhanced reporting and any required AM overages will be applied and the seasons will be adjusted accordingly and so that's what we're doing.

 Now, the council can pass this motion and, no offense to the council, but it's not going to make any difference. We still have to go through this process and until we're done with the process, we can't present it to the council.

If you really wanted to make a motion, it would be that we would have a council phone call or some other process, so that when we do get this determination made that we don't have to wait until June of next year, or whenever the next council meeting is, to notify the council of this, which is all we're really doing, is notifying the council of what those closures and why certain closures won't take place, because the reporting had actually been enhanced.

 The legal obligation to apply AMs remains, regardless of the timing. We have still got to get these things done and get the accountability-measure based closures in place as quickly as we can and so that's what is going on. Like I said, if you want to do a motion, that's great.

MIGUEL ROLON: No, we hate motions that don't go anywhere. The question to the council is with that explanation, do you think that you understand the whole issue and that the motion is unnecessary at this time and the process will take care of it?

MARCOS HANKE: Yes, I agree of tabling my motion, but I would like to discuss a little bit the issue on the council level, because I know that there is lobster fishermen and other people have contacted me and we have been talking to them and we want to make sure that the industry point of view is taken into consideration once it is discussed, or at least available to you guys, in case you guys need it, their input.

MIGUEL ROLON: Marcos, we have in the agenda an item that we are going to discuss all of that, especially with the lobster and the others. Here, with the explanation made by Dr. Arnold, do you believe that then we can withdraw that motion, understanding

that the process will take care of it?

Then the issues regarding the specifics of the lobster and other species can be addressed at the other agenda item that we have for today and so you have to say I withdraw the motion.

MARCOS HANKE: Yes, I withdraw the motion.

CARLOS FARCHETTE: Bill.

 BILL ARNOLD: We will discuss this at length when we do the ACLs/AMs accountability measure-based closures topic, which is going to be really important and we'll get to that. We may not get to it today, but when we do get to it, and we have to get to it at this meeting, I think those issues can be discussed at that time.

18 MIGUEL ROLON: We would rather do it today than --

CARLOS FARCHETTE: Graciela, you had your hand up and are you 21 good?

GRACIELA GARCIA-MOLINER: I mean there has to be discussion when we deal with the overages and the timing.

MIGUEL ROLON: That's what I mean, but it's not now. Reni, do you have anything else for us?

JORGE GARCIA-SAIS: Yes. There is another point regarding ACL overages for Puerto Rico and that's the commercial triggerfish and wrasses and recreational jacks. There appear to be overages and for that, the SSC couldn't come up with any reservations, other than there are limitations, perhaps, in the data when the ACLs were initially evaluated, but those species come up with overages and the SSC believes those are just that.

MARCOS HANKE: I have a question. I don't understand something and let me make a question. When you refer to jacks, what do you mean? Which jacks?

JORGE GARCIA-SAIS: All jacks. It's jacks as a group, because they were not reported by species.

MARCOS HANKE: That's in Puerto Rico?

JORGE GARCIA-SAIS: In Puerto Rico. That's recreational jacks.
47 The commercial triggerfish and commercial wrasses and
48 recreational jacks and so these are the two groups that -- There

1 are overages in the two groups for different species.

MARCOS HANKE: In different sectors, too?

JORGE GARCIA-SAIS: In different sectors. That's it and I am done.

CARLOS FARCHETTE: Velazquez.

CARLOS VELAZQUEZ: Do you total the wrasses -- The wrasses 11 include hogfish and rock hogfish and --

JORGE GARCIA-SAIS: That's one of what I was referring to, wrasses as a group. It includes all wrasses, including hogfish, because hogfish is within that Labridae family and so it's a wrasse.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: It actually includes those species that we have in the wrasses complex that are under federal management and there are three species of wrasse included in that complex. Those are the only ones we manage. If there is ten other wrasse species out there, we don't manage them and they are not included.

CARLOS VELAZQUEZ: Bill, two or three species for the wrasses --

JORGE GARCIA-SAIS: It included the Spanish hogfish, the hogfish, and the Halichoeres radiatus. It's Bodianus rufus and Lachnolaimus, which is the hogfish.

GRACIELA GARCIA-MOLINER: That's your SSC group of 2015 and we are missing Tyler Smith from the picture.

JORGE GARCIA-SAIS: The common name is a puddingwife, Spanish hogfish, and hogfish. Those are the three.

CARLOS FARCHETTE: Okay. Thank you, Reni. We are going to move to -- We are going to bump the agenda and so NOAA Fishery Ecosystem-Based Fishery Management Policy and Planning and Heather Sagar.

NOAA FISHERIES ECOSYSTEM-BASED FISHERIES MANAGEMENT POLICY AND PLANNING

 HEATHER SAGAR: For those of you that don't know me, I am Heather Sagar and I'm the Senior Policy Advisor in Headquarters for the National Marine Fisheries Service and I want to talk to

you today about ecosystem-based fisheries management.

We had a leadership meeting and so in Headquarters, that would be Sam Rauch and Paul Doremus and Eileen Sobeck and Richard. We sat down and we started talking about ecosystem-based fisheries management and we realized that we don't actually have a policy for ecosystem-based fisheries management, an internal policy.

 Leadership asked us to put one together and if you have read through this, you will realize that a lot of this what we're already doing right now and so there is no new requirements here and there's no additional council actions for you at this time based on this policy.

Many of the councils are actually already doing this type of work around the country and so Jason Link, who is a senior scientist for Richard Merrick, he and I put together a working group and it was based of people around the entire country, from the Regional Offices, the Science Centers, and the Headquarters offices and we sat down and we wrote this policy together.

You all have a copy of that in your briefing documents and we are accepting comments on that through -- It's through tomorrow, actually. I will just say that this is an informal comment period on an internal policy.

I will doing all of the incorporation of the comments and I will be on vacation until January 3 and so if you need a little bit of extra time informally, you know when I will be back.

As I said, there is nothing mandatory in here, but usually for internal policies we don't go out and sort of have these conversations. We write them internally and we post them on the web, but we have so many management partners, the councils and states and tribes, and it's really important for us to come out and let you guys know what we're thinking and you let us know what you're thinking and we can tweak this and update it based on that information.

Now, the next step from the policy is going to be the roadmap and so a lot of the stuff you're going to see today, you might say, well, how are you going to do that and how are you going to implement it?

The implementation phase of this policy will be done through the roadmap and Jason Link intends to do a very similar outreach on that document as well and so you will see that and have an opportunity to comment on that as well.

Today, what I would really like you to take away from my presentation is that NOAA Fisheries is committed to ecosystem-based fisheries management and that there are many benefits to doing ecosystem-based fisheries management and we are going to try to provide the tools that you need to be able to manage and address these key ecosystem considerations and make these considerations.

To make this operational is -- There are some big challenges and a lot of it has to do with how are we all going to work together on something like this and so one thing we know we have to have is good partnerships with our managing partners.

I wanted to give you an example of ecosystem-based fisheries management in the Caribbean that you are obviously all familiar with down here. Right now, you're seeing the changes in the climate and you are seeing changes in temperature and sedimentation. You're seeing some sedimentation and you're seeing the bleaching of the corals, which is impacting the health, which then impacts the fish that you are all managing on these reefs.

It ultimately impacts the recreational and the commercial fishing and you know you have a very big tourism industry down here, including diving and so there are additional implications.

For those of you that aren't as familiar with ecosystem-based fishery management, I wanted to give you a quick diagram here of sort of what we're talking about in this policy here. You have your typical single species management and that's that bottom line there and actually a lot of the councils are already doing ecosystems approaches to fisheries management.

Here, you are still looking at a single species, but you've taken climate into effect and habitat and predators and I know that here you have many FMPs that are multispecies down here, your reef fish fisheries and some of the FMPs you were discussing today.

What this policy does is it looks at not only the multispecies aspect and the interactions between the various species, but it also takes climate, habitat, and predators into consideration as well and then ultimately it would be great to be able to do ecosystem-based management, but if you look at these, these are not all in NOAA's purview.

We don't have the ability to be able to regulate a lot of these

industries. For example, energy, we would need Interior, Department of Energy, and for oil and gas, we would need BOEMRE and so these are -- We have got some time before we can even think about this, because there are so many aspects and so many other pieces of legislation in there.

I am going to hit on three major components in the policy, which are the three that I think are the most important to you, but these are all of the components, in case you haven't had a chance to read it. We have a basic policy statement and some background and the purpose and need for the policy.

We have created a definition of ecosystem-based fisheries management and we talk about the context for which the policy uses it and the benefits for ecosystem-based fisheries management and then, of course, the bulk and the meat of this policy is these guiding principles.

We included some legal authorities and mandates in here, but I think there are so many -- There were so many. The first time we did this, it was about twenty-five pages of legal mandates that allow us to do ecosystem-based fisheries management and these internal policies are supposed to be about four pages and you see this one I think is nine at this point.

What we did is sort of looked at a tiered approach and we used the legal authorities that we use the most, that are sort of our guiding principles, Magnuson, ESA, MMPA, and NEPA. I think Aquaculture is in there as well.

Then, of course, there is a section at the end that's going to look foreign to everybody, because when I saw it, I had no idea what it was, but it's this fisheries responsibilities and that's just blanket statements that are in all of our policies.

Today, I am going to focus on our policy statement and I'm going to focus on the definition and the guiding principles. These are the three places that we had the most discussion in our workgroup and the places that I think the council will be most interested in commenting on.

The policy statement is that NOAA Fisheries strongly supports the implementation of ecosystem-based fisheries management to better inform decisions and to help achieve and optimize the benefits for marine fisheries by evaluating tradeoffs among and between fisheries, aquaculture, protected species, biodiversity, and habitats, while maintaining a resilient and productive ecosystem.

You can tell from this policy statement that you're not embracing anything new. This is we're just documenting what we're already doing.

We have defined the ecosystem-based fisheries management. in а lot of different articles and publications and we went through a lot of them. through fifty papers, I think it was, and we came up with this EBFM definition and so it's a systematic approach to fisheries management in a geographically specified area that resilience and sustainability of the ecosystem that recognizes physical, biological, economic, and social interactions among affected components of the ecosystem, including humans, seeks to optimize the benefits of diverse societal goals.

I think for the fishery management council this would be a great place to comment. I think we spent about 30 percent of our time in our working group discussing this definition and tweaking it.

The guiding principles, there are six guiding principles in this policy and this -- When we read through it, when we were finally done with it, it sort of all made sense to us and we thought we need a picture to show how all of these principles fit together and so we developed this picture here and you know it's all of the steps that you need, that are all interdependent, to be able to do ecosystem-based fisheries management.

You know the first question is what is the foundational science that we need and all of that information is binned under our advance the understanding of the ecosystem process. Then what are our objectives? What do we want to do? What are we planning for? That's in the second principle, implementing ecosystem level planning.

Then we have to determine our priorities and so we have to prioritize vulnerabilities and look at the risks to the ecosystem and then we have to look at the options and I know you guys look at options all the time for fisheries management and this will require us to also address tradeoffs within an ecosystem and so if there are -- If there are some tradeoffs that relate to protected resources, you would be able to take something like that into consideration.

Then what's the advice? How do we incorporate these ecosystem considerations into the advice? Then, finally, the outcome is that we have these resilient ecosystems. Again, this is just intended to show how these principles build on each other.

The next steps, as I said, this is an informal comment period and we're accepting them through tomorrow, but I will be on vacation until the 3rd and so feel free to use it, and you have my email address here at the council and so send your comments in, if you have any, to myself and Jason Link and we will work to incorporate any of your comments into it and then obviously I talked about this roadmap and answering the how will we implement this policy.

We will be coming to you with that. Jason is the lead on that one and I haven't had much interaction and so I don't know the exact time and we hope to finalize this policy, this internal policy, in early 2016. If I were a betting girl, I think it would probably be sometime in February, the end of February, just thinking about the work that we have and how many comments we've received so far.

Finally, I just wanted to show you this depiction of all of the various different ecosystem work that is going on. I am not part of all of these. You know Jason Link is the ecosystem guru in the agency and so I am just helping him with this one policy, but it's important to know that there are a lot of these different ecosystem efforts going forward.

At the end of your presentation is a link, in case you need it, to the policy and then also you can find my name and Jason Link's name and email addresses there for questions and comments and also just to find your document. Any questions?

MIGUEL ROLON: I have a basic one. What is the difference between what we're doing now and what is proposed here and then can you go back one slide, to the one with the blue? That survey of ecosystem-based management in fishery management plans, I believe there what you're doing is to look through all the management plans that we have and identify those who already have components of ecosystem-based management planning and is that --

HEATHER SAGAR: That is my understanding. Jason is doing that on his own and so I'm not part of that. I can get some more information for you, but that's my understanding of that effort.

MIGUEL ROLON: It's okay, but I believe that this will lead into some guidance to improve the management plans that we have in place to move forward to the incorporation of ecosystem-based management and approaches to it.

 HEATHER SAGAR: Correct and so there are some councils that have ecosystem plans and so there is sort of these umbrella agreements over an FMP and so I think they're looking at some of those as well.

When you asked the difference for what you are doing, I think everything is different for each council, but what we're seeing is most of the councils are here. Now, you guys are a little different down here, because you have these multispecies fisheries already and so it's a matter of how are you taking these into consideration and what tools do you need, what data, and how can we help you analyze that, so that you can have a robust ecosystem-based fishery management plan. I don't know, Bonnie, and do you want to add anything else to that? No?

MIGUEL ROLON: We have tried ecosystem-based management many times and four councils were supposed to be working on this, the Western Pacific, Gulf, South Atlantic, and us. We were the first ones to put together an ecosystem-based management plan and at that time, we called it generic, but I guess we were too advanced and it was disapproved because it wasn't fishy enough and it was too much into the ecosystem stuff.

Then we had three council meetings to discuss ecosystems and I remember one of the requirements was to have predator/prey relationships, for which we didn't have one iota of information that amounted to something. I believe in this case the people in your group and the people who are working on it are kind of identifying more and more the elements of an ecosystem-based management plan that we can work and I believe that that's a step in the right direction that the council should follow.

HEATHER SAGAR: Absolutely. We are trying to figure out what we need internally to help you guys to be able to do that, yes.

MIGUEL ROLON: Then I also found, and forgive me, Mr. Chairman, if I take too much time, but your plan included the human dimension, because one of the issues by many scientists and communities was that at the beginning we were talking about ecosystems and just the fish and the habitat and the surrounding trends and the people were thinking that we need to include the socioeconomic component and the human component and I believe that in your policy statement that you already include that and so it's an improvement from previous attempts.

HEATHER SAGAR: That's in there and that was very purposeful and a lot of people said we should take out "and human aspect", because it's implicit in there and we kept it in for just that

reason.

CARLOS FARCHETTE: Marcos and then Bill.

 MARCOS HANKE: Can you go back to the blue table at the beginning? I would like to -- Especially establishing a policy or something that the forage species emphasis on any of the -- It's not there.

HEATHER SAGAR: Yes and you are the third person that has said that and I agree with you and it's something we need to address.

MARCOS HANKE: That is very, very important, including on the list of the priorities for research. We tend to go to species that are fished and so on and we don't have any information about forage species, which is basically what sustains everything we manage.

That is point number one and just to reinforce what Miguel says and the predator/prey relationships we don't have many studies, but to get to that, we have to understand the forage species first.

As a fisherman, most of us agree, in which each area has a specific baitfish, sometimes in specific seasons, that are the ones that move the fish around and are responsible for the majority of the behavior of the fish or the main source of food for the fish and so on.

Even though we know that, we don't make science, hard science, with it and that has to be taken into consideration as a priority for every level of managing.

HEATHER SAGAR: That's a great comment. Thank you.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: Okay and we've been working on this since the very beginning of our development of the new island-based fishery management plans. In fact, this was a major part of our initial discussions, as to how we were going to go about instituting these new fishery management plans.

The vision we have and, ultimately, in a step-wise fashion we will bring to the council, and we're not doing it now, because first we've got to get the fishery management plans in place, is we are developing a fishery management plan that is specific to managing the harvested species on each of these three island

groups.

 We will get those in place and then the idea is, if the council wants to pursue this, is then we would come up with our umbrella fisheries ecosystem plan, because the ecosystem is at least as large as the U.S. Caribbean and, really, it's as large as the Caribbean large marine ecosystem, including the Gulf of Mexico and up to Cape Hatteras, et cetera, et cetera.

That's a much larger thing and so the idea is then we build this fisheries ecosystem plan and if somebody wants to come down and do an Ecopath model down here to do trophic relationships, that would be great, but, if not, our fishery management plans are not dependent upon that, nor they should be, because just the fact is that we're doing single species or small group species management and our technology and our data are not allowing us to go beyond that at the present time.

There is no sense in pretending we can do something much more within our fisheries management plans, but we can develop and continue to develop, as we acquire more information, understanding of the ecosystem that would be represented within fishery ecosystem plan and that would quide modification and the amendment to these fishery management plans as they are needed down the road. That's the plan and it is being taken into account. The need to consider the ecosystem is being taken into account.

HEATHER SAGAR: I would just add to that that the council should be really proud of the work that they're already doing on this and so I am not as familiar -- I haven't been to a council meeting besides this --

Well, I went to two this year to talk about this and that was it and so you guys -- I know that so many councils are already working on this and so you definitely should be taking the credit for it and so I think that was well said, Bill, and thank you.

CARLOS FARCHETTE: Graciela.

GRACIELA GARCIA-MOLINER: This is something that the SSC had been discussing last week, specifically to ask for guidance on the part of the council, to see where this is heading, but the issue now would be that first there would have to be the policy, so that you can follow some guidelines of the policy that NOAA is establishing and to then work on the ecosystem-based management under that policy.

 Then, on the other hand, we do have a bit of information specifically from the commercial harvest that has been going on for over thirty years and both the predator/prey interactions and the habitat information, although it's mostly for the shallow-water areas, up to thirty meters, we are starting to collect information from the deeper water around Puerto Rico and the Virgin Islands.

We have differing opinions on whether the ecosystem should be really the Caribbean-wide area versus what we have here and that's something that -- I don't know exactly where that would fit into, because climate and habitat and predators are really wide-ranging things, rather than very specific to the area, but one thing that the fishermen have always brought to the table has been the fact that things have changed dramatically and it's not necessarily because of overfishing and it's because of the dramatic changes that have taken place in juvenile habitats, specifically juvenile habitats near shore.

The one thing that we need to do is to integrate all the information that we have, because right now essential fish habitat and those amendments run on the side and are under a review every five years, but they are not really -- They are not really developed within the fishery management plans and I think that's the one thing that we are missing, that connection to bring everything together under the same FMP.

HEATHER SAGAR: Right and that umbrella, the way that Bill described it, is exactly the intent. Thank you.

CARLOS FARCHETTE: Any more questions for Heather? I noticed in the blue arrow thing that you "Lenfest EBFM" and what's Lenfest? Is that an acronym?

HEATHER SAGAR: It is and I have no idea what it is, just to be completely honest, but I will Google it for you. I will ask the Google man. He is really smart.

CARLOS FARCHETTE: Okay. Thank you.

HEATHER SAGAR: Thank you, guys. Thanks for having me.

 CARLOS FARCHETTE: Okay. I have a little change in the agenda again. We're going to leave the Island-Based FMP Development Status and Next Steps for tomorrow morning and so tomorrow morning we will be coming in earlier and we're going to start at 8:30, so we can cover that. Now we're going to move to

Accountability Measure-Based Season Closure Schedule for 2016.

ACCOUNTABILITY MEASURE-BASED SEASON CLOSURE SCHEDULE FOR 2016

BILL ARNOLD: As we do every year at the end of the year, we've got to review our average catch and compare it to annual catch limits that are established in the 2010 and 2011 Caribbean Annual Catch Limit Amendments and determine if any of those annual catch limits have been exceeded and then determine, if they have been exceeded, whether that exceedance is due to an actual increase in catch or whether instead it's due to enhanced reporting.

If it is not due to enhanced reporting, then we have to determine how long of a season is allowable. In other words, how much of a season we have to close to ensure that the annual catch limit is not again exceeded in the coming year.

If it is due to enhanced reporting, the whole idea behind that is don't punish the fishers for being more cooperative and working harder with us on compiling data. If they have improved their reporting, then the overage is really due to better reporting and not due to an actual increase in catch and there is no reason to close the fishery.

We have got two groups of species and I'm going to refer to them as the 2010 species, because those are the species we dealt with in the 2010 Caribbean ACL Amendment. Then the second group of species is going to be the 2011 species and the same reasoning. We dealt with them in the 2011 Caribbean ACL Amendment.

Basically, the 2010 species are snapper, grouper, parrotfish, and queen conch and all the other species are 2011 species. We split this up, so far, into three -- This is really where we started with our island-based management. We've got these annual catch limits split up amongst Puerto Rico, St. Thomas/St. John, and St. Croix.

Then, within Puerto Rico, where we do get useful recreational landings data, we were able to set separate annual catch limits for each of the commercial and recreational fishing sectors and so you will see me deal with commercial and recreational separately in Puerto Rico. We do not deal with commercial and recreational separately in the USVI, because we have no recreational landings data in the USVI.

Instead, we let commercial activity govern the overall annual catch limits and accountability measures and so what that boils

down to is if we close the commercial fishery for whatever period in the USVI, the recreational fishery is closed right along with it.

What we're doing this year -- This is the first year when we have had full landings for each of the USVI and Puerto Rico for all sectors with the expansion factors applied, the final expansion factors applied, for Puerto Rico and everything in place late in the year when we need the data.

Last year, we didn't get Puerto Rico commercial data until I think February of 2015 and so it was several months late and because of that, we weren't able to get these closures announced until March or maybe even April of the closure year and so the take-home message there is it is possible to delay the announcement of these closure periods and that's probably what we'll have to do this year.

This year, it's due to some concerns about whether it's enhanced reporting or not, but, still, we have that flexibility to delay it into the year a little bit, because the actual regulations say on or near the beginning of the year and near the beginning of the year, fortunately, is subject to some interpretation.

Okay. This is Puerto Rico I'm going to start with and these are the commercial species and we are going to start with the 2010 species. We don't manage conch around Puerto Rico in federal waters and so we basically have an ACL there that is zero.

However, harvest is allowed in state waters and our landings are based upon combined state and federal totals. Everything is combined into one landings number and that's what we use. Even though conch are 328,425 pounds over the federal ACL, that's really irrelevant, because it's closed and we have no additional closure provisions on a closed area.

Grouper, our landings were 60,000 pounds and the ACL for grouper in Puerto Rico is 177,000 and so they only harvested 34 percent of their available catch. From a Department of Commerce point of view, that's actually a loss of potential revenue to the industry.

Parrotfish, parrotfish were a little bit over, 2.8 percent over their annual catch limit. Because of that, unless the Science Center and the SSC determine that that's due to enhanced reporting, there will be a closure for parrotfish in federal waters around Puerto Rico.

 Snapper Unit 1, Snapper Unit 1 came in well below, 65 percent, of its allowable catch and no closures there and Snapper Unit 2 commercial, keep that in mind, please, they landed 155,000 and almost 156,000 pounds. Their actual catch limit is about 145,000 pounds and they were roughly 7 percent over. Again, unless there is a determination that that's due to enhanced reporting, there will be a closure for Snapper Unit 2 in the 2016 fishing year.

Snapper Unit 3 and Snapper Unit 4, both of them were substantially below their allowable catch and so no closures for them. You guys are welcome to interrupt any time with questions.

MIGUEL ROLON: Bill, going back to the first one, please, just a question, but what will be the time schedule for finalizing the analysis, so we can -- By the way, next year, the way it works under the present rules, any closure will have to start December 31 and backwards and so when do you expect to have a final say-so as to whether this is an increase in reporting versus a real overage?

BILL ARNOLD: That's out of my hands, because that's a Science Center and SSC determination and so it's up to them. They have got everything that we can provide them. They've just got to look through their data and make the decision as to whether it's due to enhanced reporting.

 GRACIELA GARCIA-MOLINER: We have requested specific information from the Science Center and so we're working on that to determine whether some of these overages are due to the number of workshops that have been held around the islands, specifically in 2014, to increase the number of people who are reporting landings and increase the number of people who haven't had a license for a while and are replacing their -- They are renovating their licenses and the number of projects that have taken place specifically in 2014.

We have also requested, from the DNER, information on the number of licenses and permits for the Snapper Unit 2 group, because the back-of-the-envelope calculation, they do have 120 trips per fisher per year, depending on the number of permits that they have.

If they have new people that have come into the fishery or people who are submitting information that should be submitting information or harvesting Snapper Unit 2, the department should make the Science Center of aware the situation.

MIGUEL ROLON: Because the key to all the council members and people around the table is that we should not have a closure because we didn't do our assignments and so it will be really unfair to submit the fishers to a closure because we didn't have the numbers in time or we didn't have the elements to decide whether this is a real overage or an artifact of the way that we collect the information. We need to really have that schedule and decide on that and so, Miguel, do you have any idea of that information and where is it?

MIGUEL GARCIA: I got the message actually from Miguel Rolon like a week ago with this information and --

MIGUEL ROLON: Actually, we sent you a letter several weeks ago.

MIGUEL GARCIA: Okay. I haven't gone and checked all the data from the special permits for Snapper Unit 2. My impression is that it's being pretty stable in the sixty-something or seventy fishermen that I remember, that I recall. Nelson told me something that he knew or he knows that there have been some people reporting that doesn't have a special permit, which is, by definition, not correct.

In a matter of time, in the near future, we're going to be going back to the data and just double checking if that's true or if they are fishing without having a special permit for Snapper Unit 2, number one. That's for sure.

We have been rejecting many applicants to become part of this fishery and especially people that are traditionally silk snapper users, most of the time, people that did not qualify with the requirement to be part of this fishery.

As I say, we just recently saw we have to go back and check the information. I got the information that we had granted only 399 special permits for lobster and I just got that information.

MIGUEL ROLON: Miguel, let me clarify the letter that I referred to. It was the one that we talked before --

MIGUEL GARCIA: Are we talking about Snapper Unit 2, the special permit, after the 2013 overage? I just mentioned about lobster for something that Graciela asked me today. Yes, as I said, we have this information for quite some time now and we have to go back and meet with the people in the scientific research laboratory and the look at the data and meet with the fishermen,

with Nelson and company, and try to pinpoint what might have happened, because it was a small overage, but it was an overage and we calculated this with the mean of the 2012, 2013, and 2014. 2012 landings were extremely low, like 56,000, but it was very low.

We will go back and check the data, the permits, and see the people that are reporting that don't have a permit to do something about it for sure.

 MIGUEL ROLON: Can we expect an official letter from your department about exactly those things that you are mentioning and that letter can be shared with the council and the staff and the Center, so they will look at it and see the changes?

The key is that whatever we do, we have to be able to measure, have a metric. For example, if you have two fishermen more than you had before and those fishermen account for let's say 5 percent of the total landings, we have to document that. If the numbers have increased versus the time that we have of 2012, 2013, and 2014, those are the kinds of information that we can use to send to the Center for analysis.

MIGUEL GARCIA: The answer is yes. In fact, we just gave a presentation last August about this particular fishery in Puerto Rico and I do recall very well the permit, the number of permits granted, was probably sixty-five or seventy-two, but I will have to check on that for sure.

CARLOS FARCHETTE: Reni.

JORGE GARCIA-SAIS: I am just wondering, because I haven't really heard anything or going through this possibility that -- You know, given the overages in the commercial sector, in cases where, well, recreational, for example parrotfish, is well under the annual catch limit, can these overage be evaluated from the standpoint of the cumulative catches of the recreational plus the commercial, since it's the same stock?

CARLOS FARCHETTE: Is that for you?

MIGUEL GARCIA: It's not for me. The ACL has been established separately from recreational and from commercial.

JORGE GARCIA-SAIS: No, I know, but it's the same stock. That's what I wonder, if the council has ever considered, in these cases, that one group may bail out the other.

 MIGUEL ROLON: We have discussed all of that and the best available information that you have from Puerto Rico is that you have recreational fishing landings and that you can match that with the species that you have.

Then actually, what you have done is that the ACL is allocated to the two sectors, according to those percentages, to address your question. In the case of the Virgin Islands, we do not have the recreational fishery information that we have in Puerto Rico and so there, as Bill said before, whatever is good for the commercial will have to be followed by the recreational.

 In other words, if the quota is met, the ACL, by the commercial, we err on the side of the resources and the fishery is closed for the recreational sector too as well. In the case of Puerto Rico, you may have a disjunction. You may have an opening for the ACL percentage, I will say, of the total resource allocated to the recreational, while the commercial will be closed. Those are the possibilities.

JORGE GARCIA-SAIS: Okay and I was just thinking about an overall island ACL. I mean divided in two groups, but in case there are overages, if there is slack in the other group that there can be some kind of a merging of the two to comply with the ACL, so that if there would be that kind of flexibility -- It's the same stock and the stock will not care if it's a recreational or a commercial.

MIGUEL ROLON: Yes, but we do care about the guys who fish it and so you are treading in deep water when you start messing with the allocation of the two sectors. Bill, can you continue, so we can go back to the questions?

CARLOS FARCHETTE: Marcos and then Velazquez.

 MARCOS HANKE: Miguel, about the comment that Reni did and what it makes sense for me is that we address the ACL and AM once the fishing year already passed, right? This way, if you have the quota, in the case of the recreational fishery, not touch or enough that can be merged with the commercial, you are not really messing with the allocation, but it just what happens if there is not quota there to -- It must be a two-way situation between the recreational and the commercial and vice versa. I think that Reni is correct.

MIGUEL ROLON: Yes, but, to that point, remember we are talking about total ACL and we don't go with this average, because the average of the recreational sector is such and the commercial

sector is another.

 The percentage that he's talking about is the total amount that you have allocated for that resource, the total amount that you have for the two sectors. If you look at Puerto Rico commercial landings, that's the situation that you have and then we need to allow Bill to finish, so you will see the complete picture and come back to those questions.

CARLOS FARCHETTE: Velazquez.

CARLOS VELAZQUEZ: I have many questions for you, Bill, and I will wait for you to end your presentation or now?

CARLOS FARCHETTE: Okay, Bill.

BILL ARNOLD: You guys have been reading my notes. Then we have the commercial species in Puerto Rico for which annual catch limits were developed in the 2011 ACL Amendment and, like I said, that's pretty much everything else.

For these, and I don't need to go through every one, most of them were well under their ACLs and there is three that weren't. A key there, of course, is spiny lobster.

It's five-and-a-half percent over and a closure will have to be implemented in 2016 for spiny lobster commercial fishing and since, we don't get recreational landings data for spiny lobster in Puerto Rico, because it's not part of the MRFSS program, this closure would apply to recreational harvest of lobster in Puerto Rico EEZ waters as well. That's five-and-a-half percent over. Triggerfish and filefish, they were over by 21 percent and wrasses were over by 9 percent, roughly 9 percent. Those are the Puerto Rico commercial.

Now we go to Puerto Rico recreational and first the 2010 species. These data are obtained slightly differently. They are obtained in waves from the Marine Recreational Fisheries Statistics Survey Program and so what you see are those waves. A wave is two months of data and you can see January/February, March/April, et cetera, et cetera.

 The only thing that really matters is that total reported column relative to that annual catch limit for the recreational sector. Each of the commercial and recreational sectors have separate annual catch limits in Puerto Rico, except for a few species, like queen conch and spiny lobster, for which recreational data are not collected.

Here, the only one -- All of them are under and the only reason I have red on that 7.1 percent for Snapper Unit 2 is because the recreational fishery for Snapper Unit 2 in Puerto Rico waters, the total landings, were only 7 percent of their annual catch limit and so whereas the commercial fishery is going over their ACL, the recreational fishery is coming in way under their ACL, which touches on what you guys were discussing, Reni and Marcos, and we'll talk about that a little bit more at the end of this presentation. That's the 2010 species recreational group.

This is the 2011 species recreational group and for these, only jacks are actually over and they're over by roughly 23 percent and so a closure for jacks will have to take place in 2016 again, unless it's identified that that overage is due to enhanced reporting.

On to St. Croix. In St. Croix, we don't have a recreational component and so this is commercial, but it really covers everything. Nothing is over for those 2010 species, conch, grouper, parrotfish, and snapper, for St Croix. For the 2011 species, there are three that over, angelfish, squirrelfish, and wrasses.

Those are over every year, one of them because of -- Two of them because they were added to the forms and therefore we are getting higher numbers than we did before and so in the past, and I can't promise this will be the case this year, but in the past, it's been attributed to enhanced reporting and we have not implemented accountability measures. The other ones -- Do you remember the reason for the other one? We debated that at the SSC meeting. I think it was angelfish.

In the past, these have been attributed to enhanced reporting and they have not been closed because of that and, basically, we go to St. Thomas and the same thing. The 2010 species, none of them are over. In fact, some of them are remarkably below their annual catch limit. Then for the 2011 species, the same group, angelfish, squirrelfish, wrasses. All are well over and all in the past that has been -- In all three cases in the past, that has been attributed to enhanced reporting.

Basically, this is the summary of it. These are the species for which ACL overages were detected, based upon 2012 to 2014 average landings. That's just a summary of what we went through. Again, these six in St. Croix and St. Thomas have been attributed to enhanced reporting. Queen conch was over in St. Thomas/St. John, but we have zero allowable harvest in federal

waters and so all of that 380 pounds is coming from state waters and does not result in a closure.

These are just a reiteration, for Puerto Rico, of what we talked about before, including the recreational jacks and the commercial species.

The closure dates resulting from this, and this is based on the risky assumption that those three complexes in each of St. Thomas, St. John, and St. Croix will again be attributed to enhanced reporting and closures won't take place for those. If that isn't the determination, then we will determine closure dates for those as well, but when you're 3,000 percent over your ACL, you pretty much can count on having about a three-day fishing season.

Anyway, for these, parrotfish would close the $18^{\rm th}$ of December. Remember they were about 2 percent over. Commercial Snapper Unit 2 would close on October 24 and spiny lobster on November 12 and triggerfish and filefish on the $2^{\rm nd}$ of October and commercial wrasses the $27^{\rm th}$ of October and the recreational jacks, that were 22 or so percent over their ACL, would close earliest of all, the $14^{\rm th}$ of June. All of these are start dates for the closure and that closure will extend until the end of the year and then the fishery for these species will be reopened on January $1^{\rm st}$ of 2017.

Then we also have to deal with the overfishing limit and whether it's been exceeded. This gets very tricky and this is something we're hoping to correct in the new fishery management plans, yet another argument to keep these things moving forward and get them in place, but, as it stands now, as we have it written in the 2010 and 2011 Annual Catch Limit Amendments, overfishing is based upon a single annual determination, the most recent year for which we have landings.

 Thus, you can have a situation where the ACL is not exceeded, because that's a three-year average, but the OFL is exceeded, because that's just the most recent year. Picture having two very low years, 2012 and 2013, and one big year, 2014, and these two low years bring this average down below the ACL, but that one high year gets it above the OFL.

 Now, the OFL doesn't directly result in any closures, but it does result in that species or species complex being designated as undergoing overfishing and if you realize an overfishing event twice in four years, and, Iris, help me out here, but then you are going to have to revise your management measures to

account for that and exactly how those revisions take place is sort of up to the council, but it certainly has to address this overfishing problem that would then be recognized as taking place and so overfishing is important in a more long-term sense. Annual catch limits are important and exceeding annual catch limits and having to implement accountability measures is more important in a short-term, this coming year type of sense.

 The OFL overage was -- The 2014 landings for Commercial Snapper Unit 2 were 174,000 and the OFL was 171,000 and so that's over a little. As you can see, they are all over, to some degree or other, and some of them small and some of them pretty large. These will go on the list of species that NOAA announces as undergoing overfishing and that's the end of that.

One thing I would like to mention and, like I said, this touches on what Marcos and Reni were talking about and what we had talked about at the SSC.

For most of these species, there is a pretty good disconnect between commercial and recreational fishing. The council did that for a reason. They separated these sectors to ensure that one sector can't take advantage of sucking up all of the available harvest for the other sector and the example we used at the time, not to pick on the commercial guys, but it really is a situation that has arisen.

If you don't have them separated, then the recreational guys can go out there and pound the Snapper Unit 2 and basically consume a large proportion of the total allowable catch that's available to both sectors.

To prevent that from happening, we said the recreational get this and the commercial get this and that's why, so that they each don't interfere with the operation of the other sector's fishing activities.

In the case of Snapper Unit 2, unlike these other species, and maybe something else will come to light, but what we've learned about Snapper Unit 2 is, and this is my understanding of how it's going, is a lot of the commercial guys got these one-year beginner licenses and moved over to basically become short-term commercial fishers.

What they are doing is they are now consuming the commercial annual catch limit and they left their recreational catch limit behind basically untouched. As you can see, only 2,000 or 3,000 pounds out of their 35,000 available pounds was consumed,

whereas they may be responsible, and as Nelson said, there is only sixty-seven permitted fishers. That doesn't change the fact that there's an overage of dead fish resulting from the total activity in this fishery, but if you said -- I am not even sure we could get this done, and I have talked with Iris about it and it may be that there is nothing we can do about this, but it may be that in the case, specifically, of Snapper Unit 2 in Puerto Rico, taking account of the fact that the recreational guys, and is based upon clear evidence, Miguel, and you've presented this in past meetings, that they have actually moved into the commercial sector.

You may be able to justify merging those two ACLs back into one, to account for that blending of the two sectors, in which case you would probably, at least to some degree, account for these overages and maybe minimize or eliminate the closures that will result to the commercial sector and that's just something to discuss.

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: Bill, could it be possible to, based on the experience of this year, to allocate what is -- I mean to lower the ACL for the recreational and then, going by Reni's argument before, then whatever is not taken by them -- Let's say they only took 7,000 pounds and we can say, well, the ACL now is 10,000 for them and the other 24,000 will go to the commercial? Will that be more difficult than just merging the two?

BILL ARNOLD: There are better experts on this than me in the room, but I would say much, much, much more difficult, because basically you have to go back and revisit the entire process of allocating ACLs and to do that would require using different year sequences and basically starting from the beginning.

Merging them is also a complex process, but I would say it's either not doable, but if it is doable, it's going to be less complicated than completely revising your ACL, which again goes back to the need to get these FMPs moving forward and get Actions 1, 2, and 3 finalized, so that we can revise our species complexes and revise our reference points and revise our annual catch limits to account for all of these things that have gone on since ten years ago when the actual landings took place upon which we are basing our present annual catch limits.

MIGUEL ROLON: If I may, Mr. Chairman, this is one of the actions that you should really look at it carefully, because what Bill is saying is it will be easier, although not simple,

to merge the two ACLs, which means that what you will do is that you tally up the recreational catches and the commercial catches and add them up and that will be your one ACL.

If you go over that, then you have AMs for both sectors or one of the sectors or whatever, but the status quo that we have now, we are wasting yield, if we allocate it to a group of people who do not catch what is allocated to them.

CARLOS FARCHETTE: I have Blanchard and then Marcos.

 TONY BLANCHARD: Bring up the screen a little higher there for St. Thomas and St. John and St. Croix. It's a little suspicious that two of the same species that are overfished and overfished in big numbers on the two islands and let me just throw this out at you.

Part of the problem here is the old catch reports and I'm pretty sure if you look back at them, they did not include these species and these had to be a write-in. The fact is most guys ain't going to write in anything.

Now, the new catch report has these species on it and so they are going to fill it in, because it's right in front of them. My thing is this. I would say that these numbers that we are looking at for the ACL is very low and so I think it needs to be revisited, because every time you turn around, we are going to be right over the OFL, but that should tell you, when you're seeing two of the same species on both sets of islands overfished and overfished to that degree, that they've got a problem here. I don't think we just decided to overfish them all at one time.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: Exactly, Tony, and that's what I said. These guys get reported as being due to enhanced reporting every year and I don't want to predetermine what the outcome is going to be, but I think I can safely conjecture that the same thing will happen this year.

Those three complexes for those two islands will again be identified as being over due to enhanced reporting, because they weren't on the forms or now they are on the forms or whatever, but they are reporting them better and because of that, they are going way, way over the reporting that was taking place during our reference years that we used to establish these ACLs in the first place.

 Again, as Tony says, we need to rectify this. The way we are working very hard to rectify this is to get these new FMPs through with Action 3, which completely redoes all of the reference points.

I said this in the SSC meeting, but you could separate the two and say we're going to go really slow with these FMPs, but we're going to focus on developing new reference points, and that's the council's decision, but the way we've planned it, and I think the best way to do it, is to develop the new FMPs that are fully island based, with new complexes and with the new species to manage that we've identified and the new reference points, and to work hard, as we will discuss tomorrow during the island-based discussion, to work hard to keep this moving and get it done in a timely manner.

CARLOS FARCHETTE: Follow-up by Blanchard.

TONY BLANCHARD: I agree with you, Bill. The point I am trying to bring here is I just don't want -- I want to ensure that we ain't being penalized because of bad recording or however you would look it and I am going to have Ruth touch base on this.

RUTH GOMEZ: Have you taken a look at the fact that because you went up to a more detailed form that you may have, I guess, just misidentification by the fishers and then you also need to take a look at the quality control of the reporting or the entry itself. I am in agreement with Tony that that's just way too suspicious. I mean it doesn't make sense.

So I mean I don't know how detailed you guys got into why that could possibly be happening, other than it's just the form, but I think you need to take a look at maybe it's just misidentification, because you're asking fishermen to really, really get detailed and in their minds -- I mean I could tell you, having spent thirty-one years at Fish and Wildlife, I still have fishermen that call yellowtail snappers groupers and so I think we need to take a look at that as well.

BILL ARNOLD: Ruth, I think that's a good point, but, from -- We did do in-depth, and I wasn't involved in it, but the Science Center and the SSC were and really, once you've established that there is a situation of enhanced reporting going on, you can continue to investigate that, but as far as whether you apply the accountability measures or not, your decisions already have been made and the accountability measures won't be applied, because enhanced reporting has been identified.

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 There may be several factors that contribute to that enhanced reporting, and I certainly agree with you that those need to be investigated, but you know some of this stuff we have been working on for years and years and years and continue to work on, to try to get better reporting and better data. There is no question that everybody is working to get better data. That's clearly a difficult and lengthy process.

RUTH GOMEZ: So how much longer are you going to give us a pass for those six species, especially if you know and we acknowledge there is something wrong there?

GRACIELA GARCIA-MOLINER: That's why the island-based FMPs are being developed, so that they will be reviewed with this new list of species. We are working on that and it's just that --

MIGUEL ROLON: It takes time.

CARLOS FARCHETTE: Dr. Ponwith.

BONNIE PONWITH: We had a lot, a lot of discussions about reporting when we were originally setting the ACLs to comply with the reauthorized Act, in 2010 and the ultimately again in 2011.

I said on a hot mic then and I will repeat now that I do not want to penalize people for improving their reporting and I will do everything that the Science Center is capable of to be able to differentiate between a true increase in landings versus a true increase in the quality of the reporting that the industry is making strong investments in, so that the industry is not penalized for improved reporting.

I said that then and I will say it again on the microphone. I feel very strongly about this. It is in our very best interests as an enterprise to promote high-quality reporting within the industry, so that those data can be used to do a good, good job of recognizing when the status of those stocks are changing and when the industry is responding positively to fisheries management measures that are being put in place and we're seeing changes in landings because of that.

Again, I will just say we will do everything in our power to avoid a situation where the industry is penalized for improving data reporting, because that's what we all desperately need for doing a good job on managing these stocks.

 CARLOS FARCHETTE: Marcos.

MARCOS HANKE: Let me see which order I'm going to go. I heard you, Bill, about the two ways and one of them being more complicated to create the pathways to transfer one way to the other way. That will be harder, but I didn't hear impossible and I think that is the only way to solve and create some dynamic on those ACL dynamics between the recreational and commercial, to avoid overages. Go ahead.

BILL ARNOLD: Okay and so basically there is the revise the annual catch limits. That is the long-term difficult process. We are doing that. We are working very hard to get that done. We will never get it done in time to address this 2016 closure.

Then there is not simple, but simpler, potentially simpler, approach to develop a rule to merge the ACLs for these two sectors for Snapper Unit 2, based on the rationale that the recreational guys have moved into the commercial sector and not taken their ACL with them. That's not an increase in landings, but that's just a shift in landings from one sector to the other.

That is something that Iris will have to address the legality of. I don't even know if we can do it, but certainly the council is welcome to request that we pursue that approach. That's an approach that possibly, not necessarily, but possibly could be in place by, whatever I said, October 24th or something, in time to avoid or minimize the closure that's going to severely harm sixty-seven Snapper Unit 2 commercial fishermen that are dedicated to that fishery.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: I mean I think you could have one ACL and combine them or you can reallocate fish. It's your choice, but either one is going to take a plan amendment to do it, which means it, under normal circumstances, wouldn't get done in time for the closure.

MIGUEL ROLON: Can we see the table where you have all the closures? That one. Bill, based on the discussions that we're having now, which of those closures could survive the scrutiny of whether we have an artifact of the way that we collect the data or not? Which ones in 2016 will be a reality if we don't do anything?

BILL ARNOLD: Is this a request for a personal opinion?

1 2 MIGUEL ROLON: Yes.

BILL ARNOLD: I think every one of them will end up being closed on those dates.

CARLOS FARCHETTE: Graciela and then back to Marcos.

GRACIELA GARCIA-MOLINER: This is relying on the 2014 data and the Department of Natural and Environmental Resources should have a list of the number of permits that were given. In addition to giving the permits, there was an intense, and I mean really intense, effort to convince fishers to surrender better landings data.

This all happened in 2014. There is a limit to the number of trips that they could take per year and specifically looking at the number of permits that were given -- If there were any fishers coming in from the recreational harvest, that should be all illegal fishing and they should not -- The landings should not match to the permits, because the permits were specifically given to fishers who had proven that they had a history of deepwater snapper fishing with a certain number of pounds per year over I don't know how many years, but a period of time that was in their historical landings. This is really a data mining exercise in trying to determine where the problem is regarding Snapper Unit 2.

MIGUEL GARCIA: Just a quick comment here. The requirements were five years of reporting the Snapper Unit 2 catches and at least 800 pounds per year, both of them. It was five years and 800 pounds per year.

 GRACIELA GARCIA-MOLINER: There is one additional factor and that is the expansion factor that was used for Puerto Rico. Expansion factors are used in a set way and they are done for all of the species over the whole of the island and this is something that has been -- Testimony on this has been brought to the attention of the council many times and this is one place where the expansion factor might be causing these overages and might just be an issue of revising the expansion factor for Snapper Unit 2.

There are a number of things, of issues, with the data that need to be considered before this goes any further and so there has been, I believe, a memo from the Regional Office to the Science Center and there have been conversations in terms of data mining the information that we have for 2014.

We have recently gained access to the database and so we will be working also on that issue, because it's something that -- You know having over 200 fishers who were requested to give better information and we don't have a metric to determine whether this is because it's enhanced reporting or not, this shouldn't be happening now. In terms of data mining, we need to do the data mining now.

MIGUEL ROLON: Okay. I am going to address the Snapper Unit 2 and the spiny lobster. What can we do between here and that date to stop that closure from occurring? That's what Bill said and his personal opinion is that we had better leave it, because that will take place between here and the date.

Regarding the data mining, if you smart guys put together a questionnaire that you can send to Puerto Rico and ask them those questions so that they can fill it out, that will be one way of doing it.

In the case of spiny lobster, this is what I call -- You know I always have the conundrum between what is legal and what is the best available data and commonsense and spiny lobster, you have a 3.5 carapace length and the darned thing is in good shape, but then the numbers that you have show that you have problems with the ACL.

I don't see -- I mean this is the commonsense. The system penalizes people, in the case of the spiny lobster fishery, for something that is really an artifact of the way that we collect the information and the responsibility of the agencies who collect the information to raise that flag before, so we don't end up here sitting in December looking at that table.

It's sad to say, but I agree with Bill. Unless we have a very quick action that we can take that is legal and that follows the process and everything, we won't have enough time to avert that closure for the commercial Snapper Unit 2 and the spiny lobster in the 2016 timeframe.

MARCOS HANKE: I want to finish what I tried -- I just gave my turn to Bill and then I lost my opportunity and please be patient with me, because I was writing and paying attention on everybody.

There is a problem in that shift between the recreational when you address the fact that the recreational past, because of the beginner license as a commercial license in Puerto Rico. In

fact, those guys, they were fishing to sell before and what created that movement was basically the limit of entrants for the Snapper Unit 2 and that they felt the urge to go there and to register and start reporting, because otherwise they felt they were going to lose the opportunity of participating in that fishing. Is something not clear in what I'm saying? Go ahead.

I think I understand what you're saying, Marcos. BILL ARNOLD: They were already catching the fish, but they just weren't reporting them on the commercial forms because -- They started reporting the on the commercial forms because they wanted to have access to the few permits that were going to be distributed and so they had to have commercial landings to get a permit and so they started trying to report commercially, which is fine, but that's just further evidence of my argument that what they did was you took a bunch of recreational guys and moved them over into the commercial sector and you didn't move the recreational ACL with them. They left that behind and so now you've got more people pounding the commercial ACL and fewer people pounding the recreational ACL, with pretty predictable You go over in the commercial and you're way under in outcomes. the recreational. That's pretty much what we're seeing.

MARCOS HANKE: I was trying to explain and the way I see this is that the reason they did that, and that race for the commercial license, one of the main reasons was the fact that it was a limited entry for the fishery and the people that was doing it illegally before felt the urge to shift and to start to report.

BILL ARNOLD: But it's really important to remember that a dead fish is a dead fish and we're not really that concerned with who kills it. There's still only so many dead fish that can be allowed to be taken out of the ocean before you start collapsing the population and that's what the council is trying to accomplish with these annual catch limits, is to ensure that overharvest does not occur and that we have a sustainable fishery in all of these area sectors and complexes.

We can work hard to come up with an excuse to never apply an accountability measure, but that's not exactly what we're here to do.

MARCOS HANKE: One last thing is a question for you, Bill. How much of the recreational quota will be enough for the commercial fishermen to transfer for them to avoid the closure?

BILL ARNOLD: Assuming you could, I think the Snapper Unit 2 was 7,000 or maybe 10,000 pounds over and the recreational guys are

sitting on 32,000 pounds of unused quota and so that's roughly 30 or 35 percent that would be moved over, assuming that was even something that could be done.

MIGUEL ROLON: Iris, can that be done in the timeframe that we're talking about or that will require an amendment to the plan?

IRIS LOWERY: Right, it would require a plan amendment in order to do that.

MIGUEL ROLON: An amendment to the plan takes anywhere from one year to three years if you go very fast. The other thing that, just to raise it for the record, Bill, is that these closures are for the EEZ and so, in essence, what will happen in Puerto Rico is that the fishermen will keep fishing and all of them will be fishing within the ten to thirty-five miles, after November the $12^{\rm th}$.

In the case of the Snapper Grouper Unit 2, we already know that much of the catch is coming from the waters outside of the area of jurisdiction of Puerto Rico, especially the deepwater snappers. That is what Nelson told us before and they will be more penalized than before, but I remember the last time that we closed it was September 22?

UNIDENTIFIED MALE: The 21st.

MIGUEL ROLON: The 21^{st} ? So we are better off in 2016 than we were before, but it still is a closure.

BILL ARNOLD: Yes and if the activity shifts to state waters, but you are still overharvesting the resource, the annual catch limits, and potentially the OFLs, will still be being exceeded and after this happens for two or maybe three years in a row, then we are going to have to implement drastically different management measures to stop this overfishing and prevent an overfished condition. If you get into an overfished condition, now you start talking about closing and rebuilding and nobody wants to go there.

CARLOS FARCHETTE: All right. I have Nelson.

ROY CRABTREE: In this case though, you are not catching too many fish. It's just you've got an allocation problem. You have over allocated to the recreational fishery and they're not catching it and the commercial fishery is, but the trouble is that the recreational catch estimates have big uncertainty

associated with them and they are likely to go way up and way down from year to year, although it looks like they've been very low, but, given where we are, if you want to do something with the allocations here, you need to tell staff now, but I don't see how it would be done prior to next year, but you could shift some fish for the next year.

CARLOS FARCHETTE: Graciela and then Nelson.

GRACIELA GARCIA-MOLINER: In the ACL Amendment of 2010, for the reef fish, include a framework measure for the Reef Fish FMP that says: Amend the framework procedure for the reef fish to provide a mechanism to expeditiously adjust the following reference points and management measures through framework action: quota requirements, trip bag limits, ACLs. Those are the ones that are applicable to OFL, but the ACL is the one that is applicable here and so a framework, how long would that require to be --

IRIS LOWERY: So I did touch base with my colleagues in NOAA GC this afternoon and the way that we have apparently interpreted similar provisions, where we say adjustment of the ACL, that would really be to the underlying ACL and not to allocation, where it doesn't specifically say allocation.

GRACIELA GARCIA-MOLINER: That would also be the case for the overfishing limit, which in this case is the one that provides for the two sectors to be together, and, in addition to that, we do have a trip and bag limit for the recreational harvest of snappers of five per fisher and fifteen per boat and so, in this case --

MIGUEL ROLON: I am following your train of thought, but it really gets stuck with the darned ACL and unless we change that, which is the crux of the matter, all of those other things that -- Anyway, this is one of those things that made me think about retiring.

CARLOS FARCHETTE: Velazquez and then I have Crespo.

CARLOS VELAZQUEZ: Show me please the first table for the parrotfish and the commercial landings in Puerto Rico. I am sorry for my English, but do you --

HELENA ANTOUN: Are you including all parrotfish here?

CARLOS VELAZQUEZ: All species? Okay. (The rest of the comment 48 is in Spanish and was translated by Helena Antoun.)

1 2

HELENA ANTOUN: Speaking from my experience, I can tell you that very -- This is me speaking and I am just going to summarize what he just said. Speaking from his experience, he is just saying that those numbers that exceeded the ACL is -- He believes, in his opinion as a fisherman, for parrotfish specifically, is way too high. Parrotfish is more of a cultural fish and he is actually very surprised at that high number.

MIGUEL ROLON: Carlos, the problem is that that information you have there is the reported landings and it doesn't have anything to do with the way that they -- The issue is really the annual catch limit that we selected the number with using that information. What we are saying is that unless we can provide that that overage was the result of better data reporting, the closure will be in effect.

CARLOS VELAZQUEZ: (The comment is in Spanish and was translated by Helena Antoun.)

HELENA ANTOUN: What he was saying -- The first thing that he was saying was that him, as a fisherman and as a fisherman who goes and moves his fish and his catch and his sales, he -- How many pounds did you say?

CARLOS VELAZQUEZ: One-hundred.

HELENA ANTOUN: One-hundred pounds, more or less, a year?

CARLOS VELAZQUEZ: No, one day in the week.

HELENA ANTOUN: One day in a week, a hundred pounds of parrotfish is more or less what you move. For about two weeks - It takes about two weeks to sell a hundred pounds of parrotfish. In other words, it's pretty slow.

Then the other thing that he wanted to clarify here is that he was one of the fishermen that was really pushing for accurate reporting in parrotfish and he was -- He fishes parrotfish himself and so he was setting the example and really doing his part in reporting accurate landings and talking to the fishermen of his area to do the same.

CARLOS VELAZQUEZ: (The comment is in Spanish and was translated by Helena Antoun.)

HELENA ANTOUN: He was just saying here that he was one of the - He really took it upon himself to talk to the fishermen of his

area to really be responsible with the data reporting to submit data landings and get their license and everything up to date.

MIGUEL ROLON: Carlos, the plan for the council is, in the case of the parrotfish for commercial fishing, can we say that -- Do we have enough element of judgment to say that that overage was the result of the better reporting or more effective reporting and then do not have that closure in 2016?

If not, then the closure will be in and then with the snapper unit, I don't think we are talking about reporting. We are talking about actual happening and the case here is the difference between the recreational sector and the commercial sector, in terms of what they have been using of the allocated resources to them.

MARCOS HANKE: A question to Carlos. Carlos, how many pounds of parrotfish, due to the better reporting in your fishing village only, things that you have control of it, do you think was reported extra to the previous year, since you started asking your fishermen to report better? How much do you estimate?

CARLOS VELAZQUEZ: (The comment is in Spanish and was translated by Marcos Hanke.)

MARCOS HANKE: What he says is that they reported twenty or thirty pounds and now, doing the right thing, more than 200 pounds.

CARLOS VELAZQUEZ: (The comment is in Spanish and was translated by Helena Antoun.)

HELENA ANTOUN: In summary, similar to the parrotfish, in terms of lobster, he was -- Once again, there was a lot of emphasis on proper data landings and reporting and reporting what you were really catching. He was really pushing that with the fishermen in his area.

Also, data landings probably went up because of that and also with the new lobster trap project. The fishermen have been catching a lot more lobsters and recently, they have been getting or they have been noticing a lot of lobster in this season.

 We have been having a lot more lobster in this past season and these years than we have been having before and then they are also healthy-sized lobsters and so we're talking about large lobsters and pretty much all of them or most of them exceed the 3.5 minimum size limit and a recent example is a female lobster that weighed about seven pounds and so you're getting large-sized lobsters.

MIGUEL ROLON: Marcos has a couple of questions that will guide the discussion further, but every time that we have an overage, we cannot say the sky is falling and run like crazy, but, at the same time, we cannot keep using the same excuse, that because of this better data that came to us and now we don't have to go by the -- We don't have to close the dates, according to the data that we have now, but we need to document thoroughly what is happening with the fishery in terms of the data collection, so we can convince the powers to be there that we don't need that closure. I believe that Marcos has a couple of questions geared to that and the question will be how we can meet those requirements and not have the closure.

MARCOS HANKE: Very quick. I will try to go very quick, to help you, because I spoke to you previous to the meeting. The first question is the same for the parrotfish. How much of those reports are added to it because of the true report on lobster?

CARLOS VELAZQUEZ: (The comment is in Spanish and was translated by Marcos Hanke.)

MARCOS HANKE: It's between 60 to 80 percent extra report from his fishing community, because of the true reporting, or more. There is a calculator here to more or less estimate the numbers per poundage that Helena is doing and let me go to the other question. It's about 100 percent. He said in his mind it was 60 to 80 percent and now the number is between, using the poundage, which is a number that they manage directly, is close to 100 percent.

BILL ARNOLD: Let me respond to that, before we go any farther. For lobster, we've got 18,000 pounds over and so what that means is that the average annual landings of lobster from 1988 to 2008 or 2009 is only 18,000 pounds less than the average catch during 2012, 2013, and 2014.

If the reporting has increased by 100 percent, and I don't want to be too dramatic, but that would suggest that the lobster population is actually collapsing and that what you've got is a population that is only allowing you 170,000 pounds of landings and the other 170,000 pounds is due to this 100 percent increase in reporting.

I am not saying that that's the case and don't get me wrong, you

guys, but I would be very careful how you phrase things, because the interpretations can be drastically different than what you think they may be.

MARCOS HANKE: That's why we are having this discussion and we want to clarify it and for you guys to have all the elements on the top of the table and being mindful that this is one area of Puerto Rico, one experience of a very representative chunk of the fishing, but it's not the whole island. It's not the whole of Puerto Rico and that's very important to highlight.

BILL ARNOLD: Just let me ask you something real quick. This is one fishing community and one fish house, quote, unquote, out of the thirty-seven or forty or so that actually exist in Puerto Rico? Is that what we're talking about when we talk about one area or are we talking about the Naguabo region or are we just talking about the Naguabo fishing group?

CARLOS VELAZQUEZ: For the Naguabo fishermen or for the whole 20 island?

22 MARCOS HANKE: The one that you were referring to.

24 CARLOS VELAZQUEZ: The whole area.

6 MARCOS HANKE: Of Naguabo?

28 CARLOS VELAZQUEZ: Of Naguabo.

30 BILL ARNOLD: Yes and so Saba and the three or four --

CARLOS VELAZQUEZ: Vieques and Culebra and Fajardo.

34 BILL ARNOLD: So, five, six, or seven --

GRACIELA GARCIA-MOLINER: Those are town and not fishing 37 villages.

BILL ARNOLD: Yes and that's what I am wondering about, how many of the fishing villages -- What do you call them, Helena, the ones we visited? The associations. You're talking about six or seven associations?

44 CARLOS VELAZQUEZ: More.

46 GRACIELA GARCIA-MOLINER: Again, this is --

48 MARCOS HANKE: Another very -- I am trying to go quick, but

another thing that Carlos reported to me is that the price of the lobster has been very stable and it's very market driven. They cannot buy more lobster, because there is no market anymore and through the demand, if you have the lobster not available, probably that price is going to increase and the price has been very stable for many, many years now.

That's another indicator from the market and the average size of the lobster compared to ten years ago, there is a slight decrease or it has been stable for the last years, for many years now. If you compare to ten years ago, it's like an increase on length frequency quality of the lobster that he sees on his fish house.

 BILL ARNOLD: Okay. A couple of comments. The first is, as far as this year's coming closure is concerned, these are congressional mandates that are dictating how we handle this and we have very little flexibility. Second, if you recall, we reduced our ACL from the average catch by 10 percent.

We did that due to uncertainty. The council did that due to uncertainty and to account for uncertainty. That was a council decision to take it down from ABC to ACL by 10 percent. Not all of you, but some of you were on that council and made that decision.

 Third, again, this is why we're stressing that we need to get these new FMPs in place and get these ACLs and reference points reevaluated, because they are out of date and things are changing.

Fourth, this further strengthens Shannon's argument to use this toolkit, because the toolkit is going to much more temporally responsive to these changes and rather than waiting six, eight, or ten years to revisit our ACLs, her mechanism -- I mean she would like to see it every year and I don't think our three meetings a year and our capabilities in the Caribbean are going to support reevaluating our ACLs every year, but certainly I think it will set us up to reevaluate it more frequently than every eight or ten years and we will be more responsive to changes like this.

I am sorry that this is not helping much with the 2016 closures that are coming down the pike, but, as painful as that is, we still have to think medium to long term and address these issues, so that we don't continue to suffer these controversial management measures.

 MARCOS HANKE: I understand everything you say and there is a list of many other things that I don't want to go over, but it doesn't make sense for me, because the lobster, for every aspect of the practical part, where you see in the water and the size that you see and the habitats that you see and the recruitment - Actually, Aida Rosario is doing recruitment for larvae and they are collecting a great number of larvae on the larvae collectors and there is -- Because it's managed around the Caribbean, the issue of the lobster, I was talking to Tony and he was saying that we are having a great recruitment around the Caribbean for many other reasons.

There is everything indicating that our area must be and is in good shape. The only thing that we are stuck is because of a law that was imposed that we have to make a decision and now the fishermen are paying because of that and that's why I don't think it's fair and this is what creates the skeptical position from the fishing industry that sometimes they are very hesitant on collaborating, because it doesn't matter how much they increase the data and it doesn't matter how much this guy works hard or somebody else works hard. They are going to close the fishing anyway.

BILL ARNOLD: That's not entirely --

ROY CRABTREE: All I can tell you is I hear this same complaint from fishermen all the through the South Atlantic region and the Gulf of Mexico and we hear it in New England and we are hearing this all over the country.

I mean the fact is we have annual catch limits and if you have annual catch limits, you are going to have closures. Now, it may well be that the spiny lobster fishery is in great shape and we may have had great recruitment. If so, we would need to go back to the SSC and try to get them to give us a higher ABC so we can raise the ACLs.

 I don't know if that's the case or not, but you have annual catch limits and you are going to have closures of some fisheries. That is happening everywhere and so it's not unique to here and I understand the fishermen are unhappy with it and I understand how it affects their willingness to participate and all those kinds of things, but there is not a clear way out of it.

 MARCOS HANKE: One last comment and I understand and I follow the press and I know what you are passing through and the problem is once you are having these recurrent situations with many fisheries that are reacting to the ACL implementation, something that is also indicating that it was implemented in a way that is going to create these problems and that it was not necessarily vary fair to the fishery and to the fishing industry.

ROY CRABTREE: That may be, but there are lots of fisheries that close every single year because they always catch the quota and I could name a lot of fisheries that are like that and we have fisheries that have the whole quota that gets caught up in six to eight weeks. It is happening, but we're not going to resolve all of that --

 MARCOS HANKE: Okay and which comment do you have, because I want to hear from Bonnie or from you or from anybody and -- What happened with the length frequency and they size of the lobster they are catching compared to other places, in terms of indicators of a healthy --

ROY CRABTREE: I don't know, but, again, that's something that would have to go back to the SSC, because now you're talking at getting at what the ABC is, the allowable catch level, and the ceiling for that comes out of the SSC.

If you want to take new information, new biological information, and put it before the SSC, I think that's fine. If you want to try to explore some way to do an assessment, that's fine, but that is a science question that would have to go back and is getting at what the catch level should be.

CARLOS FARCHETTE: Bonnie.

BONNIE PONWITH: To that very issue, the council came to us and they said that we are worried about the stock assessment approach that we're using, because we're having too many situations where the assessment results were best available, but not useable for management purposes. They weren't refined enough.

We stepped back and said what can we do instead? We decided what we can do instead is what's happening right now with SEDAR-46 and so we are hearing the council loud and clear and we are taking a completely different approach to stock assessments, as a result of the input that we've gotten from the council.

You will remember, if you look at those species lists, one of the stocks that we're going to include in the analysis, based on the work that we did this fall, are lobster. This is an opportunity to take the data that we have and use a more refined approach than simply average catch and use that to evaluate the status of the lobster stock and use the results of that assessment to produce new ABC advice. That is happening right now.

CARLOS FARCHETTE: Okay. I think we're beating this to death and we're not -- Offline, we can discuss it a little more. We need to go to the five-minute public comment period and I believe we have Pew.

PUBLIC COMMENT PERIOD

My name is Yasmin Sanchez and YASMIN SANCHEZ: Good afternoon. I am here representing the Pew Charitable Trust. We submitted a comment letter to the council last Friday regarding development of the island-based fishery management plans and we summarize appreciate the opportunity to to you recommendations.

One of the most important decisions the council must make in the transition from species-based to island-based fishery management plans is the determination of which species require conservation and management and the organization of those species into fishery management units.

 After receiving the recommendations of an expert panel and the District Advisory Panels earlier this year, the council has proposed a preliminary list of species for each IBFMP that will include all corals, which play vital roles in maintaining the structure and health of the reef ecosystem and many vulnerable reef fish that have been historically important to the fishery.

While these lists are generally consistent with the expert panel's recommendations, Pew remains concerned that the data available to support these decisions remain quite limited and other critical ecosystem considerations are not addressed through this process.

Thus, we offer the following recommendations for the council's consideration. Number one, begin deliberations to specify goals and objectives that outline the intended outcomes of each IBFMP and provide a framework of priorities to guide future management actions, including objectives that address the protection of the coral reef ecosystem.

Number two, specify in each IBFMP a process for periodic review of fishery data and other scientific information, to ensure that

the most recent and best available science is used to ensure inclusion of all species requiring conservation and management.

Number three, set conservative annual catch limits to account for the inherent uncertainties and risks of overfishing associated with data-limited stock complexes and, number four, develop a subsequent fishery ecosystem plan that will focus on ecosystem concerns not addressed in the development of the IBFMPs, such as a strategic habitat protection plan as well as accounting for the role of forage species as prey and the impacts of climate change on fish and their coral reef habitat.

Finally, we are concerned about the motion made today to remove dolphin and wahoo from the IBFMPs and hope to continue discussing this decision with council members. Thank you for the opportunity to provide this input and I look forward to keep on getting to know you all better in the months to come. Thank you. I will provide tomorrow a print handout of the letter that I submitted last week.

CARLOS FARCHETTE: Thank you. All right. Following up with the agenda, we are going to Administrative Matters. We're going to take a five-minute break. We're going to take a five-minute break and then we come back and do administrative matters and then later on there will be a closed session meeting. So a five-minute break.

(Whereupon, a brief recess was taken.)

ADMINISTRATIVE MATTERS

MIGUEL ROLON: Our Chairman is working with the powers in the U.S. Virgin Islands and they are supposed to have a reception by the Governor on the first day of the CCC and that will be followed on the second day with a banquet celebrating the $40^{\rm th}$ anniversary of the CCC and so the money for 2016, any remaining, will be used towards that end. We will cover expenses as much as possible between January 1 and the time we actually receive the funding and/or the CCC meeting in May.

Regarding the monies for 2016, I need your approval actually today about the possibility of hiring a liaison person between Congress, National Marine Fisheries Service, and the councils. Some of you, especially attending the CCC before, as Chairman or Vice Chair, have met Dave Whaley. Dave Whaley has spent about thirty years in Congress and he is willing to work, for a year at least, as a liaison officer between the councils and Congress and at the CCC, it was asked of each Chair to go to their

respective councils and ask for authorization to spend \$7,500 towards that end.

The way that they expect to do that, they have an agreement, which includes a statement of work and what is expected of him and each council will take turns with a purchase order of \$7,500 each.

 For example, in the case of the Caribbean Council, our purchase order will cover February 15 of 2016 for the amount that is allocated to us and so, in essence, what they have done is they divided 365 by eight, the eight councils, and they also divided the amount that they agreed to pay to Mr. Whaley by eight and we ended up with \$7,500 to each council.

All of the other councils have already agreed on this and they are waiting for this one. Although the Chair and the Executive Director agreed on the commitment made at the CCC, we still need to get your approval. You can also say we don't care and we are not going to pay anything and so it's up to you or you can be one of the boys and say we've got the money and we can do it, but I need a motion from the council to approve this amount.

CARLOS FARCHETTE: Does anybody want to make that motion to agree or disagree or do you have any questions?

MARCOS HANKE: Yes, I have a question. I want to really understand the benefits of doing that. I know that you addressed that, but can I ask for your personal opinion, because of your experience, Miguel?

MIGUEL ROLON: Listen, guys, I compared the council system and NMFS with a big German shepherd guarding the resources and they have to hear what the public says in order to move again with the MSA and this is a large dog and one ear is NMFS and the other ear is CCC and the rest of the body is the other councils and we are the tail.

When we move forward, the tail moves very happily and when we don't move and the dog sits on his tail, we are lucky that we are at the end of the tail and not at the beginning of the tail and so the idea of having a liaison officer is good for all the councils and not just necessarily for us, but it's good to know what they have in mind in Congress that will affect all the councils and some of these issues affect us directly.

My personal opinion is that give it a try for a year and see how it goes and if it doesn't do anything for us, and for us I mean

all the eight councils, I am sure that some of the EDs will come to the table and say we have to rethink this and so this is something that is sort of an experiment that they are putting together and Dave Whaley honestly said I will give you a year of my time and if you think my work is not worth continuing in the next years, so be it and we will part as friends.

The motion that I need is for the council to approve allocating \$7,500 for the liaison officer between the Congress and councils and NMFS. You can say so moved.

RUTH GOMEZ: So moved.

14 CARLOS FARCHETTE: We need a second.

16 MARCOS HANKE: Second.

CARLOS FARCHETTE: We will get that. It's a motion by Director Gomez and seconded by Marcos Hanke. All in favor say aye; any nays; any abstentions. Hearing none, the motion carries.

MIGUEL ROLON: Then we have other administrative business. At this time, we want to hear from the council if you have any administrative business you want us to address. No? I have one and it's the use of liaison funds.

Ruth, now that you are onboard and I am very pleased that you are onboard, please contact us, especially Angie, as much possible and the Chair, so you can use the liaison funds that are allocated to the Virgin Islands every year, because in the past two or three years, none of that money was used and so it reverted back to the council.

The way that we spend the money is that we have four purchase orders issued by quarter and then we allocate some money for --Let's say you have a presentation to make by a fisherman to the council and you can use that money for allocation. You need to have, for example, the tags for the traps and you can use that money.

In other words, you can use that money for any council-related activity that will result in the -- Do you have money for a new projector? Anyway, suffice it to say that we are counting on you to use that money as much as possible.

RUTH GOMEZ: My question is, is it possible to use that money to 47 hire a part-time liaison person?

MIGUEL ROLON: Yes, similar to what Puerto Rico did, you can use -- Let me give you an example of Puerto Rico. Puerto Rico allocated \$5,000 for traveling and \$20,000 for a liaison officer and then we matched that money and that's how we ended up with a liaison officer.

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DIANA MARTINO: That motion was to allocate \$7,500.

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MIGUEL ROLON: The motion would be to allocate \$7,500 to contribute to the hiring of a liaison officer between the councils, NMFS, and Congress. That motion was by Ruth and it was seconded by Marcos Hanke and it was carried unanimously.

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That's it, Ruth. Those are the things for -- If you wish to do that, you can even divide, as we spoke before and talked about, you can have a person half-time in St. Thomas/St. John and another one in St. Croix. It will be up to you how you wanted to divide it and it will be up to you to develop the statement of work and the terms of reference for that person to work and Angie and I can help you in putting together whatever you need. That's it. Now we need to have a closed session to talk about people.

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(Whereupon, the meeting went into closed session on December 15, 2015.)

December 16, 2015

WEDNESDAY MORNING SESSION

The Caribbean Fishery Management Council reconvened at the Frenchmen's Reef and Morning Star Hotel, St. Thomas, USVI,

Wednesday morning, December 16, 2015, and was called to order at

154th Caribbean Council Meeting at the Marriott Frenchmen's Reef

Resort in St. Thomas, USVI. We are going to do a roll call and

We're going to get started here. Good

It's December 16, 2015 and it's a continuation of the

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48 JORGE GARCIA-SAIS: Reni Garcia, SSC.

CARLOS FARCHETTE:

VIVIAN RUIZ: Vivian Ruiz, council staff.

8:30 o'clock a.m. by Chairman Carlos Farchette.

I'm going to start on my left with Vivian.

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TARA PREY: Lieutenant Junior Grade Tara Prey, U.S. Coast Guard.

CARLOS VELAZQUEZ: Carlos Velazquez, council member.

TONY BLANCHARD: Tony Blanchard, St. Thomas council.

RUTH GOMEZ: Ruth Gomez, Fish and Wildlife.

MIGUEL GARCIA: Miquel Garcia, council member, Puerto Rico.

MARCOS HANKE: Marcos Hanke, council member, Vice Chair.

CARLOS FARCHETTE: Carlos Farchette, Council Chair.

MIGUEL ROLON: Miguel Rolon, council staff.

ROY CRABTREE: Roy Crabtree, NOAA Fisheries.

JACK MCGOVERN: Jack McGovern, NOAA Fisheries.

Iris Lowery, NOAA General Counsel, Southeast IRIS LOWERY: Section.

BILL ARNOLD: Bill Arnold, National Marine Fisheries Service, Southeast Regional Office.

GRACIELA GARCIA-MOLINER: Graciela Garcia Moliner, council staff.

KATE QUIGLEY: Kate Quigley, council staff.

MARIA LOPEZ: Maria Lopez, NOAA Fisheries.

ALIDA ORTIZ: Alida Ortiz, Outreach and Education Advisory Panel.

EDWARD SCHUSTER: Edward Schuster, DAP Chair, St. Croix.

LEN RIOS: Len Rios, NOAA Enforcement.

JEFF RADONSKI: Jeff Radonski, NOAA Enforcement.

TONY IAROCCI: Tony Iarocci, commercial fisherman.

HOLLY BINNS: Holly Binns, Pew Charitable Trust.

LESLIE HENDERSON: Lesley Henderson, CZM. HELENA ANTOUN: Helena Antoun, contractor.

MARIA DE LOS A. IRIZARRY: María de los A. Irizarry, council staff.

CARLOS FARCHETTE: On Go to Meeting, Vivian?

VIVIAN RUIZ: I forgot to mention all the Go to Meeting attendees that were connected yesterday and they were Adam Bailey, Cynthia Meyer, Ron Hill, Kevin McCarthy, Nancie Cummings, Shannon Calay, Skyler Sagarese, and Stephen Holiman.

CARLOS FARCHETTE: Thank you. We are going to start off this morning with -- We have made some changes to the schedule.

 MIGUEL ROLON: A couple of announcements, Mr. Chairman. As we agreed, Ruth will address the council on one issue before we continue with the agenda and we left yesterday the island-based and there is going to be a quick presentation on the schedule that we have for 2016.

We have received one good news and Miguel Garcia, Dr. Garcia, some of the council members had a telephone call, a conference call, with Daniel Matos, which he is in charge of the data collection system in Puerto Rico and he has a lot of information that could be provided regarding the lobster and it seems that the information that he will provide may have some bearing as to whether we have a closure next year or not, based on the available data that he has.

That information will be sent to the council no later than December 31 by Dr. Garcia, through a letter that will be addressed to Dr. Roy Crabtree and a copy to Bonnie Ponwith, the Chair, and the council members. We don't have to go through the discussion now, but there is a possibility that with that information -- No guarantees though, remember.

 If you have the size frequency that indicates that you are going the right way, then there's a possibility that you won't have to have those closures and if you go the other way, maybe the closure will stand for some years and so that's the information that we have so far. I believe that Marcos wanted to address this issue, Mr. Chairman.

CARLOS FARCHETTE: Marcos.

48 MARCOS HANKE: Yes and with the meeting with Daniel and the

previous meeting with all the council members, we were discussing that our perception of what was going on in the field, on the water, with the lobster could be proven with the data that Daniel has there and through the call he showed some optimism that he has the data that we need there, which would reflect our perception, with official documents and we are very hopeful that it's the correct data and that it can help to address those issues.

CARLOS FARCHETTE: Okay. Thank you. Blanchard.

TONY BLANCHARD: Me personally, if it's a data issue and the information that comes out of DNR could support that it is a data issue, I can't support a closure and that's my personal take, because as far as I can see, the information that was brought up in the Virgin Islands is also a data issue and so where is the line going to be drawn? Are we going to support something because it states that it needs to be supported or are we going to support something because it's the right thing to do? Let's think about that.

MARCOS HANKE: I endorse Tony Blanchard and that's the feeling of the majority of the council and I would like to hear from them if they have the same position.

CARLOS FARCHETTE: Okay. So we'll start with Director Gomez.

RUTH GOMEZ: I am in agreement with Carlos and Tony. I believe that -- I support the feeling that we need to do the right thing and we need to make sure that we go about it the right way and so I support it.

CARLOS FARCHETTE: Velazquez.

CARLOS VELAZQUEZ: I agree for Marcos and Tony and Ruth for the process of the lobster, for the good of the fishermen. Thank you.

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: What Ruth is addressing is the trap reduction program that they've been working on with the fishers and government officials and advice by Tony Iarocci for some time now and, as you recall, this is something that was started by the fishers of St. Thomas/St. John three or four years before we even started our series of meetings and so it seems that they have made progress and we switched the original idea of a regional meeting of December 14, this Monday.

finish the lobster program, we Rather than allowed Government of the Virgin Islands to meet with the fishers and discuss the trap reduction program. They have made a lot of progress and now it will be a matter of allowing, and perhaps, Ruth, you can send a letter to Dr. Roy Crabtree, so the legal advisor of the Department of Planning and Natural Resources and the legal advisor can confer and tell us under the legal framework what can be done to implement this in both areas, the Virgin Islands area of jurisdiction and the federal government area, the EEZ surrounding the U.S. Virgin Islands.

Hopefully for the next meeting we will have a concrete answer to this question and a schedule of how to implement all of this. The U.S. Virgin Islands will go ahead and I believe that Ruth mentioned that perhaps by March you will start your program and then the council will meet the first half of 2016 to address this, Mr. Chairman.

CARLOS FARCHETTE: Thank you. All right. So we are going now to where we didn't finish off yesterday on the schedule, Island-Based FMP Development Status and Next Steps. That is between Bill and Graciela.

ISLAND-BASED FMP DEVELOPMENT STATUS AND NEXT STEPS

GRACIELA GARCIA-MOLINER: Okay and so you heard yesterday from the SEDAR-46 and you have already looked at Actions 1 and 2 from the draft document that you have in your briefing book and then Action 3 is the one that refers to the reference points and that was part of what was discussed at the SSC and the small group created to look into the ABC control rule and other ways of setting reference points for the stocks in the U.S. Caribbean.

This is just an update and you have the latest draft on your documents and that's going to change over the course of the next few months and Bill has the draft timeline for what needs to be done between now and next year and hopefully be ready for final action at the December council meeting.

BILL ARNOLD: I am not setting us up necessarily for final action at the December meeting, but, based upon all the different things we talked about yesterday, we clearly need to get these FMPs in place and that is, I would say, the number one priority of the council, because there are just weaknesses and components of the present fishery management plans that really need to be revised or reevaluated and so that's why I am anxious that we keep this process moving forward.

To do that, we need to define the steps that are going to comprise this process and we need to establish the timeline within which we are going to accomplish each of those steps and since I am pretty sure at the end of this meeting we are going to schedule the council meetings for 2016, I think it's very timely that we get this laid out and this is not me telling you what we're going to do. This is me suggesting the steps that need to be taken so that you guys can tell us how you intend to accomplish these steps in the timeline you intend to follow to accomplish that.

 Just starting out with the already scheduled meeting that is going to be a joint meeting of the Scientific and Statistical Committee and the District Advisory Panels, all three of them, that's already scheduled for March 15 through 17.

The point of that is to, first, go through the SEDAR-46 process and outcomes and educate them on that process so that they understand it and can provide guidance on these reference points, but a second critical component of that meeting is to get input from these experts, from a variety of different perspectives, on how the complexes, if there are any, should be constructed.

By that March 15 to 17 meeting, we will have outputs from Mike Larkin. He's at SERO and Mike Larkin is developing the statistical, semi-statistical, approach to cluster analysis that will be used as a starting point for these complexes, showing how these groupings can be devised, but this is not a final statement of how they have to be and it simply provides quidance.

The SSC was very clear on that. These complexes can be very subjective and they should be based upon information from the field and that's where the fishermen and the NGOs and the recreational and the commercial and all the representatives on these DAPs are going to be very important. That would be that March 15 to 17 meeting.

Coming out of that meeting, we would like to have very good guidance on how these complexes, if there are any, are going to be constructed, because you really can't delve deeply into the reference points until you know who you are assigning reference points to. Are they going to be complexes or are they going to be all individual species, et cetera, et cetera?

As with most of the things that we do, it's a step-wise process.

You get an idea of what your complexes are going to be and from that, you can build the reference points, and ultimately the annual catch limits, for each of those individual species and something like spiny lobster is almost certainly going to be in a class of its own and then species groups, for example Snapper Unit 2, which is queen and cardinal snapper, deepwater snapper, that unit may or may not stand after the smoke clears, but those are the kinds of groupings we're talking about.

Then the SEDAR-46 process itself is not complete until March 28. That was explained by Shannon yesterday and so following that SEDAR-46 completion, the SSC needs to meet again to review what the SEDAR-46 outputs were and so I would assume that that meeting will need to take place probably in April or maybe in May. I don't know, but it's up to the availability of everybody.

That meeting would be to evaluate the SEDAR-46 outcomes and to provide guidance and to develop the control rule that Shannon talked about yesterday. We would bring a draft control rule to that meeting, but the SSC is ultimately going to have final say. It's their control rule and so they're going to have final say on how it's structured and what it does and what the components of it are. That would be the SSC meeting in, like I said, April or May, somewhere in there.

Then we need a council meeting following that to approve the control rule and to approve the basic structures of Action 2, which is grouping species, and Action 3, which is constructing reference points for those species or species groups.

Remember in the world of the National Environmental Policy Act, we work with alternatives and not dictate and so we're going to have to set these things up, each action, so we have viable alternatives in there that basically span the range possibilities and that's what we will be -- We will be bringing draft actions to you at that SSC meeting and you will go through and approve them as being, or add alternatives as you see fit or remove alternatives, but we will not be identifying, at least in my mind, the preferred alternative at that meeting. just be getting a full structure.

We've got Action 1. Action 1 is what species are we going to manage in these new fishery management plans for each island. That was the debate yesterday about mahi-mahi. That's a component of these Action 1 draft species lists.

Then we would also go through Action 2 and Action 3 and get that

all set up and so that would be, I guess probably a June council meeting or something like that. Then the Southeast Regional Office and the Science Center and the council staff, et cetera, et cetera, would go back and, using those basic action guidelines, we will construct a public hearing draft for each of the three island-based fishery management plans and their associated environmental impact statements.

The work is really going to be in those environmental impact statements, because that's where the alternatives go and that's where we have to put in the explanations of the alternatives, so that decisions can be made and understood as to which one is the best to solve the identified problem and why it is the best and what the rationale is. That's what I spoke on, maybe a little emotionally, but spoke on yesterday about.

 You know we've got to establish these alternatives, but not only establish them, but when we choose one, we have got to provide a sound rationale as to why that's the best one and it's got to be defensible. It's got to be defensible in court, because that's ultimately where this could end up.

If somebody doesn't like the decisions we make, the way they address our decisions is in a court of law and that's where you've got to say here is what we did and here is why we did it and if that rationale isn't sound, it's likely that you could be remanded to change them and start the process all over again. That's why it's critical to have sound rationale.

Anyway, then we would come back to another council meeting, at which time the council would review our public hearing draft and, if everything is the way they like it, they could identify preferred alternatives or not and send us out to public hearings, because we've still got to have public hearings on this.

Say we had another council meeting in August, and I am not setting up your timeline, but just suggesting, because if you've got a June meeting, an August meeting is pretty quick to follow, but if you want to get these FMPs in place, we've got to step a little lively on this.

Then we go out to public hearings sometime after August, maybe September or October. We would need time to get everything solidified and then take it out to public hearings and open it up for public comment and bring that back at the next council meeting and they could review everything and make a decision as to how to incorporate those comments and make a determination as

to whether these FMPs and their associated environmental impact statements are ready to be submitted to the Secretary of Commerce for approval and then that's where a lot of the additional work comes in for the interdisciplinary plan team and the Southeast Regional Office writing team to finalize these things and build all the memos that go along with this and submit it through the process and carry it through the process until the Secretary approves it.

After he or she approves it, then, and this probably will be post-election and so no telling who the Secretary of Commerce may be, but, anyway, then it is submitted as the proposed rule and more public comment and then finalized and then there's another month of cooling-off period and we would anticipate that, if this timeline was followed, that sometime in mid-2017 these fishery management plans would actually become the new governing plans for the United States Caribbean federal waters.

MIGUEL ROLON: Mr. Chairman, maybe this is an opportunity to assign dates for 2016, because this is what we do in December, following your presentation. One question, Bill. On a sidebar, we were talking about the possibility of needing to have a one-day meeting between here and March and is this still an option or --

 BILL ARNOLD: Well, that's an option. I don't want to push for meetings that aren't necessary and so it seems like this timeline covers everything and I don't know what we would be missing by following this timeline, but somebody else may. I mean this is just me and the more minds we have contributing to this, the better this timeline is going to be and the more comprehensive it's going to be.

MIGUEL ROLON: Graciela, do you have any quarrels with the timeline?

 GRACIELA GARCIA-MOLINER: No and we were just talking about the next council meeting, but that should come really after the DAP and the SSC meeting and after the review by the SSC of the SEDAR-46, because the only issue that I can think of would be if we need to do a council conference call to take action on one of the actions.

 If we need to do that, then that should happen before June. If not, June is really the best date to have everything accomplished and presented to the council. I would leave that option open and not a full council meeting face-to-face, but a call to decide on something if we need to move that forward.

MIGUEL ROLON: Yes and okay that door will be open and always is open, but I believe with the proposed schedule that Bill is addressing that we can say that the next council meeting, full council meeting, will be in June and we can open our calendars and see what time in June. June would not be easy for you guys and the other two councils.

BILL ARNOLD: Miguel, both the Gulf and the South Atlantic meet in June.

MIGUEL ROLON: I know, but we have Jack McGovern maybe coming to here and we will send your boss to -- Let me check our calendars and see what dates we can work on.

GRACIELA GARCIA-MOLINER: I think Bonnie told me that there is a Gulf and a South Atlantic meeting back-to-back in June.

MIGUEL ROLON: I know and that's what I am referring to. If June is not possible, maybe we can do it during the $4^{\rm th}$ of July and people will be -- Okay. The first week of June is off for us and the week of the $20^{\rm th}$. We have openings for the week of the $13^{\rm th}$ and the week of the $27^{\rm th}$. We will have to check with the other two councils.

BILL ARNOLD: One of the councils meets the 13th.

MIGUEL ROLON: Okay and so that's out. The week of the $27^{\rm th}$, is that possible? Bill, hearing what Roy said, if the two of you could be at the meeting on the $27^{\rm th}$, and is that agreeable with the other council members?

MARCOS HANKE: Yes.

MIGUEL ROLON: Okay and so the 27th to the 30th will be the week for the council's next meeting. Then usually we meet in August to elect the Chair and Vice Chair and August the 15th, but we dropped that requirement from the SOPPs and so we are flexible. If you love these two guys, you can have them forever, but sometime between here and August, you have to have the election of officers. Is there any week in August that is open, Bill or Roy?

BILL ARNOLD: Later is better for us. It just gives us that much more time to prepare.

MIGUEL ROLON: So August the $22^{\rm nd}$, that week? Okay. For the second meeting of the council in 2016, the week of August 22 to

26. Remember, guys, this is hurricane season and so be ready to change it. If Dr. Garcia cannot make it, maybe a second designee, Ricardo Lopez, can attend.

The week of the $22^{\rm nd}$ and then the third meeting of the council in December, remember this is an important meeting because you set all the parameters that you need to do for 2017. We have everything open and, of course, as we get close to Christmastime, people get itchy about traveling to anyplace and so how about the week of the $12^{\rm th}$ of December? Is that available? Gulf Council and South Atlantic Council, do they meet in December?

ROY CRABTREE: The South Atlantic does.

MIGUEL ROLON: Okay and so is the 12th still open, that week? Okay. December 12 to the 16 will be the third meeting of the council and we still have the possibility of needing to have a one-day meeting or a conference call meeting and the way that we set up that before is that you have to have listening stations on the Virgin Islands and Puerto Rico and the council can work on it.

There was some issue about voting through a conference call and, Iris, is that still a constraint, that if the council meets through a conference call that they cannot vote?

IRIS LOWERY: My understanding of that, and I can double-check, is that if there's an in-person meeting that if someone calls in that voting is problematic, but if there's actually a conference call of the council, then -- Roy might know more about that.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: Yes, that's right. We have had conference call meetings before with the South Atlantic and voted, but you will need to set up a way for the public to dial in. It still has to be noticed and all those things like that, but I think it's doable.

MIGUEL ROLON: We have had meetings before where we had an issue, but I believe that with the technology now that you can have listening stations and you can have Go to Meeting, because the South Atlantic has the capacity for 1,000 people at a time to participate as a webinar and so we will look into it, but if you need to do something like that, then we will do it through that mechanism. Okay, Mr. Chairman. That is the schedule for 2016 and that will bring us up to date on 2016 with what we need

to do with the island-based and so hopefully everything will go smoothly and we will be ready to continue in 2017 with the island-based. Bill, if we do all of this, when do you think that we will finish?

BILL ARNOLD: Well, in my foolishly optimistic mind, I would like to have these FMPs in place, as I said, by the middle of 2017. I think that's a reasonable timeline.

 One other thing is when we have that SSC meeting and they work on the control rule I think would govern when we have that and it would be advantageous to have that call-in council meeting, because I think the council should have a chance to review and comment on the control rule before we actually have a full meeting, so that when we bring that control rule as part of Action 3 to the full meeting that the council has already had a pretty good look at it and we're not revising it.

MIGUEL ROLON: Is that the April meeting you talked about before?

BILL ARNOLD: Yes, it would be the phone call one-day meeting and that would be plenty to deal with that control rule.

MIGUEL ROLON: Because one other thing that we could do is council members are asking me whether they can attend these procedures, so they get better information so all this jargon about ACLs and 50 percent and more than 50 percent and 30 percent will be a little bit more clear. Perhaps we can join meetings in April with the SSC and one day for the council members and they can decide or use it.

BILL ARNOLD: You're going to need a bigger room.

MIGUEL ROLON: Yes, but we have bigger rooms everywhere, but, anyway, because the meeting in March is something that the DAPs requested and we discussed and we will have a large room with everybody there and it should be forty-five people plus ten, plus the public.

 Anyway, Mr. Chairman, that's what we have and remember that the Chair and the Executive Director will talk to anybody who has to contribute with this schedule and this can be changed, but usually at this time we set the schedule this way and so if any changes come into play, we will try, as much as possible, to stick to the schedule, because of people like Pew and scientists from National Marine Fisheries and others. They usually like to have this in advance so they can pre-plan their trips.

GRACIELA GARCIA-MOLINER: We have one more issue that the IPT needs to bring to the attention of the council and that's the change in the numbering of the alternatives in Action 1.

MIGUEL ROLON: They have to make a decision now about that?

GRACIELA GARCIA-MOLINER: No, this is just informing the council so there are no issues and we are changing Alternative 2 to 3 and 3 to 2.

MIGUEL ROLON: Yes and one thing though that may be -- At least to inform you, but I received a copy of an email that was addressed to Graciela from Dr. Richard Appeldoorn and it's related to the dolphin-wahoo issue and I will read this into the record and I don't want to interpret his words.

There was a recommendation that the council enter into talks with other councils or other regional bodies to establish regional management for these species, wahoo and dolphin. I certainly would not have agreed to just drop the species without such a caveat. If the council was told just to drop them, this should be explicitly rectified.

What Graciela and I discussed, and we told that to Ken, is that we will have a verbatim transcription, as we do for the SSC, for the next meeting in due time and we will bring that to your attention, so you can address this again.

As I said before, we have done this and maybe something will come up, but we just wanted to make sure that this was entered into the record by Dr. Richard Appeldoorn.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: Okay and so that next council meeting is not until June of 2016 and if you decide at the June 2016 meeting that you want to add dolphin and wahoo back in, that will delay this process by at least one meeting and certainly should at least direct the Science Center to analyze dolphin and wahoo, in the eventuality and that they do end up being included, so we're prepared.

 Maybe during that phone call we could discuss this issue, but I just want you to be very aware that if you continue to change your approach on these things that it is going to continue to delay the implementation of these fishery management plans.

MIGUEL ROLON: Yes and my take on this is so the council can stick to dropping the wahoo and the dolphin, as you did already, but it's just a matter to clear the record and you can discuss it right now here. You have the Chair of the SSC telling you that, as far as he recalls, the intention of the SSC was to recommend to the council to enter into conversation with the other two councils and regional bodies in the Caribbean to address the issue of the dolphin and wahoo and see if there is the possibility of having a common management regime for these species. As I said, we have done this before and it didn't work, but, again, that's my personal opinion.

The council can say -- You can review your previous position and put a caveat into it and just say that the dolphin will be in if -- Anyway, you can discuss it right now and decide whether you want it in or not.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: Well, this is kind of what I don't understand about the advice. I mean the discussion here is whether we should manage dolphin and wahoo or not and what I seem to be getting from this second email was that -- Are they saying they're okay with us not managing it, but only if we're going to talk to the other councils about it? That doesn't make any sense to me, but if the implication is that it does need management, but it needs to be managed in conjunction with the other councils, that I get, but then we should put it in the FMP, because it needs management. I am a little confused about what this caveat really means.

MIGUEL ROLON: I believe that that's the intention of his -- When I talked to Reni, that was the intention of the group and that's what Ken thought. You two guys were there and do you remember anything about it?

ROY CRABTREE: That seems to imply to me that their advice is that we need to manage it and we should include it.

MIGUEL ROLON: Yes.

42 CARLOS FARCHETTE: The South Atlantic manages that, right?

ROY CRABTREE: Yes, it's managed by the South Atlantic from south Florida all the way up the east coast to Maine.

MIGUEL ROLON: But it's a different species though. You have two species of dolphin. One is predominant in the north and the

other one is predominant in the south.

GRACIELA GARCIA-MOLINER: It's one species and there might be two populations of the species.

MIGUEL ROLON: When we discussed this, and this is all in the literature, but we discussed this to death before and the point is if you want to do this, you should include it and then allow for discussion and follow the discussion and if at the end of the process you end up saying we shouldn't manage the dolphin and wahoo, then so be it, but if you include it now, you follow the process and that's what Bill is saying. If you do not include it at this time and you wait until June, you waste about six months of addressing the dolphin and wahoo.

CARLOS FARCHETTE: Graciela.

GRACIELA GARCIA-MOLINER: The SSC had developed the criteria to actually look at this and so following the criteria that was was set up in a step-wise process, the dolphin and wahoo would have made it into all of the three FMPs.

 Given that my response to the emails was to actually look at the verbatim transcription of the SSC, because my notes actually have it as a recommendation, that we need to do, but if you follow the same process that was set up, then it should be in, because it's in the EEZ, because it's economically very valuable, a very valuable species for the three islands. I would also recommend that you discuss it now and make a final decision on whether you want to include it or not.

MIGUEL ROLON: Mr. Chairman, what you should do is for the council members to make a motion to review the position of the council regarding the inclusion or not of the dolphin and wahoo. You move and then you vote on it and then you open the discussion again.

CARLOS FARCHETTE: I agree with that, because I am a strong, strong proponent of bag limits and size limits on dolphin.

MIGUEL ROLON: The motion would be to review the position of the council regarding dolphin and wahoo for the island-based FMPs. Reconsider?

ROY CRABTREE: I think what you need to do is find the motion we passed yesterday to not include it and then we would need a motion to reconsider and then we would need to vote down that motion and make a new motion.

MIGUEL ROLON: That's what I am trying to do. The position of the council on dolphin and wahoo and then please bring to the screen the motion that was passed yesterday.

Motion to reconsider the position of the council of the dolphin and wahoo, as per the motion below. Then somebody say "so I move" and you second and you vote on it and then a new motion is needed for continuing.

CARLOS FARCHETTE: Are we ready for anybody who wants to reconsider or are we just going to let it go?

TONY BLANCHARD: Let me restate my statement here. I am going to hold my ground, because I think I made the right decision to begin with and if it is an issue with it being controlled to a certain degree, the Virgin Islands could implement a bag limit, which would be the local government, so that when you land to the shore, if you're a recreational fisherman, you can't possess no more than this amount or you could even put a size limit on it, but that would be on the decision of the Virgin Islands and Puerto Rico.

I don't think we need to keep running around a species of fish, like I said yesterday, that is here now and over there tomorrow. I think we're beating a dead horse here.

ROY CRABTREE: I make the motion.

MIGUEL ROLON: Do you have a second? If you don't have a second, the motion dies and we will move into something else.

CARLOS FARCHETTE: What was Roy's --

35 ROY CRABTREE: I make the motion to reconsider.

CARLOS FARCHETTE: Okay. There is no second for the motion and 38 it dies. Iris.

IRIS LOWERY: I would just like to point out that the previous motion does say to move to follow the SSC advice and remove the dolphin and wahoo from the species to be considered and, in light of the email and Graciela's statement about what happened at the SSC, it seems at least unclear to me that the council is in fact following the SSC advice, which I would suggest could be a basis to at least provide further discussion on the council's decision on this matter.

MIGUEL ROLON: That was what I was going to mention. In order to make it clean on the Roberts Rules, you review or reconsider the motion for the language and then you can say whatever you have to say and then you will say that the motion will be to drop the -- Move to follow the SSC advice and all of that and it will be a council decision.

MARCOS HANKE: The motion was we decided or the motion is still available for a second?

MIGUEL ROLON: If I were you guys, I would move to second the motion that Roy Crabtree made and then you vote on that one, so you have a clean slate. Then you make another motion stating whatever you want to do with the dolphin and wahoo. If you want to stick to your guns, the motion will be that the council would like to remove the dolphin and wahoo fish from the IBFMPs or whatever.

MARCOS HANKE: That's what I was asking, because I intend to second the motion to discuss.

MIGUEL ROLON: No, you second the motion to drop this and then have the other motion and then you can discuss it if you want to to again. The procedure is to second the motion by Dr. Roy Crabtree of reconsideration.

ROY CRABTREE: Yes and so if you second that motion, then we can re-vote on the original motion and we can vote it down and then you can make a new motion that reflects more of what you want to do and pass that.

MARCOS HANKE: That's my intention.

MIGUEL ROLON: So go ahead and say it again. Motion by Dr. Roy Crabtree and second by --

CARLOS FARCHETTE: The motion is reconsider the position of the council on dolphin and wahoo fish, as per the motion below, which was the recommendation of the SSC -- To follow the SSC advice and remove the dolphin and wahoo from the species to be considered for federal management in the IBFMPs.

MIGUEL ROLON: All in favor say aye.

CARLOS FARCHETTE: All in favor say aye; any nays; any abstentions. Hearing none, the motion carries. Now we have a new motion again.

MIGUEL ROLON: Now, Mr. Chairman, the floor is open and just state very clear what you want to do with the dolphin and wahoo by a motion and then second it and that's it. Actually, you have the language there. You can have the same language and drop the last two lines.

CARLOS FARCHETTE: Yes, let's do that. Can someone forward me that email from Appeldoorn?

MIGUEL ROLON: I can send it right now.

CARLOS FARCHETTE: Okay. I wasn't really too clear on what it said.

ROY CRABTREE: Can I ask a question? I am coming back, Billy, to your comment about analyzing it all and why can we not have in this document an alternative that does include dolphin and wahoo and one that doesn't include dolphin and wahoo and that way, at our next meeting, all of that is analyzed and if the council changes its mind, it doesn't delay things?

BILL ARNOLD: I think we can do that. That would be a new alternative in Action 1.

ROY CRABTREE: It seems to me it's hard to argue that it wouldn't be a reasonable alternative to consider and so I am a little concerned if we don't have an alternative in there that would include dolphin and wahoo that we don't have a reasonable range.

It seems to me we ought to have a new alternative in there. We have one now that we remove dolphin and wahoo, but it seems to me we ought to have one in there that includes it, in case the council changed its mind at some point.

BILL ARNOLD: Kind of, but you have to go back to the initial process. The process of Action 1 was set up to not deal with individual species, but to deal with criteria for selecting those species.

ROY CRABTREE: I get that, but it's clear at this point, assuming that we're going to decide today not to include dolphin and wahoo, which it seems to me I'm the only one on the council that wants to include them, that they are going to make an exception for those two species and so we're not strictly following those criteria anymore, but it does seem to me that we ought to have an alternative in there that does include them, as well as one that excludes them, which seems to be where the

council is heading, at least today.

BILL ARNOLD: Okay. We can do it that way, but what we did previously was we set up the criteria and the expert panel chose the species based on those criteria and we took that draft list of species to the DAPs for their input and they made suggestions to the council as to what additions or deletions should be attached to each of those lists and we then brought it back to the council and by motion the council made additions and deletions, and there were several for each of the islands.

They weren't separate alternatives and they were simply motions that no, we do want yellowedge grouper or we don't want this or we want to move it to EC species or whatever.

Then that refined these draft lists of species and so it seems to me that by motion the council can continue to refine these draft lists without having separate alternatives that need separate analyses. That is the most consistent approach, given what we've been doing. That doesn't mean we can't do it the way you suggest, Roy, but it does alter the approach we've been taking.

ROY CRABTREE: Yes, but I mean how are you going to respond if, at the end of the day, there is no alternative in the document that considers including dolphin and wahoo and someone says isn't that a reasonable alternative? If it is, you are required to analyze it and have it in the document. The process you're going, it won't be in there, as far as I can tell.

GRACIELA GARCIA-MOLINER: The process that we did follow, it would be included, because of -- Actually, three of the reasons that we gave in the criteria and so it would be included. It's already there. It's already in your list and now you're taking it out, but you could also -- The council could say we are going to stick by the process that we have set up and then the dolphin will be in.

MIGUEL ROLON: Wait, wait, wait. The council has the last word on all of this and they can drop the dolphin and wahoo if that's what they want. However, please keep in mind that this has to be an open discussion and clear to the public and in order to do that, no matter what the decision is made today, we have to include that yes, we want the dolphin and wahoo and this is what the dolphin and wahoo will look like in the FMP or no, we reject the dolphin and wahoo and we have to address that too and that's what Roy is saying.

We do that for every alternative that we include in our management plans and in the process, we will provide the public an opportunity to get those inputs there.

Technically, this is what is happening, guys. If you are consistent with what you developed through the whole process and you took this to the SSC and you took it to the -- You established the panel and this is what Graciela and Bill are saying and if you do that, you point out the dolphin and wahoo as a species that should be included in the management units.

For many reasons, people are opposed to that and, actually, we can hear from the DAP what they would like to do. At the end of the process, you may end up not having anything to do with the dolphin and wahoo.

What you want to do now is to just shortcut that part and so my point is you have all those options to you and if that will be your position and if you don't change it through 2016 and if you have the same council members with good memories, the dolphin and wahoo will not have any management measures by this council, unless, through the public process, you have a strong rationale to include the dolphin and wahoo there.

 This idea of talking to the other councils and talking to the regional offices or international offices or bodies in the Caribbean, we did that and it didn't work and so either you include the dolphin and wahoo because it's a socioeconomic component of the fishery or you don't. The inclusion of the dolphin and wahoo will not make any dent into the biology of the species if we cannot do anything around here that will influence the biology of the species.

CARLOS FARCHETTE: Roy.

 ROY CRABTREE: So in Roberts Rules of Order, when you make a motion to reconsider, the motion maker has to have been on the prevailing side of the motion and I just realized that I voted against this motion originally and so I can't make the motion to reconsider and so that motion needs to be ruled out of order by you, Mr. Chairman. Someone else will have to make the motion. I can't do it and so that motion is out of order.

CARLOS FARCHETTE: Okay and so the motion is out of order. Somebody else, if they are interested in doing this --

MIGUEL ROLON: Mr. Chairman, can I do this very quick? Somebody say "so moved" and "second" and then you can address the motion

again. The motion is to reconsider the position. It's the Motion 10 that you have there and so the only thing that you will do is that one council member will say "so moved" and the other one will second it and then we will do another motion that will remove it, following the advice of the SSC.

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MARCOS HANKE: I move the motion that is written on the --

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9 **MIGUEL ROLON:** The motion will be -- You have to read the darned thing.

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12 MARCOS HANKE: I have to read it?

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14 MIGUEL ROLON: Yes.

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16 MARCOS HANKE: Okay. The motion is to reconsider the position 17 of the council on dolphin and wahoo fish, as per the motion 18 Action 1, determine species to be included 19 management in the island-based fishery management plans for all 20 FMPs that dolphin and wahoo fish will be removed from the 21 species to be considered for federal management. Move to follow 22 SSC advice to remove the dolphin and wahoo from the species to 23 be considered for federal management in the IBFMPs.

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25 **MIGUEL ROLON:** Is there a second?

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27 ROY CRABTREE: Second.

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29 CARLOS FARCHETTE: Any further discussion? All in favor say 30 aye; any nays; any abstentions. We have one abstain from 31 Blanchard. The motion carries.

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33 ROY CRABTREE: The second was by me.

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35 **MIGUEL ROLON:** Now you have to have a new motion on the screen that says whatever they want to do.

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38 MARCOS HANKE: I would like to make the motion not to include 39 wahoo and --

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41 **MIGUEL ROLON:** Iris, can we just do another motion or reconsider, because we are saying reconsider and so what we will do is to delete the language from the original motion.

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45 ROY CRABTREE: What you do, Miguel, is you revote on the motion 46 we are reconsidering and so then if you want to change that 47 motion, you need to vote this one down or we could -- I guess 48 you could make a substitute motion, potentially, but I think the cleanest is to vote it down.

MIGUEL ROLON: It would be quicker to have a substitute motion and drop the last two lines. Marcos, the motion will be to have new language of the motion that will remove the last two lines and then you read it for the record.

The motion will be to add new language to the consideration of the -- New language regarding the dolphin and wahoo. Language regarding the dolphin and wahoo, to read as follows.

MARCOS HANKE: Motion to add new language regarding dolphin and wahoo fish to read as follows: Action 1, determine species to be included for management in the island fishery management plan, for all FMPs the dolphin and wahoo fish be removed from the species to be considered for federal management. Is it seconded by somebody?

19 CARLOS FARCHETTE: Do we have a second?

21 TONY BLANCHARD: Second.

CARLOS FARCHETTE: Any discussion?

GRACIELA GARCIA-MOLINER: The staff needs a rationale for this alternative.

MIGUEL ROLON: Bill, can we still have in the document what Dr. Roy Crabtree suggested, to discuss the alternative for the dolphin and wahoo?

CARLOS FARCHETTE: Bill.

 BILL ARNOLD: Well, sure. I am not second-guessing the boss, but it's not -- It doesn't mean we can't do it this way, but it's not consistent with the way we've been doing this. The way we did it was, as I said earlier, the council, by motion, made decisions and in those motions, or at least in the discussion of those motions, they provided a rationale as to why they're making the decision they're making.

So you've got these criteria and these criteria have been set up and gone through the entire process and we applied the criteria and that resulted in a draft list of species for each of the three island groups. To not follow those criteria, you need to provide us with clear rationale as to why you are not following those criteria, so that we can write accordingly and say to the public and everybody else that -- Okay, dolphin and wahoo, as an

example.

Dolphin easily met the Criterion D of economic value, but the council decided that because of this rationale, whatever it may be, they are not going to include it for management, despite the fact that it met the criteria.

You have done that for several species and provided us with clear rationale, but these have to be defensible rationale. Now, the SSC provided three points of rationale that they based their decision on and we could discuss those three points of rationale if you wish, but that would be the most consistent approach, but, as I said, that doesn't mean you couldn't set up a separate alternative.

Setting up a separate alternative -- I mean the council do whatever they want, obviously, but these alternatives and everything we've done so far has been vetted through the DAPs and essentially through the SSC. Then the question becomes, do you want to go back through the DAP process or do you just want to make a command decision?

MIGUEL ROLON: Okay. This might take the whole thing and the rationale is that the two local governments already have management measures in place protecting the dolphin and wahoo and you already said that on the record and the Virgin Islands is moving to that and so the rationale is that the two local governments will have management measures in place and there will be no need to set up a federal one. That could be one rationale.

I don't care one way or the other how you say this, but I just want to make sure that you follow the process and you have to state somewhere in the record today that you are deviating from established procedure because of these two points.

You mentioned the DAPs and we have the three Chairs of the DAPs here, or the proxy for the Chair of the DAP, and we should ask them and then continue with the discussion.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: My understanding of this is that Puerto Rico does have management measures for dolphin, but the Virgin Islands does not? So our rationale, Miguel, is that they don't have management measures, but maybe they will in the future?

RUTH GOMEZ: No, it is against Virgin Islands policy for

recreational fishermen to sell their catch. Only commercial fishermen can sell their catch and so recreational fishermen, regardless of whether they catch them in the EEZ or they catch them in the territorial sea, they cannot sell their catch.

I do believe that in addition to that that we need to go ahead and take a look at maybe implementing some further regulation as far as a bag limit and I would not be averse to that.

ROY CRABTREE: I think what you've got to do, Bill, is -- So we have an alternative that includes dolphin and wahoo, because they meet the criteria. Then I think you've got to have another alternative in there that excludes dolphin and wahoo, for whatever rationale.

Now, I am not hearing a lot of good rationale right now for excluding them, but that remains to be seen when we get to the end of the day with all of this and my problem with it is we set up the document in a way that there is no alternative in it that includes dolphin and wahoo, which seems to be where you would be going with this, I question that that -- That seems to imply that it's not a reasonable alternative to include dolphin and wahoo and I find that to be a difficult case to make.

NEPA requires we analyze all reasonable alternatives and so I'm having a hard time getting to how it would be acceptable not to have an alternative in the document that would include dolphin and wahoo and to still say we have a reasonable range of alternatives.

CARLOS FARCHETTE: Bill and I have Blanchard waiting.

BILL ARNOLD: All right, Roy. What concerns me about that is that the council has also added and removed other species and do we need alternatives for them as well, because there is nothing special about dolphin or wahoo, which are two separate species that really could be addressed under separate alternatives, but we also -- Was it yellowedge, I think, that was added and cardinal was removed from some of the islands and so, like I said, for all of those, we dealt with those by motion and we had others.

The whole entire first group was added by a council motion saying we will include parrotfish and we will include managed species, et cetera, et cetera. Everything has been done by motion so far and the rationale attached to those motions.

Really, it's a deviation from our course to now start developing

separate alternatives for individual species and if we start with dolphin, it's not clear to me how we can end with dolphin and not do this for all of the species for which we're making special cases presently by motion.

ROY CRABTREE: I think that's something you're going to talk to the NEPA people and the attorneys about and make sure that there isn't some significant restructuring of the document that's going to be required.

CARLOS FARCHETTE: I have Blanchard.

TONY BLANCHARD: Since we're looking for rationale, I am going to give you some rationale here and now. Just like Ruth stated, recreational ain't supposed to sell their catch period and it could be as simple as the local government implementing a bag limit or a size limit or both, whichever they so choose.

Once again, like I stated several times, it's a fish that's here now and tomorrow it's gone. Once that fish is landed in the Virgin Islands waters, because I don't think they are coming to catch it in VI waters and run to St. Kitts with it, it has to come ashore and so it would fall under VI rules and so that's where their regulations would kick in.

Really, I think we are trying to put regulations on something we cannot regulate, like we're making a law to say we're making a law, but really we can't control this and I think the SSC yesterday, with the statements that -- When Bill brought it to the table, unless I am completely wrong, they wasn't clear as to what they wanted and I could be completely off base with this, but this was the feeling I got, that they was not sure and they wanted direction.

You know what, if you want direction, I will tell you what direction you need to go in. You want rationale, I just gave you rationale and that could be taken care of on a local platform and the FMPs when they come into play, which Bill mentioned yesterday, instead of us here running around the table and second-guessing what we decided on before.

Now, I am very clear when I make decision, any decision that I make. I am not saying that I am never wrong, but I just don't make a decision to say I made a decision because it sounds good and so I am not a follower. If I see that it don't look good, I ain't going down that road, but my rationale is what I just gave you.

The local government can take care of this on a local basis and they even come from Puerto Rico and catch them fish in our EEZ and go back to Puerto Rico and they fall under their regulations now, correct?

They are being regulated and so I don't understand why we're arguing with each other here all morning for something that was taken care of yesterday.

CARLOS FARCHETTE: Hanke.

MARCOS HANKE: Okay. From my expertise, it's that we'll not change much the effect on the management of the dolphin and wahoo unless the local government manages it, especially because we don't have too much enforcement addressed to the federal waters unless we deal with the landings, once the fish get to the shoreline.

In the case of Puerto Rico, we are a little step forward on the process, because it's already approved, the bag limit for wahoo and dolphin, in the local regulations and something that is very important in the case of Puerto Rico to mention is that the majority of the landings, and that's my experience, because we have the nine nautical miles jurisdiction, the majority of those landings for wahoo and dolphin are done in local waters.

 Graciela, because for me it's important to be clear myself, because 5 percent of my landings of wahoo and dolphin, maybe, throughout the year are made in federal waters. The majority of them are made in Fajardo, in Vieques and on the Fajardo dropoff, very close to the shoreline, six miles from the shoreline. That is also applied to Vieques coastline.

 There is places, yes, in which in you can catch them in federal waters, but on the recreational side and charter operators that we are saving money and going to places that we can produce them closer by to not spend that much fuel. The majority of the landings of those, on the operation that I have contact with, are made in state waters.

CARLOS FARCHETTE: Bill and then Graciela.

BILL ARNOLD: Okay and so the rationale is the state can manage these and does manage these and so the federal government does not need to, even though it's been established that dolphin and wahoo occur at a level of abundance in federal waters, which was Criterion 2 of this whole thing, that justifies federal management.

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If you apply that rationale and set that precedent that the state can manage this species and so the federal government doesn't need to, then that rationale can be continued forward to apply to certainly Snapper Unit 2, but pretty much every species that occurs in federal waters, because, ultimately, you've got to cross and land on the state -- You've got to cross state waters and land in that jurisdiction and that applies to everything that comes out of federal waters.

I am just not sure where that rationale is going to go and how in the world are we going to defend that rationale in our documents to all of the constituents we have out there, which is a vast array of constituents, many of whom don't come to these meetings and only rear their heads when these things are going into place and suddenly we have a lawsuit on our hands.

The decision as to whether to include or exclude dolphin is definitely the council's decision, but I reiterate again that we've got to have a sound, defensible rationale for making that decision against the criteria that were used to originally develop these draft lists.

I would remind the council that their original decision on this, on the very last meeting we had, was to include dolphin and wahoo on all three of the draft lists and if the SSC had not brought up this very confused conversation that they had, we wouldn't even be talking about this now.

MARCOS HANKE: The only comment, to your point, is the difference between wahoo and dolphin compared to other organisms that we manage and it's where they live. We are talking about wahoo and dolphin on the ocean, basically in warm waters, and the other organisms that we manage have different habitats.

CARLOS FARCHETTE: Bill, to that point?

BILL ARNOLD: One quick comment on that point. Depending upon life stage, you can make that argument for a lot of things. For example, lobster. Lobster larvae are coming from throughout the Caribbean and they are just as migratory as adult dolphin and adult wahoo and so how far -- I mean that's what I am talking about about rationale.

It starts getting very confusing when you're talking about migratory species, because a lot of species migrate as larvae rather than adults, but they are still migrating.

CARLOS FARCHETTE: All right. Director.

RUTH GOMEZ: I am interested to hear what the DAP has to say.

CARLOS FARCHETTE: Okay. That would be Schuster and Crespo and Winston is not here.

EDWARD SCHUSTER: Good morning. When this issue became before the DAP St. Croix, there were several issues that came into play. At the time, we had a director -- Just to give a little brief history, the last eight years we have not had any FADs.

I think a lot of the dolphin and wahoo that has been recorded on the catch reports have been coming from fishermen, commercial fishermen, that have been fishing off the coast of St. Croix. I think it's like ninety miles, which is the Gibbs Bank.

I think now it's becoming into international waters or Venezuelan waters or whatever it is, but there is also DAP members on there, one specific guy that is actually a recreational fisherman and has been following currents and all of that stuff and it's actually a highly migratory species.

He also stated to us in the last eight years that the currents, where we have a lot of recruitment that comes from Central and South America, has not been flowing in the direction of the Caribbean and so these fish have been not in the majority as usual when it comes into season.

Also, these fish follow bait. Whatever is being caught is being caught in local or territorial waters. They follow the shelf's edge and that's where the fishermen go.

 The other thing is our FAC, which is our Fish Advisory Committee, which we advise to the Commissioner, are actually working on recreational regulations for the same complaints that you've having here right now, that commercial fishermen are competing with recreational fishermen that come into the territory where they compete, because they take out charters or whatever the case is, which is another issue, and they sell the catch for a lesser price than what the commercial fishermen would sell it at.

As Tony said before, this should be a local regulation and I will go as far back as when we went to the conch regulation. The territory made a more strict management, where we reduced -- It used to be 150 per license to harvest conch and we went to 200 per boat and it took the federal government I think at least

two years to make this a compatible regulation and if we do something like this, what it does is it creates a loophole.

What this would do now, whether you catch it in Venezuela or you catch it in Puerto Rico or you catch it 200 miles in the EEZ, as long as you bring it into the territory and it's landed into the territory and it's a territory regulation, you're in violation and you cannot bring this fish, as a recreational fisherman, into the territory if we have a bag limit on it.

I think that's the key to it and that's what should be done. Make it a bag limit on recreational fishermen, bag and size limit, and that solves this story right there.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: So the problem I'm having with the argument about they're migratory -- So we have -- I am looking at the list of species for Puerto Rico and so yes, there is dolphin and wahoo, but we have little tunny, blackfin tuna, king mackerel, cero, manta rays. I mean it seems to me that there are a number of species on here that are migratory, primarily offshore, and probably go back and forth to a lot of places.

It's not clear to me how that works. Why are we managing these? If you're coming down to we don't -- I mean Bill is right that the larvae go all over everywhere and so it's hard to tell where the stocks are, but if we're going to say we don't want to manage things because they're migratory, it seems to me there is a lot of things in here that are probably migratory.

CARLOS FARCHETTE: Is there any scientific rationale why we shouldn't manage them, like the reproduction of it or its abundance or its -- Is there anything to that?

MARCOS HANKE: I would like to mention something.

CARLOS FARCHETTE: Wait. Dr. Ponwith was about to answer me.

BONNIE PONWITH: When a species is widespread and it is fished at different levels across its geography, it's probably not unprecedented for people to ask, well, why should we bother? If we put regulations in place on this, there are many other places that fish may traverse that may not have similar regulations, but what I would say, from a scientific standpoint, is that that approach has not been overly successful for species that have broad geographic distributions.

Take, for example, the bluefin tuna. By everybody saying it's not my problem, because it's fished by other entities and it migrates and therefore it's hard, it actually has created a situation where years and years and years of international collaboration are hopefully beginning to scratch the surface of getting that stock back on track.

From a scientific standpoint, if you're looking for a constructive approach to dealing with a species that does have a broad geographic distribution and does migrate into and out of the EEZ, from a council perspective, is I think the science would support doing the council's due diligence for ensuring that that stock, while it does traverse those EEZ waters, is adequately understood from a data standpoint and benefits from the management measures that the council could put in place.

CARLOS FARCHETTE: You wanted to say something?

MARCOS HANKE: Yes, two comments. About the larvae and everything, we should then manage as HMS everything, because a lot of them pass through larvae stages and I understand that. What I was focusing on is the actual fish or the part of the life cycle in which we fish them and in relation to the habitat in which they live and that's one.

 Second, the list of species that Roy listed that has, for example, the little tunny, the application of little tunny, in the case of Puerto Rico and I cannot tell about you guys, is totally different than the wahoo and dolphin, in terms of use and regulations that are already in place and pretty much apply to all the fishes that you listed. They don't have regulations in local waters and we do have for the wahoo and dolphin and the situation is a little bit different.

CARLOS FARCHETTE: Crabtree.

ROY CRABTREE: But other than the rule about who can land dolphin and sell it, there are no regulations in the Virgin Islands. There are no trip limits and there are no bag limits and there is no size limit and so you don't even have a real complete set of regulations for dolphin in the U.S. Caribbean.

MARCOS HANKE: In the U.S. Virgin Islands, but in Puerto Rico we do.

ROY CRABTREE: Okay, but we're choosing not to manage them anywhere.

MARCOS HANKE: There is a compromise from Ruth to revise and there is an interest and I think this discussion is going to drive the extra interest in managing the local waters.

MIGUEL ROLON: If I may. You know, guys, no matter what you're going to do, at the end of the road, something is going to happen with the dolphin and wahoo. You could get sued and go through the whole process or you end up with some management measure that could be unenforceable or, at the end, you will have five dolphin per boat in the federal government surrounding Puerto Rico and thirty in the waters of the area of jurisdiction of Puerto Rico.

The whole process, the whole thing, will not be decided today and, again, I have my personal opinion on that, but I will keep it to myself, again.

We believe -- If you stick to the guns of the process, which is really what is going to defend the council in court, we should listen to what Bill and Graciela have been saying all along. You already adopted through the process a system and that system is like a sieve and you pan out gold.

 You've got the dolphin supported by that system that you already approved, because of the socioeconomics of the dolphin and not necessarily because of the biology of the dolphin. It's the same with the wahoo and so if you follow that system, then this discussion could take place at the end of the process, where you are presented with a document that says these are the alternatives for the dolphin and wahoo and then you can say at that time the dolphin and wahoo should be managed this way or that way.

The mess that was created by the report of the SSC, which I really personally hate, will not -- We cannot do anything with it. It is already done and so my advice to the council is to include the dolphin and wahoo in the process and let's hear how it works in the document and by the June meeting, you will have a clear indication of the trend of the wahoo and you can say then, at the end of the process, we don't want any management of the wahoo.

You don't know that until you have an opportunity for the staff to analyze the dolphin and the wahoo fisheries and you still can come to the table and say we hate the wahoo and we don't want to include it in the management unit.

The thing is and this is my role and I am supposed to be

defending the record all the time and when I forget about something, somebody will kick me under the table and tell me that I am wrong. I have been kicked by Graciela so many times and that's why I put her at the end of the table, but I respect her opinion and I believe that what Bill and Graciela are reminding us is that through the process that you have -- If somebody comes and looks at the process that you approved, the system by which you established a panel and you established district advisory panels.

They all went through the list of species and then you have the SSC. They butchered the report, but still, they went through the whole thing and the indication that we get from all these bodies are that dolphin and wahoo should be considered in the management unit of the three islands.

Then if you do that, nothing happens yet, until you start looking at the possible management measures that they can bring to the table at the next meeting.

In other words, if you trust your own system, if you trust your own procedure, which in the case of the lobster is going to kill us, you have an opportunity still to be able to say yes or no on the management measures that could be proposed for the dolphin and wahoo in 2016.

Here, we know this is all the motion now, but you still can wait until the process comes to you with alternatives for the dolphin and wahoo and you can say I don't want that alternative and this is my alternative. I don't want any management in the federal zone and I want to rely on Puerto Rico and the Virgin Islands.

We have to follow that process in order to be able to defend our own actions in court. We are not taken to court and they take NMFS to court and it's very difficult to defend anything in court that doesn't follow a logical record, a logical rationale developed in the record.

CARLOS FARCHETTE: Schuster.

EDWARD SCHUSTER: I have a problem with that, due to the fact that this has happened before, in the case of the lobster. We have a bigger carapace, which is 3.5. Our temperatures has proven that the lobster -- They breed year-round and there is bigger sized lobster in the catch reports and all of that stuff. We determined, I think the SSC determined, that the lobster stock is healthy and you still put an ACL.

The problem I have with the dolphin and wahoo right now is in the last eight years, from the previous administration, there have not been FADs put out and what's going to happen if you set an ACL now and these FADs are put out around St. Croix and St. Thomas, you're going to have a place where the bait now gather and the fish now are attracted to these FADs, which is a fish attracting device, and the numbers are going to go out the ceiling and then you're going to say, wait a minute, these guys were catching X amount of poundage and now they're catching three times the amount and these things were not put into the equation.

It comes back to the metaphor that Director Gomez said. You are trying to fit a square into a triangle and I have a problem with that, because the only people that are penalized around this table is the commercial fishermen and all the other people that fish these same FADs and share it get away with murder and this is something that you need to consider and not because it's your favorite fish or somebody has a vested interest into this fishery to just shut it down or say that you're managing it because this is the volume that you're catching now.

I am telling you right now if the FADs that are proposed to be put around St. Croix and St. Thomas -- These numbers are going to go out of the ceiling and then you're going to have shorter and shorter fishing seasons for these two specific species. We have seen it happen here before with promises and I've been told, from my youth, that promise is a comfort to a fool and then now what happens is we have to fight an uphill battle. I mean consider it and put all these other things into the equation.

CARLOS FARCHETTE: Okay. We're going to take a quick break to have a little pow-wow on the side. We'll take a ten-minute break.

(Whereupon, a brief recess was taken.)

MIGUEL ROLON: Okay. For the record again, and I need to memorize everything that I said, but my point is regarding the personal opinion that any council member should have on this one, there are some things that are more important than others in the process.

 The most important part for the council decision-making process is to be clear, clean, and open to the public and the council process has been established and Bill and Graciela have been telling us all the time during this day-and-a-half that the

process that we had included having a panel of experts looking at all the species and then decided that -- That panel of experts decided to recommend to the council which species should be in the FMPs and which species should not.

They developed a process by which you will have a series of tiers that you follow. If the species conforms with the first tier, it's in and if it doesn't conform with that first tier, it goes to the second tier and the third tier and everything and then we took that to the DAP, the district advisory panels, and there were a lot of discussions similar to this one, but the majority voted and then we came to the council or the DAPs came to the council and they supported the dolphin and wahoo.

The SSC discussed all of this and they were not very clear in the report and they are trying to -- I have a couple of emails here of people who were there and recollecting the issue, but that doesn't have anything to do with the process.

The council, at the end of the process, will have ample opportunity to discuss the pros and cons of management measures for the dolphin and management measures for the wahoo and so, at the end of the day, you will have a chance to say I don't want any management measures for the wahoo in the EEZ or I don't want a quota and I want this and I want that in the EEZ.

In the case of what we have now, the status of the dolphin and wahoo, you have a possibility of a new regulation in the Virgin Islands and you have a regulation in the Puerto Rico area of jurisdiction that addresses the dolphin fishery, but, following the process again, you include the dolphin and wahoo.

Let the staff include the dolphin and wahoo in the management unit and let the staff work the pros and cons of the alternatives that will be submitted during this process. So you have the entire of 2016 to work on this species as well as the others.

Something that personally I believe is kind of dangerous are the precedents that you set, and Bill addressed this before, and you have to be careful of the rationale that you use for including or not including or for an action or not an action on a particular species, because if, for example, you say this guy travels around the Caribbean, a larval stage or whatever, that's true for almost every species that you have here.

There is few species that depend only on the platform of Puerto Rico or the Virgin Islands platform and so, again, my advice to

the council is to allow the process to continue the way that you set it up, the way that Bill and Graciela have been telling us to track the record, and then the wahoo and the dolphin are included.

You have a transparent, clean process to follow and you still have the opportunity, during that process, to finalize your discussion as to what is best, according to your best available information, what is best for the management of the dolphin and the wahoo.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: I just need to make sure to remind everybody that what we're constructed here or have constructed are draft lists of species proposed for management. Under any situation, these draft lists will be taken out to public hearings and the public will comment on each of the species included and species that are not included.

That will be brought back to the council and so this is not a final decision under any scenario and so whether you leave them in -- It facilitates discussion if you leave dolphin and wahoo in and it certainly puts them in front of the public for discussion.

That's not to say the public couldn't still discuss them if they are not in, but the public has to recognize that here's a species that's not in that we want to talk about. If they're in there, then here is a species that we definitely need to talk about and we get that public comment and we bring it back to the council and discuss it further and make a final decision based on that, but the key to this is these are draft species lists.

MIGUEL ROLON: I have a question for Iris. Have we been saying anything legal in this discussion? Are we satisfied or there is some question that we need to address?

 IRIS LOWERY: Just to make clear, I understand this is kind of a hot-button issue and I don't have any suggestions as far as what the ultimate outcome should be, but I would just suggest that allowing staff to continue to at least develop the analysis for dolphin and wahoo would provide you as a council with kind of a more sound and defensible rationale for any ultimate decision that you make and particularly in light of what Bill said, that this is a draft list and you're not making a final decision. I would encourage the council to just think about making sure that you're really developing a sound record and have a defensible

basis for your decision.

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: Marcos, if we follow -- I mean if we follow that rationale, then the language could be modified in the motion to say that for all FMPs to include the dolphin and wahoo in the draft list of species that will be considered for federal management.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: So right now on the whole east coast of the United States, the dolphin fishery is closed. It closed down back in June or July and so it's been closed a long time. It closed, in large part, because there was this big spike in fish being landed by pelagic longline vessels.

We have heard testimony that there are non-HMS permitted longline vessels that are landing this. The HMS fleet is a wide-ranging fleet that fishes all over everywhere and some HMS vessels come down here and fish. Some of them offload and land in Puerto Rico, but I don't know that all of them do.

My point is that you don't have federal management of dolphin, those vessels could come into the EEZ of the U.S. Caribbean and fish lots of dolphin and land them -- They can do it now, by the way, but they could continue a practice of landing dolphin and going back to the states and offloading them there.

 I don't know how much of that is happening. I think that's something that the analysis ought to take into account, but there is potential by some of these vessels to fish in U.S. Caribbean waters and land dolphin and not land them in either the USVI or in Puerto Rico.

CARLOS FARCHETTE: I strongly agree with that, but, Director, you wanted to say something?

RUTH GOMEZ: Let me get this right. Let's say we go ahead and we include dolphin and wahoo and you're going to take a look at it and at the end of the day, you're going to come up with your findings.

 We still have the opportunity at that time to take a look at it and come up with alternatives, management alternatives, if we don't like what you come up with or we see that we can go about managing them in a different way. Am I right or I am wrong,

because here is my thing.

If you have twelve species that you have set up parameters by which you are going to take a look at, I am a big believer that if you're going to take a look at -- Let's say it's ten species and if you look at ten and there is a process by which you look at ten, if you start to take out and find special cases and special circumstances to your process, you create a -- Maybe I am wrong, but you create a loophole legally, because you're not following the process by which, from my understanding, between the DAP, the SSC, and whomever, you guys came up with a process and you were comfortable with that process prior to coming up with a list of species you wanted to take a look at.

If the dolphin is on that list and wahoo, then I believe, if there is no harm in it and you're not going to end up with something that you're going to be stuck with and you will be given the opportunity at the end of the day to take a look at, then let it go, because at the time, gentlemen, the Virgin Islands is weak, in a justifiable rationale. By that time, maybe we can have a better defense to back them off if we need to. There is no harm. We are jumping the gun.

CARLOS FARCHETTE: Okay.

MARCOS HANKE: I would like to present a motion to -- I would like to withdraw my motion.

MIGUEL ROLON: You can withdraw the motion at any time, according to Roberts Rules. Just withdraw the motion and have a clean one and go with it. Get a clean motion and see if it pans out, something that we can play with.

ROY CRABTREE: Can I comment on Ruth's comment?

CARLOS FARCHETTE: Yes.

ROY CRABTREE: Yes, I agree with you, Ruth. Now is not when we have to make the decision and let's get more analysis in the document and we'll come back in and if you guys decide you don't want to include dolphin and wahoo in it, even if I disagree with you, the majority vote on the council will determine that, but you want to make sure that we have a sound rationale for why we're going to do it.

46 If the Virgin Islands takes some more steps and things like 47 that, maybe that contributes to that, but we're not going to get 48 this resolved in the little time we have left time today and so I think the best thing to do is make sure staff analyzes it and gives us alternatives so we can come in at the next meeting and then if you decide you don't want to include dolphin and wahoo, so be it. You can make that decision then and I would like them to do it in a way that's not going to delay us a lot of time.

MIGUEL ROLON: Can you do the motion accordingly?

ROY CRABTREE: I think all you really need to do is -- So we passed a motion to reconsider the original motion. We could revote on the original motion and vote it down and then we don't make a decision at this meeting.

MIGUEL ROLON: Listen, Roy. If we do nothing today, the dolphin and wahoo are in.

ROY CRABTREE: No, we passed a motion to not include them, right?

MIGUEL ROLON: I am following you, but the thing is -- This kind of motion, if we don't do anything, those two guys are in, the dolphin and the wahoo. Here, I believe what we would like to do, if we can forget about Roberts Rules for a second, Iris, can we just do a clean motion and vote on it and get it over with?

IRIS LOWERY: I think what Roy was suggesting is because -- Before your motion yesterday, dolphin and wahoo were included, but then you voted the motion to follow the recommendation of the SSC to remove dolphin and wahoo.

Since we have a motion to reconsider, if we just vote on that original motion and vote it down, then the council will essentially be taking no action and dolphin and wahoo will still be in there.

MIGUEL ROLON: Yes, but you already took a motion and you voted on it.

ROY CRABTREE: But you could just make a new one.

 MIGUEL ROLON: That's what I mean, make a new motion and get it over with. Make it a clean one. The motion will be to include the darned thing into the management unit, period. All in favor say aye and the dolphin and the wahoo are in.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: I think, Miguel, though that's not what I am

hearing from folks here, because that implies we're making a decision today to include them. I think what we're asking staff to do is to bring us a document at the next meeting that has alternatives in it to either include dolphin and wahoo or to not include dolphin and wahoo and analyze all of that.

MIGUEL ROLON: I think that what they're saying is -- Again, Graciela just reminded me that if we do nothing that the dolphin and the wahoo will go in according to the system that we have. What Ruth is saying is that we can have the list, the dolphin and wahoo on the list of species, and you will have a suite of alternatives for the management of the dolphin and wahoo and then at that time you discuss the whole thing and the document will bring to the table the pros and cons of each one of the management alternatives.

GRACIELA GARCIA-MOLINER: Okay, but you need to do something about Motion 11, because you have it in Option 5 that you already voted for it and so this one has to be voted down.

MIGUEL ROLON: Graciela, they withdrew that motion before and then they have this one and so -- Motion will be to include the dolphin and wahoo fish in the draft list of species for federal management in the IBFMPs. I know that Robert would be turning in his grave, but anyway.

BILL ARNOLD: You have to have that statement to include them in the draft list of species.

MIGUEL ROLON: Can you help, Bill?

GRACIELA GARCIA-MOLINER: For federal management in all three --

MIGUEL ROLON: Okay, ladies and gentlemen, we need a so I move and a so I second.

MARCOS HANKE: So I move.

MIGUEL ROLON: Is there a second?

41 CARLOS VELAZQUEZ: Second.

CARLOS FARCHETTE: Okay. The new motion will be to include the dolphin and wahoo fish in the draft list of species for federal management in all three IBFMPs. It's moved by Marcos Hanke and seconded by Carlos Velazquez. Any more discussion? All in favor say aye; any nays; any abstentions, one abstention. The motion carries. Go ahead, Iris.

IRIS LOWERY: I just wanted to ask about Motion 11 there, which is motion to add new language regarding dolphin and wahoo. Should that be removed or how do we want to handle that?

MIGUEL ROLON: Can we say motion to remove Motion 11 from the record?

IRIS LOWERY: I think we can just remove it?

MIGUEL ROLON: Just remove it? Okay. You have heard the lawyer and you can remove it.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I just want to say something for the record, because I can't sit here and see myself going down the road without brakes, because I know what will happen. I agree with Ed, because what I see happening here is we are following -- We are going down the same road that we have problems with right now and I am going to explain myself now, because I see things clear.

We talk about data and just like Ed stated, once we determine we have -- If this comes to light that we have to put these fish in and mange them, we have to put an ACL on them and with the FADs that the government will be putting in, what we're going to have is the dolphin and the wahoo are going to start coming in in numbers and so guess what? If we don't have that information in prior to and we set the ACL too low, which seems to be a common mistake that we've been making, we are back on phase one again, having an ACL that is too low because of lack of information, because we are jumping the gun.

 That's why I abstained. I understand Roy's standpoint as the legalities of this and Bill and I've got a lot of respect for them, but I am not going to sit back in a vehicle knowing that it ain't got no brakes and expect not to get hit or not to get in an accident, because this is an accident coming down the road again and maybe not for some, but for the fishermen it is.

 Just like Ed stated, the only one who is taking the licks is the fishermen, because when the new ACLs come in, guess who is taking the penalty? You think it's the recreational? He's doing this for fun. It's the commercial guy again, but I am going to drop it here, but I just wanted to put it on the record, because I am a man who is going to hold my ground, because I know what I'm talking about.

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Like I say, there ain't nobody else at this table here that's going to take the licks but me, because that's that I am, a commercial man. I don't have no elaborate lifestyle and I don't have money and I don't have riches. I am just an average joe trying to make it, but I see an accident coming down the road if we decide to include these things and put an ACL on them, which is obviously going to be too low, because of what is going to happen.

 I am going to put it on the record, because I don't want to sit down here and say I didn't say nothing, but I am not going to be part of a problem. I am going to be part of the solution and so I am going to sit back here and just --

CARLOS FARCHETTE: Okay. I understand what is being discussed here, but I also see an opportunity for something that I have always been fighting and that is to, because we can't prohibit, but to restrict longliners from how they operate in the U.S. Caribbean waters.

I am very concerned, like what Crabtree was saying, that longliners can easily come in here and just wipe out these species in our waters because we have FADs and they are accumulating in large numbers and there has got to be a way that we can control what is being removed in federal waters, which is affecting the local fishermen.

Like I said before, I am a strong advocate of size limits for commercial and I am a strong advocate of size limits and bag limits for recreational and this is an opportunity where we can hopefully try and fix all of this, so it will benefit the local fishermen here.

the Commissioner of DPNR has the authority You promulgate rules immediately. She doesn't need to wait for two years or anything and she can promulgate rules to control that fishery if she deems necessary and with discussion from the Director of Fish and Wildlife, that can happen and so this --There is an opportunity to fix this and have it to benefit Puerto Rico and the Virgin Islands, because I am very concerned what longliners can do in our waters and it's open range right Okay. We are going to continue with the island-based and do we have more to do? Are we done? Then we move with Outreach and Education. First, we're going to take a ten-minute break.

(Whereupon, a brief recess was taken.)

 CARLOS FARCHETTE: Okay. Back to the agenda. We're going to do the Outreach and Education Report by Dr. Alida Ortiz.

OUTREACH AND EDUCATION REPORT

ALIDA ORTIZ: It's almost good afternoon, but we will do it quick. We were going to make an update of the outreach and education activities that the Outreach and Education Advisory Panel has discussed and designed and we are presenting them to the council to get your comments and to get your ideas about what we are planning to do.

As you know, we have been working on the CFMC report that comes out after each one of the meetings and it takes about two weeks or three weeks and then we put it up on the webpage and this time, we also made another report regarding the public hearings on the Abrir la Sierra, Bajo de Sico, and Tourmaline issue, because that was a very, very important activity for the council. There were a lot of fishers and other people related to fisheries and so we made a special report in Spanish and it's also on the webpage.

The calendar, the 2016 calendar, we had hoped to have it for this meeting, but it's in the print shop and it should be in the mail probably before the new year, but it's finished.

We are trying to conduct and to develop a campaign, an education campaign, on sustainable seafood, with the title of protecting our fisheries. To me, it is very important that when we speak about ecosystem-based fisheries that the fishers are not the only human beings important in that issue.

 The consumers are probably just as important as the fishers, because they decide the market and they decide what to eat and what to demand and what they put more importance on in the kitchen and if they don't know what are the regulations or what is the biology of that species, we find the problems all the time of consumers requesting species that are under closures or species that are not really available for some reason and so we would like to have consumers understand the biology of those species and also what are the fishing issues around them and this we have divided in three phases.

We will have the phase one that is called the catch of the day. It is important for the consumer that they recognize that there are many other fish and seafood species that are not really those that everybody wants and that the fishers bring in their catch every day something different, but we just have to learn

how to eat it and how to cook and they are just as healthy and as delicious as the other ones.

This phase, we will work with the fisheries lab and we will get all the information from the fisheries agents to see what is caught around the island and not just first, second, and third species, but everything that is caught and then we will have a focal group composed of restaurateurs, chefs, all the consumers, that will tell us how to eat it and how to prepare that and they will give the information to the public.

The phase two also needs information. What do people like to eat? So we will have a group of students, marine biology students from the University of Puerto Rico at Humacao. Some of them are taking a research program, a research course in the marine biology program, and some of them have been students from Marcos's course in fisheries and they are also students in research and Graciela has been there giving them information about the fisheries and I think that for the first time in a long, long time that I have been at the university I find new students, very good students, interested in fisheries.

Fisheries has never been attractive to us as a profession. It's difficult and it has a lot of math and it has a lot of community work that is not really marine biology and so we don't have that good group of professionals in fisheries, at least in Puerto Rico.

We will take that opportunity also to make these students familiar with what fisheries is all about and so we will develop a survey that they will conduct in the restaurants and in the fish markets. What are they demanding? What are they willing to pay and when do they ask for that species in particular?

Then we have a phase three and that is to take all that information and give it to the consumer, but give it to the consumer not just in a newspaper article, but we would like to have all types of outreach materials that go from fact sheets in the format of placemats that Marcos and I have been talking about for a long, long time ago, even before he was part of the council.

Then posters, more posters, with what is eaten and in Puerto Rico especially, the western part of the island is one culture, is one society, and it is one taste for seafood and the eastern coast has a different taste and so we have to take that into account.

 We would like to have also the production of short PSA videos that can be used as public service ready, especially on the first month of each of the closure times, so that all consumers know that that species in particular that they like to eat so much, for the biological reasons and for the socioeconomic reasons, that the management practices require are closed from this date to the other date, so no one should be asking for that species in the restaurants or in the markets.

That will be one of the activities that will take us quite a bit of time during the next year and another activity, and from that one, the Sustainable Seafood Initiative, we would like to request from the council whether we are going in the right direction and then we will make a full proposal to the council, so that you can put it in your plans.

The other activity that will be presented as outreach and education is this orientation workshop requested by fishers in Puerto Rico. We have found out that communication with fishers is not just the information that you bring to a public hearing.

They do need constant reminding of what an ACL is and what the accountability measures -- How the data is used. Before taking any other issue, we will have workshops with fishermen in Cabo Rojo and Mayaguez and San Juan between January and March, because the public hearings that were conducted the last time on the timing accountability measures and the change in that timing really -- At least in Mayaguez, there was a very good number of people in the hearing and they said they didn't understand and they didn't know what we were talking about.

That means that before the public hearing is conducted that we need more workshops, more meetings, in the field. Helena has been doing that and we will do that especially for that upcoming meeting that they will have. Graciela will be there and Miguel and Diana and the dates have already been selected.

The other outreach and education activity that we have found out is that with every session of the District Advisory Panels it is important that before the meeting takes place -- It can be on the same day, but the DAPs have to refresh or have to have right in front of them all of these issues that have to do with the information they give to the SSC.

 With Helena, we are developing very short, very short, presentations on things like OFL and ACL and statistics, before they start their own discussion. We are not changing the way they are going to do things. The thing is that we want them to

have all the information needed at the time that they are going to be doing the discussion.

We request from the council the designation of funding, or I don't know how you do it, of a liaison for the U.S. Virgin Islands, a fisheries liaison. At this moment, the person that keeps the communication between the fishers and the council at some times is Lia Hebert, but we do need a person, either in St. Croix or a person that covers both islands.

 It will be the same position that Helena holds in Puerto Rico, where she is shared between the DNER and the council and she will do activities that the DNER requires, but also that the council requires.

The success of her work in the field tells us that we do need another Helena in St. Croix and probably another Helena in St. Thomas and if one can do both islands, St. Croix and St. Thomas, then it would be only one, but we need that constant communication with the fishermen. It cannot be go look at it on the webpage or wait until the public hearing or the option meeting. We need that contact.

Another activity that we would like to present to the council and have your comments and support or ideas is the selection of the Fisher of the Year, in Puerto Rico one and in St. Thomas and another one in St. Croix. This is an idea that Lia had been working with the Virgin Islands and it will be a selection of the fisher that submits their statistics on time and on the way that they are requested to do and that meets all the local requirements for a fisher, if that be the licenses or that be all the participation in the meetings or all those things, but to be recognized as Fisher of the Year.

The council will have to put a committee, working with the liaison in the field, and then select the fisher and make the recognition and the recognition should be in form of a certificate of recognition to the person, so that they can be very proud that they are doing what is needed for the conservation of the fisheries.

The other activity that is very important and that we have been working with is MREP Caribbean and MREP Caribbean, Helena will do the presentation. We have planned or we have spoken of another MREP Caribbean in St. Thomas, but that's under discussion and I will let Helena do that.

HELENA ANTOUN: This is just a very, very quick update on the

MREP program. So it is ongoing and it's still going and I am speaking with Alexa Dayton and we're keeping in touch. The idea was to do the next 2016 workshop in the USVI.

However, MREP, as I mentioned many times before, this is a program that is for fishers by fishers and so if the fishers do not want it or do not feel ready for it, it's not forced and so it is still under discussion and I have been in contact with Lia and the next steps that we have right now is we are going --Ruth suggested, and I think this is a very good idea, to have a meeting with the fishermen and present the whole program and then let them take it from there.

We will have a better idea of where we stand with the 2016 MREP program, I believe, after maybe February or March, somewhere around there.

ALIDA ORTIZ: Is the steering committee already formed or not?

HELENA ANTOUN: No, there is no steering committee and there is nothing. This will be a preliminary meeting with the fishermen in the Virgin Islands, just exactly like what we did in Puerto Rico.

We introduce the program and explain what it's about and the whole process of how it works and all that and then we'll take it from there and set up the steering committee and all that, if they choose that they want to have it.

ALIDA ORTIZ: Okay. We were expecting a person from the U.S. Virgin Islands, from the Nature Conservancy, to talk to us about the Reefs Responsible Campaign that has been very successful in the Virgin Islands, but we didn't get any more information and I was hoping that Carlos could give us an update, but he isn't here either.

 Lia Hebert did send an update of the activities that she has been working on in the U.S. Virgin Islands and they have been working with fisher workshops in the three islands and these fisher workshops are to make them aware of the fisheries management regulations and to promote compliance with the regulations.

 NOAA staff has been in collaboration with local and regional management agencies and they have engaged two-hundred fishers from different areas with presentations and information and resources. They do have very good information.

 This is very similar to what Puerto Rico has been working with, PEPCO, that Helena conducts for the DNER. The fishers were given packets with information from different agencies and waterproof measurement tools and fisheries regulations in territorial and federal waters and fish identification guides.

These were three-day workshops held in St. Croix and St. Thomas and hosted by the U.S. Virgin Islands Department of Planning with support from the NOAA Coral Reef Conservation Program and that has been happening in the Virgin Islands. With that, we complete our outreach and education report update of the activities that have been conducted here. Are there comments?

MARCOS HANKE: Are there comments and questions? Anybody? I have a comment and a question. The comment is that on the first initiative about the seafood education and about what they eat and how the consumers can impact in a positive way the fishery resource, right now my experience is that we have to help the new chefs in Puerto Rico.

There is a lot of new restaurants and new chefs and a tendency of creating a culinary expertise or a fusion of different ways of cooking that has been growing everywhere and it's a good field to introduce those concepts. That goes hand-in-hand with the idea you presented.

The other thing that I want to know is because it was presented in some numbers in terms of money that should be assigned, we need to -- Miguel, do we need to decide as a council if what was presented and to approve it and how it works?

MIGUEL ROLON: We already did that, the Chair and the Executive Director. We handled that and it's money in the bank and so Alida and I have been discussing the -- Alida, as Chair of the Outreach and Education Panel and we have identified the monies where we are going to use this for.

MARCOS HANKE: Just one point to welcome all the efforts and I think it's a great job.

 ALIDA ORTIZ: We will try to make a good partner with TNC, because the information that is given to the public, it is easier to work it that way and, of course, with Sea Grant and we have been very, very careful that the ideas that we give to the consumer is not to jump all on one species.

The idea is that we have to know what is the biology and what is the ecology of that species and so we will need information. We

will need to revise a lot of materials from the fisheries lab so that we don't go and then overfish something that was doing very happily in the water.

MARCOS HANKE: I want to comment something and how pertinent is this initiative. For example, in Fajardo, in the restaurants around Puerto Chico, the Puerto Chico restaurants there is — They are selling cero and king mackerel in filets and they are substituting that for grouper or any other classic fish that they had fileted before for those fish, just because they can — If they do it fresh and they clean it correctly, they are finding ways to use a different resource with different impacts to the fishery. It's just a good alternative and I wanted to comment that.

ALIDA ORTIZ: To me, the important thing on that action is that we educate the consumer, so that the consumer doesn't come out and say they foiled me or they gave me something that was not what I wanted to eat and so they will learn that there are other fish and there is other species that can be prepared, that can be cooked as good as what we used to call a long-time ago the first-class fish in Puerto Rico. That was grouper and snapper and no matter whatever they gave you, they put the name of group and snapper.

We want to have a well educated and literate consumer on the resources of the fisheries. Any other recommendations or comments? Okay. Carlos, do you have any idea of how the Reef Responsible Seafood Campaign went in the Virgin Islands?

CARLOS FARCHETTE: They are still moving forward. I think we have nineteen restaurants participating in the Reef Responsible on St. Croix to date. I know that they are moving on St. Thomas and I understand that even in Tortola they are also doing some promotional stuff out there, but I'm not sure where they're at with the St. Thomas district right now, but I know that they've started to get restaurants to be participating in the Reef Responsible Sustainable Seafood Campaign.

ALIDA ORTIZ: I insist that the consumer is the other part of the humans that we need to address in that ecosystem-based management fisheries. If the consumer goes beyond what the fisher can do, then we are not doing anything sustainable.

CARLOS FARCHETTE: I know Kamet came to our Fisheries Advisory Committee and he wants input from the fishermen and also from committee members as to any other ideas or suggestions that they may have and he is willing to run with them.

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ALIDA ORTIZ: Okay. Good. That's all I have.

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CARLOS FARCHETTE: Antoun and everything was covered there. Initiative, Ms. Leslie Henderson.

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USVI CORAL REEF INITIATIVE

Thank you, Alida. We have MREP with Helena

USVI Coral

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LESLIE HENDERSON: I was just going to comment that Kamet had mentioned the idea of doing the fishermen themselves as reef responsible, versus the restaurants, and just toying with that idea and I think that was --

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CARLOS FARCHETTE: I remember that now and they were going to give them some type of a tag to put on their -- Yes, okay.

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LESLIE HENDERSON: Yes and so good morning, everyone. My name is Leslie Henderson and I am just going to give you a very quick overview of TCRMP, which is Territorial Coral Reef Monitoring They said fifteen minutes to talk about the Virgin Program. Islands Coral Reef Initiative, which is -- I can't do it all and so I'm just going to talk about this dataset that we do have.

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First of all, I haven't met many of you and so this is my first meeting and I just wanted to go over who I am and where I am I come from North Carolina and I've been here for about six years. I got my bachelors in North Carolina and then my masters at UVI and then I worked at UVI as a research tech for a couple of years and now I work for DPNR and so that's me in a That's my email address, if anybody wants to write it nutshell. down, and I also have cards.

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So TCRMP, what is TCRMP? The vision is to provide critical information on the status and threats to all Virgin Islands reef ecosystems, in order to increase effectiveness and improve basic and applied coral reef research, but that's pretty wordy and it doesn't really tell you a whole lot.

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Basically, what TCRMP is, it's a once a year survey at thirtythree permanent sites. You can see on the screen all the sites are areas that some of you are probably pretty familiar with. We have been doing this since 2001 at most of the sites. Some of the deeper sites are younger, the mesophotic sites. just started doing those more recently.

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Basically, you go to each of these sites and you collect as much

data as you physically possibly can and the transects are permanent for the coral health and so that's pretty interesting, because you're tracking the same corals as you go through time.

In 2001, we have some of the same exact corals and we have data from every year on that coral and not only are you recording what coral it was or how big it was, but you write down all kinds of information on the health status of the coral and so whether there were little snails feeding on it or whether there was algae growing on top of it or whether it was diseased or bleached. All that stuff gets put into this huge dataset.

Also, algae, diadema, temperature. We have temperature probes at all of these sites and so we're tracking temperature fluctuations at an hourly rate all year-round and so it's pretty interesting data and it's a huge dataset.

The question I get asked all the time is how are the reefs doing, which is like a loaded question, obviously, and it's impossible to answer, because it depends on who is asking the question what they think would be a good reef.

Most people agree that coral cover, high coral cover, is a good sign of a healthy reef and I know most of the people here are fish people, but corals, as I'm sure you know, are very important to the fish. They need the corals and corals need the fish. It goes hand-in-hand.

Rating a reef on how much coral is there is a good way of showing how healthy it is, because if there's a lot of coral, it's going to be growing versus eroding and so coral cover is looking straight down at the reef with a picture and sort of saying what percentage of that area is living coral tissue.

There is some limitations. Obviously if you're looking at a wall and you're looking straight down, you're not going to get a right representation, but, overall, it evens out and so here is the coral cover for all of those sites that I showed you from 2001 onward and it's really interesting.

You can see the huge drop in cover in all three -- This is near shore and offshore and mesophotic and so right here, you can see where coral cover dropped drastically after the 2005 bleaching event.

46 You can also see that mesophotic reefs suffered less. A lot of 47 them didn't bleach as drastically as some of these other more 48 shallow reefs and a lot of people use this to defend the deep reef refuge hypothesis that sometimes these deeper reefs are buffered from the warming sea surface temperatures. That is pretty interesting that you can see that in this data. You can also see that the mesophotic reefs in general just have much higher coral cover than some of the shallow ones.

We also get fish survey data at all of these sites and before I show you guys any fish data, I will say that this is not the best way of evaluating fish stocks. This is an ecosystem -- It's trying to get an ecosystem-based dataset and so we're doing ten fish surveys one day a year and so you're getting all kinds of fluctuations, depending on what time of the month and what time of the day and what the current is doing and what the water quality is.

You can't say there were more fish, just because it could have been just temporal variation, but anyway, I will show you the data anyway and this is it. It's messy, but there are a few things that you can pull out of this. First of all, if you look, St. Croix is all on this side and then St. Thomas and St. John are on this side, separated by the dotted lines.

We do that because the habitats are vastly different and so you can't really group them together and one things that's really interesting is the -- This is biomass, by the way.

The biomass in the mesophotic reef is much higher than in the near-shore, shallow reefs, especially in St. Thomas/St. John, whereas if you look at St. Croix, it tends to be a little bit more evenly distributed and lower as far as mesophotic go and I think that's just because of the shelf edge is much closer in St. Croix and so you're going to get some of those bigger fish swimming back and forth in between your shallow and your deep habitats, versus St. Thomas they are way out there on the shelf edge and they don't come in to some of these near-shore sites.

That's pretty interesting and you can also see these huge spikes, which are not fun in your dataset. They are basically just snapper spawning aggregations that happened to be there that day and they make your data skew.

This type of data can also be good for noticing like huge, long-term trends and even though you're not getting day-to-day data, you can see things such as an invasive species and so you can look here -- These are the same sites that had all the rest of the fish and this is when they showed up.

You see they showed up in 2011 and only in a couple of sites and

then from there they have escalated and particularly these are the deeper reefs and particularly down in the deep reefs we're seeing a lot of them.

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I am not sure if they prefer that or if they're just getting cleaned out by some of the lionfish derbies and a lot of the efforts that people have in the shallow waters.

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We also have data on spiny sea urchin, which I'm sure most of you know is really important for grazing down the reef. data on this is really patchy, but it basically supports that diadema are patchy and they're more in shallow water hopefully we'll start to see more of them coming back.

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17 18 When you look at their distribution over time, it's really variable, because you can do a transect in one direction on a reef and get fifty and go the other way and get zero and so it's hard to work with, but hopefully over time it will get a little bit cleaner.

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We have more data than this. We have so much data in this dataset and I just wanted to present some of this stuff so that you're aware that this dataset does exist here in the USVI and if you have any questions on any of this information, I can tease out site-specific stuff or I can tease out speciesspecific stuff, coral health, any of the stuff. I can give you a graphic for any of the sites we have and so it's pretty interesting data.

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MIGUEL ROLON: For possible future direction, you talk about fish recruitment and can you expand a little bit on it?

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37 38 LESLIE HENDERSON: Yes and so that's something that we've talked We are sort of evaluating the TCRMP. We've been doing this since 2001 and we've been largely doing the same thing, with the exception of adding deeper sites, and so we're hoping next year to do an assessment of this project and see where we might be able to reduce a little manpower somewhere so that we can do something else, something new.

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46 47 That's one of the things that's been suggested, is trying to include some sort of fish recruitment pilot study, recruitment as well. Some of these things are just being talked about and so we haven't done any of that yet, but if that's something that people would like -- That's all the information and if you want to send me an email if you think that could be something that you're interested in. Also, sites too.

48 interested in where a good new site might be. CARLOS FARCHETTE: I have Blanchard.

TONY BLANCHARD: I've got a question for you. Can you bring up the slide with the lionfish again? I just want to point out that look at where the higher concentration of the lionfish is. That's precisely my point when I bring up the point that we need to see what's going on in the East Bank instead of figuring out that they're working and all we have there is dead space that we can't fish in. That's point number one.

Point number two is bring up the slide with the sea urchins. If you look in the shallow waters, the sea urchins disappear, right, or they died off?

LESLIE HENDERSON: They did. They are coming back, but they did.

TONY BLANCHARD: I am going to bring this to the table now. Part of that problem is the runoff off of the coastal runoff and the other part of it is all the seagrass that has been coming into the shoreline that sits on the shoreline and ends up killing the sea eggs as well as the whelks and everything else that sit in there, because it drains the oxygen out of the water. That was my second point.

CARLOS FARCHETTE: Graciela.

GRACIELA GARCIA-MOLINER: A couple of things. Number one, the maximum depth that you are doing this surveys is to fifty meters, the mesophotic reefs in the Hind Bank?

LESLIE HENDERSON: Yes.

GRACIELA GARCIA-MOLINER: Fifty meters. The EPA has a working group that is looking at the biological criteria of expert groups of fishes and corals and I think that at the last meeting we found out that it wasn't really the health of the coral that was important to especially the juveniles, but it was the rugosity of the area, but it's very important to keep track of the health of coral, especially in the event that we're going to have shifts in temperature, either cold or hot, that will cause coral bleaching and so it's really good that you're keeping track of that.

46 The thing about the EPA is also that they have a number of --47 They have a model that they can run with the information from 48 both the fish and the coral and so if you have not passed on this information to EPA, I will talk to you about it, because it's really interesting the way that they are running the model for fish and coral.

The other thing is about sea urchins. There is a project in Puerto Rico growing black sea urchins and are you in touch with Stacy Williams and that group?

LESLIE HENDERSON: I have heard of that project. We haven't been in touch with them, since this is just as we roll up the tape that we get the fish, we just kind of look for urchins, just to track, and so we're not doing any like growing of them, but I am aware that that is happening.

GRACIELA GARCIA-MOLINER: So transplanting urchins might accelerate the process of recovering. That is great and thanks.

LESLIE HENDERSON: Also, if you're interested in some of these datasets, they are available. The raw data, if you want it, has been QA/QC'd on this website and you can email me if you don't want to write that down. I will give you my card, but it's all there and it's really interesting.

The coral health stuff is really the focus and so it's really interesting to see -- Like especially after that bleaching event, you can see how the disease went up the following year and you can see these trends like that over time and they are very, very interesting.

GRACIELA GARCIA-MOLINER: But you can also track the recovery of the coral, which appears to be that's what happening, in what I saw from the slides.

LESLIE HENDERSON: Yes, its slowly, slowly recovering and so hopefully we don't have a major bleaching event next summer, which is what is being predicted and so we'll see.

CARLOS FARCHETTE: Marcos.

MARCOS HANKE: On the areas where you are making the survey, when you deal with the biomass, all of those areas are very clear water or do you have high sedimentation and low visibility and what is low visibility for you?

LESLIE HENDERSON: So it definitely depends on the day and so sometimes we do surveys in Magens Bay and it's really bad visibility, but we also will do surveys out on the bank when you can see top to bottom and you can see out like fifty meters and

so it depends on the day, which is one of the reasons I said that can affect your fish surveys.

When you're only doing surveys one day a year, you are really limiting yourself on what you can say conclusively about your results, but it just depends on the day.

CARLOS FARCHETTE: Graciela.

GRACIELA GARCIA-MOLINER: Are you guys noticing any sargassum at depth, especially in the mesophotic reefs? The reason why I'm asking is because apparently it does settle down and it might impact the dissolved oxygen of the area, et cetera, and so it's a concern to the fishers.

LESLIE HENDERSON: I haven't seen any at depth. At the mesophotic reefs, I haven't seen any. It's also important to note that a lot of the deep sites have incredibly strong currents down there and so they're not going to stay. If anything settles, it will get washed.

Where you see the sargassum settling and causing fish kills and coral kills tends to be inside those bays, in really shallow water, and so it's affecting what Acropora cervicornis patches we have left. Some of them are bleaching and dying, because they are sitting underneath these sargassum mats.

GRACIELA GARCIA-MOLINER: Since you mentioned fish kills, is anyone keeping track of the juvenile fish that are being killed, because they are showing up in many of the coastal areas.

LESLIE HENDERSON: I am not sure. Maybe DFW would have a comment on that. We're definitely not keeping track of it.

MIGUEL ROLON: The area where you have seen the lionfish that Tony pointed out, do you have any idea of the quantity and the size of those species? Do you have anybody working on it?

LESLIE HENDERSON: We don't really have anybody working on lionfish at depth, other than this that we're just picking up in our surveys. I know Rick Nemeth wants to do more work on tracking lionfish, and so tagging them and seeing how far they move, but just from personal observation, there are a lot of them at depth and they are big and you will get to like one big sponge and there will be six of them and they are just huge and so they seem to be a little bit patchy as well.

CARLOS FARCHETTE: Reni.

JORGE GARCIA-SAIS: Regarding the lionfish, now that we're there, we do make surveys of fish and fish size and we have noted the paucity of recruitment of lionfish and have you noted that?

LESLIE HENDERSON: No.

JORGE GARCIA-SAIS: Okay, because we do have now what we believe is less of the lionfish population. It's a lot of big animals and very little recruits and so I wonder -- It's been about a year or so, or maybe a little bit more, that we actually go into our mesophotic sites and that's perhaps where a lot of lionfish recruitment, if that can be said is happening, but in the shallow, near-shore, apparently there is very little recruitment of lionfish taking place. I don't know and that's our read of the situation and I wanted your comment on that. Have you been noting dynamic recruitment of young lionfish on the reefs or it's just the big guys?

LESLIE HENDERSON: We have definitely seen small ones as well. Just last week, I saw one that was so tiny and cute and so we're still getting little ones as well, but I think they have, especially in the shallow, sort of leveled off and I think that the dive companies do a really good job of cleaning it out and we do a lot of lionfish derbies and things like that and the local population of recreational --

Like I know I have a lionfish sling and if I see one that's getable, I shoot it when I'm diving and so I think that has helped kind of level off the population, but I am not sure if they are being naturally controlled yet. I know there was a video that someone posted in Florida of a Nassau grouper eating one and so that was exciting.

JORGE GARCIA-SAIS: Okay. Also, I wanted you to comment and have you noted -- We have noted in the last two years certainly a response of recuperation of Orbicella annularis complex, both on the near-shore and shelf-edge reefs. Have you noted that kind of response?

Since it's one of the dominant coral species, perhaps the main rebuilder of the whole Caribbean area, its recuperation has strong implications for coral reef ecology in the region and perhaps influences the total percent cover by corals in any given reef and so have you noted that as well, the last two years and the recuperation and response of boulder star coral?

 LESLIE HENDERSON: Yes, definitely. I think that that coral is the major reef coral builder that we have still and so a lot of the -- If there were any of those near-shore sites that had high coral cover, they were Orbicella reef and so they tend to bleach easily, but then they tend to come back better.

They don't have -- They will die just on the edges and then they will come back and then they will regrow over their dead skeleton and so I think since 2005 they have been steadily growing, but it just takes one more bleaching event to drop their population by half again, which is what is scary, but we have noticed they have been struggling along.

JORGE GARCIA-SAIS: Have you noticed any bleaching since 2005?

 LESLIE HENDERSON: Just mild bleaching in the summers. In the summer months, we will find low levels of bleaching. I have all that data as well, with how much bleaching and what percentage of the colony and which colonies and all that, but we haven't seen a major event since 2005.

We sort of escaped the bleaching event that seems like the rest of the world was having this past summer. Hawaii was like 99 percent bleached and American Samoa was 99 percent bleached and so we seem to have escaped that somehow.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I've got a question for you on the lionfish. When you went to the Bank, to the Hind Bank and the Grammanik Bank, do you notice any small fish or are they all big fish?

LESLIE HENDERSON: They are mostly big fish, but we're not really hunting for lionfish when we're down there and so you only have twenty minutes on your decompression and you're trying to get your -- You know we haven't really looked and I think the structure down there is -- It's these complex really deep rugose reef and so down in there -- I mean you could look down and it's like seven feet of Montastraea that's grown up and so down under there, I am willing to bet that there are a lot of lionfish hiding.

TONY BLANCHARD: Because this is what I think is happening. Because this is an ambush fish, the bigger fish then are eating the smaller fish, because they don't move far. Once they get in an area, they sit in that area, correct, and so that's exactly what I believe is happening. The bigger fish are eating the smaller fish.

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LESLIE HENDERSON: Definitely they do. They will eat themselves, but also we're not sure how far they do move and so that's one question that I think Rick Nemeth wants to answer, is do they actually swim very far, because I don't think they stay in one place their whole life and I think they do actually swim around, maybe once they deplete an area.

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CARLOS FARCHETTE: Graciela.

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GRACIELA GARCIA-MOLINER: I just want to recap on the issues that we've dealt with here at the council. I mean this is the lionfish story and it's one that has taken over many of the meetings. There is also the seagrass invasion that actually started here in the Virgin Islands a couple of years ago.

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The runoff that Tony mentioned and the bleaching events also impact mostly shallow-water areas and so these are issues that have nothing to do with fishing itself, but that really impact both the habitat and the fisheries that you have in the area.

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That might not be noticeable right away, but if you are decreasing the juvenile habitat and therefore decreasing the juveniles of many commercially-important species, eventually, you know in lag time, you are going to have an impact on the larger spawners and larger adult fish.

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mentioning this because just we have had presentations at the council and we talked about ecosystem-based approaches yesterday and these are issues that are really, really important to take into consideration when you are dealing with managing fisheries that are really important and for which lot of miqht be lacking a information, because we information that's coming in is extremely limited, but I think that it's extremely valuable and very indicative of things that might be happening and will continue to happen and so just keeping track of everything that you heard here at the council that we need to include in the fishery management plans.

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CARLOS FARCHETTE: Okay. Bonnie.

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BONNIE PONWITH: Thanks very much for the presentation and I wondered if someone could forward that presentation to me, so I

can share it with my colleagues.

CARLOS FARCHETTE: Okay. Sorry, Reni, but I have to move forward and you can talk offline, if that's okay. Thank you very much and I think you should give a special permit for about twenty persons to go out to Grammanik and eliminate the lionfish.

MIGUEL ROLON: Actually, Mr. Chairman, that is one thing that we can bring for the next council meeting, is just look into the possibility, and, Graciela, please take note of any action that we can take to remove the lionfish in those waters, because if you have lionfish in the areas that you closed to protect the red hind and the darned thing is eating the red hind, you are doing nothing. We have the same problem in Puerto Rico.

JORGE GARCIA-SAIS: That's what I wanted to comment about, Miguel, is that I am looking at about 10,000 cubic meters of water every month.

CARLOS FARCHETTE: Okay. You can take the opportunity and we're going to go to Coral Habitat and Queen Snapper Ecosystem by Dr. Jorge Garcia-Sais. You can start your comment by what you --

MIGUEL ROLON: What Reni or Dr. Garcia is going to present today is only one part of a big project that he has been involved with and part of that project includes some projects, investigation projects, that he researched and that he has been doing under our grant and we will divide this project and today Dr. Garcia is going to address the issue of the snappers, deepwater snapper, and the habitat.

Then for the next meeting, I would like to invite Dr. Garcia again, so you can give us the full presentation of the project that you have been working on for the last several years. Now you can say whatever you want to say following Leslie.

CARLOS FARCHETTE: If you want to comment before you start.

CORAL REEF AND QUEEN SNAPPER ECOSYSTEM

JORGE GARCIA-SAIS: Thank you, Miguel. I just wanted to comment something about the lionfish. I have been working on ichthyoplankton analysis and looking at about 10,000 cubic meters of sea water on the outer shelf of the south coast of Puerto Rico every month now for about almost two years and I haven't seen one lionfish larvae, none, no lionfish larvae.

 I have not seen one in -- Well, now it's about let's say 150,000 cubic meters of water distributed monthly in the last two years and so I wonder whether that larvae either has a very particular offshore distribution, I mean off the shelf edge and completely oceanic, or that we are having recruitment problems for that species, which it will lead -- If that is true, it will lead to the consequence that lionfish will disappear eventually off the waters of Puerto Rico and the U.S. Virgin Islands, if that is the case.

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I mean unless we have any -- That's why I asked the question about recruitment and it was not for any other reason than that. We have not seen -- We just conducted our annual coral reef monitoring survey looking at -- This time, we looked at twenty-one reefs at different depths and regions in Puerto Rico, particularly on the west coast this time, and all we saw -- We are doing size distributions of commercially-important fishes along extended transects and we didn't see -- Just in one area, we saw two or three ten-centimeter lionfish and that was the smallest that we saw.

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All the other populations were comprised by big adult and topsized adult lionfish, which suggests that what remains of very strong recruitment at one point and that there is very little replenishment of that population taking place.

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I may be completely wrong and we may have a very strong recruitment year next year or two years later, but as of what is going on the last two years, in my opinion, there is very little recruitment of lionfish taking place, because the size distribution is strongly skewed towards the biq adult individuals.

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Reni, would you be able to -- Because we were MIGUEL ROLON: thinking of using your time and see if for the next meeting you can have a presentation, a full presentation, on the project have been working on, but probably you presentation, because I intend to talk to you and others about the -- One worry that the fishermen have been telling us around Puerto Rico and the Virgin Islands is that in many areas that traditionally used to be fished by them, where they found groupers and snappers -- In the case of the north coast of St. Croix, it's all lionfish and the juveniles of commerciallyimportant species have disappeared from any of the nursery We will invite you to come and give us a full presentation of your monitoring project and the lionfish.

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JORGE GARCIA-SAIS: Certainly and it will be my presentation for

a survey of Lang Bank and in our survey of Lang Bank, you know - I mean lionfish was one of the most prominent edible or commercially-important -- I mean if it can be regarded as that, a commercially-important fish in the area. In mesophotic areas, you know lionfish still is one of the main, in terms of density, fish species around.

My observation is that its size distribution is very strongly skewed towards big animals and there is very little small guys and then, combined with the fact that around ichthyoplankton samples, which has been a very dynamic research for me in the last couple of years, the fact that I have not seen any, not even one, lionfish larvae leads me to support my observations of very limited or no recruitment individuals in the reefs to the contention that this species might be having recruitment problems in Caribbean waters.

MIGUEL ROLON: Good.

CARLOS FARCHETTE: I have Blanchard, but I always felt that lionfish was going to destroy themselves and that's how I felt their elimination was going to happen.

TONY BLANCHARD: I've got a question for you, Reni. When you went into these places that you only find a couple of lionfish, did it have any other sea life there, any other fish?

JORGE GARCIA-SAIS: Any other what?

TONY BLANCHARD: Any other species of fish there in that area that you found?

JORGE GARCIA-SAIS: Let me see if I can remember. It was -- I can't remember now where it is that it was seen, that particular survey, because it was not me. I didn't see them and it was one of my team members that actually reported the ten-centimeter lionfish, which are the smallest that we've seen and it was a couple of guys and so a ten-centimeter fish, it's probably a young -- It's not really a post-recruitment fish and it's a juvenile, but it's still the smallest that we've seen and we used to see much smaller individuals on just about every reef that we were surveying at one point three or four or five years ago or maybe a little more.

Now, all you see is those big individuals and that's why I bring up the subject and make the comment, because, in my opinion, and the fact that I am not seeing them in the water, in my ichthyoplankton samples, it leads me to propose here that this

fish may be having problems reestablishing themselves on the reefs. Like Carlos said, the fish is killing or it's disappearing all by itself.

TONY BLANCHARD: I think -- You know in certain reefs, and I am pretty sure you as a scientist would notice that, there's nothing wrong with the reef and you have a healthy reef, but for some reason there is not a lot of fish that lives on that reef and so I think what is happening is when the lionfish move in and the food supply runs out, they move out. That's what I think is happening.

JORGE GARCIA-SAIS: It could be the carnivore and the factor that they are eating themselves too, but --

MIGUEL ROLON: Can we go back to your presentation?

JORGE GARCIA-SAIS: I don't know and that's another question and why is it, but I am just saying that I am seeing -- I am noting recruitment problems for that species and that's all I am saying for now. Let me move on, because I mean this is part of a very large presentation that I brought up for the U.S. Coral Reef Task Force last month and now I just want to just focus on -- Because in Puerto Rico, we have essentially three types of reefs, the shallow neritic reefs, the mesophotic reefs, and also we just discovered that we do have cold-water aphotic reefs and so it's this last type of reefs that I want to bring just a couple of slides, just to see that we are moving down.

When you see this kind of fish, it always kinds of impressed me that when you see this fish, which is the queen snapper, what you immediately -- At least I immediately perceive is wow, what a really nice reef fish.

I mean it doesn't look like a mesopelagic and it doesn't look like a highly-migratory fish and it doesn't look like a deepwater from an area and it just looks like a common reef fish. The only thing, the only detail, is that it's a fish that comes from a thousand feet and so what is supporting this kind of fish down there?

It's got to be some kind of benthic habitat that has enough productivity to sustain such a fish like this and so as part of the initiative by the Coral Reef Fishery Management Council, we went on to look at the benthic habitat of the queen snapper.

For the first time, we have some quantitative inference of what's down there and if you note, that's the only slide that I

have and so bear with me a little bit now and what you are seeing is a photo taken from an autonomous underwater vehicle and it's called a seabed AUV and that's taken at a depth of 280 meters and that's about nine-hundred-and-some feet.

That is taken in Mona Passage in an area that fishermen gave us some of the coordinates where they take big queen snapper and if you note, we got to this place almost by mistake, because we were supposed in the AUV to plan our dives in areas that were smooth bathymetry or smooth topography and not a lot of relief, because it's hard for the AUV to compensate and navigate in highly rugose areas, but we didn't have enough bathymetry information and we sent the AUV to this place and it got stuck in one of these ledges for seven minutes, but it came up with the best photographs of what we were actually looking for.

Look at all the black coral there is on the walls and this is evidently a ledge. All these are types of deepwater gorgonians and black coral and we have even some of the hard Scleractinian -- This is Scleractinian coral, but it's just that it doesn't have any scintilla and it's white.

If you look at the high degree of biological cover that even the bottom has, it was a surprise for us to see this kind of environment where all these deepwater snappers live and all of this -- This is a protected habitat and it works pretty much the same in shallow areas. It's protected habitat where small fish and invertebrates can use as refuge and that's where probably these deepwater snappers and groupers feed.

This is actually a baseline research initiative sponsored by a NOAA Coral Grant to the Caribbean Council and in characterization of deep-reef habitats in fishing grounds of the queen snapper and most of the research was done in Mona Passage.

 This study is actually the first quantitative assessment of aphotic reef habitats using AUVs and digital image analysis. These deep reefs are associated with the insular slope, volcanic seamounts, and ridges along the southern Puerto Rican fault, which is essentially the ridge that connects the western coast of Puerto Rico with Hispaniola and so these reefs are deeper than 150 meters.

 They are typically lower than twenty-degrees centigrade and aphotic. These are the prime habitats of deepwater snapper grouper assemblages, which is of major relevance for Puerto Rican fisheries, and also the fishing grounds for migratory pelagic fishes, which include marlin, mahi-mahi, tunas, mackerel

and wahoo.

Even though these are reefs that are aphotic actually, they are high-biodiversity habitats. Our previous research in this area essentially dates back to -- It dates back about a hundred years and it has a lot of collections that were done by ships with dredges dredging and it was for corals that are -- We have 129 species in the western Atlantic, of which eighty-five of them have been identified from Puerto Rico and the USVI, with the very limited research that has been done.

Most recently, I must include the work by the Johnson Sea Link that Appeldoorn and Nelson published in 1984 and that looked mostly at the insular slopes around Puerto Rico and some in Desecheo that also provide some inference of species composition in these areas, but no quantitative assessment had been done absolutely.

From a collection of more than 10,000 images of the sea floor at different stations in Mona Passage -- This is the southern Puerto Rican fault that I was talking about and it goes all the way to the Dominican Republic or Hispaniola, but there is a few areas that are of interest around this ridge and one of them is Bajo Pichincho, which is one of the hottest spots for blue marlin fishing in the world.

 It's also one of the areas where deepwater snapper and grouper fishermen from the west coast of Puerto Rico go to fish and we also have Bajo de Sico and this is Bajo Placeres and it's misnamed here, but Bajo Placeres, which is a place where we concentrated our observations in this work and so I want to come back to this.

These actually are the locations of our sampling stations in and out of -- The transects were typically about a half a kilometer long and so it was -- We were taking digital photos of the seafloor with three meters of separation from the bottom every three seconds, one photograph, and so there was plenty of photographs down here.

If you look at -- This corresponds to Bajo de Sico and Desecheo and Tourmaline, west of Tourmaline, and these two areas here on Bajo Placeres and then we had some stations in La Parguera.

I mean this table is much longer than this, but since I was going to focus mostly on corals and benthic stuff, because we don't have density estimates for invertebrates, which by our great surprise were much more higher than we ever expected,

particularly the -- I mean the sea stars and the sea urchins at these depths are pretty -- They have pretty dense distributions.

Most of our transects actually, since they were on purpose, run that AUV in areas of pretty flat topography and actually what we end up looking at are areas with a lot of sand deposits and so typically most of the runs have a lot of abiotic area. You see the 64 percent is abiotic and it's mostly sand, sand and bare rock in some areas.

Then look at the area -- I mean so if it's 64, that's about 36 percent was hard ground from our survey and from that hard ground of 36 percent, 11.47 had cover by ahermatipic corals, using the method of image analysis given by coral point count. Essentially 11.5 percent cover by ahermatipic corals and black corals were at 3.4 percent and there is some hydrocorals and octocorals to 0.4 percent and so essentially what it comes down to is 15.3 percent of the total area, or 42.5 percent of the hard bottom, by the entire coral assemblage.

That, by itself, pretty much comes right in the middle of the range of what we are calling coral reefs in our shallow-water surveys.

In terms of the management priorities and perspectives that we have regarding aphotic reefs, we need to expand our geographical exploration range and perform quantitative assessments of reef substrate cover by photo transect approaches and we need to engage in some kind of activities leading to specimen collections and we have at least our priorities include El Pichincho and West Placeres Bank in Mona Passage.

That is essentially what I have for here and just maybe I wanted to comment that I went with Graciela to these last couple of meetings in Tampa with deepwater corals sponsored by NOAA and that it is very possible that regarding -- I mean leading from these observations that Puerto Rico, or at least the U.S. Caribbean, gets very strong support from these deep-sea coral programs for further investigations in the U.S. Caribbean regarding deep reefs.

MIGUEL ROLON: Thank you, Reni.

GRACIELA GARCIA-MOLINER: So Jen Shultz from the Science Center put together this workshop in Tampa and the main -- It was a workshop on deepwater coral research and technology and so the idea was to get everyone from the southeast together and go through the inventory of what vessels are available to do

research in the area and to go through the priority matrix and the time when all of this can be carried out.

Basically, we put our foot in the door so that if the vessels are in this area, like the Pisces was just recently here, we are working in collaboration with the USGS, et cetera, and any time that we can find time to have the vessel here and do a little bit of the exploration of the deep water to have that into the calendar.

MIGUEL ROLON: Graciela, as much as possible, if you just make sure that we include the University of the Virgin Islands and other entities in the U.S. Virgin Islands, so it will be a U.S. Caribbean effort.

GRACIELA GARCIA-MOLINER: You took the words out of my mouth, because there was representation from the Virgin Islands and what we did is we went through the priority listing of the areas and, for example, MCD and Grammanik Bank were high up in the priority list, because of -- You know they have done research to about fifty or sixty meters and so we need to know what's beyond that point, because fishers say that fish go deeper than fifty meters.

We need bathymetry and we need habitat information and then we need the actual AUVs or the ROVs to show us what is down at those depths and so it was Pichincho and Bajo de Sico, MCD, and Grammanik Bank were among the top four places that were included in the priority list.

 JORGE GARCIA-SAIS: I just wanted to mention that I forgot to mention that these areas are the 800 to 1,200 feet contour, which we used as a general guideline to say that those are the queen snapper areas, because of the depth range, but you can see that there is much more -- I mean we can expand much more of that range if we consider that the depth distribution of queen snapper can go to 1,500 feet or 1,600 feet.

Every time that I talk to a fisherman, he tells me that they will go even deeper and still get big queen snapper and even deeper than 1,500 feet.

GRACIELA GARCIA-MOLINER: So a couple of things about these areas. These were coordinates provided by the commercial fishers specifically to look at high coral areas and high diversity in the fish species that they were harvesting or very productive within the parameters of allowing everyone to see where they are.

They are kind of in that area where the fishing gets done, but Genio and Nelson and Luis Roman have put a lot of effort into finding these areas and they have also provided information for the Oceanus when it was here earlier this year and for the Pisces to put cameras down and so they have been collaborating we have these explorations.

Luis Roman is the fisherman who shows up with the two queen snappers and we have also been able to track new species. Nelson just sent me a picture of something else that they are harvesting at depth and so we are trying to figure out exactly what it is. It looks like a mackerel and it tastes apparently like a mackerel and so we are keeping track of the diversity that they are finding at depth.

We have been -- There is one thing with NOAA. NOAA has a mesophotic group and policy or guidelines for fifty to a hundred-and-twenty-something meters and then the deepwater corals begin at fifty meters and all the way down and so sometimes they are called cold-water corals, but we are finding that we are probably at -- We are finding deepwater corals in a fairly shallow area compared to what most of the definitions are.

JORGE GARCIA-SAIS: Graciela, I wanted just to comment that at Bajo de Sico we have photographs of Orbicella franksi growing at 210 feet deep and so that is as far as light goes down and reaches down there and allowing Scleractinian coral growth. It was seventy meters, I remember, seventy-two or seventy-three meters. You do the math.

GRACIELA GARCIA-MOLINER: This is the other thing. This information needs to come up, because it's not part of the normal distribution of these reef forming shallow-water coral species.

MIGUEL ROLON: Thank you, Reni, for your presentation, but, again, I will be knocking on your door for the next meeting, because, Graciela, you and I have been talking about the full presentation of his report and if we keep moving towards ecosystem-based management, deepwater habitats are important for us to know what is happening out there and all of this information may be able to shed some light as to what are the future actions that the council can take to protect that area at the same time that we allow the sustainable fishery of the deepwater snapper grouper that we have in those areas. Thank you a lot.

CARLOS FARCHETTE: Thank you, Reni. We are moving to Enforcement Issues and Puerto Rico DNER.

MIGUEL ROLON: Mr. Chairman, before we go into that, I believe that Miguel has some news regarding the ABT and compatible regulations, if you can take both in one time.

ENFORCEMENT ISSUES PUERTO RICO DNER

MIGUEL GARCIA: Good afternoon. Going for the ABT, we have been talking about ABT, Abrir la Sierra, Bajo de Sico, and Tourmaline, for quite some time. The last meeting in Puerto Rico, there was some discussion and voting and for those regulations. I wasn't present at that meeting and some of my colleagues were.

We had then a short discussion with DNER and we went back to some of the points that we were discussing in early 2014 and most of the recommendations are going to be passed now to the Fisheries Advisory Board to be discussed and included in the revision of the regulations for fisheries in Puerto Rico for 2016 and we are going to be in compatibility about the seasonal closure for the three months for Tourmaline and the six-month closure for Bajo de Sico for sure and lobster -- We have lobster open all year in both areas and shooting is prohibited. We had some discussion about highly-migratory species all year-round and keeping the water column open and spearfishing is something that we would like to discuss a little bit more.

In summary, we are moving forward and looking to federal compatibility, particularly in relation to the seasonal closures for Bajo de Sico and Tourmaline. We were requested to submit all of this for Puerto Rico DNER to the council and are going to be working on that pretty soon.

Moving on to the report, we have a very short report this time with only sixty-four interventions. Most of them, almost all of them, were related to people fishing during the closure and so I won't go into detail, but another aspect is we only had one event of undersized lobster and one for queen conch, for queen conch fishing during the closure. There was one person with sixty-four individuals and another case of people, one person —There were four different events of people selling snook, which is totally illegal. That's my summary at this time.

CARLOS FARCHETTE: Thank you. Any questions for Miguel Garcia?

Velazquez.

CARLOS VELAZQUEZ: Miguel, the conch, in what area of Puerto Rico?

MIGUEL GARCIA: I will have to go back to the data and answer you in a minute, okay?

CARLOS FARCHETTE: Okay. Thank you. Next we have the U.S. Virgin Islands DPNR and Director Forbes.

U.S. VIRGIN ISLANDS DPNR

HOWARD FORBES: Good afternoon. The division of enforcement patrol offshore, outside the three-mile territorial waters of the Exclusive Economic Zone, EEZ, where federally-regulated species of fishing occur throughout the year, pelagic species, such as bay tuna, dolphins, swordfish, and many shark species from the hundred-foot fathom contour. are prevalent recreational and commercial fishermen often target species.

The 2014 joint enforcement agreement was modified with Amendment Number 1 to procure two Mercury outboard marine engines. These engines were purchased for the St. Croix District to outfit the twenty-seven-foot patrol vessel which has been inoperable for eleven months.

 In grant cycle 2014, the Department of Environmental Enforcement was continuously plagued with many challenges that are again impacting the ability to complete the target numbers of fishery inspections and vessel patrols in both districts. We were unable to bring non-operational patrol vessels online. As a result of the vessels being offline due to ongoing mechanical and funding issues, low performance numbers were recognized.

The Department of Environmental Enforcement identified and secured funding for the hiring of eight additional officers, four for each district. Identifying funds has been our biggest challenge, in addition to the lengthy vetting process for qualified personnel becoming enforcement officers.

We anticipate turning both the productivity and numbers around within the year in both districts. On the District of St. Thomas, we have received a new thirty-two-foot patrol vessel, which we will be used primarily for capturing long-range patrols for fisheries enforcement in the EEZ.

 We have also purchased two additional seventeen-foot Boston whalers outfitted for short-range patrols, one for each district, which should be received into our inventory by late December. With the acquisition of these new vessels, we will be able to capture data and meet our mandates.

Highlights from enforcement actions for grant cycle 2014, 231 fishing licenses were processed, 208 helpers' licenses processed, twenty-three fishing citations issued, thirteen fisheries cases filed, and 340 fishing licenses were inspected. There were a hundred fishing license violations and 297 contacts. 319 dockside boardings were conducted and 346 fishing boat inspections. That concludes my report.

CARLOS FARCHETTE: Thanks, Howard. Any questions for Howard Forbes? Hearing none, we will move to the U.S. Coast Guard.

U.S. COAST GUARD

TARA PREY: Thank you for the opportunity to speak. I work at the Coast Guard 7th District in Miami, Florida, in the Office of Enforcement. In my role, I oversee six sectors, including San Juan and the U.S. Virgin Islands, and I represent Admiral Buschman on both the South Atlantic and Caribbean Councils.

The Coast Guard's goal remains to provide effective and professional at-sea enforcement and advance national goals for conservation and management of living marine resources and their environment.

Across the District 7 area of responsibility, ranging from South Carolina all the way down to Puerto Rico and the U.S. Virgin Islands, we conducted 914 living marine resource boardings in fiscal year 2015 and we issued twelve significant violations and we did this despite limited resources and competing priorities.

The Coast Guard is decommissioning its 110-foot cutters and replacing them with new fast-response cutters that are 154 feet in length. Next month, the Coast Guard in San Juan will commission its third fast-response cutter and they are due to have six in San Juan.

In March of 2016, they will decommission the last of those two 110-foot cutters and so as you can see, we've been backfilling with cutters out of Miami and Key West to come assist in the missions that San Juan and the U.S. Virgin Islands have.

Like I mentioned, competing priorities, the Coast Guard has

eleven statutory mentions and in your region, specifically counterdrug and alien migrant interdiction operations often take precedence over the living marine resource mission. However, our aircrafts and cutters are trained in living marine resources and our aircraft, typically flying in the Mona Passage, will call certain things into the sector that are of interest and we are actively patrolling. We also rely heavily on our interagency partners and we appreciate their continued support.

Some concerns as we move forward into 2016 include the new mandatory dockside safety examinations for commercial fishing vessels. That came into effect on 15 October and so we've been seeing some issues and some backlog with that.

Also, new legislation has changed survival craft requirements and it's been really confusing for some of the commercial fishermen and so we're trying to work through that issue as well and, lastly, a new mandate coming online in March of 2016 is the AIS requirement for commercial fishing vessels sixty-five feet or greater and so that's a costly investment, ranging from \$700 to \$3,000. We are looking to work with the council and the fishermen on those issues and I will take questions.

CARLOS FARCHETTE: Director Gomez.

RUTH GOMEZ: Are there any plans in the near future, five years or ten years, to re-station a cutter back in Charlotte Amalie?

 TARA PREY: I am not aware of any plans at this time. Those six FRCs will be deployed throughout the region and we typically also deploy a major cutter, over 200 feet, to the region, but nothing to be permanently stationed here at this time.

RUTH GOMEZ: What number of personnel?

 TARA PREY: I don't believe that there are any plans to do that either. We are severely limited in the number of personnel in the region here in St. Thomas. We only have a small boat forces unit and San Juan is limited as well and then you have a lot of rotation and turnover, which hinders our training of our personnel and those qualified boarding officers to conduct the living marine resource mission.

CARLOS FARCHETTE: Thank you. Any further questions for the U.S. Coast Guard? Graciela.

GRACIELA GARCIA-MOLINER: Just a -- I mean we usually collaborate with the Coast Guard during their training of

officers here. Last year, we were only able to go to one of those trainings, but we will hope for continued collaboration. We have also talked about doing the training here in the Virgin Islands and, as in previous years, include DNER Rangers and the police officers, et cetera. That goes up and then it comes completely down and so we are continuously trying to get everyone on the same page.

TARA PREY: Just a comment on that. I believe Marcos Hanke has done coral training and anybody who does or is interested in setting up opportunities like that, we would definitely like to be involved.

CARLOS FARCHETTE: Thank you. Next we have National Marine Fisheries Service/NOAA and Len Rios.

NMFS/NOAA

JEFF RADONSKI: No, it will be me, Jeff Radonski, NOAA Office of Law Enforcement. One thing I would really like to report on, because I think it shows where we are kind of making a difference, is recently we had an individual here from St. Thomas convicted for the lethal take of an endangered green sea turtle.

The case was initiated on a stop by CPB, one of their patrol vessels, and the individual tried to avoid them or elude them and when they finally stopped the vessel, he threw over contents of a cooler that included a green sea turtle that had the carapace removed.

Working with our counterparts here in the Virgin Islands, the police department, we successfully prosecuted that case. It was forty-five days in jail that the individual got and five years of probation and especially here in the Caribbean, that's a significant mark for such a violation, getting forty-five days.

The judge did take into consideration that he eluded and did not initially cooperate with CPB and that he dumped evidence on them, but we are taking those types of violations seriously.

Other initiatives we're looking at is marine life sales and dealing with corals and other species and throughout the Southeast we're working on those issues, but also down here in the Caribbean. There is a huge aquarium trade where people are selling pieces and parts that they are collecting, little finfish and anything that will go into an aquarium, and we're seeing that throughout the Southeast and even on the west coast,

coming out of the Pacific Islands and areas over there.

 We're also looking at other initiatives down here. The closed area, we're also trying to respond to complaints that we have received. We recently had a complaint and it did not turn out in a case, but we still need to have that information and so anybody out there that has information, please contact us, our JEA partners, or the Coast Guard. Any questions?

CARLOS FARCHETTE: Any questions for National Marine Fisheries? Hearing none, thank you. Meetings Attended by Council Members and Staff.

MEETINGS ATTENDED BY COUNCIL MEMBERS AND STAFF

MIGUEL ROLON: I asked Graciela and most of the meetings that she attended have been covered one way or the other, but if you -- I was going to ask you if you have one specifically that you want to address?

GRACIELA GARCIA-MOLINER: There is one specific issue that I want to address and that was the Gulf and Caribbean Fisheries Institute this year recognized a well known, very productive commercial fisher from Puerto Rico at the annual meeting in Panama and so he was a presented with a certification of recognition at that and so that makes two fishers from the area that have been recognized by GCFI, Andy Maldonado, who was the first one, and now Pouco have been recognized.

MIGUEL ROLON: Did the former chair of the GCFI have anything to do with that?

GRACIELA GARCIA-MOLINER: No and actually, the former chair of the GCFI didn't have anything to do with that. I just finished my two-year chairmanship of the GCFI and passed it along to Nancy Brown-Patterson from the University of Mississippi and so we are trying to increase the participation of fishers at these meetings, because it's very important to have them come and share their experiences, and especially to recognize the hard work that they do in each of their countries.

CARLOS FARCHETTE: Thank you, Graciela. Meetings Attended, I did attend the ICCAT meeting in Malta. It was eight days and so what I will do is I will submit a written report to the council, because you don't want to hear eight days of meeting notes, but I can say that it was determined that the bluefin tuna has been rebuilt. However, bigeye and skipjack is heavily overfished and I think they are working on the quotas, but this is really New

Guinea and Algiers and all by Africa and stuff. I want to Malta representing five of the councils and I think that's it, but I will submit a written report to the council. Miguel.

MIGUEL GARCIA: I gave representation on the last American Fisheries Society meeting in Portland, Oregon. I didn't use council money and I used DNER money, but I went there and the presentation was about queen snapper and a special permit and the implications and it went very well. Thank you.

CARLOS FARCHETTE: Thank you, Miguel.

GRACIELA GARCIA-MOLINER: One more. We participated in the climate variability and fisheries workshop that was held in October in St. Petersburg, Florida. The presentation that we gave had to do with the concerns that commercial fishers specifically have on the environmental changes that have taken place, for example the sargassum that has invaded the Caribbean since 2009, and the impact that that might have on dissolved oxygen, et cetera.

We also talked about the sea level rise and fishermen are photographing the docks that they have in their areas, because they have noticed that even with -- That the sea level is rising more than they see it when it's on a very high tide mark and this is a concern, because most of these docks are made out of concrete and they will be flooded, et cetera.

It was just going over the issues that they see on their daily lives that need to be looked at if we are going to have changes in the fisheries and so there was a big, big discussion about whether it's climate change or it's climate variability that is impacting the fisheries locally and that was part of what hopefully will come out in the final report of that.

We used the data from CARICOOS and so we presented everything from shallow water to the deep reefs and the changes in the environment that might be impacting habitat and fisheries.

CARLOS FARCHETTE: Okay. Thank you. Diana.

DIANA MARTINO: Part of the collaboration program for the Outreach and Education Advisory Panel of the Caribbean Council, South Atlantic, and the Gulf and I am a member of the advisory panel for the South Atlantic Council and I participated at the advisory panel of the outreach and education committee there last October and we discussed everything that we are trying to do to improve outreach and education in our council. We

discussed about the MREP meetings we had and a few more things about each of the councils.

CARLOS FARCHETTE: Thank you, Diana. Miguel.

 MIGUEL ROLON: Before the final -- Does anybody want to say anything at this time? I just wanted to -- This is the end of the year and we have a lot of work in 2016, but I just wanted to thank the Regional Office staff and the Southeast Fisheries Science Center staff, particularly Bonnie and Roy, for allowing these people to work.

I want to also recognize our own staff, the girls at the office, especially Vivian. She has taken a lot of punishment during this meeting and she will continue. Vivian is an accountant as part of her trade, but she accepted to do this graciously and it has been very effective and she's a multitasking person and she takes pictures of you sleeping at the meeting at the same time that she drafts the proposals on the screen and everything.

I want to mention especially Bill Arnold. Bill is really one of the best people I have ever seen working for the Caribbean and somebody I consider my sister, Graciela. She works her ass off to make sure we put all of this together and she is my checker. She kicks me under the table all the time when I mess up and for that, I am very grateful. I don't know if this legal or not, but I wish all of you Happy Holidays during the next few days and I hope that next year we will repeat all the excellent work that all of these people are doing through 2015 and thank you very much for that.

CARLOS FARCHETTE: All right and there is no other business. The next council meeting is posted on the board there, on the screen. The DAP/SSC meetings, we resolved that yesterday or some members that were replaced or shifted over and I think that's all we have. We will adjourn this meeting and Happy Holidays to everybody and may Santa Clause bring you joy and happiness. Meeting adjourned.

(Whereupon, the meeting adjourned on December 16, 2015.)

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