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5	motion carried on page 70.
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7	PAGE 96: Motion to table the decision on the permits until the
8	appropriate time when we get the information needed for this
9	permit, Snapper Unit 2 (queen snapper and cardinal). The motion
10	carried on page 97.
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12	PAGE 105: Motion to develop an amendment for the Reef Fish FMP
13	to revise the trigger for applying AMs. The motion carried on
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16	PAGE 202: Motion to accept Todd Gedamke back on the SSC for
17	another term and to accept Ruth Gomez as part of the Outreach
18	and Education Committee for the council. The motion carried on
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1 CARIBBEAN FISHERY MANAGEMENT COUNCIL 158TH REGULAR COUNCIL MEETING 2 3 Marriott Frenchman's Reef 4 St. Thomas, USVI 5 6 DECEMBER 13-14, 2016 7 8 The Caribbean Fishery Management Council convened at the 9 Marriott Frenchman's Reef, St. Thomas, USVI, Tuesday morning, December 13, 2016, and was called to order at 9:00 o'clock a.m. 10 by Chairman Carlos Farchette. 11 12 13 CALL TO ORDER 14 15 CARLOS FARCHETTE: Good morning, everyone. It's 9:04 a.m. on December 13, 2016. It's the 158th Caribbean Council Meeting at 16 17 the Marriott Frenchmen's Reef, St. Thomas, U.S. Virgin Islands. I am going to start with a roll call on my left with Vivian. 18 19 20 VIVIAN RUIZ: Vivian Ruiz, council staff. 21 22 GARCIA-MOLINER: Graciela Garcia-Moliner, council GRACIELA 23 staff. 24 25 BILL ARNOLD: Bill Arnold, NOAA Fisheries, Southeast Regional 26 Office. 27 28 CARLOS VELAZQUEZ: Carlos Velazquez, council member, commercial 29 sector. 30 31 TONY BLANCHARD: Tony Blanchard, St. Thomas/St. John, council. 32 RUTH GOMEZ: Ruth Gomez, DPNR, St. Thomas. 33 34 35 RICARDO LOPEZ: Ricardo Lopez, Puerto Rico, Department of 36 Natural Resources. 37 38 MARCOS HANKE: Marcos Hanke, charter operator, Vice Chair, 39 Puerto Rico. 40 41 CARLOS FARCHETTE: Carlos Farchette, Council Chair. 42 MIGUEL ROLON: Miguel Rolon, council staff. 43 44 45 DIANA MARTINO: Diana Martino, council staff. 46 47 **ROY CRABTREE:** Roy Crabtree, NOAA Fisheries. 48

1 IRIS LOWERY: Iris Lowery, NOAA Office of General Counsel,

2 Southeast Section.

CLAY PORCH: Clay Porch, NOAA Fisheries, Southeast Fisheries 5 Science Center, sitting in for Bonnie Ponwith.

TARA PRAY: Lieutenant Tara Pray, U.S. Coast Guard.

8
9 KATE QUIGLEY: Kate Quigley, council staff.

11 HOWARD FORBES: Howard Forbes, DPNR Enforcement.

13 LYNN RIOS: Lynn Rios, NOAA Fisheries Enforcement.

JEFF RADONSKI: Jeff Radonski, NOAA Enforcement.

17 MARIA LOPEZ: Maria Lopez, NOAA Fisheries.

19 JACK MCGOVERN: Jack McGovern, NOAA Fisheries.

21 MARIA DE LOS A. IRIZARRY: María de los A. Irizarry, council 22 staff.

24 NELSON CRESPO: Nelson Crespo, DAP Chair, Puerto Rico.

ALIDA ORTIZ: Alida Ortiz, Outreach and Education Advisory Panel Chairperson.

29 RICHARD APPELDOORN: Richard Appeldoorn, SSC Chair.

31 EDWARD SCHUSTER: Edward Schuster, DAP Chair, St. Croix.

JULIAN MAGRAS: Julian Magras, DAP Chair, St. Thomas/St. John.

HELENA ANTOUN: Helena Antoun, contractor.

37 ERIN SCHNETTLER: Erin Schnettler, NOAA Fisheries.

39 YASMIN VELEZ: Yasmin Velez, Pew Charitable Trusts.

41 SARAH THOMAS: Sarah Thomas, University of the Virgin Islands.

43 ORIAN TZADIK: Orian Tzadik, Pew Charitable Trusts.

45 TERRY LEDEE: Terry Ledee, commercial fisherman.

JEFFERY ADKINS: Jeff Adkins, Office of NOAA's Chief Economist.

JENNIFER CUDNEY: Jennifer Cudney, Highly Migratory Species 2 Management Division, NOAA.

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ALEXA DAYTON: Alexa Dayton, Gulf of Maine Research Institute and Marine Resource Education Program.

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DEAN GREAUX: Dean Greaux, DAP member, commercial fisherman.

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9 CLAUDE BERRY: Good morning, everyone. My name is Claude Berry, and I'm a member of the DAP. 10

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TONY IAROCCI: Tony Iarocci, commercial fisherman.

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BRIAN MATIAS: Brian Matias, commercial fisherman, Puerto Rico.

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ADOPTION OF AGENDA

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CARLOS FARCHETTE: Okay. Thank you, everyone, and welcome. We have Adoption of the Agenda.

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Thank you, Mr. Chairman. With my ED Report, we MIGUEL ROLON: will have a presentation on the new guidelines for NS-1, and that will give you information as to what is the new guidelines for fishery management plans and so forth. We believe that you should hear about this presentation first, so that, when you go into the island-based FMPs and the discussion, we will have a better picture of what will be required from you.

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CARLOS FARCHETTE: Someone needs to adopt the agenda. Are there any other changes to the agenda? Hearing none.

30 31 32

TONY BLANCHARD: I am going to support the change by Miguel.

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Motion to adopt the agenda, Blanchard moves. CARLOS FARCHETTE: Somebody has to second.

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MARCO HANKE: Second.

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CARLOS FARCHETTE: All in favor say aye. All right. Moving on. Consideration of the 157th Council Meeting Verbatim Transcripts. Any corrections or additions to that transcription for the last meeting? That was held in Puerto Rico at the Vanderbilt Hotel.

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CONSIDERATION OF 157TH COUNCIL MEETING VERBATIM TRANSCRIPTIONS

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I have two corrections. One of the corrections RICARDO LOPEZ: is the name if Miguel Garcia. It should be "-- Garcia" instead of "Miquel Garcia". The next correction should be -- I think it was page 138, and I believe the other one is on page 112, and that's from my memory. It's that "Fisheries Research Lab" instead of "Fisheries Resource Lab".

CARLOS FARCHETTE: You did your homework. Thank you, Ricardo. Any other corrections or additions to the transcription? Hearing none, we need someone to move for the --

ROY CRABTREE: So moved.

MARCOS HANKE: Second.

CARLOS FARCHETTE: Okay. It's moved by Roy Crabtree to accept the verbatim minutes as corrected. It's seconded by Marcos Hanke. All in favor, say aye. All right. Executive Director's Report, Miguel Rolon.

EXECUTIVE DIRECTOR'S REPORT

MIGUEL ROLON: Thank you, Mr. Chairman. As I said before, we will have the presentation on NS-1 when I finish. The first thing that we have is that the budget for next year is, if you recall, we the eight councils asked for 10 percent, and we are getting 2.9 percent, but also we understand that there are some opportunities that will be discussed in February at the CCC meeting that may provide a little bit more funding for all the councils, but, in our case, we have made the adjustments to finish the year with enough money to carry forward to the next year, and we don't foresee any problems with our budget next year.

If we receive any funding, the eight councils, that will be distributed according to the percentage that was agreed on a long time ago, and so the council will receive money if that happens next year.

As you know, the new administration will be working on the budget. They are working on the budget as we speak, and so, so far, we don't have any official statement regarding how much the council will receive next year. Our budget is tied to the budget that is provided for the state commissions, and we both will be working to make sure that we have the notification of the budget on time for 2017.

 Also, during this meeting, we will have a presentation by Helena on the Facebook page. It is running. It's something that you approved some time ago, and that presentation will be tomorrow, but, so far, it's a success story with Facebook. We would like

to hear from you if you want to see it, please push "like", so we will know who is watching us on the internet.

I also have what I call Graciela's Dream and this is a little bit of the -- Graciela came to me one day with an idea to see if we could put together a map of everything that we have in this area of the U.S. Caribbean regarding studies made, where the fishers are, how much they catch, using the statistics, and we have been working on a project that is giving us that opportunity to have that information.

You will be able to have a map, and if you look at let's say Ponce, Puerto Rico, you will be able to see everything that we have on the books about Ponce regarding fisheries statistics. If you go to St. Thomas or St. Croix, and we will have the same information there. This information can be used by students or fishers, anybody who is interested in the field of fisheries in the U.S. Caribbean. Graciela, do you have an idea of the schedule of that project?

GRACIELA GARCIA-MOLINER: The project should be finished by mid next year and available to the public as soon as it is reviewed, but the good thing is that people will be able to download the geodatabase, but they just won't be able to change it and upload it again, and so that's something that won't be available, and it will be very visual, so everyone can have access to the information easily, and so mid-2017 to late 2017, but it shouldn't go further than December of 2017.

MIGUEL ROLON: So by December of next year, you will have a presentation to the council on the project and how to access the information.

GRACIELA GARCIA-MOLINER: Yes, and we have a few slides, if you want to see it.

MIGUEL ROLON: Okay.

GRACIELA GARCIA-MOLINER: Basically, we started with the landings data for Puerto Rico, and this is through the Coral Reef Conservation Program grant to the council. The idea is to get all the information that we have on fisheries based to the highest level that we have.

 What you are seeing on the screen right now is the map of Puerto Rico, and you have all the towns that are around the coast. Every circle is a representation of the landing site, and so there will be a historical information on all the landings that

have been reported for Puerto Rico and the Virgin Islands through time.

They will be color-coded, and so this is specifically for lobster for 1983, and Cabo Rojo, which showed the highest landings at the time, but you also have three or four other towns with the darker color that have also higher landings for that year.

One thing that I want you to notice right away is that you can go year-by-year or you can go decade-by-decade, but the point of this is that one of the things to notice is that, for 1984, Cabo Rojo still had the highest landings of lobster, and this is just an example, but Lajas, which is the top third town landing lobsters, over 30,000 pounds per year, in 1984, it had no landings reported for lobster.

That does not have anything to do with fisheries, per se. It has to do with the fact that, in 1984, a marine sanctuary was proposed for the area of La Parguera and Cabo Rojo. Therefore, the reporting just disappeared. It was a protest against the government. You, right away, lose 30,000 pounds from your total landings for that year.

 Then, if you can turn off 1984 and go to 1985, it is starting to come back, but it took about five or seven years for the same amount of landings that were reported back in 1983 to come back to the reports. Now, that information is not available, and so it's been lost, unless the fishers from the area have kept the logs from way back when, but, if that's not the case, then you have to account for four or five or six years without any landings.

The idea is this is being done through the geographic mapping technology office in Puerto Rico. They are the representative of ArcGIS, and quite a number of students from the University of Puerto Rico Río Piedras were interns doing this project. The idea is that, once you have the information of the landings in a historical database, you also have the habitat information that we have from NOS and from other sources.

The idea is that, even if you don't have a direct association between the species that are harvested in that area and the habitat, at least you will have a radius based on the horsepower of the boats at the time, et cetera, that you can use to determine where your species are coming from, because if you are landing, for example, goatfish and there are no seagrasses, fishes are coming from -- Those fish are coming from somewhere

1 else.

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3 That is one of the reasons why we wanted to do that. 4 also available as a prototype for deepwater snappers, and so we are working on that, because that's a very interesting fishery. 5 In 1983 to 1984, there is basically no queen snapper being 6 When we move into 1987 and 1988, you landed in Puerto Rico. 7 8 start seeing the landings being reported for the island. 9 project is going very well. We are assessing the information that is being collected. That goes then to Miami and back to 10 11 being able to do something like this.

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MIGUEL ROLON: Graciela, on the schedule, when are we going to cover the U.S. Virgin Islands?

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GRACIELA GARCIA-MOLINER: are dealing with Puerto Rico We because it had a longer and more complex database. It has more species being reported over a longer period of time. more landing sites than the Virgin Islands. As soon as we are done with the assessment of the data for Puerto Rico, then we will move to the Virgin Islands, but those are mostly reported, except for very few species, as family groups, but we will be doing the exact same exercise of assessing the data, cleaning it up. By cleaning it up, it means that they go record-by-record, cell-by-cell, making sure that what is not a viable number, viable information, doesn't go into the reports, into changing the map.

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29 **MIGUEL ROLON:** But that will be included in the 2017 or that 30 will be in --

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GRACIELA GARCIA-MOLINER: Yes.

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MIGUEL ROLON: So, by December, we will have Puerto Rico and the Virgin Islands?

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GRACIELA GARCIA-MOLINER: That is the plan.

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MIGUEL ROLON: Okay. Probably you will have to knock on the doors of Ruth's office and get more information, so we make sure that we have the right information.

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GRACIELA GARCIA-MOLINER: Yes, and we are working with the Science Center and getting the information that they sent over to the Science Center and back. We are going -- Right now, we are going through the process of getting the last four or so years, because it changed dramatically in 2010, the way that landings were reported and were processed.

One of the other things that we're doing is that we're going through the historical landings sites, and so they might not show up in 2014 and 2015, but they will be there for you to determine what happened to that fishing center, to that landing site, et cetera.

 The other thing is that, if you touch in any one of them, it will give you the information of that landing site. It will tell you how much of the species is being landed and the gear that was used to actually land the fish, and you can already see some changes in the way that lobster was fished before, using fish traps or lobster pots, and it will make that difference between the two, to the diving that is taking place these days.

MIGUEL ROLON: That will be available on the webpage?

GRACIELA GARCIA-MOLINER: This will be available through a website like that, so that everyone will have access. There will be instructions on how to get there, but then you will be able to get access to all of that information. You can download it to your computer and use it if you are a student or you're a scientist or if you're a fisherman and you want to see what happened in your fishing association over every decade since we have data. You will be able to do that.

In addition to that, whatever information we have on habitat, and we are concentrating on the near-shore habitats. Those are the maps that we have available from NOS, and the council had also worked on datamining, and so there are many maps that were -- Well, not many. A few maps that were on paper and are already available in digital format through one of the council websites, and so you can see the changes in the habitat alongside the changes in whatever was being landed around the islands. That information will also be available. We will have the demographics on any fishing census that was conducted, changes in the horsepower of the vessels that were used, et cetera.

 The last thing is that you will have information on the mesophotic reefs, everything that has been surveyed in the EEZ. You will be able to -- It's the same thing that you do for the fishing villages. Touching that area, you will be able to see the pictures of what habitat is in that area.

 MIGUEL ROLON: Thank you, Graciela, and we wanted to give you this update, because probably this is one of the most useful tools that we will have in the near future. Also, there will be

some consideration, because you need to maintain this. As the information keeps coming from the different projects, the different agencies, we have to update this information, and so it will require some money, some warm bodies, behind the computer.

We envision that this is probably one of the best contributions the council can make at this time to spread out the information that we have that can be useful for anybody who is interested in the fisheries. Like I said, we are all part now of Graciela's dream. Thank you, Graciela.

GRACIELA GARCIA-MOLINER: Can I say something? It's not really my dream. I mean, I think that we have received all of this information, and we have used it in many other ways, but I think that a visual presentation of what the history of fishing has been for the data that we've received from the fishermen, and this is just a little bit of -- We would like you to see what you have contributed over the period of time and how that has changed. I think that will, in the end, make a big difference in terms of the way we look at fisheries, and the island-based FMPs are just going to be prime to use this kind of information.

MIGUEL ROLON: It's still your dream. It's not a nightmare. The other thing is that I have to make a --

CARLOS FARCHETTE: Hold on one minute. Marcos.

 MARCOS HANKE: Graciela, during the period of time that you described, there is information about the gear type used on that fishery and if there is any change in those gears and bycatch information during that period of time?

GRACIELA GARCIA-MOLINER: All of the information that has been provided, all the baitfish that were landed and all the bycatch, every single species that has ever been reported, it's going to be there. Now, that information, graphically, it's going to be a mess if you are going to plot one pound of fish somewhere, and so we are working on criteria for showing the top species that were landed in each fishing village.

I mean, we're talking about seventy-eight or eighty-something sites around Puerto Rico, et cetera. You will see the changes in the gear for the main species that were landed, and so from traps to diving, for example, that will show up there, and you will be able to download all the information and then look at that one specific species that you want to look at, if it didn't make it, but, if you look at some of the landings sites, you

will see that they are responsible for 90 percent of the baitfish landed in Puerto Rico, and that will show up automatically.

MIGUEL ROLON: But the project won't be finished until December, and so we have to wait. I would like to hold the discussion of this until we have the information, because we have a lot of other things here, and you can talk to Graciela and also, if you have any ideas of how to improve this, please talk to her during these two days.

I have also two other announcements. Diana came up with this idea of during the -- We have a Seafood Sustainability Campaign, and Dr. Alida Ortiz will inform you about it tomorrow, and she has informed the council several times about the progress of this campaign.

Diana had this idea of copying what they did in the U.S. Virgin Islands a few weeks ago. They had the Seafood Festival, and it was a success story, and we will try to do the same thing in Puerto Rico, taking note from the Fish Fry at the National Marine Fisheries Service in Silver Spring that is conducted every year, and there is interest by many groups in Puerto Rico to participate.

What we would like to do is to promote the use of underutilized species, like Cedric, one of the members of the DAP in Puerto Rico, has been promoting, and also to inform the public that, by using sustainable species for seafood, you will be helping the fishers that depend on that fishery.

Actually, we have a little film where one of the stars is Carlos in Naguabo, and they show the importance of involving the public with the fishers and involving the public in a way that they are aware and they understand the issues, so they can be more effective when they order seafood for their home or at the restaurants. That will take place probably in 2017. Diana is going to put together a group that will be sort of a steering committee, and those people are experts on seafood.

We also will have Sea Grant, specifically Jeannette Ramos. She has been conducting meetings all around Puerto Rico, very effectively, on the use of the lionfish. The lionfish, as you know, have been invading Puerto Rico and the U.S. Virgin Islands, or actually the whole Caribbean, since Andrew. Now, that fish is \$4.50 a pound, and so it's being used, and Jeannette Ramos has been instrumental in that, in increasing the use of the lionfish, because she goes all around the island with

a presentation. She goes to universities.

Diana and I went to a presentation that she made at the UPR Puerto Rico Carolina Campus, and they have all kinds of people there, but they have an interesting curriculum, where they mix film with music and culinary aspects of Puerto Rico culture, and they provide the preparation of lionfish different ways, and it was a success story.

The last thing is that we will have the -- There are two things. In March, the three District Advisory Panels will meet, and that's something that Alida Ortiz suggested some time ago. We will be meeting in March at the Verdanza Hotel, and we will invite the fifteen members of each panel to attend. Actually, there are not fifteen, because there are twelve, and some of them are repetitive.

We have two NGOs and one government official, and so they will be in Puerto Rico to have a presentation of the different aspects of the Magnuson Act, refresh their memories, and also we will discuss issues that are relevant to the council that needs the support or concurrence or the opinion of the three District Advisory Panels, and we hope that the meeting will be attended by as many as possible.

Tonight, at 7:30, the fishermen -- There are some fishermen in Puerto Rico who were really concerned about the spiny lobster ACL. They believe that if we adopt the idea that was brought to us by Tony Iarocci to reexamine what they did in the Gulf, the same way they did in the Gulf and the South Atlantic, and they are examining the statistics that we collect for spiny lobster, that we might be able to have a better understanding of the lobster fishery and maybe increase the participation of the fishers that supply the information of landings of spiny lobster.

 That meeting will take place right here. It was by invitation, but it's a council meeting, and so anybody from the public is invited to participate, and we will be discussing exclusively the data on spiny lobster from Puerto Rico at this time. Now, Mr. Chairman, we have the presentation on the National Standard 1. Ricardo, did you have a --

 RICARDO LOPEZ: The Nature Conservancy has a proposal, is working on a proposal, just to work on the idea of having these sustainable seafood sources and helping the different restaurants and fishermen to work in that way, and so I guess that, in your timeline, this 2017, we should be working with

1 that very soon.

CARLOS FARCHETTE: TNC is who organized and led the St. Croix Fish Fry.

RICARDO LOPEZ: Yes, and the committee that Diana is working on, we should have them, I guess.

CARLOS FARCHETTE: Marcos.

MARCOS HANKE: I just want to bring up the point that Tommy Forte is somebody that should be included in those efforts, because of his experience with the fishery and different sources of seafood and so on. I spoke to him, in many cases, about it, and I am also available, because I have some experience with that, on any effort. That is something that I think is very, very important.

MIGUEL ROLON: Also, Mr. Chairman, if I may, Helena is going to contact some of the fishermen's associations around Puerto Rico. Some of the fishermen's association directors have expressed interest in participating in something like this. That way, they can promote the fish that they sell in each one of the areas, and what we have tried to do is to see if we can provide the public with all the different flavors and all the different species that we have in each one of the areas.

It's kind of funny. The island is small, but, when you go to the west coast, the fish that are preferred in Cabo Rojo are not necessarily the same that are preferred in Fajardo, and that will be included, and now that Ricardo has said something, part of tonight's presentation, Ricardo, or the discussion is that we would like to hear from you tonight, or whenever possible tomorrow, is an update on the electronic reporting system that the Department of Natural Resources is working on.

We know that the budget has been approved and TNC, I guess, is the one who will be working on that, and so we would like to hear from you on what is the news regarding the electronic reporting.

RICARDO LOPEZ: Of course.

CARLOS FARCHETTE: Okay. Good idea, Marcos, to bring Tommy 45 Forte in. Maybe we can have some tuna tartar from his longliners at the fish fry.

MARCOS HANKE: I want to make just one little comment. Right

now, in Fajardo, there is a restaurant using the blue runners and developing recipes and everything for the use of that fish. This is just one example, and they are doing an excellent job with it, of a fish that is underutilized in our area that could be introduced to the market.

RICARDO LOPEZ: Marcos, what is the name of the restaurant in Fajardo?

MARCOS HANKE: Varadero.

RICARDO LOPEZ: Just blue runners and mahi and tunas?

 MARCOS HANKE: Just as an example of one fish that is underutilized, but now, with different recipes, because of the creative cuisine and so on, that opened the opportunity for many other species to be included, and this fish is being included on the menu.

CARLOS FARCHETTE: All right. Moving on to NS-1, we have Erin

PRESENTATION ON NATIONAL STANDARD 1 GUIDELINE REVISIONS

ERIN SCHNETTLER: Thank you all for having me. I am, again, Erin Schnettler. I'm a fishery management specialist. I work at NOAA Fisheries Headquarters in Silver Spring, Maryland, and I am here today to give a short presentation on the new National Standard 1 Guidelines.

We released the new final guidelines in mid-October of this year, and this effort has actually been underway for about four years now, and so we are excited to have finally finished this stage of the rulemaking. The guidelines are final, and we are ready to start implementing some of the provisions, as appropriate.

 This is a quick outline of the presentation that I will give today. I'm going to give a quick background and refresher on National Standard 1, how it fits into the Magnuson Act, review some of the reasons why we're revising the guidelines at this stage, and then really the bulk of the presentation will be on some of the major features of the final rule, particularly as they pertain to this council, and hopefully we will wrap up and leave time for questions.

46 National Standard 1 is written in the Magnuson Act as the first 47 National Standard of ten, and it establishes the requirement 48 that all federal fisheries management measures prevent overfishing and achieve optimum yield, and optimum yield is that goal of balancing economic and conservation needs to achieve the greatest benefit to the nation.

optimum yield and preventing overfishing Achieving exactly easy or straightforward requirements. Because of that, we need to put together guidelines for how to actually go about preventing overfishing and achieving optimum yield, and that's what the National Standard 1 Guidelines are all about. They are kind of a nuts-and-bolts framework for how to qo about preventing overfishing and achieving optimum yield from a national policy perspective.

Achieving the two requirements of National Standard 1, preventing overfishing and achieving optimum yield, is a critical component to the Magnuson Act success, and, over the past forty years -- The Magnuson Act was introduced in 1976, and so this the fortieth anniversary year of the Magnuson Act, and we have seen some pretty substantial successes on both the conservation and economic side of fisheries management.

As you can see from this infographic here, in the red box, it highlights some of the conservation successes that we've seen over the past forty years. Currently, 91 percent of federally-managed stocks are not subject to overfishing. 84 percent of stocks are not on the overfished list. Actually, as of this fall, we have rebuilt over forty stocks since 2000. On the other side of the coin, in the green box here, we also have seen some economic successes.

In 2014, the recreational and commercial fishing industry generated over \$214 billion in sales and supports over 1.8 million jobs, and so we're seeing both conservation and economic successes as a result of the management system that the Magnuson Act has put into place.

However, we know that some of the conservation requirements that the Magnuson Act requires have real economic impacts, and particularly as a result of the last reauthorization, and so, as we have been crafting our management system over the past few years, we have realized that there are some tweaks that we could make to the system to make it a bit more efficient and work for everyone.

That kind of brings us to why we're revising the National Standard 1 Guidelines at this stage. It all kind of starts with the 2007 Magnuson Act reauthorization, which, of course, introduced annual catch limits, which are required to prevent

overfishing every year, and the associated accountability measures, which are designed to mitigate any impacts of going over your annual catch limit.

ACLs and AMs were a transformative system that was introduced into U.S. federal fisheries management. It was transformative in a lot of ways. It was transformative in terms of the fact that, once we started using ACLs, we started to see fisheries that had struggled to end overfishing and prevent overfishing start to succeed in that avenue, but it was also transformative from an administrative and process standpoint.

It was a big burden to shift from whatever management system that was previously being used to the ACL framework, and so that was a big lift for a lot of councils and a lot of managers. As we went about implementing ACLs and AMs, we started to identify areas in that ACL framework where we could tweak and improve the system to make it more efficient, and that brings us to where we are today, the 2016 revisions to the National Standard 1 Guidelines.

The three objectives of these revisions were, one, just, in general, to improve and streamline the guidelines. We wanted to make sure that we were using consistent terminology, that we were removing duplicative guidance, and, just, in general, making it more user-friendly.

The second objective is, as I was mentioning, is making sure we're addressing some of the experiences implementing ACLs and AMs. Then the third objective is kind of in association with that second objective, in terms of -- It is really getting at making sure that we know that the Magnuson Act is flexible, in terms of the ACLs and AMs, and making sure that the guidelines are highlighting those flexibilities and making that we're utilizing the fullest extent sure flexibilities available in the Magnuson Act.

 The other thing I will mention at this stage is that the last time that we revised the guidelines, in 2009, we were implementing the ACL requirements that were introduced in 2007 in the Magnuson Act reauthorization. What happened with those 2009 revisions to the guidelines was that we were implementing requirements that all the councils had to make to their FMPs. We had to amend FMPs to introduce ACLs.

 This time around, in 2016, the revisions to the guidelines are not requirements. They do not require councils to make any changes to their FMPs. The things that I will talk about today

are simply optional tools available for managers if it will improve their management system.

These are the five categories of major features that we'll talk about today as part of the final National Standard 1 Guidelines that were finalized. I will say that the revisions to the guidelines -- The guidelines, if you have taken a look at them, it's a pretty long document, and the revisions that we made were broad-sweeping. They covered a lot of ground.

I have highlighted some categories that received a lot of public attention and may be of interest to this council in particular. However, the revisions are not limited to what we will talk about today. If you have any questions about other parts of the revisions or other aspects of National Standard 1 in general, I would be happy to take questions now or offline, or you can always send me an email.

The first category of features of the final rule that we'll talk about is a new framework we put together for determining whether a stock requires federal management. What this framework is really addressing is the Magnuson Act requires that fish stocks that require conservation and management require federal management. When we say federal management, we mean that the stock needs to be put into an FMP and managed using ACLs and AMs.

If a stock requires conservation and management, it's automatically put into that FMP and ACL and AM category. What we realized is that there was not a straightforward way to determine whether a stock requires conservation and management within the old guidelines, and we wanted to make this decision process a little bit more clear and straightforward.

The new guidelines have a framework that is summarized in this decision tree here on the screen that helps managers answer the question, which is at the top of the tree, of does a fish stock require conservation and management.

To briefly summarize this framework, if you look on -- If you answer the first question, which is, is the stock subject to overfishing or overfished or approaching one of those conditions, if the answer to that question is yes, and the stock is predominantly caught in federal waters, the guidelines are pretty clear that those types of stocks require conservation and management. They require federal management.

If you don't find yourself in that first bin of stocks, or that

first category, then you look on the other side of this decision tree, and you will be in that blue box that says, based on the ten guideline factors and any other relevant factors, is conservation and management necessary?

What that means is that, in the guidelines, there is a list of ten factors that you will compare your fish stock that you're analyzing against and ask yourself, based on these ten factors, does it require conservation and management?

What do I mean by these ten factors? These are the list of factors that are in the guidelines themselves. They range from the first couple of factors address the stock's ecological role in the ecosystem. The middle factors address the stock's role in the industry and its economic purpose, and then the final factor, Factor Number 10, addresses the relationship between the federal management system and the state management system and making kind of that analysis. This is a summary of the new framework that we put into place for how to answer the question of does this stock need federal management.

The second feature of the guidelines that we'll talk about is some of the provisions that we put into place to improve or add new tools to the toolbox of managing data-limited stocks. The stocks that are data-limited, one of the major challenges of those stocks can be setting your status determination criteria, and what that means is that, usually, when you set a status determination criteria to determine whether that stock is subject to overfishing or overfished, you need to start with an estimate of that stock's maximum sustainable yield, or at least a proxy of that stock's MSY.

If data is not available to make such an estimate, we wanted to clarify, in these new, final guidelines, that you can use alternative approaches to setting your status determination criteria for overfishing and overfished. Some of those alternative approaches can include recent average catch, density estimates based on visual census surveys, things along those lines.

We wanted to give more flexibility in terms of the approaches used to establish status determination criteria, but we also want to make clear that the Magnuson Act is clear that all federal fish stocks still require the reference points that we've been talking about, which include all of your annual catch limits and your ABC, your OY, things along those lines, and so we included some more flexibility in terms of establishing your SDCs and those related reference points, but those reference

points are still required.

Along the lines of data-limited stocks, the other provision that we emphasized in the guidelines is further clarification of how stock complexes can be organized. In particular, historically, what has happened with stock complexes is that they're generally used to aggregate a multitude of data-limited stocks.

When one of those stocks is assessed, that stock is typically removed from the complex and managed on its own, leaving all of the other data-limited stocks still in the complex, and so that doesn't exactly improve the management of the other data-limited stocks that are still left in that complex. It improves the management of the assessed stock, but it doesn't improve the management of the other stocks that are left.

We emphasized that when a stock that is currently in a complex is assessed, that stock can become an indicator stock, and that stock can inform the management of the rest of the stock complex by representing the ACLs for the entire complex.

The final provision that I will talk about with regards to datalimited stocks are some of the provisions that can advance ecosystem-based management in the context of data-limited stocks, and so we described in the guidelines a provision known as aggregate MSY, and so aggregate maximum sustainable yield.

For a data-limited fishery, an estimate of your aggregate maximum sustainable yield for a stock complex can be made, and, based on that, you can estimate your OY for that stock. From that OY, if you have an indicator stock, you can base your ACL on that indicator stock, and, using those two tools, you can kind of simplify the reference points that you're using to manage that stock complex.

The third feature of the final rule that we'll talk about is some provisions that we put into the guidelines to increase some flexibility in rebuilding plans. Traditionally, the Magnuson Act is pretty clear that stocks that are overfished need to be rebuilt in as soon a time as possible.

Where possible, the Magnuson Act also says that those stocks should be rebuilt in ten years. As I'm sure you know, there's a lot of stocks that have a long life history and other characteristics, their biomass may be particularly low, and the stock cannot be rebuilt in ten years.

For stocks in those types of situations, we need to calculate

the maximum time in which that stock can be rebuilt. In the previous guidelines, the 2009 guidelines, we only specified one type of calculation method to calculate your maximum time to rebuild, or your Tmax, and that calculation method was Tmin plus one generation time. Tmin means the time in which a stock can be rebuilt if the fishery is completely closed, with no fishing.

The problem we run into with the original status quo calculation method is that, for certain fisheries, calculating generation time, if you don't have certain parameters, can be relatively difficult, and, if you don't have a lot of data on this stock, calculating generation time can yield highly-conservative or exaggerated values, and it can lead to difficulty in actually getting an accurate estimate of your Tmax.

What we put in the final guidelines is two additional calculation methods to give councils and their SSCs more flexibility to choose a calculation method that best fits the available data for that stock, so that you have the most accurate estimate of your maximum time to rebuild.

The fourth category of the final rule that we'll talk about is some provisions that we included in the guidelines to increase stability to fisheries. The first provision under this increasing stability to fisheries category is a provision that will help fisheries phase-in changes to their catch levels.

What this is referring to is, historically, what has happened is, when managers get a new piece of information about a stock, either a stock assessment or new data, that shows that the catch levels for that fishery need to be either reduced or increased, managers typically make those changes to the catch levels that the assessment says that they should in lockstep with the assessment results. You get your results and you make all the changes all at once.

If the fishery and the industry is not expecting those types of changes, that can have negative impacts on the industry, especially if you're not planning for it, and so what we did in the guidelines is describe what we're calling a phase-in ABC control rule that allows councils to establish a policy and a formula for gradually phasing-in changes to your ABC and your ACL, and so this is kind of graphically represented on this infographic.

The key with this phase-in ABC control rule that we are describing is that, one, the phase-in has to occur within three years and, two, overfishing always has to be prevented. This

still does not change the Magnuson Act requirement that your ACLs must prevent overfishing, and so, if you have a situation where you get new data that shows that the stock is subject to overfishing and you need to reduce your catch levels, your reduction, if you're using a phase-in, would have to make all the reductions needed to end overfishing in the first year. Then, if there were additional reductions that need to be made, those could be phased-in over three years.

If you get new information that indicates that your stock is subject to overfishing, it's over that OFL line, the Magnuson Act is clear that your annual catch limit has to be set in the next year to make sure that you're under that OFL line, and so you have to set your ACL either equal to or less than your OFL in that first year. Then, if your ABC control rule, or the council's policy is to reduce the ACL even further, to be precautionary, you could phase-in those further changes over the next two years.

CARLOS FARCHETTE: But that's for subject to overfishing and not if it's overfished already. Then you don't have that phase-in change?

ERIN SCHNETTLER: If you get a stock assessment that shows that it's both subject to overfishing and overfished, what I just described to Marcos would be the same situation. If you were just overfished, you would be in a different category.

Then the second provision that we described in the guidelines to increase stability to fisheries is what we're calling a carryover of unused quota into the next year, and this is another type of new ABC control rule that we're calling a carryover ABC control rule.

There are many different types of doing carryover, and carryover is not exactly new to federal fisheries management, but this is really explicitly clarifying a type of carryover, and so, traditionally, what we mean by carryover is, if a fishery does not catch its entire quota in one year, you can carry over a portion of that unused catch into the next year, to reduce incentives to go out and fish in unsafe conditions or try to fish up until the very last second and catch every last fish, because you're in a use-it-or-lose-it type of situation.

Carryover is designed to reduce those types of incentives, and we had a court case that clarified that, when you're doing carryover, you cannot carry over an amount of your annual catch limit that exceeds your previously specified ABC, and so what an

ABC control rule would allow you to do is, if you were in a situation where you would want to carry over an amount that exceeds your previously specified ABC, you could have a preestablished carryover ABC control rule that would calculate the estimated increase in abundance that your stock has had, based on underharvest, in the next year and raise your ABC based on that calculated increased abundance.

That kind of allows you that flexibility to still carry over if you know that you're underharvesting your fishery. Then the key with this provision as well, similar to the phase-in provision, is that you still have to make sure that you're preventing overfishing.

We also got a lot of public comment on this provision, and we wanted to make sure that managers were clear on really the intent behind this provision. We included language in the final guidelines that clarifies that stocks that are in rebuilding plans, those stocks -- The Magnuson Act is pretty clear that the overriding goal of those stocks is to rebuild in as short a time as possible, and so it may not be appropriate to use a carryover for stocks that are in a rebuilding plan.

We also wanted to be clear that the reason behind why you are experiencing an ACL underage is a key component of using a carryover, and so, for instance, if you are experiencing an underage because you closed the fishery too early, you thought that you were in danger of exceeding your ACL and you closed the fishery down and then all the data comes in and you actually didn't exceed your ACL, and so you have an underage, that's a perfect example of situations where you would want to use a carryover.

On the other hand, if you're in a situation where the fishery is fishing the whole year and it's just not catching its ACL, that may indicate that the stock is in poorer condition than we think, and that may not be a situation in which you want to use a carryover, if you're utilizing the precautionary approach.

The final feature of the guidelines that we'll talk about is a quick refresher on some of the provisions that we included in the guidelines to try to clarify optimum yield. Optimum yield is a relatively nebulous topic.

 Formally, it is defined as a long-term average that yields the greatest benefit to the nation, and so calculating and determining and specifying optimum yield, particularly when we have this existing ACL framework, can be unclear.

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One of the things we tried to address in the guidelines, and in the final guidelines, is the relationship between optimum yield and annual catch limits, and so we have a new paragraph in the ACL section of the guidelines that describes the relationship between OY and ACL and the fact that OY is a long-term average.

 Annual catch limits are an annual limit, and so they're not exactly comparable, but there can be a way in which you calculate annualized expression of your optimum yield that is an annual value that can be compared to your annual catch limit, and so you can see where your annual catch limit falls in comparison to your OY by using that annualized expression tool.

The other provision that we put in the guidelines to clarify OY is just a statement that we wanted to acknowledge that, generally, when you're specifying OY, you start with your maximum sustainable yield and then you reduce your maximum sustainable yield based on the specific ecological, economic, and social factors of that fishery.

Particularly with economic and social factors, getting quantitative data to actually determine how much you should reduce your maximum sustainable yield to get your OY is very tricky, and so we wanted to clarify that, when you don't have quantitative data for your ecological, economic, or social factors, you can describe OY qualitatively, based on the best available science, of course.

That wraps up the features of the final rule that I wanted to talk about today. I will conclude by saying, again, that these are optional tools available t managers. They are designed to give additional flexibility and also increase stability to fisheries. They don't establish any new requirements to revise your FMPs, but we are looking forward to helping and supporting implementation of any of the features that I talked about today or any of the other ones that are in the guidelines, and so I would be happy to take any questions. Thank you.

CARLOS FARCHETTE: Thank you, Erin. Any questions from the council members, first? Marcos.

MARCOS HANKE: First, a comment. I think this is everything we do here. It's very pertinent, the presentation, and there are so many things that we need to talk or I need to read about it, to truly understand the implications of what you just presented. Some of them are very obvious.

When you present the stock indicator for us here, it's easier once you use a specific example of our area. For example, we spoke, in the past, about the red hind and the coney, that, once you are fishing for them, you catch both at the same time. We discussed the good and the bad things about using an indicator.

How deep or how specific are those guidelines to use stock indicator species, specific species, once we have decided -- That will be the function of the council to determine that? You are just opening the door for a possibility for discussion and based on science to implement that or is it very specific that we have a pathway that we have to follow?

ERIN SCHNETTLER: I can try to answer that and then anyone from SERO can jump in. In general, the guidelines are not requiring the use of indicator stocks within stock complexes. Stock complexes can still be used as they were traditionally used. We're just recommending that indicator stocks are used to manage stock complexes, because the idea is that your indicator stock would be an assessed stock.

Now, I know that, particularly for this council, an assessed stock is not exactly an easy thing to achieve, but the idea behind this recommendation is that an indicator stock would have an assessment that would make it easier for you to set an ACL and the other reference points that go along with that.

We describe our recommendation for how to design a stock complex and an indicator stock. Particularly, we emphasize that you should consider any data that you have with regards to all the the complex their stocks within and productivity vulnerability. Ideally, you should have stocks within the complex that have similar productivities and vulnerabilities and that the indicator stock is representative of those stocks in the complex, and so I hope that somewhat answers your question.

MARCOS HANKE: One of the things that this definition, or the pathway that you guys are opening for consideration during management decisions on indicator stocks, do you have any guidelines about, for example, using this gear in a specific -- For let's say bottom fishing for red hind and coney, or is it in general for the whole gear, everything that interacts with those animals, because there is an issue in there.

 ERIN SCHNETTLER: We do not mention gear specifically when we're talking about indicator stocks, and I am afraid that I'm just not familiar enough with the specifics of the fishery you're talking about to really expand upon it. I would be happy to

discuss it further though offline.

CARLOS FARCHETTE: Miquel.

MIGUEL ROLON: This is mostly for the council members, but the importance of her presentation is not to go into a discussion of the details of National Standard 1, and I encourage each council member to try to read these guidelines, as much as possible.

I have been around for a long time, and I still have to read the darned things, because it changes, and it's a long, big, thick document, but the important part here is that we have now flexibility that we didn't have before. That's a key part.

The other issue that we have, or not an issue, but something that we must do is to compare what you already have done with the SSC and the team that put together the mechanism that you use for determining whether a species belongs to a management unit or not. If you follow the presentation of the ten lines that she had about the determination of a species, whether it belongs to a fishery management plan or not, it should be, in a way, compared to what we have already, to make sure that we have it.

The other point I was going to make is guidelines are guidelines until somebody takes us to court, and then they become regulations. In the case of the CCC, working together with the National Marine Fisheries Service, and, actually, I would take this time to thank you and Alan and the group. This is excellent work, what you have done for all of this four or five years, and it hasn't been very easy.

This is the culmination of all that they have done with the councils, and so I encourage you to read it, and I believe that, when we discuss the plans within this meeting and further meetings, we will have to come back to this presentation and the tools that we have, and so, probably the next time that the SSC meets, very briefly, they should go and compare what we have now.

I am personally sure that we have everything that you have in your presentation, in other words that we have used the National Standard 1 in the best possible way, but we want to make sure that it's compatible. You have a component there about statistics that is very important, and the Center and the SSC have to really work together and make sure that we are at least on the same lines of the National Standard 1.

The last thing that I was going to say is that, guys, when a management plan is reviewed by the Secretary, the first thing they use is the National Standard 1, to make sure that we comply with the requirements of the Magnuson Act. Again, it's important that, when we discuss it, if you have any questions regarding what is the link between these actions and the National Standard 1, or any part of the National Standards, that is the time where you need to raise the question.

We will include a little bit of this presentation at the March meeting for the members for the District Advisory Panels, and so, if Alan is in a good mood, I will ask him to see if you can come down here. If not, we're going to copy everything that you have here and repeat, as much as possible, what you said today at that meeting, because it's important that the DAP group, the same as the council, follows this and understands it.

We might be able to prepare one-page or two for the council members and the DAPs that will summarize this, so that you will be able to have it. The Chair of the O&E AP is saying yes with her head, and so I'm sure she's been making notes. That way, you will be able to have that information in your hands every time. Also, we will publish this on our webpage. We already have the link, but we wanted to make it more visible.

Also, this is something that Helena may -- We need to talk later, but it may be something that we can put together and load it up on our Facebook page. Thank you a lot.

CARLOS FARCHETTE: Clay.

CLAY PORCH: Thank you. To Marcos's question, I think it's fairly safe to say that both the proposed ABC control rule and most of the ways that have been proposed for using indicator species here in the Caribbean Council are consistent with the revised National Standard Guidelines. In fact, they take advantage of some of the new flexibilities.

CARLOS FARCHETTE: Any more comments or questions from the council members? I have one from Tony Iarocci, and then I have to move forward.

TONY IAROCCI: Thank you. That was a very, very, very, very important presentation. You covered a lot of very important issues, and I would like to focus on achieving optimum yield, from the National Standards and using the methods. The tweaks that you talked about, I think that should very much be considered for what we do in the Caribbean, number one.

Providing flexibility to address the management issues is very, very important. An example is spiny lobster. We're looking at the ACL right now. It's very important to these fishermen down here. Alternative approaches to what works in New England or the Mid-Atlantic does not work here, and we have to look at this totally different.

In the South Atlantic and the Gulf of Mexico, we have addressed this issue with the ACL. We've used different methods to address it, and we have to look at the alternative methods here to deal -- I want to focus on that and the spiny lobster fishery, and, I mean, that will apply to red hind and other fisheries too, but I really appreciate that input. That was a great presentation.

CARLOS FARCHETTE: Rich.

RICHARD APPELDOORN: Good morning. I just have two questions about the carryover. One, is the carryover only a one-year carryover? In other words, if you don't do it again, you can keep carrying it over from that one year or is it just it carries over to the next year and, if you don't use it then, that's it?

ERIN SCHNETTLER: It is a one-year carryover. That's a good question. It's designed so that whatever portion of your ACL underage in the original year is meant to be carried over just into the next year. Whether you have an underage in that next year and you carry over again, that is going to be part of the way that the council designs and specifies a carryover ABC control rule, making sure that you're using the best available science to make sure that you're always preventing overfishing.

RICHARD APPELDOORN: That answered both of my questions. Thank you.

 CARLOS FARCHETTE: Thanks, Rich. I know we have a lot of questions to discuss about this, but I think we're going to wait until we start working on our island-based plans and see how this thing works out, but do we have access to that PowerPoint? I don't think we have it in our briefing books.

ERIN SCHNETTLER: Yes, and I will also just say, if you look on the NMFS National Standard 1 website -- If you are trying to read the guidelines and you're not, as I am, a fan of the FR, we also have a track-changes version of the guidelines that are a bit easier to read, if you're interested.

CARLOS FARCHETTE: Thank you. Okay. Next on the agenda, we have the SSC Report by Dr. Appeldoorn.

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT

RICHARD APPELDOORN: Good morning, everybody. The SSC has not met since the last council meeting, and so I will just be giving an update on kind of where we're at. Our next meeting will be in February, and these are the major items we will be looking at.

First of all, we're going to try to have our final review of revisions to SEDAR 46, and I will have a separate slide on that, and I think Clay is also going to talk about SEDAR as well in more detail. We will then make our final recommendations on the stock complexes and our recommendations for indicator species for the island-based fishery management plans. We have already made a substantial start on that, and so that should be a fairly straightforward operation.

However, when we get to looking at how we're going to use those indicator species, that is where things get a little bit more complicated, and so we'll start working on the recommendations for how we're going to apply the ABC control rules, and this will be with respect to Tier 4, which is the only one that has been accepted so far. I am not sure how far we will get on that, but that will certainly be a major topic for that meeting, and we may not finish it within the time allowed.

In terms of SEDAR 46, there has been some changes to what we want to do, and so we're going to revisit the whole data-limited model toolkit and have a detailed review of the data-limited model approach, based on the experiences to date, and this is going to go from the very conceptual stages to their application for potential OFLs and, again, looking toward trying to apply a Tier 3 approach, as we had presented in the last meeting.

The emphasis here is only going to be on one of the six species, and that's going to be the yellowtail snapper, largely because that had the -- It's the best-case scenario, because it had the largest database associated with it, and so that's going to be what is going to be presented to the SSC, in terms of how are these models working, what needs to go into them, what are we learning out of them, so the SSC can really get a grasp on what is going on, now that the Science Center has really gotten their hands dirty with these models and had a chance to assess how they're performing and what we can get out of them. From that,

we will then make a determination on what are we going to do with the other five species that are part of SEDAR 46.

Looking ahead, the recommendation for SEDAR in 2017 would be to just look at spiny lobster for Puerto Rico, and so spiny lobster has already been looked at in SEDAR 46, and hopefully we will reach some conclusions regarding those stocks, but, given the limited time available between now and whenever a SEDAR could be arranged, we would have to have something very small in scale.

We already have all of the life history issues, and we will have a lot of the methodological issues already taken care of, spiny lobster, because we will have assessments for St. Thomas and St. Croix, and so we would like to bring Puerto Rico up to that level as well. That would allow us to, first of all, compare how things are behaving across different platforms with these models. Secondly, it would allow to assess changes in ACLs for all three regions, a topic of concern, obviously that's in Puerto particular, but also in the other two jurisdictions.

 Lastly, with more time for planning, we are looking to, in 2018, to have a SEDAR workshop, and this would focus on things that go into those data-poor models, and so life history parameters and ecological and economic indicators that are used to make some assumptions that have to go into those models for them to be useful, and we want to get all the stakeholders involved, and our goal is obviously to have consensus on these future model inputs, so we can then start applying those models in a much more efficient manner in the future and more quickly be able to make our determinations. That is my report. Are there questions?

CARLOS FARCHETTE: Thank you, Richard. Any questions for Richard? Miguel.

MIGUEL ROLON: Richard, have you thought about what mechanism you are going to be using for involving the stakeholders?

RICHARD APPELDOORN: Other than actually involving them in the workshop? No, we haven't gotten that far. It's part of the discussion.

MIGUEL ROLON: So it will be just for the -- They will have representation at the workshop.

RICHARD APPELDOORN: Yes, definitely.

MIGUEL ROLON: Mr. Chairman, I believe then, in that workshop, the three chairs of the DAPs should be there, and maybe some other people that the SSC may recommend, and we will have them there.

CARLOS FARCHETTE: I have a question. You're saying that, after all this happened, I see a SEDAR in 2018 for spiny lobster.

RICHARD APPELDOORN: 2017 for spiny lobster.

CARLOS FARCHETTE: 2017 for spiny lobster, and so it takes them a couple of years to -- What I want to get at is are we going to be now, five years later, still dealing with the same ACLs we have on lobster? Are we stuck with that?

RICHARD APPELDOORN: I hope not. Our hope is that, if we do the assessment in 2017 and it works, that the data are suitable for the model applications, that we can get an assessment that, coming out of that, would be a Tier 3 like adjustment to ACLs.

If, for whatever reasons, the data is such that we don't think the models are giving us good information, we would have to take whatever information we have and see if there is a basis for adjusting up or down the ACL according to a Tier 4 type of assessment, but we're well aware that this is a species of concern for everybody, and so I don't think there would be a basis for holding off, but the reason for doing that is because we think we pretty much have everything in place to move forward with that quickly.

There would just need to be the review of the Puerto Rican data for spiny lobster, but, in terms of life histories and the types of models that should be applicable for it, we would have already gone through that, looking at the other two island stocks for that species.

CARLOS FARCHETTE: Okay. We've been discussing spiny lobster stocks in the USVI and Puerto Rico for a while, and all the fishers have been saying how healthy it is for at least four years now, and so --

MIGUEL ROLON: That's one of the aspects that the fishers that were led by a discussion that was presented to you by Carlos and Tony Iarocci and others, and that's the main reason why we will have this afternoon meeting, and I encourage Graciela and Bill and obviously Richard will be there and Clay will be representing Bonnie Ponwith at the meeting.

We don't have that much time, and so we want to make sure that we go into the nitty-gritty of the discussion, because one of the problems with the perception of people about the spiny lobster is the problem is the perception collides with the law, when we talk about ACLs, and it's very difficult for people to understand when they are at sea or when they are at the dock, surrounded by good, nice spiny lobster, and yet you have a closure this year, December 10 through the 31, because of the information we have and so forth.

The meeting this evening is one of the steps that the fishers are taking. This is a voluntary movement by the fishers to see if they can help clear up this issue and provide better data, through better mechanisms, that the Center and the SSC can accept and use for the ACLs, and that's what we want to stress this afternoon.

The meeting is open to the public, but we want to keep the conversation between the fishers and the scientists. Tomorrow, we will have a presentation on whatever happens this evening and what recommendations they may have that the group will discuss this afternoon.

RICHARD APPELDOORN: I would add to that that remember that, starting in the next SSC meeting and I would guess continuing into the one after that, we are going to be full-bore into looking at ABCs for all the plans, all the new plans coming up, which is going to force us to address spiny lobster in particular, and, since the new Tier 4 ABC control rules has been accepted, remember that has a two-part thing.

 If there is a rationale for thinking that we are not overfishing spiny lobster, which is part of the discussion that we're going to have later today, we can automatically go into that new rule, which I don't have it memorized in front of me, but I think it would automatically probably lead to an increase in the ACL, just because it's allowing more flexibility versus the other one, which is going to be more cautious, but, like I said, I don't have the rule in front of me, and so I'm not sure exactly how that would play out.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: You know, we need to be careful about assuming that just because there is a short closure at the end of the year that we're saying that there is a problem or the stock is in bad shape.

If we have a catch limit and we set it at about what we think they're going to catch, then there are going to be some years where they may have a little left over at the end of the year, but there are going to be other years where they catch it and they have a short closure at the end of the year.

The only way you would avoid closures all the time is if you set the catch limit way above what we think they're ever going to catch. If the catch limit is set anywhere in the vicinity of what they're probably going to catch, there are going to be some years where they catch a little more and they're going to have a short closure at the end of the year, but I don't think that means we're saying the stock is in bad shape or there is a problem. It's just the nature of how we're managing these fisheries, and I think that's something that the fishermen -- Sometimes it isn't clicking, exactly.

RICHARD APPELDOORN: But we do a running average to try and mitigate that problem.

ROY CRABTREE: Right, and you might be able to smooth that out some. There might be other ways you could deal with the accountability measures. Up in Florida, they have it with spiny lobster, where, if you -- We have an annual catch target that is what we expect to catch. If they go over that, then it triggers a review and a whole host of things.

It's just in the nature of these catch limits. If they're set somewhere in the general range of what is caught, you're going to, some years, have short closures and other years you might not. There might be something you could do with carryover, but that starts getting complicated.

CARLOS FARCHETTE: You say the triggers are reviewed, and doesn't that trigger an accountability measure?

ROY CRABTREE: It would if they went over multiple years, probably, but, the way we set it up initially, it triggered a review, and the hope was that we would have a stock assessment or something like that, but I think what we need to do now is let this run through these assessment schemes and then see how comfortable we are that we can get a meaningful catch level in place.

 Then I think we have a discussion with Clay and the folks at the Science Center about how to evaluate the risk level of setting the catch levels at certain things, but my point is just that the fact that you have a short closure at the end of the year

doesn't necessarily mean that you're saying the stock is in bad shape.

 If it becomes a problem, having the closure at the end of the year, because of Christmas and things, we have that other amendment in place that accounts for it differently. If you get into a situation where you're having closures year after year after year, then you might want to talk some about what they do in Florida, which is a spawning season closure or something like that, but I don't think we're at that point yet.

 RICHARD APPELDOORN: I think, Roy, you mentioned you were using targets, which are not ACLs. They're set below ACLs, and that's why you're not getting that automatic trigger into accountability measures.

ROY CRABTREE: That's right. The trigger is not when you hit the annual catch limit. It's when you hit the annual catch target, which is set below the limit, and we haven't done that. Annual catch targets are viewed as a type of accountability mechanism.

 CARLOS FARCHETTE: Okay. I've got Marcos next, but I've got to -- I think that we need to do something, as a council, to fix the issues that we're having. I understand that, just because they go over a little bit, they're not overfishing and the stock is not in bad shape, but yet the fishermen are being prohibited from harvest when it may not be necessary, and I also want to include, and I have mentioned this on the record at other council meetings, the red hind for St. Thomas, something has to be done about that ACL and queen trigger for St. Thomas. I don't have anything for St. Croix right now, because I think the red hind still needs some more management on St. Croix. Marcos and then Blanchard.

MARCOS HANKE: I just want to say that everybody now, little by little, are a little more outspoken about recognizing the problem and the socioeconomic effect that it's having, because of our lack of data and so on for those fisheries that are very important to us.

I want to stress that we are losing the train of engaging the fishermen. We have been saying to the fishing community that they should engage and they should come to the plate and be available to produce better data for better management. Because of how slow the process has been, we are losing that, and that's something really bad for us to do a good job, and I want to highlight that, and please, everybody around the table, have

that in mind. Let's do something.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: Let me emphasize to Marcos that I've been trying to do something. The personal impact about this is this, and I'm talking about lobsters now. We are looking at a closure in Puerto Rico, which I was fighting to keep open somehow, to the end of this year, which they're probably in right now, correct?

Then we have, in Florida, that they increased the ACL on the lobsters, which they may never meet, and so explain to me how the lobster fishery is so good in Florida and in the Caribbean we are shutting them down. Yes, it is a mandate, but it makes no sense. You can't tell me that you would probably double their ACL that they ain't going to meet it and then we're closing down Puerto Rico because they overrun the ACL.

Maybe the fishery is that good that it needs a higher ACL, as well as the Virgin Islands, but one contradicts the other one if you have to put it in the broad scheme of things, but we're here trying to meet a mandate and we're missing the point.

Like I said, I'm going to push against the system, because, if it ain't working, it ain't working. It does not make commonsense that we are going to double theirs or whatever they give them and we're going to take from the other guys. Either fishery is that good or it ain't.

CARLOS FARCHETTE: Roy.

 ROY CRABTREE: Remember a couple of things. One, in Florida, they don't fish all year. They have a three-month closure in the spawning season, where the traps are out of the water. They put them onshore, and they don't fish. The reality is that you're fishing the longer season down here than they are in Florida.

The other thing that I would point out is one of the things that happened in Florida is their fishery showed a big decline in 2001 or so. The landings fell way off and stayed down for a number of years, and there was thought that this virus that was going around had affected the Florida fishery.

Now the catches have come back up, and so when they originally chose the period of years that they based the annual catch limit on, it had a lot of those low landing years in it, and, now that

the catches have come back up, what the scientists did was to pick a longer time series of years, and that brought the ACL up.

Now, when we set the catch limit that they currently have, we didn't think they would catch that, and they ended up catching it and going over it, and so just because people are saying we're setting a catch limit higher than what they catch -- That may be so, but I am not convinced that that is the case or not.

I'm not saying, Tony, that the catch limit for spiny lobster is set where it needs to be. It may well not, and it may be too low. I don't know. I think the best way is to get through this process and re-look at it, but that's the key thing with Florida, is they had a period of low landings in Florida that appears to have -- Whatever caused it appears to have changed, and the landings have gone back up, and so they picked a longer timeframe and that brought the landings back up.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: Okay, and so let me give you a comparison, probably which ain't the same, but I'm going to compare it to how we deal with it. Yes, we fish all year, but remember that the Virgin Islands, and I am not speaking for Puerto Rico, basically all the money is coming from the tourists. When the tourists stop coming in, we stop selling.

 In a way, that is our closure, because we are restricted on a market-driven industry, and so are forced to cut back, and so that's our seasonal closure, until the time when the tourists start to come back and we can afford to go back out and press it for the sales to catch back up.

Yes, we don't have a time of the year where we pull the traps out of the water, but, basically, we are restricted by the way we do business. Now, like I said, it just don't make no sense to me that we're going to give somebody an increase and we're going to give somebody else a decrease on the same stock.

Maybe I am missing something, and I agree with you that maybe we should see what these strategies show, but, to me, sitting down here, and I am a Puerto Rican fisherman, and I'm going to hear that Florida is getting an increase, and I'm now taking a reduction, I mean that would just fuel me. Put yourself in their shoes and tell me what you think they are feeling.

ROY CRABTREE: I grant you that it is a problem, and it's something that we need to look at. If you want to ask your SSC

to look at what happened in Florida and explain to us why the science leads to different outcomes down here, I think that's a fair question.

CARLOS FARCHETTE: Okay. I have Marcos, Nelson, Schuster, and then I need to take a break.

MARCOS HANKE: Following up with what Tony just expressed, we have been discussing the lobster fishery as a whole. They are all interconnected from all of the Caribbean to Florida, and that's what we state, and everybody agrees with that. Then, once we manage that fishery under the jurisdictions that we have, we are assuming that one end of the scope is okay to increase and the area that the reproduce and have all the other different characteristics that you have from Florida, then you reduce those guys.

When you brought up the point that Florida removed the traps out, that is true. You can measure that and everything, but you are not putting on the table too that we have a 3.5 carapace length and, in my opinion, that benefit to the resource is underestimated, and the benefit is point one. Point two is we are also restricted, not because you stated the three months that you take the traps out, but we have weather restrictions, because of the size of our boats, that is different than Florida, to the benefit of the resource.

We have market-driven restrictions, and we have, like I said, the smaller boats and smaller fishing capacity to impact the resource over here. Basically, we have an artisanal approach to the fishery, and that's not taken into consideration.

For somebody to come and look into what we have been doing, it's like let's protect the lobster in Puerto Rico for those little guys and give the opportunity for somebody else to do it for the same reasons, but not giving the same weight of balance on that discussion.

Now we are in a position in which the fishermen are requesting fairness on pursuing science, and this is the third or fourth meeting that we have that request in place, and nothing happens. It has been basically before a PR of no, we want the fishermen to participate, but we are doing nothing, and I ashamed of that. I am really worried with that.

CARLOS FARCHETTE: Nelson.

NELSON CRESPO: I have to support the words of Farchette and

Marcos. For example, the last month of November, in the first two weeks, we have to stop the fishermen to keep bringing lobsters, because the market is getting this close to collapse. The fishermen are obligated to reduce the price to three-dollars a pound because we have so many lobsters that it's incredible, and we have to do something about that.

Also, the same situation occurred with the deepwater snapper. We have better fish, bigger fish, and the fishery is healthy, and we have to do something about that, too.

CARLOS FARCHETTE: Okay. Schuster and then a follow-up with Blanchard. Then I have to take a break.

EDWARD SCHUSTER: Some of the points that I wanted to get across were touched on by Marcos Hanke and Tony Blanchard, but it's true that we mentioned the fishermen -- Also, when we did the island-specific districts for DAPs, but it's a market-driven industry.

We have a hurricane season, and we also have like a back-to-school, where people cut back here when the kids go to school. They cut back on their spending on seafood and so forth, and, also, there is a difference in culture. Both islands have a different festival. St. Croix is in December, the month of December, and St. Thomas is in April and May.

You would not see the impact, when it comes to harvesting these products, but my concern is, and I can't remember right now in the database that I have in my head, but there was a study done here or done by the council where they did dying of the larvae when they caught them in these air conditioner filters or floaters, and they died, the larvae, and they showed a graph where they released this filter trap with a buoy and it was tracked all the way into the flats of Florida.

It was known that a lot of the recruitment that happens in Florida comes from the Caribbean, and we started to think, well, where is our recruitment coming from, and it's coming from the eastern Caribbean islands, where there is no regulations going on up there.

As I can remember too, there was one time that we were almost forced to try to change our carapace length to a three-inch carapace length, and we fought against it, to stick to the 3.5 carapace length, and that's a great benefit to our fishery.

If you give the lobster a chance to grow, and it was known, by a

study given here, that the lobsters spawn after a 3.0 carapace length, and these things are not being factored in. I mean, if we have a bigger carapace length, the lobsters are bigger here in the Caribbean, then where is the balance and the benefit that we get or rewarded?

I mean, we didn't have a season closure, but we regulate it ourselves. Why catch it if you can't sell it? That's basically it, and so we regulated ourselves, on our own, plus the weather that we go through and the size of the boats that we fish, and so we're limited in where we can go and what do you do? You catch it just the same, you catch in for bragging rights? We don't do that.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I am going to use statement that Clay made yesterday, and, if I misquote you, maybe you could correct me. Clay said that the Magnuson-Stevens Act was designed for big fisheries like Alaska. We're in St. Thomas, and we're an island, and let's wake up.

CARLOS FARCHETTE: Okay. With that, let's take a break. Hold on. Richard.

RICHARD APPELDOORN: If I could just make a quick comment. There has been some comparisons of, quote, the science here versus the science in Florida, and I would like to point out that the ACLs that were put into place initially were following the NS-1 guidance based on average catch. There was no assessments that went along with those to say whether those levels were actually at an MSY level or not.

Where we were functionally, basically, left was let's put the level here and see how the stocks respond. If they respond in such a way that they look healthy, we can increase them. If they respond by going down, we would decrease them. Those changes do not take place overnight, and so now we have five years', in some cases six years', worth of data now. That's enough data to make those assessments, and that's what we will be doing, going into all the ACLs that we're going to have to revise for the new island plans.

It's not that our science is different from what's been happening in Florida. We are just kind of behind in that, but now we're in a position to start looking at that.

CARLOS FARCHETTE: Thanks, Richard. That's good news. Now

we're in a position to do something about it. I like to hear that. We're going to take a break for ten minutes.

(Whereupon, a brief recess was taken.)

CARLOS FARCHETTE: Okay. We're going to get back to work. Let's get back to business at hand. Next on the agenda is the SEDAR 2017 Update on Life History Workshop and Spiny Lobster. That's going to be done by Graciela.

SEDAR 2017 UPDATE ON LIFE HISTORY WORKSHOP AND SPINY LOBSTER

GRACIELA GARCIA-MOLINER: This is going to be very short, because Richard already covered most of what we needed to say, but we are in conversations regarding the 2018 early life history workshop.

One of the main reasons for pushing it back in time or forward in time is that we are currently -- There is already work being done on collecting information on the life history of a number of species, and that won't be done until late 2017 or early 2018.

The species of concern include the hogfish, the queen trigger, the queen parrotfish, the stoplight, princess, redband, redtail, the porgy, and then there is one more proposal out for additional species, but this includes, in some cases, the Virgin Islands and Puerto Rico, and some others are just Puerto Rico, but at least there will be local life history information available to upgrade the information that had been gathered through the SEDAR 46.

We are in the planning stages. We will hold a call early next year to set up the workshop, see who to invite, who is going to participate, and what representation we are going to have. From the points that Richard made earlier, one of the main issues that we have is the insistence on ecological indicators and changes in the oceanography or in the environment that might cause changes in the recruitment for some of these species. That is the update on the life history workshop.

As Richard said, we are hoping to -- Once the SSC finalizes reviewing the SEDAR 46, it should be fairly easy, quote, unquote, to plug in the spiny lobster data for Puerto Rico and have the same assessment done for the three islands, and so we are hoping that that's the case.

We had a call the other day about the presentation to the SSC

with the Science Center, and it's just very timely to step back and look at the whole process again, from the concepts to the way that it was done, to the data that are available, and they will be presenting that at the SSC, and we are, in fact, setting aside, right now, two days, but it will be most likely two-and-a-half days to complete the SEDAR 46.

Once that is done, then our spiny lobster species assessment will come in. It's been pushed back a little, but we are not losing sight of the two things that we wanted to do. It's just that we need to accommodate also the SEDAR schedule and how they can manage, because the Science Center is basically who does all the background work and all the data processing and all the assessments and the presentations to the reviewers, but we are in the schedule to do that.

CARLOS FARCHETTE: I have a question. Did you mention the redband parrotfish?

GRACIELA GARCIA-MOLINER: For the life history information, yes, but this is data that are being collected. I am not saying that these -- All the information that we can find will be brought into what they have done in SEDAR 46, which is the very thorough review of the literature that was available.

These are information or data that are coming in from the local fisheries, and so there is some data from St. Croix that they are already processing at the Fisheries Lab. I don't know the numbers, if we are going to have a complete set of ages and lengths, et cetera, but that is in the works.

CARLOS FARCHETTE: Okay. Correct me if I'm wrong here, but I think I remember, many moons ago, attending a -- I believe it was an SSC meeting where they had a peer review and assessment of redband parrotfish, and I think it was determined not to be overfished or undergoing overfishing.

 GRACIELA GARCIA-MOLINER: The issue with life history information is that they are actually participating with the local governments in actually collecting the fish and looking at the otoliths and looking at the size at age and looking at the gonadal stage.

It's the life history, and hopefully we will get the complete set of years that you need to look at to see what's happening with the population, and so it's at that stage that they are doing this work. These are proposals that have been funded over time, and that's the information that we're getting.

CARLOS FARCHETTE: Let me ask you then, would this life history information affect that determination by the peer review at any time? Could that happen?

GRACIELA GARCIA-MOLINER: Remember now that, with the SEDAR 46, you're looking at a new methodology, at a new toolbox, that you're going to be using to determine how your fisheries are I don't know what information we will have available when the time comes that that comes into the cycle of SEDAR and so it will really depend on what additional information we have obtained over time that could anything that goes into the models.

CARLOS FARCHETTE: Thank you. Any more questions for Graciela or comments? Hearing none, I will move forward. We have Accountability Measures Timing Update on Status Following Secretarial Submission. That will be Maria Lopez.

ACCOUNTABILITY MEASURE TIMING UPDATE ON STATUS FOLLOWING SECRETARIAL SUBMISSION

MARIA LOPEZ: Good morning, everybody. I just wanted to give you a quick update of where we are with this amendment that the council approved for submission to the Secretary during the last meeting.

This is the Timing of Accountability Measure-Based Fishery Closures, and this was Amendment 8 to the Reef Fish Amendment and Amendment 7 to the Spiny Lobster FMP and Amendment 6, so we have a reference of where we were.

Just a quick overview. The goal of the amendment to these fishery management plans was, to the extent practicable, minimize the socioeconomic impact that these closures from accountability measures have and while it will still constrain catch levels to the applicable ACLs and prevent overfishing, and so that was the general goal of this action.

This amendment had two actions. Action 1 was the one that would modify the date for the application of those AM-based closures from the current date, what we currently do, which is close from December 31 backward into the year, for as many days as are necessary to achieve the reduction, the required reduction, in landings.

This action and this amendment, what it did was change that date for the implementation of accountability measures so that they

will start on September 30 and go backward into the year, and so that will leave the Christmas holiday period open for harvesting for any species that will require an AM closure during a specific year.

If, for any reason, there needs to be an additional reduction, because the time left in the year is not enough to cover, for example, all the way from September 30 all the way to January 1, then it will go in the opposite direction, and that means starting October 1 all the way to December 31. However, based on recent closures, I don't think that's something that will happen, but we have that in there, just in case.

Then the second action was basically to specify a maximum time from implementation, and so from when this final rule is effective, and every two years after for revisiting and potentially revising the approach selected to set either the method or the date, this new date, for the AM closures. That means that you have two years. In two years, you have kind of like that requirement to go back, but, again, the council, at any time, can decide to revisit this. This is just stating like a maximum time.

Where we are right now, as I mentioned before, during the past council meeting in August, the amendment was approved by the council for submission to the Secretary of Commerce, and, after that, the IPT and staff and the economists, they finalized the document. Then the council submitted the amendment on October 13, 2016.

Once the amendment is submitted, then NOAA Fisheries starts the process of getting everything that is necessary to prepare the regulations and to submit this to the Secretary so they can review it, and so we have been doing that. Right now, soon, we are expecting that the Notice of Availability of the amendment, which is basically it's published in the Federal Register, the amendment, for you to review and comment.

 That will be for sixty days and, during that time, there is also going to be a proposed rule, which will be implementing the new date, from September 30 backward, and that will have also a thirty-day period for you to make comments.

Then, after that, if there are any comments, NMFS will respond to those comments in the final rule. The final rule will be expected to be effective at some point in early 2017. Right now, I don't have a specific date. We are still in the process of preparing the proposed rule.

What this means, and with this I will conclude, is that if there are any closures, accountability-measure-based closures, that need to be implemented in 2017, once this final rule is effective, they will start basically on September 30, 2017, and go backward for the number of days needed to achieve that required reduction in landings, and so that will be the difference that we're hopefully planning to have implemented, so that it can take place if there are any AM closures in 2017. That's it.

CARLOS FARCHETTE: Thank you. Any questions or comments?

BILL ARNOLD: I just want to clarify the last bullet point on that slide, and that is that we would like for the September 30 date to be implemented in 2017, but I can't promise that it will be for any or every AM-based closure that has to take place, because it will depend upon when we get this rule in place relative to how long that closure has to be.

If we don't get the rule in place until September 25 and the closure is longer than five days, then we can't start the closure on September 30. That's an extreme example, but there are some potentially lengthy AM-based closures, at least for Puerto Rico's recreational sector, that, depending upon when we get this rule in place, could require more time than we have if we start on September 30.

CARLOS FARCHETTE: Graciela.

GRACIELA GARCIA-MOLINER: One more thing. This is something that the fishermen have been requesting for a long time, and it's a little bit late for -- This is one of the questions that we received at the council, whether this would really apply for next year, and that's something that, as Maria said, they are trying to write the rule. I mean, they do have to go through the process, and the dates are there, and so it will come, hopefully, in 2017, before the next closures, if there are any for next year.

MIGUEL ROLON: The most important part is what Bill said to the council. This is something that has to follow the process. There is no guarantee. We hope that this will kick in during 2017, but this is a for-your-information statement on our part, so people will know what we're talking about.

CARLOS FARCHETTE: Okay. Any more questions for Maria? Hearing none, thank you. Next on the agenda is Island-Based Fishery

Management Plans. The hard work begins.

ISLAND-BASED FISHERY MANAGEMENT PLANS REVIEW OF PROPOSED ACTIONS AND ALTERNATIVES

 GRACIELA GARCIA-MOLINER: Yes, this is hard work. You should have received a copy of the draft for each of the islands, one for St. Thomas/St. John, one for St. Croix, and one for Puerto Rico. What we are going to do is that we are going to start with St. Thomas, the actual draft that you have, and so you will see that it is explained at the beginning why -- The actions are all in here, and the alternatives that we have come up with so far.

I just want to explain a little bit of the process. I mean, there isn't a team behind all of these, that you see all of these draft actions. There are people that have conversations over the period of time that we've been dealing with this, and not all of the alternatives might be in there, and that's one of the things that the council has to do, is take this to the public, to see what comments we receive regarding these actions.

Let's go directly to Action 1, and it's been identified in the draft that you have what actions still need input from the SSC. Once that input is in there, then that will come back to the council. Then we'll go back and we'll look at the timeline that Bill has prepared for the FMPs. Some of the hard work will come when we talk about the selection of the years that need to be looked at in order to determine, in the end, the ACLs.

 MIGUEL ROLON: Because we are close to lunchtime, what would you like to do, you and Bill? Do you want the council to go through the whole presentation first and then go back to whatever is needed to be discussed or how do you want to play it?

GRACIELA GARCIA-MOLINER: These drafts are really for you to become very familiar with the actions that are being developed, so that when we come back, mostly with the SSC input, to talk to you about making a decision on what the alternatives should be left in the documents, why yes and why not, that is what we want, really at the next meeting.

We just want to go through the actions in a very general format. If you have read the draft, if you have any specific questions - You will see that there is a lot to be determined in the tables, because they deal with the data that we need to look at in order to make a determination of ACLs.

 MIGUEL ROLON: The question is, Graciela, this is for information purposes only. This is what we requested from the staff at the August meeting. You asked the staff to put together a document that will be taken to public hearings, that will be taken to the SSC for consultation, but the question is do you think that the staff covered everything that the council did or do you need anything from this meeting or we should wait until the following meetings to react to anything that is written here?

GRACIELA GARCIA-MOLINER: The council members should be very familiar with the actions that are already set in here. The SSC will meet in February, the week of February 6, and they will be talking about the specifics that we need to deal with, and that is, for example, the determination of whether we're going to use indicator species, the determination of some stock complexes that we have dealt with, and then the nitty-gritty that we would like some input, and probably a little bit of discussion, is in terms of the year sequence that we need to look at if we're going to determine the ACL, in the end, the same way that we've done it in 2010 and 2011. Probably, if we can come back and just look at that section of the year sequence, that might be a -- Or we can do it right now.

MIGUEL ROLON: Do what?

GRACIELA GARCIA-MOLINER: Look at the year sequences, the actions the way that they've been set up. This is, more than anything else, familiarize yourself with the actions.

MIGUEL ROLON: Yes, the most important thing is for the council to see what we have. You already have this document in your briefing book. The idea is that you make sure that everything that you thought about it in August is included here, but, when I looked through the document, I thought that the staff had done excellent work putting all of this together, and I believe that your reaction will really be needed the next time that we meet, but, at this time, it's just to force you to look at it, so that, when you go back home, you may be able to look further into it.

CARLOS FARCHETTE: Isn't this something that we did in Puerto Rico with all the three DAPs, when we decided what species were going to be in here?

GRACIELA GARCIA-MOLINER: Those are Action 1 and 2, and you have a process by which you can determine what species will be managed under the federal government. You have to follow

through, and, for those stocks, you have to determine what the OFL is, the MSY, et cetera, and so those -- One of the things that is in this document is the same way that you did things way back when, and so just catch data.

The second part of that also includes looking at the SEDAR 46 approach, and so you will have, in your ABC control rule, a way of dealing with it. Right now, you are at Tier 4, which is basically you are overfishing or you are not, and then you determine, from that, what scalar to use, but all that you requested has been put in the actions that are here.

We don't have, at this stage, any data to show you regarding the specific years to be considered, except for those that were used before, and so prior to 2005 in the Virgin Islands, prior to all the closures, et cetera. Then there will be some discussion about the recent years, which are all ACL-based catch reports, and so that is also in there.

MIGUEL ROLON: Can we just go through your presentation?

CARLOS FARCHETTE: Bill, did you want to say something?

BILL ARNOLD: Just real quickly, to get everybody reminded of what we're doing, at the last meeting, as Miguel mentioned, there was a request from the council to present all of the actions with a reasonable range of alternatives that we intend to include in these management plans, and that's what you will see today for the first time. You have not seen all five actions, four of which we have a reasonable list of alternatives included.

Now, the essential fish habitat thing, we're still working with our habitat folks and getting that one figured out, but I think it's very important that the council get a good look at this, so they know what we're talking about, they know how the alternatives work, they know some history of these various alternatives, so that, in February, the SSC will meet and further develop particularly Actions 2 and 3.

Then, after that, but before the next council meeting, the DAPs will meet, and they will be able to understand and comment on what these actions and alternatives are. There will be no preferred alternatives identified, but just what the range is. They can make whatever comments they want as to what they may prefer or not.

Then the reason this is so important today is so that, when we

come back to that spring meeting, everybody is ready to go and make serious decisions, because what we're going to want at that spring meeting is not the final preferreds, but the tentative preferred alternatives that the council might choose for each of these actions, and then that will allow staff to develop analyses of those potential preferred alternatives and even to perhaps take them out for some level of scoping, and we've got a timeline for all of this that Graciela may wish to present.

Then continue to step this process forward in a functional and progressive manner, which is what we want to do, rather than having levels of confusion that prevent us from continuing to make progress. If there is confusion on the part of the council, I would take responsibility for that, and that's what I am trying to avoid, and that's what we're trying to avoid.

GRACIELA GARCIA-MOLINER: Okay. What we will do is we will go through the document. We will just go through the actions and the alternatives that are presented. There is some tables in the text.

Action 1 is, as you had mentioned earlier, is the determination of the species to be included in the management. In this case, we are using the St. Thomas and St. John FMP. Remember that there is a difference between each of these FMPs. They do have a different list of species, but the actions themselves, in terms of what they state, are basically the same.

You always see, for every action, that the first one is going to be an alternative of no action. No action is, in this case, your FMP will be composed of those species that are already in the fishery management units and they are already managed under the Spiny Lobster, the Reef Fish, and the Queen Conch FMP and the Coral and Reef-Associated Plants and Invertebrates. That is always going to be Alternative 1, no action.

The second alternative, in this case, is that you will follow a step-wise application of the set of criteria that we have talked about in other meetings to select those species that will be under management. The evaluation includes that they are present in the EEZ, that they are of significant harvest, of ecological importance and significance, that they can be excluded if they do not occur in the EEZ. You have four criteria that you go in a step-wise manner to determine what the species are.

I don't think we should go through the tables again, and so I am just going to jump to Alternative 3, which then states that, instead of following --

CARLOS FARCHETTE: I have a quick question. Those species lists don't change, right? That's what we're going to decide our alternatives on, right?

GRACIELA GARCIA-MOLINER: This is what you are proposing. There might be some comments from the public at some stage during the public comment period that will indicate to the council that you should not or should include, but the way that you select the species should be Alternative 3 instead of Alternative 2.

CARLOS FARCHETTE: I've got you. So the public hearings could change some of this stuff. It depends on what they provide. Okay.

GRACIELA GARCIA-MOLINER: Okay. Alternative 3 is that they will be based on one of the two criteria, but not necessarily in a step-wise process. Those are the three alternatives that are considered under Action 1. This is how you could determine, how you could potentially determine, the species or you have already determined the species that you are going to manage or not. Moving on to Action 2, that's on page 13.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: We've got three alternatives under Action 1. We have a list of species based upon Alternative 2. If the council chose that as their preferred alternative, and, depending upon public input, that would be the list of species to be managed for whichever island we're talking about. That doesn't have to be your preferred alternative.

If you chose a different preferred alternative, you would get a different list of species. I just want to make sure that we're clear on that, and so we're not presupposing what your preferred alternative is going to be, but you have been exposed to what the alternatives are and what the species list might look like under at least one, if not all, of those alternatives.

CARLOS FARCHETTE: Roy.

42 ROY CRABTREE: But Alternative 3 now does not have a list of species associated with it?

BILL ARNOLD: It does not, because that's a far more complex 46 analysis, but we could do that, at the council's request. It 47 would be similar, but not identical, to the species list under 48 Alternative 2.

ROY CRABTREE: How do we compare Alternatives 2 and 3 if we don't have a list of species for 3?

BILL ARNOLD: You could look at the list of species, but I would emphasize the process and not the outcome, and the process is what you would be choosing.

 GRACIELA GARCIA-MOLINER: If you look at the criteria, the criteria are listed in exactly the same order, and so you would have to determine which criteria you are going to use to determine what your list of species is.

Alternative 2 actually gives you the step-wise process to do this, and the SSC has gone through the exercise of actually doing that. The DAPs have gone through the exercise of doing this, and it is not the preferred alternative yet, but, as Dr. Crabtree mentioned, that's one of the issues, how do you compare these.

What Bill is saying is look at the process. If you think that, if they do not occur in the EEZ, that the exclusion should be one of the criteria that you look at, then give the staff direction in terms of what you might choose. Otherwise, all possible combinations under this alternative would have to be looked at.

CARLOS FARCHETTE: But I think that we did use these criteria to determine that list of species, right? Okay. Marcos.

MARCOS HANKE: I have a question about Criterion B. That analysis of the expert, what about in the case that you have a stage in the life cycle that is very important for the species that is not in federal waters, but is critical for the species?

GRACIELA GARCIA-MOLINER: One of the issues has to do with the fact that we were looking at fisheries, per se, but the SSC actually considered what stage of the life history occurred where, and so there are some species that occur the other way around, that are mainly in the state waters, but they do use the EEZ, for example the shelf edge in the EEZ, to spawn.

Most of the juveniles will occur in the state waters, but the fishery for the adults would be in the EEZ, and so that information has been part of the process of selecting these species, because it's not only the SSC, but, before the SSC, a working group actually looked at all the information that was available to see how the process would move when we were

developing the step-wise approach. That is also taken into consideration.

For Action 2, this action deals with establishing the stock or stock complexes, in this case in the St. Thomas and St. John FMP. Again, the Alternative Number 1 will be the no action, and so retain the stock complexes as they are right now for all of the FMPs that are in place. You do have the list of species for Alternative 2. One thing would be to just leave it at the species level and every single species that made it into the list will be looked at separately.

The Alternative 3 would be to manage these species as individual stocks or stock complexes based on scientific analysis, including one or more of the following, and this is where the information that has already been presented to the SSC comes into place, and this is some of the cluster analysis that has been done by the Regional Office, the outcomes from the SEDAR, the Caribbean Data Evaluation Workshop of 2009, biological and life history similarities and vulnerabilities, and expert opinion from both the scientific and the fishing community.

Another alternative that was included here was to, where there is a stock complex, select an indicator stock based on any of the following, and this is where we stopped, because we need the input from the SSC.

The SSC has already received information on indicator species from the Science Center, and this is where the last meeting of the SSC stopped. This is where we are going into for the next meeting in February.

CARLOS FARCHETTE: In that meeting in February, is that when we're going to decide a preferred alternative?

GRACIELA GARCIA-MOLINER: Well, if the SSC determines that the use of an indicator species for one of these stock complexes is needed or it would be a good idea or it's one thing that they can propose to the council, they would also be proposing for which groups and what species would we be talking about.

CARLOS FARCHETTE: So not all species will have an indicator species.

 GRACIELA GARCIA-MOLINER: Not necessarily. There are some, right now, that you have stock complexes that are only one species, and some others are three or four. Are there any other questions regarding Action 2? No? Then let's move on.

 The management reference points for stocks and stock complexes, this is where the hard work begins, and this is where most of it -- You will see that it's a note that says that it needs SSC input.

For the time series, what we're talking about is that time period from the catch information that's available that could be used to determine basically how healthy the population is. You will have Alternative 1 that is no action, and so use the time series of landings used for the 2010 ACLs and for the 2011 ACLs. Those were two groups that were divided between the stocks that had problems, like the groupers and the snappers and the queen conch and the parrotfish, and all the other groups that didn't appear to be in any kind of problem.

Alternative 2 would be to use the longest year sequence of reliable landings data available to set management reference points, as applicable.

Alternative 3 is use the most recent X years, and so, for example, four years of 2013 to 2016 of available landings data to set the management reference points for a stock or stock complex. There is a note here that says that we could have subalternatives regarding the sequence of years. Again, we need the SSC input into these alternatives.

Alternative 4 is use the longest time series of pre-Caribbean Sustainable Fisheries Act, and that's 2005, landings data that is considered to be consistently reliable to set these management reference points. For example, in St. Thomas, specifically, 2000 to 2005.

Then Alternative 5 is use X time series of available landings for a specific stock or complex, and so you don't have to have the same alternative for all of the species or stock complexes. You can have different ways of approaching these reference points.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: A good example of that is angelfish in the USVI. They were not included on the catch reports for up until halfway through 2011 or something, and so that alternative you might want to choose for some of these species that we've been saying every year is enhanced reporting. Even though they're way over their ACLs, we're not going to implement AMs, but, for other species, like snapper, you may feel like the most recent catch

data are inappropriate and you want to use a different time series, like the 2010, which, for St. Croix, was 1995 to 2005 or whatever, and that's why Graciela emphasized this.

You don't have to choose one alternative that covers every single species or complex. You can tailor your year sequence to the needs of that specific complex or species.

GRACIELA GARCIA-MOLINER: The same data that was available to 2010 and to 2011, that's the same data that is still available for that time period, and so, as Bill is saying, things really didn't change until 2010 and 2011. That's when we have more species-based information for the Virgin Islands.

Not only that, but it also changes the species-specific information that was being collected for Puerto Rico, and so there is definitely a break in the type of landings information that you are getting prior to 2010 and after 2010.

CARLOS FARCHETTE: Year sequence, I am kind of concerned with this, because, if we use a year sequence that we already have an ACL for, you are actually restricted in your landings by that ACL, as opposed to, before we had ACLs, those landings would be pre -- I am a little confused as to what would work better for us.

If you're already constrained by ACLs, your year sequence is going to show -- I am going to use an example of queen conch, where we have a quota. We know that, and this is my opinion only, and I speak for St. Croix, that the quota is being met. The only thing is they're not reporting that, and so you're using a lower landings. You are using 25,000 or 35,000 pounds of landings, when we know that they are already meeting that 50,000, and so I'm kind of concerned of using the year sequence like that. Bill.

BILL ARNOLD: It's the SSC's job to explore these various year sequences and try to identify the ones that best represent sustainable harvest. That's what they did in the 2010 and 2011 Caribbean ACL Amendments. They said here is a sequence of years that best represents sustainable harvest, and they will bring those back as the fleshed-out alternatives for this with explanations, so you can make clear decisions as to what seems to be the most appropriate year sequence.

Understanding that different year sequences give you different outcomes is important today. Trying to identify what those year sequences are or might be is totally unimportant for today.

That's not what we're trying to get at. That's why this SSC meeting is going to be so important.

CARLOS FARCHETTE: Thanks, Bill.

 GRACIELA GARCIA-MOLINER: But it puts into perspective not only the council members, but also the DAPs, to think in terms of what has occurred in the fishery over whatever period of time that might be of significance in impacting the actual landings information that is being collected. These are the kinds of things that have to be in the back of everyone's minds when we look at the data for those years. Are there any other comments on the time series?

CARLOS FARCHETTE: Bill.

BILL ARNOLD: Remember these are the alternatives that we came up within each action as staff. You guys are more than welcome to comment and make suggestions as to how you want them tweaked. That's another part of -- You don't have to make them this time. You can make them at the next meeting. You can make them anytime between now and the next meeting. You're the council. You can make them anytime you want, but we're certainly open to suggestions and advice as to how you might want to tweak them, but I think this is, as I said earlier, a reasonable range of alternatives.

Iris may want to comment, but that's one our obligations under the National Environmental Policy Act, is to provide a reasonable range of alternative approaches to solving a specific problem. Then the public and the council and many, many people have input into what they feel is the best within that reasonable range of alternatives.

GRACIELA GARCIA-MOLINER: Okay. Let's move on to Action 3B. Following the same process that you dealt with in 2010 and 2011, once you have selected a timeframe to look at, then you have to establish maximum sustainable yield, in this case proxies, for these complexes.

Always the Alternative 1 is no action. The methods used in 2010 and 2011 would be used for the species in the list now. This is a summary of the way things were done then, and so basically the commercial and recreational data were combined into a mean annual commercial landings for the year sequences that were selected way back when.

The issue with the commercial and the recreational catch in the

Virgin Islands is that we have information for the commercial sector, but we don't have really any information on the recreational sector, and so they have been considered as one, and so that's one issue that we still are dealing with. For most of the species, that was what we used. In terms of sea cucumbers and some other species, it would be the median that would be used.

Alternative 2 then would establish the MSY proxy, as described by sub-alternatives below. A different one can be chosen for each different stock or stock complex, and so one of them is to use the median annual landings for the year sequence that you have selected in the previous action and the other one is to use the mean landings for that year sequence.

Then Alternative 3 is the long-term yield at the maximum fishing mortality threshold. This would be the Tier 1 of the ABC control rule that was presented at the last council meeting, but, again, this is something that the SSC would have to look at and discuss at the next SSC meeting. I don't think we have come up with any other alternatives besides what is here. Are there any comments on these?

CARLOS FARCHETTE: Didn't we do something, take some action, against the harvesting of sea cucumbers and sea urchins? Didn't we do something like an emergency stuff?

 GRACIELA GARCIA-MOLINER: No, what was done was that the reference that we had was the harvest from the state waters of Puerto Rico, and they had provided the Administrative Order that basically shut down the fishery. There should be some reporting on their enforcement regarding the illegal harvest still of sea cucumbers, but, as far as the EEZ, we didn't do an emergency closure.

CARLOS FARCHETTE: I thought we did take a vote on that.

ROY CRABTREE: We never asked for an emergency rule. We talked about it.

GRACIELA GARCIA-MOLINER: Remember that you had testimony at the council meeting from harvesters of urchins and cucumbers in the EEZ, but you had no database for any of these, and the number one issue with the EEZ would be the depth at which they would be harvesting these, and, as far as I know, the only harvest and the only illegal harvest that is taking place is taking place in the state waters of Puerto Rico, but these were included.

 I mean, they are included as part of the FMU, and this is where you will have to set all of these parameters, for example the same thing that you did for corals. The ACL for corals equals zero, and so there is no harvest whatsoever of corals. When the time comes, these are the restrictions that you can put on a fishery that might be of ecological significance, rather than economic significance.

Continuing on with Action 3, and this is a long action. Anyhow, this is the OFL, the overfishing limit, for the stock complexes that you will see from Action 2. Again, the first alternative is no action. The OFL would be derived from the same methods that were used in 2010 and 2011. There are some species, species groups, that had problems, like the parrotfish, the grouper, the queen conch, and the snappers, and some others that didn't, but they will be set up the same way that they were done previously.

Alternative 2 then, for each of them, the OFL would be the MSY proxy adjusted using the ORCS scalar. This was something that was used and discussed by the SSC way back when, when the ACLs of 2010 and 2011 were being discussed.

Alternative 3 would be the OFL equals the MSY proxy. It would just be a straightforward equation. Alternative 4 is the OFL would be a scalar multiplied by the 75th percentile of reference period landings, where the scalar is equal or less than two, depending on the perceived degree of exploitation, life history, and ecological function.

Each of these alternatives is making reference to the ABC control rule that you had seen at the last council meeting, and this would be directly related to that Tier 4a of the ABC Then, because you also had Tier b of the ABC control rule. control rule, the Alternative 5 then is that the OFL would be the scalar multiplied by the mean of recent landings, the most recent three years of available landings, where the scalar is depending less than one, on the perceived degree of exploitation, life history, and ecological function.

Please note that all these have expert opinion in them, because that's the lowest tier that we have in the ABC control rule, and this is where not only is it the function of the SSC, but it's also a function of the DAP panels to provide any information that they can to this process.

Alternative 6 is the OFL equals the yield at MFMT. Again, this goes back to the ABC control rule. This would be for when you

have a rich-data scenario. Alternative 7 is the OFL equals the catch MFMT, and this is the data-limited quantitative assessments that we are in the process of doing with SEDAR 46. That is seven alternatives for Action 3c.

Really, what it does is that it takes into this action everything that you discussed at the last council meeting and that the SSC last discussed at their meeting, and so, other than that -- I mean, this is where the information, when it goes out to the public and to the scientists, if there is anything else that can be looked at --

CARLOS FARCHETTE: I think, when it goes to public hearing, we need to make the Alternative 4 and 5 a little more simpler for the people, the public, that are going to come there, because I don't think they're going to understand what "scalar" means, and so somebody is going to have to explain that a little better for them, because even I get a little confused with this.

GRACIELA GARCIA-MOLINER: Okay. When we did this way back in 2010 and 2011, the council hosted quite a number of meetings, of information meetings, both informal and formal meetings, with different groups, both separately for each island and together for stakeholders, and so probably the process will need to include something like that also, but that is for the council to tell staff to do that. Again, these will be presented at the DAP meeting in March.

 CARLOS FARCHETTE: Maybe an example of what the $75^{\rm th}$ percentile of reference period landings is and the scalar equal to or less than two. That needs to have an example, so they can understand what's going on.

MIGUEL ROLON: Graciela, do you intend to have the DAPs look at this at the March meeting in the timeline?

GRACIELA GARCIA-MOLINER: We will show a timeline after this, but at least the information, the basic information, of the actions.

MIGUEL ROLON: Because, if you want to have a response by the DAP at that meeting, then what we will do -- On the 29th, we have an orientation meeting, and so I was telling Diana here that, in order to be more effective with our money, we can add one more day so they can do this. Do you think that one day will be enough or do we need a day-and-a-half?

BILL ARNOLD: We will simplify this, not only for me, but also

for the DAPs and the general public. We don't have to use terms that they're not going to understand. All we really have to do is say that we have an assessment approach that will produce certain outcomes and those outcomes will be applied in this way, and that will allow them -- Because I think one of the key inputs the DAPs are going to need to have is the year sequences. What are those year sequences and what are the implications to those year sequences, based upon their knowledge and experience of how the fisheries and the markets were operating at that time.

These are strongly market-driven fisheries, and so you have to understand all the things we go through when we have a SEDAR and we do the data component of the SEDAR. We get the fishermen in there and they say, well, we started using this or we quit using this or all that, and that will influence which year sequence may be used for any species complex, and that would be a tremendous benefit, to get that kind of input from the DAPs.

Other things are a little more rigorous and a little more science-driven, and the DAPs need to understand those, but they may have less input on those, and so it is a matter of organizing our approach and making sure it's clear and straightforward, not just for the fishermen and not just for the general public, but for a whole bunch of us.

MIGUEL ROLON: Yes, and that's exactly my point. That's what I was debating here, because, every time that you see P* and all of that, you have to hit the books to figure out what the hell we're talking about.

I believe that your idea of having this simplified in a way that will make sense to people, not only for all of them, but for the council members also, so that you will be able to have a document that is more palatable to people, so we have a better input from the DAP and the people that we need to get input from. That will happen before March 29?

BILL ARNOLD: It will happen before March 29, Miguel. We will be ready.

42 MIGUEL ROLON: Will you be able to come to the March 29 meeting? 43 Your boss is here, but --

BILL ARNOLD: All my bosses are here. I've got a whole bunch of them. We will discuss that. I am not going to make any commitments right now.

MIGUEL ROLON: Just because this is very important. What the staff has done is to put together everything that the council has been discussing, and remember that we don't want to rehash every discussion every time that we meet.

Otherwise, we will never move forward, but there are certain aspects of this discussion that we need to make sure that the group that provides advice to the council understands, so they can be more effective in providing that advice, including the SSC, because, in talking to Richard, some of these issues need to be discussed at the SSC level a little bit more, so that they are clearer as to what we want from them.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: At the last meeting, we had a discussion as to how we should incorporate the ABC control rule. We discussed just incorporating Tier 4 or incorporating the entire ABC control rule. The council chose to have included the entire ABC control rule, so that, as the assessments move forward and some assessments become successful, we'll be ready to take advantage of the outcomes of those assessments and update our reference points and, ultimately, our ACLs, based on that.

Some of what is contained in these alternatives are those higher-level Tier 1, Tier 2, Tier 3 determinations. They are not necessarily more complicated, but they have to be explained more carefully, because they are model-based outcomes, instead of just simple data-range outcomes.

That is when you start getting MFMT and MSST and some of these acronyms that stand for extremely complex processes that, outside of the assessment community, are difficult for just about anybody to understand, because it's mathematical modeling, and it's sound science, and it produces really good outcomes, but it's not simple, and it's not supposed to be simple.

Depending upon the emphasis that we place or the advantage that we take of Tier 1, Tier 2, and Tier 3, we will expend more or less effort on explaining those, and, if we determine that entire ABC control rule needed to be included, but that, within the context, the OFLs, which could be separate, because it's an ABC control rule and not an OFL control rule.

If we separated out the OFLs, we could possibly simplify some of the approaches that we take while still getting the outcomes that we need, and then, as we move forward and we get assessment outcomes and we can start using these higher-level tiers, at that point we start getting more into the details of those higher-level, more complex tiers of status determination approaches, and I hope that makes some sense.

CARLOS FARCHETTE: I've got Marcos to Bill.

MARCOS HANKE: Bill, a question. When you were saying about the sequence of years to be used for a species group or a species, I am understanding, and I want to make sure that the sequence of years can be different for each species or species group, right? That's the mechanism?

BILL ARNOLD: Ultimately, that's up to the council to choose, as you did for the 2010 and 2011 ACL Amendments, saying we are going to use 1988 to 2009 in the 2011 for lobster, but we're only going to use 1999 to 2005 for snapper in St. Croix, because a one-size-fits-all approach will not work in these.

That's why we went to separate fishery management plans, because of the differences, not just in the ecology, and there are some differences in the ecology, but the different approaches they take to fishing and the different emphasis they place on various That is different even amongst the recreational and species. commercial in Puerto Rico. I think it would counterproductive not to take an approach like that, and that's exactly what we're trying to do, Marcos.

CARLOS FARCHETTE: Thanks, Bill.

GRACIELA GARCIA-MOLINER: We continue on to Action 3D. You thought you had finished, didn't you? The acceptable biological catch, the ABC control rule for the stock complexes in St. Thomas.

Alternative 1, again, is no action, retain the specifications of an ACL control rule by methods used during the 2010 and 2011 ACL Amendments, as applicable, where ABC was equal to the OFL for snapper, grouper, grunts, jacks, triggerfish, wrasses, spiny lobster, surgeonfish, angelfish, porgies, sea urchins, sea cucumbers, except for queen conch and parrotfish. I should have started there, for which the ABC would be specified by the SSC on an ad hoc basis. For those species not previously not managed in federal waters, no ABC control rule is established, so that was what was done before.

For Alternative 2, do not specify an ABC control rule. The ABC will be set by the council's SSC on an ad hoc basis for each stock or stock complex. Alternative 3 is, for stock complexes

in St. Thomas, adopt an ABC control rule where the buffer or no buffer between the OFL and the ABC will be a fixed level, consisting of the sub-alternatives that you have on the screen. ABC can be equal to the OFL or the extreme of ABC equals OFL times 0.75.

Alternative 4 is, for stock complexes in St. Thomas, adopt the ABC control rule, as described in Table 1.3.4, and that is the ABC control rule that was presented to you by the SSC at the last council meeting. Any questions on the ABC?

CARLOS FARCHETTE: Clay.

CLAY PORCH: Just a couple of comments. One, just to make it clear that, with Alternative 1, it essentially implies that there is no need for a stock assessment, because you can't use it if it were adopted, because it's hard-coded what the ABC and the OFL is, and so that's okay for me, but, if you wanted to use the latest information from the stock assessment, you need something more flexible than that.

Alternatives 2 and 3 and 4 would allow you to use information from the stock assessment to various levels. The thing that 4 gives you is more consistency in the advice, because there is a prescribed pattern to follow, whereas, with something like Option 2, the ad hoc basis, the basis for the ABC could vary a lot for species that are even in a similar situation. It just may depend on who is in the room at the time, and so the ABC control rule, under Alternative 4, would mitigate against some of that, because there is a set pattern to follow.

The other point I wanted to make about that is we have to consider all the actions kind of at the same time, because they affect each other. For instance, if you adopted Alternative 4 under Action 3D, then many of the -- If you had also adopted most of the actions, actually, or the alternatives under 3a, b, and c, they would actually conflict with Alternative 4 in Action 3D.

There's a lot of actions and alternatives, but the point is some of the different actions, some of the alternatives conflict with one another, and so we have to be very careful. You couldn't just do it sequentially and pick one alternative in Action 3A and then go to 3D and pick something different. They interact. Does that make sense?

CARLOS FARCHETTE: Roy.

ROY CRABTREE: I get that things interact, and so is the starting point for us to pick the ABC control rule first and then go back and look at the implications of that for the other actions, or is there some sort of sequence to all of this that makes logical sense?

CARLOS FARCHETTE: Bill.

 BILL ARNOLD: We thought that we arranged these in a logical sequence, Roy. You identify the species you want to manage, you group them into appropriate complexes, and then you use these species contained within those complexes to develop your reference points.

ROY CRABTREE: Yes, and I'm more looking at within Action 3 itself. We would choose -- The sequence would be A, B, C, D, is what you're telling me.

BILL ARNOLD: Yes, absolutely, and Clay mentioned there would be no need for assessments, and that's a point that we discussed on our call late last week with Shannon, that, when you use the data-limited toolbox, each of the different approaches may produce a different outcome, and they're not always sure exactly what that outcome is, if it's an OFL or an ABC or even ACL.

It depends upon which buffers are contained within that model construct, and that's something that is important to keep in mind, because, even if we said ABC is going to equal OFL, we still have to determine what that OFL is, and that could be the product of an assessment, depending upon which model combination you used.

ROY CRABTREE: Let me come at it a little different way then. I mean, I think, at the end of the day, with the ABC control rule, we're going to end up going with Alternative 4. That's the one that the SSC spent a lot of time on.

If we did choose Alternative 4, does that mean that certain alternatives within 3C, 3B, and 3A aren't workable? If so, we need -- That implies, to me, that that's the starting point, is to pick the control rule, and then where does that lead you in the other ones. Am I right?

CLAY PORCH: Yes, I agree with you, Roy. For instance, if you pick an action under 3A that specifies an exact year range for every species, then there are options in Alternative 4 of 3D which actually would use the assessment results to specify MSY. Those two things would conflict, because now you have one action

where you specified it based on a particular year range, and then you have another action that looked at all the data and specified it based on the stock assessment.

Those kinds of things, we have to watch out for, and I agree with Roy that the easiest way would be to agree on what the ABC control rule is, because that includes a lot of the things that are in the previous actions.

 ROY CRABTREE: Where I'm trying to is are there some things that it would facilitate this if we made decisions at this meeting about it. Like would it help get this all going if we decided at this meeting that Alternative 4 is our preferred alternative for the ABC control rule?

CARLOS FARCHETTE: Bill.

BILL ARNOLD: I kind of alluded to this, and I thought this might be an SSC discussion that should be held, and I'm curious as to what Clay says about it, but the ABC control rule also includes some approaches to establishing the OFL, and my curiosity is could those OFL components that are contained in here be taken out, so that they are dealt with under separate alternatives?

You derive, and I have spoken with Shannon about this quite a bit, but you derive an OFL separate from the ABC control rule and then that OFL is fed into the ABC control rule to determine what your ABC is. As it's set up now, you've got OFLs in here, but we have included those OFLs separately in Alternative 2, I guess, Alternative 3b, and that may alleviate this problem, by saying we're going to deal with the OFLs first and then we're going to deal with the ABC and then we're going to deal with the ACL, which is also a component of this.

ROY CRABTREE: So was that a yes?

BILL ARNOLD: What do you mean was it a yes?

ROY CRABTREE: To my question about would it facilitate this if we chose the control rule preferred alternative at this meeting. I am trying to figure out how to get us --

BILL ARNOLD: That's going to help. It's not going to solve the whole problem, but it would help, Roy, yes, but you don't need to choose -- I mean, legally, it may be -- Iris, please comment. It may be a little premature to finalize your preferred alternative.

ROY CRABTREE: We're not talking about finalizing anything, but we're just talking about choosing a preferred right now to indicate the path that we're on. It's not a final, and we may change it later.

BILL ARNOLD: Okay. We're operating under that assumption.

 ROY CRABTREE: Then I'm trying to get to, okay, if we did choose that as the preferred, then you could go back and determine, contingent on that choice, which ones of these other ones in 3C, 3B, and 3A are not compatible with it, so that, the next time we looked at it, we could see how it all fits together, without getting totally confused and lost.

GRACIELA GARCIA-MOLINER: I think that that's already -- I mean, if you look at the --

MIGUEL ROLON: Graciela, wait. If it doesn't hurt, and it also gives an indication, especially to the public, of where we're going, I think we should do it. I mean, if everybody understands what the hell we're talking about, get the preferred alternative and make a motion by Roy and second by a council member. Then at least we'll give an indication. As Bill said, it's not solving the entire problem, but it will at least give us an idea of where we're going with this, rather than waiting for the April meeting to come up with all of this. I believe that that's Roy's idea. If it's something that can be done --

ROY CRABTREE: If I could, Mr. Chairman, maybe it would be a good thing for us to ponder over lunch and then discuss when we come back.

CARLOS FARCHETTE: We will ponder, because I like ABC equals OFL, but that's just me. Do we have some more here before we break for lunch?

GRACIELA GARCIA-MOLINER: You do have 3E, which deals with the optimum yield and the ACL. Again, the Alternative 1 is the OY and the ACL would be derived by the methods used in 2010 and 2011. These were the OYs, as they were defined then, and so Alternative 2 is to determine the OY and the ACL based on the formula in one of these sub-alternatives. Basically, it's the same setup that we had before, but it includes an OY equals an ACL equals zero that was used for things like corals.

That deals with everything from MSY and OFL and OY and ACL and ABC, and that is what you were discussing just now. I can go,

very quickly, through the two other actions that we have, or we can stop here and go to lunch.

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CARLOS FARCHETTE: Yes, we're going to break for lunch, and then we will come back to the EFH. We will be back at 1:15.

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(Whereupon, the meeting recessed for lunch on December 13, 2016.)

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TUESDAY AFTERNOON SESSION

The Caribbean Fishery Management Council reconvened at the Marriott Frenchman's Reef, St. Thomas, USVI, Tuesday afternoon, December 13, 2016, and was called to order by Chairman Carlos Farchette.

CARLOS FARCHETTE: Okay. Welcome back. We're going to finish up this part of the IBFMP, but, before I go there, I want to thank the St. Thomas fishermen that showed up for this meeting. I really appreciate you all taking the time from a hard day's work of fishing to come and attend this, and I know that most of you are part of the Fisheries Advisory Committee, which it's real good to see you here, but to clearly -- Hearing about the federal waters that we're going to manage and also the species, which is also found in state waters and hopefully, eventually, we'll be looking at some compatibility, but there's a lot of information for you guys, and we'll give you websites for the Caribbean Council, so you can really come up to speed as to what we've been doing and where we're at, including some of this information here, but I really appreciate you all coming.

Thinking about Action 3 and the control rules and ROY CRABTREE: some of the comments Clay made about how things need to be compatible with each other, it does seem to me that, in order to move this forward, we ought to go ahead and choose a preferred on the control rule.

I think that Alternative 4 is the one that our SSC has spent a deal of time working with the Science Center developing, and we've seen a lot of presentations on that, and I think we have a pretty good record of the benefits of the control rule and where we ought to go with it.

My worry is that the other alternatives in the document, it seems to me, don't really move us beyond where we are now, and so what I am going to do is go ahead and make a motion. Then, if the motion passes, we could ask staff to go through and figure out, working with Clay and the Center, figure out which one of the other alternatives are not compatible with this control rule and what we may need to remove. I would like to make a motion to select Action 3D, Alternative 4 as our preferred alternative.

TONY BLANCHARD: First off, I would like to see what the alternative is on the screen. I am willing to go along with Roy's suggestion and second that motion, but with the understanding that if, when Clay comes back to the next meeting, if this does not look like it's laying out right, that we could strike it and go with another alternative.

ROY CRABTREE: We're not taking any final action today, and so you choose the preferred alternative today and you can change it at the next meeting.

TONY BLANCHARD: Okay, because, to be honest with you, I am kind of confused with what just went on here earlier, and I know I talked to some of the other guys, and they are probably just as confused as me. Then the question is this. If the layman walks off the street and walks into the meeting room and he's listening to the ABC and the OFL and everything else, he's got to be completely lost. I know I ain't the only one here that is basically confused, as well as maybe some of us ain't willing to admit that we are confused, but we are really confused.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: It is confusing, but I think, by doing this, staff can go back and streamline some of the other parts of this action and maybe we can make it a little less confusing. I mean, you look at that control rule table, and it's technical, and so it's somewhat confusing.

I think, to some extent, we have to rely on the advice we're getting from our SSC, but it does appear to me that, in the end, this is the control rule that we've invested so much time in, and so I think that's where we're going to go, and so we might as well go ahead and streamline the other actions, and maybe we don't even need some of these other alternatives in here, and it might make the whole document a little easier to deal with, and it might move us one step down the road towards actually getting

something done.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I've just got another question. We wasn't supposed to be getting the feedback from the SSC as to which alternatives, as to what they prefer, to a certain degree?

ROY CRABTREE: They developed this control rule, and I think they're going to meet again before our next meeting, and they will look at all of this again, and so we will hear from them at their next meeting. I also want to be clear, Bill and Graciela, that this would apply across all three of the island FMPs, because the control rules, I think, are pretty much the same in all of them.

GRACIELA GARCIA-MOLINER: Yes.

19 CARLOS FARCHETTE: Tony wants to see it, the 3D.

ROY CRABTREE: It's a long thing, and some of the first tiers, Tier 1, I think that's stage-structured assessment. Anyway, we don't have any of those, and we're not likely to have any in the near future, and then I think Tier 2 and 3 are both more datarich than what we have, and so it's really Tier 4, I think. Is that correct, Clay? Is it Tier 4 that we're really focusing on now?

CLAY PORCH: No, some of them will fall into the Tier 3.

ROY CRABTREE: Okay, and so Tiers 3 and 4 are really what we're talking about here.

MIGUEL ROLON: Roy, the language of the motion covers what you want to say with the control rule?

ROY CRABTREE: Action 3D, Alternative 4 is the preferred alternative across all three FMPs. I think that's clear. Isn't that clear, Graciela and Bill?

BILL ARNOLD: Yes.

43 ROY CRABTREE: So I think I'm good with that. As we said, it's 44 not a final decision. When you come back in next time and hear 45 the comments from everyone, you can change your mind, if you 46 like.

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: For the council, this is an opportunity here, where the scientists are giving us a better pathway to achieve what we want to achieve under the Act. Some of the things we have to believe by faith, because they are complex, as everybody has been saying, but I believe that this way, number one, you will give the public an indication of what you want to do, where you want to go, and you have ample opportunity then, between here and the next meeting, to get more information regarding this alternative and what the alternative will mean, in terms of the management of these areas.

Actually, what Roy is doing is giving us an easier way to address these issues, and Clay is concurring with that, and so the Center will follow this, and the SSC, of course, has to deal with this, and so, out of this nightmare of names and acronyms and everything, what we have in front of you is an opportunity to be able to streamline the process in a way that will be easier for everybody to follow.

Also, we are not making a decision here. We are saying just that that is our preferred alternative. Remember, when we go to public hearings, our preferred alternative can be changed at the next meeting, and you are guaranteed that you have ample opportunity to be able to get your say into the process.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I will second it.

CARLOS FARCHETTE: Okay. The motion is to select Action 3D, Alternative 4 as the preferred alternative and apply it to all three FMPs. The motion is by Roy Crabtree and seconded by Blanchard. Any further discussion? I am going to take my votes starting on my right.

ROY CRABTREE: Yes.

39 MARCOS HANKE: Yes.

41 RICARDO LOPEZ: Not voting.

RUTH GOMEZ: Yes.

45 TONY BLANCHARD: Yes.

47 CARLOS VELAZQUEZ: Yes.

CARLOS FARCHETTE: Yes. We have one not voting and the motion carries. Now we move forward with Action 4, EFH.

GRACIELA GARCIA-MOLINER: Okay. For EFH, there are two things. One, we are in the five-year review for the essential fish habitat, and so most of what we've done to date -- The description that we have for EFH will be reviewed in this five-year review. The second is that we have new species that have been added for federal management, and so this will include those species for which we have no EFH description yet.

These are only some of the alternatives. This is being discussed in the Regional Office with the habitat people and the IPT, and so this is just a first cut at the alternatives. We are looking into everything that was done back in 2004 and 2005. We did the EIS for the essential fish habitat and the concepts that were used at the time as one of the alternatives.

Most likely, for some of the new species, it will also be based on things like presence and absence, because there is just not enough information on densities and abundances by habitat to determine EFH and such. This is the first time that you are seeing it, because it had not been included in the other presentations. Is there anything in particular that you want to hear?

 As I said, this is just being developed, and so this is hot off the press, but please make sure that you understand the difference between those species for which we already have a description and designation of EFH and HAPCs and those species that are new to the list for which we have to start the process from scratch.

CARLOS FARCHETTE: So those are those three species only?

GRACIELA GARCIA-MOLINER: Remember that we're looking at it as an example for St. Thomas, but there are a number of species from Puerto Rico and St. Croix that need to be included in this, but dolphin and wahoo, et cetera.

The other one, the final action that's in the document right now, has to do with the framework, and so framework procedures for the FMPs. Again, this is really hot off the press. It contains a lot of information based on some of the way that other councils have done this work, in terms of the framework procedures, and it also looks at what the council, the Caribbean Council, has had in place up until now, and so, again, the IPT will probably meet at the beginning of next year to go over the

information that we have here. We just want to make you aware that this is one of the actions that will be included and for you to look at the complexity of the tables that have been included in the document and for you to become familiarized with the process.

I don't think there is much more that we have to say at this time, and so that will conclude the presentation of the island-based FMP actions and alternatives.

CARLOS FARCHETTE: Okay. Graciela, are you finished?

TIMELINE STATUS, SSC AND DAP MEETING SCHEDULE NEXT COUNCIL STEPS

GRACIELA GARCIA-MOLINER: Yes, and we have one slide for the timeline, which is the next item on the agenda. Let's do that first. December of 2016, that's where we are now. We have some guidance, in terms of Action 3. That's what you have just passed as a motion, but, again, this would also have to be presented to the SSC, which will meet the week of February 6, to discuss especially Action 2, if indicator species will be used or not, and Action 3 for the information that, number one, the motion that you have made here today and then go over the ABC control rule.

March, we will have some information to present to the DAPs, and I hear that that's at the end of March. Then we will come back to a council meeting. I have been thinking about whether we are going to have a second SSC meeting before the next council meeting or not, but, mostly likely, it will be after the council meeting in April or May. We haven't talked about the dates yet.

Then we have to do all of the -- I say we, but a lot of people are going to be working on the public hearing draft of the document, and so these are three separate documents that will be worked on at the same time.

MIGUEL ROLON: Graciela, if you and the SSC believe that you want to have another meeting before April, just say so. It will be up to you, really, to decide with the Chair how many meetings before the April meeting.

GRACIELA GARCIA-MOLINER: Okay. Let us talk about it, and we will let you know.

MIGUEL ROLON: The March meeting will be the 29th. It was going to be only a one-day orientation meeting, but we need to have probably two-and-a-half days. The first day, we were going to

have the forty-five members, hopefully, if they show up, at the meeting, but then, the next day-and-a-half, they will break into three groups, and so they will be focusing on St. Thomas/St. John, St. Croix, and Puerto Rico, because they are different.

GRACIELA GARCIA-MOLINER: Okay. Then we are already working on the August council meeting, being very positive about it. There is going to be public hearings over the summer, and then you will hear the outcomes of those at the August meeting. Then we can finalize all the FMPs and the EISs for each of them and have the council meeting in December to review what came out of the public hearings and decide whether that is going to be your final documents, if those are going to be your final documents. Then, by the winter of 2018, there will be final, final public hearings and actual council votes in the spring of 2018. It's very ambitious.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: The critical time is between now and the next council meeting. We have an SSC meeting pretty much, if I understand correctly, scheduled for the week of February 6. Then we don't have the DAP meeting until the end of March. There may be a good reason for that, but I'm just wondering if it would be possible to move those DAP meetings up to the beginning of March, so that we can then have that second SSC meeting between the DAP meeting and what I assumed would be the April council meeting.

Graciela also said or postpone the council meeting. The problem with that is we're going to need that time in the spring and the summer to get ready for that August council meeting. That's why I don't want to move the April council meeting back any, but it's really important to get this work done between now and the spring council meeting.

MIGUEL ROLON: For the DAPs, we already have a contract signed. As I said, it wasn't because of -- We can talk to the hotel people and see if we can move it to the first half of March. Then we will probably have the meeting for two-and-a-half days, or at least two days, two full days.

CARLOS FARCHETTE: Bill.

BILL ARNOLD: You could have an SSC meeting and then a DAP meeting, but I think it's really important to get that DAP input back to the SSC for their second round.

GRACIELA GARCIA-MOLINER: We have taken note of the schedule.

CARLOS FARCHETTE: Yes, they're scheduling it right now on the calendars, to see if we can move it up.

GRACIELA GARCIA-MOLINER: Just making sure that Lent is not in March, but it's in April. The 13th of April is Holy Thursday.

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: We need to talk to the hotel now to change it. Otherwise, they will charge us one night. How about the week of March 6 through 10? We can say 7, 8, and 9? By silence, I believe that we will have the meeting of the DAPs on March 7 for the orientation and then March 8 for the discussion on the tables.

The other thing about the DAPs is that none of them are willing to spend more than a day out, because of their business and everything. Actually, tonight, we are going to talk about the DAP composition, because even the chairs are frustrated because they don't come to the meetings.

Sometimes, when the chair is asked to review something and to give it to the council, he doesn't have a quorum, and so we need to discuss this a little bit more, but Diana will call the hotel today and then we will confirm, by email or tomorrow, the $7^{\rm th}$ and $8^{\rm th}$ of March for the meeting. It will be at the Verdanza Hotel, most likely, in Puerto Rico.

CARLOS FARCHETTE: Marcos.

MARCOS HANKE: Graciela, about the dolphin question that I made to you earlier, the status of what we did, I want to refresh my mind, because I'm a little confused.

GRACIELA GARCIA-MOLINER: I did go back to the motions that you had made in December 16 of 2015, right here in this hotel, and you had gone back and forth in three different motions. At the end, the final motion was to actually include them. There has to be a -- I actually went to look at them, because I was 80 percent sure, but now I'm 100 percent sure.

There has to be very strong rationale to -- Once you have set up the step-wise approach to determine what species are going to go into federal management and they meet all of the requirements, you have to have a very strong rationale to take them out.

1 One of the things that, after the discussion, and I didn't look 2 I just looked at the motions, but it was to at the minutes. keep them in the draft island FMPs. Remember that these are all This is going out to public hearings. If you need to have management measures included at the end, that needs to be et cetera, and so, this stage, they at requirements and so they are part of the list.

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There was a lot of discussion about being part of the stock that moves between the Caribbean and the eastern coast of the U.S. and the Gulf of Mexico, et cetera, and so all of that is going to be part of the discussion in the documents.

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CARLOS FARCHETTE: Miguel.

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MIGUEL ROLON: We also -- Remember, this morning, we promised to have a clearer document for the DAPs to see. Will that document be ready for the March 7 and 8 meeting? I am just asking. Okay.

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CARLOS FARCHETTE: Okay. You're done, Graciela?

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GOALS AND OBJECTIVES

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GRACIELA GARCIA-MOLINER: One more thing, and this is just for informational purposes only. You have received a copy of the goals and objectives that each island submitted to the council. That is going to the IPT for revision and to talk about it and to include them as part of the documentation that is part of the FMP.

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33 34 We are not going to discuss it at this meeting. We are going to look at it from the IPT and then bring back, as part of -- When you see the whole document, it will include the goals and objectives of each of the island FMPs.

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CARLOS FARCHETTE: Okay.

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For the record, the three areas submitted the MIGUEL ROLON: goals and objectives. Graciela, can you refresh the memories of everybody what "IPT" means?

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GRACIELA GARCIA-MOLINER: Interdisciplinary plan team.

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45 Moving on, next on the agenda is CARLOS FARCHETTE: Okay. Outcomes from Public Hearings on the Development of a Permit --46 Actually, it's scoping and not public hearings, but it's a 47 48 Permit Program for the Harvest of Snapper Unit 2 from the Puerto Rico EEZ, which is the queen and cardinal.

OUTCOMES FROM THE PUBLIC HEARINGS ON THE DEVELOPMENT OF A PERMIT PROGRAM FOR HARVEST OF SNAPPER UNIT 2 FROM THE PUERTO RICO EEZ

GRACIELA GARCIA-MOLINER: We took the draft to scoping meetings, and we actually made the translation to Spanish and did a very big mailing and took the documents off to --

CARLOS FARCHETTE: Before you go any further from that picture, Graciela, that's an actual queen snapper at the bottom of the ocean live, in very deep water.

GRACIELA GARCIA-MOLINER: Yes, and this was taken by the Okeanos Explorer in 2015. In fact, most of the stations that the fishers has provided for us, the coordinates to go sample the areas -- Although we didn't see everything that we wanted to see, we did manage to get a couple of pictures of the queen snapper alive. This was about almost 2,000 feet.

MIGUEL ROLON: Mr. Chairman, we will try to have half-an-hour for each one of the remaining agenda items, so we can finish on time for the evening meeting, but this is very important, and so don't leave without any of your questions being cleared up or answered by the staff.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I've just got a question. Is the chairs for the DAPs going to show up to the SSC meeting?

CARLOS FARCHETTE: They requested that, I remember, but I don't 33 know.

TONY BLANCHARD: Is it still a yes or --

MIGUEL ROLON: Yes, it's still a yes. Do you mean the DAP 38 chairs?

TONY BLANCHARD: Yes.

MIGUEL ROLON: Yes.

44 TONY BLANCHARD: Okay. Just to clarify that.

MIGUEL ROLON: That was part of what Richard said this morning 47 of involving the stakeholders in the meeting as much as 48 possible.

GRACIELA GARCIA-MOLINER: That is the -- You have a copy of the document that was sent out for public comment and also the permit presentation that Bill gave at the last council meeting.

Meetings were held November 14 in Naguabo, which is on the east coast of Puerto Rico, and November 15 in Mayaguez, on the west coast. We had requested written comments to the deadline of November 30, 2016. This is a summary.

You received a copy of the comments we received by the numerous people that came to the scoping meetings. It was probably one of the most well-attended meetings in a long time, not only in terms of the number of people that actually showed up, but we had over eighty people at the Naguabo meeting. The reason why these numbers don't coincide is that not everyone wants to sign our attendance sheet, but we do a headcount, to make sure that we have all of these people accounted for.

We did receive quite a number of comments that addressed specific issues with the permits for the Snapper Unit 2. We had an incredible number of towns represented and a very high number of fishing associations present. In fact, one of the deponents was representing sixty other commercial fishers on the west coast.

This is just a breakdown of all the towns that were present and all the fishing villages, and we also had representation from what is called the Congress of Fishers from Puerto Rico, which includes not only the fishing associations, but it's a conglomerate of fishing associations throughout the island, and so they were present at these meetings.

Just to give you an idea, we had, on the east coast, people from here, in Arecibo on the north coast, all the way down to Arroyo and Patillas, and so they all came to Naguabo, and people from Arecibo all the way down to Lajas, I believe, or Guanica, were present in Mayaguez. We had most of the island represented at these meetings. These are the people from the west coast. We had quite a big representation from Rincon.

You have received a copy of the comments. The comments received have a number of issues at the front of the first paragraph of the document that we provided.

The main concern that everyone had was that, if we were going to do anything with federal permits, they had to be reconciled with the DNER, the Puerto Rico Department of Natural and

Environmental Resources, permits. The main point of that is that most people felt that the process that had been followed was not fair for everyone who had been fishing for many years and did not make the cut to have the permit granted to them.

Everyone, most everyone, except one person, thought that they should be open permits and that they should be available and anyone should be eligible to have a permit for Snapper Unit 2.

It was recognized that one of the problems with the permitting system is the landings information, and they recognized that, most of the time, it must have been their doing on the reporting, in most cases, but that, if there was a moratorium on the number of permits that were granted, that they were willing to work together to get very good data to actually understand the fishery and to be able to have these permits given to the people who actually fish for Snapper Unit 2.

There should be no limit on the number of trips, no poundage limit per trip. There should be, and this was also a comment throughout the area, more restrictions on the recreational harvest of Snapper Unit 2, the queen snapper and the cardinal snapper, and that there should be a prohibition on the use of electric reels for the recreational fishers and a stricter quota or bag limit.

 There is a very large discrepancy in the number of permits that are available through the DNER from the west to the east coast. Most of them -- Of the seventy, only four or five were granted on the east coast. Most of them are on the west coast, and the landings should be revised to look at twenty or thirty years of data that are available at the DNER, to see people who had been fishing for Snapper Unit 2 for a long time.

Also, that we need to do more in terms of regulating unlicensed commercial fishers, and, therefore, increase or look at how to validate the data that is coming in through the legal channels. You did receive quite a number of comments. This is just a summary of what was common throughout all of these comments, and that was for Naguabo.

 I am just going to show you the commonalities for Mayaguez. There is some specific issues with the comments that they made, and the one that kept popping out was just you have to work with the DNER, and the reason for working with the DNER is that, if you're fishing in the EEZ, when you are going to land, you are going to go through the state waters, and you are going to land in Puerto Rico. If you had a permit in the EEZ, but you didn't

have the permit in the state waters, then, on transiting, you might be intervened and be breaking the law. Are there any questions from Naguabo? Okay.

I am just going to do Mayaguez from memory. From Mayaguez, you had basically the same comments regarding the permits. Number one, you do have to reconcile the Puerto Rico and the EEZ permits, but one of the things that people brought up was the fact that, if you look at the ACL, the way that it's set up right now of 145,916 pounds, if you divide that by the number of permits that are provided in Puerto Rico, that's about 2,000 pounds per fisher who has a permit.

In their words, that doesn't make any sense, and that is given the fact that it's only 120 trips per fisher per year. If you sell that at \$7.00 a pound, you are only making \$14,000, and so neither the poundage nor the money that you are making out of the Snapper Unit 2 permits makes any sense, and so there is something wrong with the information that is available.

Apparently there is a lot of -- There were a lot of comments saying that a lot of people are producing landings data and they are landing queen snapper, but it's being reported as silk snapper, and so that causes an additional problem, because it's shifting from one species that we had a fairly good record for to being mixed in with another species.

As I said, they are willing to collaborate and provide very specific information to improve the data collection and to actually be able to have a higher ACL and more fishers with permits. The need to restrict the recreational fishing activity was also voiced in Mayaguez. All commercial fishers should be eligible for a permit, and all vessels in the deepwater snapper fishery should be identified.

All permitted fishers should have a valid commercial fishing license, and, in some cases, they actually commented that it was not only the license, but the actual permit, the way that it's given for queen conch and lobster in Puerto Rico, which is just you apply for the permit and anyone is eligible to get that permit.

The ACLs, basically most people wanted them eliminated, but, if they were going to be our daily bread, that they be revised and increased. Those were the common themes throughout the number of presentations that we had.

Then you also had three written comments that were provided to

you with an official translation to English, because there were two of them submitted in Spanish. Again, the common thought is that everyone should be able to get a permit to go for Snapper Unit 2.

You have everything that was sent to us. Only three comments were received, and they were officially translated. Again, it's the same way of thinking, that, for seventy permits that have been presented, with the ACL that we have, it doesn't make any sense. There is a lot of landings that are not being reported, and that everyone should be allowed to fish for Snapper Unit 2.

You did receive a couple of additional options, and so there was one comment regarding the use of a mixed bag of species to be eligible to have the permit, so that, if at some point you had fished for any of the deepwater snappers, that that percentage would allow you to be granted a permit.

You had two suggestions very specific to the actions in the document. One of them was for Action 4, to allow the number of fishing trips, and that number was specific to twenty-four trips a year and two per month. Most of the information that was presented in the documents didn't actually have a rationale to why they got to these number of trips, et cetera, but they provided you with this other option.

For Action 5, that there should be a limit, in terms of pounds, and that would be 100 pounds whole weight. Again, they didn't provide any rationale for these options. There were three other options presented, but, in the end, the person specified that what he was proposing that he was not proposing it for real, but he talked about a seasonal closure for queen snapper and he talked about closing the Snapper Unit 2 in the EEZ.

It's not that they don't think about options that could come down the road, if need be, but that they didn't perceive that the fishery is in any type of bad shape that necessitates such a low ACL or any other restrictions.

One person opposed completely the idea of having a federal permit. Most of the people wanted it to be either reconciled or to be parallel to the Snapper Unit 2 permit as long as the PR DNER reviewed the way that they developed the permit. That is the summary of all of the comments that you received, but, everything that was said, you have in the documents.

CARLOS FARCHETTE: Marcos.

MARCOS HANKE: I want to state that, especially on the east coast, because of the cultural aspect, they do report queen snapper, especially the older fishermen, the queen snapper and the silk snapper, among others, together, as a whole, because, especially on the east coast, they are paid the same amount of money for it, which is not the case in San Juan and probably Mayaguez. That is the rationale behind the misreport and not necessarily intentionally, but it's a reality on the fishery.

About the electric reel issue, you guys heard about this, because it came up in the public hearings. I don't agree of eliminating the electric reels. There is ways that we have discussed already. I discussed it with a participant from the DAP, the chairman of the DAP, with alternatives and that there is a big implication about eliminating electric reels to recreational.

We fish swordfish with it, which is a style of fishery that requires electric reels, and we do tuna fishing with electric reels and all the blue marlin fishery depends on the electric Actually, some of them are building boats, and, reels onboard. on the top of that, you have people that have physical problems, disabled or something, that use electric recreationally, and it's not necessarily that simple of saying no electric reels. It's just that there is other ways to address that. I don't agree with the elimination of electric reels for recreational. We can get into those details later.

 I have a question for Graciela. On the bag limit for reef fishes, or fishes in general, that we have implemented now, it does include, for the recreational bag limit, the queen snapper in it?

GRACIELA GARCIA-MOLINER: You already have a fairly strict regulation in place in the EEZ for the harvest of reef fish. That includes the deepwater snappers, and so it's five per fisher, up to fifteen per boat, and you can have a mixed bag of different reef fish onboard, and so that regulation has been in place for a while now.

MARCOS HANKE: The reason of this question is that we already are addressing restricting the recreational fishermen to catching a level that there is a commercial application to it. We have already addressed that, and there is no need to create a bigger problem with electric reels with no need. You just need enforcement and, those people that are fishing illegally, not to allow them to sell.

CARLOS FARCHETTE: I have Nelson, but Miguel first and then Nelson.

MIGUEL ROLON: Thank you, Mr. Chairman. What we need to decide this afternoon is whether you want to continue or not with the permit for two species, the queen snapper and the cardinal fish. That is it. That's all we are doing today.

From the hearings, we found that the fishermen do not agree to have a permit, but, if we do have a permit, they would like to see the Puerto Rico Department of Natural Resources permit harmonized with any federal permit that you may have, because they say that it will be kind of cumbersome.

Second, they have an idea of having a moratorium for the ACLs, having three to five years open to everybody to fish, and they promise to give all the data that you need and then you set the ACL. Good luck with that, but, anyway, that's one of the comments they had. The key also is that one of the issues they have is -- Has the Puerto Rico Department of Natural Resources has already prohibited electric reels for recreational fisheries?

RICARDO LOPEZ: I understand that they are prohibited and only for commercial fishermen, and is that right?

 MIGUEL ROLON: Recreational fishermen are prohibited, because I remember that Genio told us that they went to Rincon and there were two people there using snapper reels and they were recreational fishers, and so that is something that has to be clarified, and remember that we are talking only about the permit.

 We aren't even talking about restricting any gear whatsoever, and so the other issue that was brought to our attention in Mayaguez and somehow in Naguabo is that the majority of the areas that are fished for these two species are within the area of jurisdiction of Puerto Rico. Very little area falls into the EEZ, and they say, if you have a permit like that, what is the issue with that permit?

I received a comment here from Mr. Font, and he repeated what he said in Mayaguez, and so it was part of the summary that he had, but he also believes that, if the permit is used for communication with the fishermen, they already have a permit with the Department of Natural Resources and what is the gain on that?

The other important part of the socioeconomics was presented by Nelson, and probably he can clarify it more. Right now, you have around seventy fishermen who have a permit to fish these two species and it's under limited entry. If this fishery is open to everybody, then the return to investment to these seventy fishermen will go really down the drain, and that's something that you need to consider, whether that is good or not, and I am not arguing that.

The rationale for not reporting in the east coast, aside from what Marcos mentioned about the price, is that they don't have their permit. Therefore, they don't want to be penalized by the Rangers or the vigilantes. At least four of the fishermen who went to Naguabo told me that they report queen snapper as the silk snapper, because of that. They do it on purpose. They can separate the two, but they are afraid that, if they do that, they will be in violation of the directive from Natural Resources.

The last part is the question that they ask, and probably Ricardo can answer this, is whether the Department of Natural Resources plans to continue with this limited entry program or the exclusive permit that you have given to these seventy fishermen in 2017 and 2018 and what are the possibilities of harmonizing that permit with the federal government and vice versa?

Regarding harmonization of the permits, remember that Puerto Rico requires residency of one year to obtain a permit and a commercial fishing license. The federal government does not discriminate using that caveat, and so the permit cannot be directly linked as one, as some people proposed, and so you may end up having a federal permit and a local permit in the two different areas.

RICARDO LOPEZ: DNER is not planning to change any of those regulations. In fact, we have been, lately, dealing with fishermen that are not giving us the statistics on time and only those fishermen have been not approved to keep the license. We are talking only about six to eight fishermen. All the rest were approved, and no changes have been seen until now for the regulations.

MIGUEL ROLON: If I understand correctly, out of the seventy, six to eight fishermen have not complied with the requirement of giving the data and their permits have been removed?

RICARDO LOPEZ: Exactly.

CARLOS FARCHETTE: Nelson.

NELSON CRESPO: I had some comments that I wanted to read for you regarding this issue. Puerto Rico only has four port agents, and it's impossible to cover the island with what we've got. It would be naïve to think that only a small group of fishermen fish for Snapper Unit 2. We all know there are a lot of poachers and recreational fishers who do not report and, even so, the small reporting group almost exceeds the ACLs every year, and let me tell you something.

If the small group that is right now less than seventy reports the reality of their catches, NMFS has to close this fishery every year. Definitely this led us to the conclusion that the resource is more than healthy, and I do not see the incumbency of knowing the truth.

I understand that we have an excellent opportunity to grant a moratorium to know the true reality of this fishery, and I think that the scientific community would like to know what the researchers count on. If the moratorium shows that the resource is healthy, you can open the door to bring more fishermen to this fishery. I totally support to bring more commercial fishermen to this fishery, because the resource supports it.

 Finally, we do not have to know much more math to understand that around 146,000 pounds divided by seventy fishers equals a little more than 2,000 pounds, and we all know that we catch much more than that.

CARLOS FARCHETTE: Marcos.

 MARCOS HANKE: I totally agree. I am from Puerto Rico too, for the record, and I totally agree with what he is bravely characterizing on the mic, and that's why something that looks like a crazy idea comes to the table about the moratorium, because we have the fishing community putting pressure to the council and to the system, saying, listen, we want to engage into a process that you're going to create a new truth or a much better baseline to manage fisheries and to protect them and to make the system finally work with the support of the fishing community. Basically, this is what they are requesting, and this is a moment to do it.

 My question now is for Iris. Do you see any way, under any circumstance, that those fishermen that have the permit or are participants in this, let's say, that they're going to be forced

to do an electronic report, under this format or whatever, and a moratorium of whatever time is needed to create that good information? Is that possible or there is no way and it's not even worth it to think about it?

IRIS LOWERY: When you say "moratorium", can you explain exactly what you mean by that?

 MARCOS HANKE: The thing is that what Crespo -- Please correct me, Crespo, if I'm wrong. Every fisherman stated that the data is wrong, because of all the reasons we have been discussing, and they know that the status of the fishing is way better than what the scientists think, through the data, because there is way more participants and the fishery remained the same.

 Basically, we are managing something that is not correct, the numbers and everything, and they want to create those right numbers, because it's to their interest to do it correctly, because now they are being affected from those mistakes from the past, for whatever reason.

Is there any way, because we are pursuing better data, better management, better distribution to participate in the fishery and so on, to be fair to everybody or to the people that should be participating on that, to find a way to do something like that?

IRIS LOWERY: If I understand what you're saying, this is less related to the question of permits and more as far as reporting accurately?

 MIGUEL ROLON: What they are proposing is that we do not enforce the ACL for five years and collect the information, as much as possible, that we need for all the species. They are willing to supply all the information you need. Then, at the end of that period, provide that information to the scientists to assess the status of the stocks and then establish the ACL.

 We told them that it's up the creek to do that, because, right now, we have not seen any mechanism that allows the National Marine Fisheries Service, or the Secretary in this case, to stop enforcing an ACL in any fishery, creating this moratorium, and so the question is that true or is there any way that we can go and have the moratorium?

IRIS LOWERY: Right, I would say that's correct, because the ACLs are required by the MSA and, as we heard this morning, the National Standard Guidelines. The revisions do provide some

flexibility, as far as the status determination criteria, but they don't provide flexibility on requirements to have that ACL.

What I would say is that our current accountability measures do provide for that. Not a moratorium or a pause on the ACLs, but, if an overage is due to increased reporting, and the Science Center makes that determination, then accountability measures aren't implemented.

MIGUEL ROLON: Because, in that case, to the council people, that's probably the only way that we could do it, legally speaking. If the fishers commit themselves to provide the data, and, by the way, that's another point. Most of the fishers fish within the area of jurisdiction of Puerto Rico, within the nine miles.

There is an issue here, because, if you don't know where the fish come from, you assume that they come from the EEZ. Therefore, the ACL is for the EEZ, no matter where the fish come from.

They also tell us that they are coming from the Dominican Republic with fish, and not as much as they fish in the area of jurisdiction of Puerto Rico, but that is something, if that's the case, and so they have two questions, and the first is how can they improve the data collection without being penalized. That is their main problem.

If they give us more data, it will go with the overage. You just told us that there is a mechanism that allows the Center, once you have a baseline, to say, well, this overage is due to better data reporting and, therefore, we're going to do X and Y and not necessarily enforce directly the ACL, but the ACL will stay there until we have enough solid information to move it. It will be moving around, that ACL, and it's not that you are going to dispose of the ACL over this period of time.

CARLOS FARCHETTE: Iris.

IRIS LOWERY: I would agree with what you just said, and I think that, as I've heard Bonnie say many times at these meetings, the intent of what currently is in the AMs is to do exactly what you were talking about, Marcos. It was to not penalize fishers for reporting accurately.

My second point would be that, as far as the ACLs, and, Bill, please correct me if I'm wrong here, but this is something that, as we're moving forward with the island-based FMPs, I think, as

you were talking about earlier today, revisiting those ACLs and how they're set is something that will be happening through that process.

CARLOS FARCHETTE: I have a question. If I have an ACL of 146,000 pounds, how are we going to know whether we can harvest 300,000 pounds? Will we have to do a stock assessment of a species? Is that the only way to determine that that ACL can be increased? Clay.

CLAY PORCH: That's the only way I know to do it, unless you can go demonstrate what the historical landings were and then you recalculate according to the methods that you already have on the books, but you would have to go back and adjust those landings appropriately, and I don't know if there's a mechanism to do that.

CARLOS FARCHETTE: I think that's what Nelson is referring to, that they can prove that they can catch a lot more than 146,000 pounds, but they can't, because they are restricted by that ACL.

MIGUEL ROLON: That's the issue that I am trying to convey to you guys. They can fish more and give better information with the ACLs that you have now. They can do that. That's what Iris just told you, as long as the Center can justify that overage as better information.

When we were working with the catch share program, Daniel Matos from Puerto Rico's Research Laboratory gave us the statistics, all the statistics that he got for around Puerto Rico. One fisherman stood up and said that those statistics are wrong, because I catch twice that amount is six months, and I asked him if he reported it, and he said, well, no.

The fishermen that came to especially Mayaguez and Naguabo, but the fishermen in Mayaguez that are already fishing these two species, they believe, number one, that the only way that they can improve the system is by collecting better data, and they are willing to do so.

They want to make sure that, by doing so, they will not be penalized with a larger closure because of ACLs. At that time, what they asked me, I said that I cannot guarantee any of that. The best thing that we can do is to discuss it at a council meeting and see what avenues the council can open for you to discuss it.

CARLOS FARCHETTE: I have Marcos and then Bill.

MARCOS HANKE: Two things. First, to the point of increasing reporting and engaging the fishermen to report better that you're going to have data that, in the future, could increase the ACL, what about the lobster that we are going now through? That is point number one.

Point number two is that what Miguel says is true if you think about the permitted people that report. Even in that case, Crespo just said that if all those fishermen report the way it should be that you're going to be closing the fishery much quicker, because those ACLs, since the beginning, was viciously implemented because of lack of data.

The highlight of the moratorium and the main reason, the way I see it, of the moratorium is that you're going to have, besides the permitted people, a benefit or an incentive for the people that illegally participate in the fishery to engage into the process and to provide the information and to have better information and establish that baseline and better fishing management. That's what the fishermen and the industry is pursuing. I think there is opportunity that you guys have to help the industry on that, some way, somehow.

CARLOS FARCHETTE: I have a follow-up with Nelson, and then I've got Bill and then Roy.

 NELSON CRESPO: Let me add to Marcos's words. To remind you guys, we would only be allowed to fish 120 days per year. That's been that we can fish only four months a year. We have an eight-month closure established already with the regulations of the DNER.

CARLOS FARCHETTE: Okay. Bill.

 BILL ARNOLD: I hardly know where to start. First, the reported landings are probably about 80,000 pounds a year. The DNER collects those data and some estimate of who is failing to report or underreporting and they develop an expansion factor. That expansion factor, historically, has been about 0.5, and so the expansion factor accounts for the fishers who are not reporting.

If more fishers start reporting, the expansion factor will become less and less influential, but, overall, the landings will stay the same and the adjusted landings, which is what we use to set the ACL and which is what we measure against the ACL, would roughly stay the same, because you're just adjusting for

these factors that are being taken into account, and so that's one thing.

Another thing is you don't set your allowable catch relative to how many people want to catch how much. You set your allowable catch based upon what the resource can sustain over the long term. Then, once you've established what the resource can sustain over the long term, you have to fit fishing effort into that capacity. Otherwise, you're going to blow the fishery up. Nobody wants to do that.

I am not claiming that our 145,000-pound ACL is correct. I certainly would support any efforts that we could make to improve that, but a five-year moratorium on any constraints on catch is not the way to do it. For one thing, and Clay knows much better than I, I can't imagine that it would require five years of data to be able to do a quantitative assessment.

If the fishers and the DNER, and I am not meaning to criticize anybody and this is just the way it is, but if you're getting not just the landings data, but you're getting the TIP data, the biological information that goes along with it, the size data and growth data and age data and all of these things that are supposed to have been being collected over the course of how many years, if not decades, then we would be able to do quantitative assessments.

We would have a much better idea of what the capacity of this fishery is and then, first, Puerto Rico could develop a permit program that would work within that capacity and the feds could build off of that permit program.

My approach to this, which is not definitive, but my approach is we follow Puerto Rico. We don't lead Puerto Rico in this. We follow them. They set up a permit program that will work, and then we want to complement that program in federal waters, so that we have smooth consistency everywhere and the enforcement folks can have a very simple and straightforward job of actually making this permit program work.

When you've got disconnects between state and federal, you've always got an excuse in front of a judge to say, yes, but that's not what I was doing. I was doing this, and it's legal over here, even though it's illegal here.

46 Really, for one thing, and Iris is the expert on this, but I can't imagine we would ever be allowed to just say we're not qoing to apply the ACL, because that's a precedent-setting move.

Once you say we're going to not apply the ACL to queen snapper, the lobster guys and the red hind guys, everybody, could say, hey, we're in the same boat, and so I think that we're not really -- I understand and sympathize with the fishermen and appreciate where they're coming from, but I think we're emphasizing the wrong aspects of what came out of these scoping hearings.

I think that the key outcome from these scoping hearings was these guys want a permit. They just want one that works, and, as I've said before, this is not something that we're trying to do in a hurry. This is going to be a lengthy process. As I've said, we envision it as being Amendment 1 to the new Puerto Rico FMP and not any amendment to these old FMPs. As you guys well know, that is at least a year-and-a-half away. We just put the timeline up there, and that's a solid year-and-a-half down the road, and so we've got time to try to figure out a good way to go about this.

Getting the input from the fishermen is an absolutely essential part of that process, but now comes the really hard work of figuring out how much can be harvested and how that harvest is going to be allocated, anywhere from a total free-for-all to a very restrictive permitting program that ensures that a small number of fishermen can make a decent living by harvesting this resource. Right now, we're somewhere in between. As they said, 2,000 or 3,000 pounds per person per year is really not cutting it for anybody. They're all splitting up just enough to fail.

CARLOS FARCHETTE: Marcos.

MARCOS HANKE: A follow-up question, just to make sure that I understand and that Crespo understands this. Thank you, because this is what I was expecting. If I understand correct, if we had the historical information and the biological parameters of this fishery, we could analyze this data differently and maybe get to a different outcome, if the data was better, and not just landings.

If we create the scenario under the ACL now, those guidance is what the fishing community are asking for, looking forward to prove to the system and to everybody that it's healthier and that we need to increase the ACL, instead of just knowing what to do and not saying to the fishing community how to do it. That is not correct. This is what they are requesting. How are we going to do the business management in a good way? This is our request, and, Clay, I don't know if you want to comment on it or Bill, but I would really appreciate it.

CLAY PORCH: I guess two points with that. The first one is there is no time better than now to collect the data that we're going to need to prepare for a better stock assessment, in which case you don't necessarily have to raise the catches to get a better estimate of how many lobster are out there and how many you can take and have enough left over for the future or snapper or whatever.

 We do have to work to improve the sampling designs, and, as many of you are aware, there is a number of efforts going on to try and do that very thing now, but the other thing is, going -- I can't imagine how we would justify it, and I would punt that to Iris and Roy, just saying to the agency, oh, we're just not going to enforce any catch limits.

I don't see how you would pull it off, but, if you could go and find some way that you could look at the historical information that the ACL is now based on and you could better measure the amount of underreporting, then you could go ahead and adjust that, and that's probably what Bonnie was getting at when she was saying that, if you could demonstrate that there is underreporting, but you've got to do that during the period where the landings that the ACL are based on is.

I mean, you can't just say now we're underreporting, but the ACL was based on a historical period, and so, yes, there are the adjustment factors that are applied, and I guess what the fishermen are saying is those adjustment factors don't catch the full scale of underreporting that was occurring, but somehow we need a way to demonstrate that factually, and then we can apply it to the ACL and adjust it.

We've done that in the cases of our recreational fishery, where we got better estimates of recreational catch historically and so then we adjust the ACL, and you could do something like that, for things like in the Gulf of Mexico, and you could do that here, but, again, we need that information, and I haven't seen it forthcoming.

CARLOS FARCHETTE: Iris.

IRIS LOWERY: Quickly getting back to the issue of the ACL moratorium, I would absolutely agree that ACLs are -- I know a lot of people don't like them, but they're one of the requirements of the MSA, and so I don't see any real basis for departing from that in this instance.

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: What I was going to say is stop hitting yourself against the wall. You're not going to move that ACL. Once that is understood by everybody, then the next step will be for Puerto Rico to figure out how the hell they're going to collect the data that we need, because the problem we have is that Puerto Rico is not collecting the data the way it's supposed to be, for many reasons.

The first thing that we need to do, and we offer this. We can work with the local government and some of the experts around the table here to figure out how to improve the data collection system them have. Involve the fishermen who are willing to provide the information that they can, as much as possible.

There is still that little thing about where the ACL applies, whether it applies through the entire range of the species or just the EEZ, because, if it's just the EEZ, we don't have a way to say whether this fish is caught in the EEZ or not in the EEZ. So far, we are assuming that whatever landings comes to the shore may come from the EEZ. Therefore, the ACLs are based on that.

Historical data, forget about the historical data. We went through all the whole thing, and the best possible answer was what we got from the Center and the people who got involved with this, and so the question to you is that, number one, we can follow what Bill is saying. We are not in a hurry to jump on this bandwagon of a permit.

Let's allow Puerto Rico to have a better permit system and then we can follow suit, but Puerto Rico has to be active in this. I believe that this guy is going to fix everything, the new guy, but we need to make sure that we work toward that goal and that we involve the fishermen and the scientists and see if we can have a better picture of how we can collect the information.

I remember Mr. Font, and we call him Pauco, and he went and said, it's our fault, guys. We didn't collect the information and we didn't send in the information and we need to figure the way that we can improve this. Nelson stated that the fishers that he represents are willing to provide better information as long as they are not penalized somehow, but we need to figure out a way of collecting that information.

Again, what Iris said is that, although the ACL cannot be erased tomorrow, you can use a mechanism that says that, if the

overages, and I have to repeat this over and over again, if you have a better collection, data collection, program, and you convince the Center that the overage is because of that, then you will not be penalized again for the ACL.

I remember the spiny lobster. Puerto Rico sent a letter at the last minute. I was texting with Bill here, and he helped me put together the letter for the local government. People thought that, by sending that letter, the ACL would disappear or would balloon all the way up the ceiling and they would be -- Well, when the Center received the information, the whole data was within the variance that they use for described the ACL for the spiny lobster and they couldn't move the ACL, and so, this afternoon and this evening, we are going to discuss ways to improve it, but, setting aside the lobster, Mr. Chairman, the question that we need to answer now or get a directive from the Center is do you want to pursue at this time the permit or not. That's the first thing that we need to ask for the queen snapper and the cardinal.

CARLOS FARCHETTE: Okay. Blanchard and then Richard.

TONY BLANCHARD: I would have to agree with Bill. I think we need to let the state, Puerto Rico, develop a better permitting system, if that's what they want, and get the information from the Science Center, like Clay says, that they need to be able to somehow work on getting that ACL up. Then, when they come with a permitting system to us, then we make the adjustments that need to be made, and so let them take the lead and let them do the hard work.

MIGUEL ROLON: Mr. Chairman, probably what we should do is these are scoping meetings. We didn't go with something in concrete blocks, and so we can table the discussion until that happens. You can have a motion. If you are happy with that, you can table the discussion until a couple of years from now or one year from now or two years from now. Table the discussion until we have a better mousetrap from the Department of Natural Resources.

CARLOS FARCHETTE: Richard.

RICHARD APPELDOORN: Along the lines of a number of people who have been commenting, if you want to be able to collect appropriate data and are concerned about the ACL, you're going to have to have a specific program that is targeting improved data. You just can't say it happens. You actually have to have a program that says we are, in this case, targeting Snapper Unit

2, and I think Bill pointed out that there is the reported catch and then there is the expansion factor.

The expansion factor is calculated by coast, but over all species. If you have, for example, a limited entry fishery, there is probably no reason that you would expect that same expansion factor to be applicable to a smaller number of fishermen who have a much more vested interest in the management of that species.

 If you wanted to look and see whether your expansion factor for Snapper Unit 2 is in par with what's being caught for all these species, that would be a perfect rationale for designing a new sampling program relative to that specific issue, and so there are mechanisms to do that.

Coming into the SSC and the Center, if we're seeing high numbers that are tied to a specific program to collect better data, there is a rationale for saying, okay, this is not a true ACL overage and this is better data, but, if you don't have all of the things tied together, it doesn't happen, but there are ways to do that, and so it's, again, and I forget who mentioned it, but it goes back to Puerto Rico, who is the data collector, to design that program and get it up.

CARLOS FARCHETTE: I've got a question. If they're only allowed to fish 120 days in state waters with that permit, 120 days, but if I fish in the federal waters, I can fish every day?

CARLOS FARCHETTE: It's open, right? That is an issue, I think.

MIGUEL ROLON: It's open.

GRACIELA GARCIA-MOLINER: The problem is that you have to transit through the state waters. Therefore, if they intervene with you in the state waters, you are going to be uncompliant with the law. The program would have to be designed to make sure that you know that it's coming from the EEZ, but you are transiting through the state waters and for the specific number of people who are collecting the -- One option that was offered to you was to actually look at the data from the mixed species complex type of situation, and so that should also be included as part of the data collection improvement program.

MIGUEL ROLON: If I may, Mr. Chairman, we are not going to solve this problem between here and five o'clock. I propose that you can table the permit, which is what you were after when you went to the scoping meeting, and then create a committee to help

Puerto Rico put together something that will make sense, as Dr. 2 Richard Appeldoorn was saying before. For that, we can assist Puerto Rico with some seed money or whatever, but Puerto Rico has to make a commitment to put some warm bodies somewhere to collect this data and make sense out of it.

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Actually, when Daniel gave us a presentation and when Dr. Juan gave us a report on Mayaguez, the average catch per fisherman is 140 pounds per day, and they go two or three times a week to fish, and that data was -- That information was supported by Nelson and the group of fishers from the west coast of Puerto Rico, and so, there, you have some more information. Ricardo, do you think that we can work together with a team like that next year?

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RICARDO LOPEZ: I think that we are talking about many things at the same time. Yes, I don't see why we can't make an agreement with this, having a team working on that. Saying that, I agree with Bill in every word that he used to explain this issue.

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I want to add that we need to remember that there is not such a number as 2,000 pounds per fishermen. That's not real. real thing here is that 80 percent of the catches is done by 20 percent of the fishermen.

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MIGUEL ROLON: You are mixing apples and oranges here. seventy fishermen fish X amount of fish, and you divide that by the seventy fishermen and that's what they have done. the data is good or not, that's beside the point, but those numbers are real. It's just simple arithmetic.

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When Dr. Juan Agar did the survey, he interviewed -- Actually, he sent somebody to interview every one of these fishermen, and we were able to compare what Daniel has with the numbers that we collected, that Dr. Juan Agar collected, and they prepared a table, and I call that table the lie-detector table.

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Out of the fifteen members of the board for the catch share program, four did not report any deepwater snapper. was reported by eight, and only two reported every little pound that they caught, and so we're going to have to sit down and figure this out and make sense out of it. Otherwise, we can come here every year and discuss the same issue again nothing will happen.

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What we're offering here is some assistance, because we have 46 people around the table, like Richard Appeldoorn and others, 47 48 that we can provide some way for them to participate in the discussion. Also, I would like to include a fisherman or two, at least that will be observers, one or two from the east coast and one or two from the west coast, because, right now, what we have found, from Naguabo and Mayaguez, is that fishermen on the east coast believe that -- I am not saying that this is what happened, but that it benefits only the west-coast fishermen, forgetting about all of these guys from the east coast.

At a meeting in August of 2015, the fishermen of the east coast gave a letter to the Secretary with a list of all the fishermen already fishing these deepwater snapper. The problem is, when I asked Daniel whether any of these were reporting, none of them were reporting the data, and so the Department of Natural Resources has its hands tied, because you have to go by the law, also.

You have to go by the numbers, and, if you don't have the statistics for a particular fisherman, it will be difficult for you to assess whether they can belong or not to this group, and that's why I am offering now, and that's the question regarding whether you think, based on what is coming up in the next year, whether that's something that can be done.

By the way, there is no way that the federal government can force the local government to do anything that you don't want to do. That's what Bill said. We follow whatever you're going to do this time, and I am really personally concerned. Most of the fish come from inside of the area of jurisdiction of Puerto Rico and not from the EEZ, and still we have a problem.

RICARDO LOPEZ: I see what you mean. Again, I agree with Bill. I also agree with you on many things. I am sure that, as you said, that --

MIGUEL ROLON: Ricardo, you agree with us on everything, but what is it that you agree on, specifically?

RICARDO LOPEZ: I am getting to that now. I am sure that not every fisherman is reporting, as you said. That is taken care of by the expansion factor, as it's supposed to be. We also have two professors from Miami, Jerry Ault and Steve Smith, that did some work with important commercial fishes, but in shallow waters.

We are planning to do the same work, in terms of sustainability, for deepwater snappers and other species, and hopefully that will help. We are not stopping and we are not working only with what the fishermen can give us. We are taking care of things by

making other studies as well, and, sure, we can make that committee whenever you say, probably this year. I don't see why we cannot do that in 2017.

CARLOS FARCHETTE: Marcos. Before Marcos, I would add kindle to the fire. There is a fisherman on St. Croix that comes twelve miles east of Vieques to fish for your queen snappers, and so it's allowed. We have to look at that too, whenever we come up with this federal permit. I'm sure it's going to be for the U.S. Caribbean and it's not only going to be for Puerto Rico. Go ahead.

MARCOS HANKE: I would like to make a motion to table the discussion of the permit and the decision on creating a federal permit for Snapper Unit 2 until the appropriate time. Can you help me with the language, Miguel?

MIGUEL ROLON: Until the appropriate time where we get the information that we need to make a decision or that we need for such a permit or for the permit.

TONY BLANCHARD: I second.

CARLOS FARCHETTE: Okay. The motion is to table the decision on the permits until the appropriate time when we get the information needed for this permit, Snapper Unit 2 (queen snapper and cardinal). Motion by Marcos and second by Blanchard. Iris.

IRIS LOWERY: This is up to the council, but I wonder if you would like to state a period of time after which you would like to revisit it or have some more discussion regarding what exactly information it is that you're waiting for.

CARLOS FARCHETTE: I agree, before it takes like forever.

MIGUEL ROLON: If we follow what Bill presented, it's around 38 2018.

CARLOS FARCHETTE: Wow.

MIGUEL ROLON: You guys were paying attention to what he said. Between here and 2018, the island-based FMPs should be in place, and nothing happening in between. You can say, following Iris's suggestion, is 2018 or something like that. No later than 2018.

47 MARCOS HANKE: Can we add language of "not later than 2018" to 48 my motion, please?

CARLOS FARCHETTE: All right. I will do a roll call for the votes. I am going to start on my left with Carlos Velazquez.

CARLOS VELAZQUEZ: Yes.

TONY BLANCHARD: Yes.

RUTH GOMEZ: Yes.

11 RICARDO LOPEZ: Yes.

13 MARCOS HANKE: Yes.

15 ROY CRABTREE: Yes.

CARLOS FARCHETTE: Yes. The motion carries.

MIGUEL ROLON: Mr. Chairman, to get this out on the table, I believe that we will talk to Ricardo later on and see what can be done and, if the Puerto Rico Natural Resources Department decides to go forward with this, you and I will talk and see which people you would like to see on that committee and what will be the goals and objectives of the committee.

CARLOS FARCHETTE: Okay. Moving on to Developing an Alternative Annual Catch Limit Benchmark for Application of Accountability Measures. This is being done by Bill.

DEVELOPING AN ALTERNATIVE ANNUAL CATCH LIMIT BENCHMARK FOR APPLICATION OF ACCOUNTABILITY MEASURES

BILL ARNOLD: This is right along the lines of what we just talked about. When it comes to the Snapper Unit 2 fishery specifically, there are some short-term things that could be done. They may or may not help, but they could be done, in an effort to potentially lessen the likelihood that an AM-based closure would have to take place and also possibly to even better understand what the true landings are.

As we have discussed in the past, as far as the true landings are concerned, get a sector-specific expansion factor, because it may be that -- Like I said, the overall expansion factor is roughly 0.5, and so it doubles the landings.

If that expansion factor was instead 0.8 or something, or, in other words, 80 percent of the fishers are reporting, instead of 50 percent, it would not double the landings. It would increase

them by 20 or 30 percent or something like that, and you would be nowhere near your ACL, and you wouldn't be suffering these closures.

Another thing, and you have to keep this in mind. This is important, but the fishers should be reporting. Report, report, report. I will say that until I am blue in my face. This idea that, by not reporting and not providing good data, that you are benefitting yourselves is exactly wrong and exactly opposite of what the true situation is.

The third thing is that we have, and that's what I'm about to talk about, we have two components to accountability measures. The first component is what triggers the need to implement an accountability measure? The second is what actually is that accountability measure that you just triggered?

We've got an accountability measure in place. The accountability measure that exists is, if you exceed the annual catch limit, then, the year following that determination, the length of the season is decreased such that we reduce, to the extent practicable, the likelihood that you will again exceed the annual catch limit.

There is no reduction in the annual catch limit. There is no penalty. There is just we want to reduce the number of days you have to hit that annual catch limit, because apparently you're fishing at a rate that's so fast that you will -- If you fish all 365 days of the year, you will exceed it, and so that's what the actual accountability measure is, but then there is the trigger for that accountability measure.

Right now, for Snapper Unit 2, we have, in Puerto Rico, separate sectors, and each sector, the recreational and the commercial, has an annual catch limit, and they have a trigger for application of the accountability measure to their specific sector, and that is, if you exceed your sector-specific ACL, the accountability measure will be applied to your sector of the fishery.

That is all great, but the trigger does not have to be this individual sector's annual catch limit. In fact, optimum yield equals the total annual catch limit and not the sector-specific annual catch limit, and we are trying to achieve optimum yield.

You could, instead of having sector-specific triggers, you could have a single trigger that is the total ACL, and then, only if the total annual catch limit is exceeded, would accountability

measures be applied. Those accountability measures, the second part of the equation, would still be applied in exactly the same way, in the same sector-specific way, with the same sector-specific penalties.

 If the total catch exceeded the total annual catch limit, then accountability measures would be applied, and, of course, there is some alternatives in here that belie this, but the basic idea behind this is those accountability measures would still be applied to the individual sectors, based upon how much each sector exceeded their annual catch limit.

For example, as is the case, because this is actual data, this is what happened last year with Snapper Unit 2. The commercial sector caught 156,000 pounds. Their annual catch limit was about 146,000 pounds, and so they were about 10,000 pounds over. That resulted in a requirement to close that fishery for thirty-six days, starting on December 31 and counting backwards, and they experienced that closure.

Meanwhile, the recreational sector landed, on average, for the three years of 2012 to 2014, they landed, on average, during those three years, 2,460 pounds per year. They were allowed, by their ACL, almost 35,000 pounds, and so they're sitting roughly 32,000 pounds below their annual catch limit.

All this translates into a total catch, total average catch, of about 158,000 against a total ACL of 181,000, and so they're 22,000-plus under the total annual catch limit. If this had been applied, instead of this, there would have been no closure.

Now, that doesn't mean that's going to happen every year, and that doesn't mean that the recreational doesn't get their 34,810-pound catch level, but it does mean that, if they fail to take advantage of that, and the commercial leaks over, the commercial won't necessarily be penalized.

Now, if the commercial goes so far over their ACL that they push the total catch over the total ACL and the recreational stayed under their ACL, then the accountability measure would only be applied -- At least one option is the AM is only applied to the commercial. Now, this is what we're talking about when we talk about adjusting the trigger for accountability measures.

This is a framework measure. We wrote ACLs and AMs into the frameworks when we created the 2010 Caribbean ACL Amendment, and so this is a -- We could amend the fishery management plans in a relatively quick amount of time. Not quick. Nothing is quick,

but a relatively quick amount of time.

It depends upon, of course, how the council votes and what preferred alternative they want, what the alternatives are that are constructed for this, et cetera, et cetera, but there is the potential, based upon this approach, to use a total ACL trigger instead of sector-specific ACL triggers and at least somewhat reduce the likelihood that an accountability measure will be triggered.

 Now, this may be a relatively short-term solution, but at least it is a part of an approach to ensuring that we're achieving optimum yield without overfishing the resource, and I had a couple of other spiffy slides, but I will go to Slide 3.

MARCOS HANKE: A question on the numbers, on the tables.

BILL ARNOLD: Sure. They averaged, during those three years, 2,460 pounds per year of reported recreational landings. That is based upon the Puerto Rico Marine Recreational Information Program intercept data collection program.

CARLOS FARCHETTE: I have a comment, because I think I did ask, a few council meetings before, to take the leftover from the recreational and add it to the commercial, and that's what we're practically doing here, right?

BILL ARNOLD: No, that's not what we're doing at all. That's a reallocation of the available catch. This is not a reallocation of the available catch. It is only an adjustment to the trigger, but it's not like the commercial gets another 32,000 pounds. They don't get any more. They are only penalized if the total ACL is exceeded, which is the optimum yield, but, if that total ACL is exceeded and it's exclusively due to the commercial guys going over their 146,000-pound ACL, then all of the AM is applied to the commercial guys.

CARLOS FARCHETTE: Blanchard and then Marcos.

TONY BLANCHARD: I've just got a question. Now, this really applies to Puerto Rico, because, as it stands now, the Virgin Islands doesn't have a recreational ACL. Could this come into play for the Puerto Rican people or Puerto Rico starting next year, when the new set of ACLs start to be looked at, that if there is an underrun by the recreational sector that they can go to the commercial sector? Is there anything that could be done about that now?

BILL ARNOLD: Tony, there is two things. One is our timeline indicates we could have this in place not for 2017, which we're working on now, although it is possible, depending upon the timing, but we would like to get this thing set up for 2018. The second thing is I reemphasize that the commercial doesn't get any extra poundage. They just don't have the AM applied unless the total is exceeded.

MIGUEL ROLON: Mr. Chairman, this is the crux of the discussion. What happens then if they reach their ACL? That one triggers the AMs and --

BILL ARNOLD: If who does, Miguel?

MIGUEL ROLON: Let's say in the scenario that the commercial exceeds their ACL, but it won't trigger AMs, under this proposal, because you will not have the total of 180,000 pounds that are the sum of the two sectors, but, at the same time, if, in the following year, you reach 145,000 and the recreational the 35,000, more than 35,000, then the total will be over 180,000 and then you will trigger the AMs. That's what Bill is proposing. Bill, the quickest way of doing this will be when and how? Will it be 2018, if approved by the council?

BILL ARNOLD: Well, let me give you a little more information. As always, we have to have an action, and we have to have alternatives under that action, and so these are some -- This is a proposed action and suggested options. Obviously Suggested Option 1 is no action, we don't do anything.

Option 2 is what I have explained. If you exceed the total ACL, the AMs are applied to each sector according to the degree to which each sector individually exceeded their ACL. If you didn't exceed your ACL, you wouldn't have AMs applied, but one of them had to have, or you wouldn't have gone over the total, and so that's one option.

Another option is, if the total ACL is exceeded, then both sectors, regardless of who exceeded it, both sectors are closed at the same time, to ensure that the ACL is not again exceeded. Now, that may seem like a totally crazy idea, but, from an enforcement point of view, they don't have different closures and they don't have recreational guys out there fishing while commercial guys are closed or something like that. I am not saying this is a good idea. I am just saying it's another option in the range of viable options.

MARCOS HANKE: I want to state that the option of that

flexibility that you presented of using the total ACL as the trigger, I agree with that. I think, in terms of the procedures that you were analyzing and the timing of being able to implement things, it's a good thing, but, and just if whoever exceeds the ACL is going to have the AM in place and not both at the same time. Otherwise, it's going to be the same and making, indirectly, a reallocation. The Option 2, I think it is, that is proportional to each whatever sector exceeds, and this is something that I can agree with. I have another question. Does this apply to lobster and to everything?

BILL ARNOLD: It wouldn't apply to lobster, because we don't have recreational sector separation. In spiny lobster, we don't get recreational data from MRFSS. They only do finfish, and so, with lobster, it's the total. For all the finfish species, for which we have separate recreational and commercial sectors, you could either make it specific -- You tell us and we don't tell you. You could make it specific to Snapper Unit 2 or you could make it generalized to basically all federally-managed finfish species or species complexes, specifically Puerto Rico.

MARCOS HANKE: One last question, for the record to be clear of my intention. If we apply it to the finfish, this strategy that I just endorsed, that you presented, the recreational sector will not lose the access to that specific fishery or finfish, but we just will be not wasting our ACL if one sector or the other doesn't get into there and be analyzing the implementation of the AM through the whole available ACL.

BILL ARNOLD: You won't change each individual sector's annual catch limit. You will just change the conditions under which the accountability measures associated with that annual catch limit are implemented, and I would point out that, if you did it for all the finfish and not just for Snapper Unit 2, then there would be species complexes for which the recreational would benefit, because jacks, for example, are -- Recreational jacks, as I'm going to talk to you about later, are again going to exceed their ACL in Puerto Rico this year. That is two years in a row.

Perhaps, and I haven't looked that closely at the numbers, but perhaps if they had this AM trigger situation in place, they would have been able to take advantage of the untapped commercial quota and they wouldn't be suffering an accountability-measure-based closure.

CARLOS FARCHETTE: A follow-up, Marcos, and then I have Iris and then Blanchard.

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MARCOS HANKE: One other thing is that it totally makes sense from the biological point of view, and that is that those are not -- The recreational and the commercial are not living apart. They are the same resource. They feed and they reproduce and they are the same. I think it totally makes sense, to me. For that reason too, I endorse this idea.

CARLOS FARCHETTE: Iris.

IRIS LOWERY: One of the important points here, which Bill just alluded to, is that this isn't changing the ACLs, and so there are certain requirements where you, for instance, go over the ACL two years a row that are triggered by the National Standard Guidelines.

If you go over the ACL more than once in four years, the guidelines require you to reevaluate the system of AMs and ACLs, and so this changing the AM trigger doesn't get rid of that obligation if you go over the ACL, and so, while it might provide some occasional flexibility, relying on it on a regular basis presents some concerns under the NS Guidelines and also as far as whether or not you really should be discussing reallocation if you're continuously going over the ACLs.

Then my other point is that, although we are framing this in terms of the AM trigger and not reallocation, I think that is important, for the record, that you all think about how this is a fair and equitable action.

CARLOS FARCHETTE: Blanchard.

 TONY BLANCHARD: I've just got a question for Bill, because I want to make sure I'm clear as to how this works. Once the AM is triggered, and let's say the stocks for the recreational sector is not met, and let's say you give -- The stock is not utilized, it's an underutilized stock, and you give it over to the commercial sector not as a reallocation, but for not exceeding the ACL between the two sectors, right? Is that a two-way street? In other words, let's say that the recreational overrun theirs and the commercial does not overrun theirs. Is the commercial obligated to give their underutilized stocks to the recreational sector?

BILL ARNOLD: It is a two-way street, Tony, but nobody is giving anybody anything. They get their exact same ACLs. There is no reallocation. It's just a matter of what is the trigger to implementing the AMs.

If the recreational sector harvests X number of pounds of jacks and that number is over their ACL, but not over the total ACL, and the commercial guys don't harvest enough jacks to compensate for that, and they don't exceed their ACL, then the recreational would benefit by not having an AM applied.

If the total ACL is exceeded, and it's all due to a recreational ACL overage, all of the AM is applied to the recreational and there is no implication for the commercial, assuming that you chose suggested Option 2 instead of suggested Option 3 or other options that other people may come up with.

CARLOS FARCHETTE: So you want the council to decide on which of these options? Is that where we're at?

BILL ARNOLD: Here is where we are. This is where we are. You guys discuss these management options, as we're doing, and you tell us, by motion, whether you want us to move forward on this, and you can decide on public hearings. Do you want to have public hearings and get this out of here? Those public hearings could be held, for example, at the next council meeting. They don't have to be separately held. Then the staff could develop a timeline to get this done, and we would work as hard on it as we could to get it done as quickly as possible.

CARLOS FARCHETTE: Richard.

RICHARD APPELDOORN: Bill, not to complicate this any more than it has to be, but we just heard this morning about the concept of carryover, and how would this work if there was -- If one sector didn't fill out their ACL and could carry it over, but the other sector could use it, then that kind of complicates that view, doesn't it?

BILL ARNOLD: That's a darned good question, Richard. The fact is, if you moved into a carryover-type of situation, you could then get rid of this or not, because it's not really going to affect that. They can still carry theirs over. That could get a little complicated, but, like I said, your choice could be -- Now that we've got this carryover provision in place, which is going to take a while and which I would also advise that we don't address until after we get the new FMPs in place, then, if we added carryover in the new FMPs, we could -- This, what we're talking about now, would be an amendment to the present Reef Fish Fishery Management Plan.

It could or could not be carried, itself, over to the Puerto

Rico Fishery Management Plan and, ultimately, when we get recreational data collection in place for the USVI, which we're working on and which we're also going to talk about, it could or could not be applied in the USVI.

CARLOS FARCHETTE: Roy.

ROY CRABTREE: I think carryover is a lot more complicated, because it involves changes to the ABC control rules and things, and so this isn't carryover.

The other complication with carryover is, the way it was envisioned in the guidelines, is, if you had carryover in one year, you carry it over to the next year, but, because we have this long time lag between when we get the data, the carryover would be potentially an underage that occurred a couple or three years ago, and that is something we would have to really think about. This seems like a no-brainer, to me, and something we ought to move forward with, but carryover, I think, will be something that we have to give a lot more thought to.

MARCOS HANKE: I would like to present a motion. Can you put the slide with the motion language that I can refer to, the darker page on the end? Is that the motion that you need? Is that sufficient language?

BILL ARNOLD: I need a motion that says do it, make this happen.

MARCOS HANKE: Motion to develop an amendment for the Reef Fish FMP.

BILL ARNOLD: Motion to develop an amendment for the Reef Fish 33 FMP to revise the trigger for applying accountability measures.

MARCOS HANKE: Thank you for the language. That is my motion.

TONY BLANCHARD: Second.

 CARLOS FARCHETTE: Okay. The motion reads: Motion to develop an amendment for the Reef Fish FMP to revise the trigger for applying AMs. Motion by Hanke and seconded by Blanchard. All in favor, say aye; any nays; any abstentions. Hearing none, the motion carries.

Next, I have -- I just made an adjustment to the agenda. Next up will be Ocean Economics of Puerto Rico and the U.S. Virgin Islands by Jeffery Adkins, but, first, we will take a ten-minute

48 break.

(Whereupon, a brief recess was taken.)

CARLOS FARCHETTE: All right. We are going to go to Jeffery Adkins.

OCEAN ECONOMICS OF PUERTO RICO AND THE U.S. VIRGIN ISLANDS

JEFFERY ADKINS: Hi. I'm Jeff Adkins, and I work with NOAA's Office of the Chief Economist, and, for about the last six years, we've been working with a team of folks that generate economic statistics on the ocean-based economy, and so it includes commercial fishing and all the related activities, but also things like cargo shipment and passenger ferries and coastal tourism and ocean-related construction, including harbor dredging and that sort of thing, a wide range of activities.

Our work started with the thirty coastal states of the U.S., and the goal was to draw, from the statistics from the Labor Department and from the Bureau of Economic Analysis and the Census Bureau, these kind of standard, go-to datasets and see how these ocean-related sectors are represented in the national datasets, pulling out the pieces that relate to commercial fishing, fish processing, seafood marketing and so forth, and coming up with totals that are consistent, hopefully, with what you're hearing reported on the nightly news about unemployment going up and down, because it's coming from those same datasets.

Having worked at this for about five years, we have time series data for the thirty states, coastal states, of the U.S. that go from 2005 to 2013, and we have 2014 data that are being processed right now.

What I'm going to do is talk about what we mean, in NOAA and actually working with a couple dozen other countries that are doing similar work, what do we mean by ocean-based economy and what are we doing to measure that in the thirty states and then what is different in the territories, and the short answer is quite a bit.

 Adapting the framework that was developed for generating the statistics on the mainland U.S. to accommodate creation of datasets that address the ocean-based economy in the territories and what our findings were and where we're going next.

As I said before, you can see the six sectors that we look at here. I have mentioned a few of those. Ship and boat building and ship and boat repairs is also one of the sectors that we

include here, in addition to those that I listed in the beginning, and, right now, we have a dataset that has national totals. We have data for eight U.S. regions and thirty coastal states and about 400 counties.

It excludes, at this point, the territories. The study that I'm here to talk about is the first step in moving this sort of approach into the territories. The indicators that have are designed to be consistent with those that are reported for the national economy, and so the point for commercial fishing is that we're going to be reporting the things that will allow you to make comparisons to the Labor Department statistics, to the Bureau of Economic Analysis that produces the gross domestic product estimates, and so forth.

This is counterpart to the economic statistics as generated by NOAA Fisheries. This is a very specialized product, again, that links up with these other economic statistical agencies and draws from their datasets.

The problem we've had in the thirty coastal states, the kind of problem child, is in the commercial fishing sector. The statistics there are a little difficult to work with, for a couple of reasons. One is we have two different datasets, one that looks at business establishments with one or more employees, and, in commercial fishing, that's going to be things like the large fish processing houses that have people who work there. It's going to be in the seafood marketing, but, for the most part, the workers are self-employed workers, and those data come from the Census Bureau.

 The statistics from the Labor Department for businesses with employment, they depend on the consistency of people filling out the paperwork that's used to pay unemployment insurance, and so, similar to what you've already been discussing, if there is a reporting issue with respect to filling out that paperwork, then there is also a data issue.

The statistics on self-employed workers, there is a special unit at the Census Bureau that works with income tax returns, and so we provide them with our definitions and they provide us with data from this highly-controlled environment, as you can imagine, but, again, if people aren't claiming the income from fishing, or not claiming all the income from fishing, then we have a data problem as well.

47 Right now, for the thirty coastal states, the ocean economy is a 48 big deal. There are about three-million employees in the U.S.,

not counting the territories, and over \$350 billion of gross domestic product. Going back to this earlier slide, I did a little comparison, to kind of put this in context.

The ocean-based economy for the thirty coastal states employs more people than crop production, telecommunications, and building construction combined, and so it's a big deal. There are a lot of businesses, a lot of employment, a lot of wages, a lot of gross domestic product in these ocean-related sectors.

Coming into the territories, we knew that things were going to be different. Basically, that falls into two categories. One is differences in the sources and quality of data, but also differences in the economic relationship between the dependency of economic activities on the ocean. Things that would not be seen as ocean dependent in the states are very much ocean dependent in the territories, and so we wanted to make the adjustments we needed to capture those things.

Going to the national datasets, the short and skinny on this is that the ocean economy is tremendously underrepresented in -- This is from the Labor Department, and you can see, for the living resources sector, you have only one establishment showing up in the Virgin Islands in the entire sector of commercial fishing and fish processing and seafood marketing and so forth, and so it's almost a non-reporting industry as far as the labor department statistics go, and so that was not going to be a good source of that information, but, for this study, we took that as our starting point.

Then we came to a lot of the people in this room, actually, and talked with you about what was showing up in the national statistics, and my charge to the contractor was to, initially, just forget about data altogether and let's go and talk to people and let's try to find out what's really and truly going on in the territories.

The pilot study focused on Puerto Rico and the U.S. Virgin Islands. Let's try to figure out what's really and truly going on, first, and then let's talk to people and get an idea of how big this is and then let's start looking at the data that exists to see to what extent the data help us tell the story of what folks who live here know to be the reality, and it is a databased product, but we didn't want the results to be limited by the data.

CARLOS FARCHETTE: Jeffery, we have a question from Director 48 Gomez.

RUTH GOMEZ: A question. What's living resources and what is offshore mineral resources?

JEFFERY ADKINS: Okay. I will go through these quickly. Living resources is commercial fishing, fish processing, seafood marketing, and ocean-based aquaculture. It excludes things like the tilapia aquaculture and things like that.

The marine construction sector, and I will just go through them all, that is harbor dredging and any shoreline engineering work, like beach renourishment projects. Marine transportation is primarily the shipment of cargo and all the warehousing and navigational services inside the port that support that, but it also includes passenger ferries.

It typically does not include cruise ships, because most of the cruise ships are not U.S.-flagged vessels and the employees are not U.S. employees, and so the U.S. employment on the cruise ships would be zero.

The offshore mineral resources, the biggest part of that is offshore oil and gas in the Gulf of Mexico and Alaska, but, around the U.S., you also have sand and gravel mining. That is generally not permitted in the Caribbean territories, and so that sector is -- It's sometimes allowed, in rare instances, by exception and that sort of thing, but that's a very small sector here.

Ship and boat building includes everything from the large shipyards like in Connecticut and Mississippi that build the military-style vessels to Gold Coast Yacht and these self-employed people who work at the marinas to clean boats and that sort of thing.

 Finally, tourism and recreation, which dominates both Puerto Rico and the Virgin Islands ocean economy and actually it's a dominant force across the U.S., that includes not only the recreational, like the renting of kayaks and jet-skis and that sort of thing and the snorkeling headboats and the recreational fishing headboats, but also the hotels and restaurants that support that are included as well.

CARLOS FARCHETTE: I have a question. Where did you get the five oil fields, offshore minerals?

JEFFERY ADKINS: Actually, that is a -- I was going to go into some of the data errors, but that's probably associated with the

refinery that was closed and it was incorrectly recorded as oil and gas production when in fact it was businesses linked to the refinery.

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CARLOS FARCHETTE: Okay.

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JEFFREY ADKINS: In the national data, there is several shortcomings. One, going back, you see the "ND". That means, if you have a small number of businesses, even if they have the information, they don't report it, because they don't want to compromise the confidentiality and privacy of the companies that are reporting the data.

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Sometimes, as you can see here, there is underreporting problem. People are just not reporting the Some of the data are misclassified. activity. We saw, in the Virgin Islands, a number of companies that has classified water transportation, themselves as inland which is river transportation, like you see on the Mississippi and Ohio Rivers, when in fact they are water taxis.

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Another misclassification that we saw in Puerto Rico, and it was very common, is the seafood markets were not correctly identifying themselves as seafood markets but as meat markets, and we found only five that had correctly identified themselves out of maybe forty or more, a little over forty.

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Then, finally, we do have additional types of economic activity that in the territories are ocean-based, and I will go into that in some of these next slides. These are the data that we decided not to use, that could not be used, but it was a nice starting point, so you could see all the issues in the data. It was primarily the use of the Labor Department statistics.

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We had a similar situation with Puerto Rico. There was a lot of underreporting and a lot of misclassified data, and so we printed out these summaries, and we came here and talked to some of you. We talked to a number of people, on a quest for better data.

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The project team, the NOAA Office for Coastal Management, part of the National Ocean Service, funded this study. Abt Associates is an economic consulting firm that's been around for several decades. They do great work, but we wanted the economists on the team to also include people who have worked in the territories, and so we had on this team Advantage Business Consulting, that's based in Puerto Rico, and they've done a lot of work in the Virgin Islands. They were a part of this team as

well and then Dr. Charles Colgan. He did the research for about -- Almost ten years of research that led up to this framework that we're using. It was a really good project team that was involved, and the study finished up just a couple of months ago.

We talked to territorial government agencies, tourism associations, some commercial fishermen. Eddie Schuster, we talked to. We talked to local folks, trying to do kind of a bottom-up study of what's really going on here and how many people are involved in this industry.

We started with the basic framework that was developed for the thirty coastal states and, like I said before, some additional industries were added in. A tremendous amount of the retail trade here is tied to the tourism sector. In the Virgin Islands, there are sixteen or seventeen times as many jewelry stores per capita as in the U.S. in general, and so I'm assuming the locals aren't buying all that jewelry and it's probably for the people coming off the boats.

Airline service is very much tied to ocean tourism and taxis and so forth and then also -- One supplement was adding in those industries and the other was in getting good, local data to fill out this framework, since the national data were not showing much activity.

 Here is the findings. These are the findings. At a very high level, for the total ocean economy in the Virgin Islands, the Labor Department showed less than 7,000 employees and, after talking to folks here, we found at least 60 percent more. There is a 60 percent increase here in the Virgin Islands, and you can see over a 130 percent increase in the totals in Puerto Rico.

 These are the groups we talked to. In the Virgin Islands, you can see government agencies, non-governmental organizations, and folks in the private sector. You can see that, in talking to folks who live here, we found quite a bit more economic activity, both in terms of the seafood markets, some operated by the government and some less formal markets located in different places around the territories, and then we actually talked to commercial fishermen and DPNR and got estimates of the number of active fishermen.

Of course, fishing licenses is not really a good indicator, because some people have them and don't use them and some people fish without licenses. We also relied on some studies from the Southeast Fisheries Science Center that had done the census a couple of years ago. Juan Agar did a study, and so we drew from

statistics from NOAA Fisheries, from the local government agencies, and from local fishermen to generate these updated numbers.

There other fisheries-related activities is also that universities some of the and the conservation programs, the Nature Conservancy and folks like that that are supporting the conservation of the resource base. turn, supports the fisheries, and so that was also included in that living resources total.

You can see we went from -- For the living resources, again, that's commercial fishing, fish processing, seafood marketing, and some of the researchers and so forth, but it's really dominated by the fishermen and helpers and the seafood markets, and this is really a false precision.

This is the report from the consultant. They reported 361, and I think that ball-parking it at 350 would have probably been a better indicator of the uncertainty surrounding those numbers, but, still, you get a feel for it being a lot larger than the nothing that was being reported.

 We went through a similar process in Puerto Rico and identified -- Again, the slide is not really for you to see all of the content and get it all, but it's to give you an idea that this was a very detailed bottom-up analysis of all the activities that are associated with commercial fishing, and so we built a database, if you want to call it that, by talking with the folks who are actually involved in the industry.

One of the problems with what we've done, and I will stop right here for commentary, is that some of the more reliable numbers that we have are based on studies that are not repeated on an annual basis, studies that may not be repeated ever again, and so the goal here is to work from this kind of characterization of employment and wages and businesses involved in commercial fishing.

Rather than have it be a one-off, to continue working with this community to identify the data sources that would allow use to put this out as some sort of a time series. In the states, because we're working with much better data, we're able to do this every year.

In the territories, I think a more realistic goal might be to update it on a five-year basis or something like that, because this kind of work is very labor-intensive, but, again, the

quality of these numbers, and that's kind of this conversation that was going on before my presentation, is it's going to be based on quality of the reporting, whether it's reporting of businesses to the Labor Department or reporting of income of fishermen, or reporting of fish catch by fishermen. That's a tremendous limiting factor to the quality of anything we can do here.

In a similar way, we had some of the conservation organizations and some environmental consulting services and so forth, but, again, in this sector, it's mainly the commercial fishermen and the helpers and so forth that make up the large numbers.

Here, you can see that the initial estimates were completely meaningless. This is the ten employees reported to the Labor Department for Puerto Rico, and it's closer to 4,000, as far as we can tell by talking with the folks who work in this industry.

Kind of high-level findings are most of the economic activity in the territories, the island territories, is either directly or indirectly linked to the oceans, and one of the stories that can be told from these data, in terms of the conservation of the natural systems that support this economic activity is a lot of times the ecosystem services stories are limited to ecosystem services that are not linked as directly to jobs and wages and GDP, and this gives a very narrow focus on what is at risk, in terms of jobs, if bad things happen in that natural resource base that supports all of this activity.

Commercial fishing and coastal tourism, to a very large degree, is dependent on the health of those ocean ecosystems, and so the fishermen and tourism, in some regards, have that common interest, is in protection of that resource base that supports both of their livelihoods.

Next steps, this is a one-off study at this point, and that's not what we want. We want to continue working with folks here locally to identify better datasets and to improve the findings of this study, and I have a link to the study at the end of this presentation, and you can reach out to me directly if you don't get this link, and I will see that you get the report.

We would like to know what sounds realistic and what sounds like we need to take a closer look at it and to what extent you know about datasets that might help us do a better job of telling this story in numbers, to bring consistency to future updates, should they occur, and then we're also looking to extend this to the territories in the Pacific as well. That is my last slide.

The full report, the link is here. That's way too much to write down, but, if you get a copy of the slides, you can get that link, but, also, you can just reach out to me directly and I can send the report. There is a fact sheet that came out of the report that kind of summarizes a few of the statistics. That is something that we sent ahead to the fishery management council, and I think -- Did the folks here get that read-ahead, the little fact sheet that is included in the file?

There is a fact sheet here that you can have access to as well that's kind of a high-level statistics from the report, the report itself, and then we're going to be putting together a more user-friendly pamphlet that you can use in public venues. The report is a little tough to read. I am an economist, and I think it's tough to read, but a summary report that is user-friendly that you can use.

There is it. There's a lot of information in here, but this is the fact sheet. You can see how the statistics are summarized, and it's about two pages of numbers, and so we won't go through that here, but you can send that out to folks.

CARLOS FARCHETTE: Thank you, Jeffery. Any questions or comments for Jeffery? Hearing none, thank you very much.

JEFFERY AUSTIN: Thanks.

CARLOS FARCHETTE: All right. Next on the agenda is Initiating Development of a Fishery Ecosystem Plan for the U.S. Caribbean, and that's going to be handled by Bill.

INITIATING DEVELOPMENT OF A FISHERY ECOSYSTEM PLAN FOR THE U.S. CARIBBEAN

BILL ARNOLD: As the recent policy developed by NMFS for ecosystem-based fisheries management, and, this thing, the ink is still wet on it, but it requires or it calls for the development of a fishery ecosystem plan.

We within the Sustainable Fisheries Branch are intending to respond to that request by developing a fishery ecosystem plan for the U.S. Caribbean, and that is what I am going to talk about here. There is four steps in my talk today, and the first is just an overview of the ecosystem-based fisheries management policy and then a consideration of a fisheries ecosystem plan within that policy and then what the elements of an FEP are and some conclusions.

3 4 The ecosystem-based fishery management, or EBFM, Policy, NOAA Fisheries rolled this out in November of 2016, and so, as you can see, it's very recent. A lot of work went into it, but it's fresh off the press.

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developed a roadmap, and that roadmap includes description of the benefits of EBFM, and they are extensive, the relationship to living marine resources management, which is what we do, and it establishes six quiding principles.

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It's systematic approach to is EBFM? а management in geographically-specified area, the а Caribbean, and it should contribute to the resilience and sustainability of the ecosystem, and, of course, the fisheries are a critical component of that ecosystem, but, without the ecosystem, you won't have the fisheries.

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An ecosystem-based fisheries management approach recognizes the physical, biological, economic, and social interactions among the affected fishery-related components of the ecosystem, and, of course, essentially, this includes humans, and it seems to optimize benefits among a diverse set of societal goals, as we all know.

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Here is some relationships. You've got humans and governance and some of the biophysical characteristics, and so your climate, your food webs, habitats, et cetera, et cetera. That's the biophysical component.

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The Magnuson-Stevens Act, the ESA, the council itself, et cetera, et cetera, those are the governance components. Then there's the fisheries, the communities, the processors, and the cultural values. Those are some of the human components. They all interact, and they are all critical.

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What are the benefits of taking an ecosystem-based fishery management approach? It facilitates tradeoffs between different stakeholder priorities, balancing social and ecological needs. It provides more information to make management decisions, which should improve our ability to sustainably manage the fisheries, and, of course, the key word there is "sustainably".

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47 48 It contributes to an increased ability to predict likely outcomes of our management actions, and it provides more stability of ecosystem-level measures and translates, ideally, into better regulatory stability and business plans.

These are the six guiding principles. You first implement ecosystem-level planning. This will advance the understanding ecosystem processes. That allows you to prioritize vulnerabilities and risks to the ecosystem. You can then and address tradeoffs within the ecosystem incorporate ecosystem considerations into management ultimately leading to a maintenance of resilient ecosystems.

The policy, at the planning stage, involves an engagement strategy, and that is a strategy to facilitate participation of partners and stakeholders in the process, which is absolutely essential. Everybody needs to be engaged, and then a fishery ecosystem plan, which is a policy plan document that describes ecosystem objectives and priorities for fisheries science and management. In our case, we don't intend this to be a regulatory document on its own. It is an information source for our fishery management plans, which are our regulatory documents.

A fishery ecosystem plan includes ecosystem-scale information on the structure and function, including the physical, the currents and structure of habitats, et cetera, the biological, the fish and bacteria and everything else, the coral reefs and all of that stuff, and chemical, nutrients, et cetera, et cetera, and then, critically, socioeconomic. What are the cultural needs and demands? What are the economies, as Jeff just went through, and the idea is to include and integrate amongst these different components of the ecosystem.

The plan should describe relationships between living marine resources, human uses of those resources, and other activities affecting these living marine resources.

There are a variety of approaches to doing ecosystem management. At the simplest level, it's single species, which is basically what we do now. Actually, we may do a little bit more of an ecosystem approach to fisheries management. We incorporate habitat considerations, definitely, predator/prey dynamics, to some degree, and climate variability, we're working that in, and, of course, the species themselves. We want to move up one level to the ecosystem-based fisheries management component, which is multispecies. It's otherwise similar, but the key is that you're stepping beyond single-species approaches.

Maybe one day we'll be able to get to ecosystem-based management, which pretty much takes everything into account, including other industries and other activities. One step at a

time.

Then, within the management context, which is where we live, the FEP will serve as an umbrella document. It's a larger-scale document, but it's also hierarchical. It will provide information to guide what we're developing, our island-based fishery management plans, but it will also provide information to integrate across those individual island plans to incorporate considerations at the U.S. Caribbean level.

Think of lobster and source sinks on larval dispersal for That's the Caribbean Basin, more along the lines of lobster. the large marine ecosystem and how those things interact. discussed that some today, and then, globally, what are the the U.S. implications of, for example, cutting catch in Caribbean, which doesn't cut the protein demand. It just cuts the local sourcing of that protein, but it's going to have to be somewhere, and that's kind of made up a qlobal-level consideration.

You can also look at ecosystem species descriptions and interactions, species biology, ecosystem component species. These are things that could be incorporated into an FEP. We could also address cumulative effects, which is a little bit of what I touched on with those global things. As a necessary component of our National Environmental Policy Act, you can't consider the direct effects of a management action you may take, but you have to consider how those management action effects might echo through the ecosystem and the larger ecosystem.

We can include biogeographic information and spatial scales, something we really aren't addressing yet, and then other things. We certainly expect this to be expansive.

What are our next steps? The first thing we need to do is to develop a strategy to facilitate partner and stakeholder engagement in the FEP development process. A FE AP would be a Fishery Ecosystem Advisory Panel. I'm not saying that we need to do that. It's just a suggestion, but some strategy needs to be developed.

Also, identify additional components that the council and the constituents would like to see included in the fishery ecosystem plan. We could perhaps present a fully fleshed out draft outline, just the outline, at the spring 2017 council meeting, just an outline of what this document would look like, and then always consider that this is a dynamic document, and so the only constant will be change, and that's as you go through the years.

As you learn more or you learn different, you want to get that into the FEP.

Any questions? Cindy Meyer will be our lead on this. She's a new, half-time addition to the Caribbean Branch up in St. Petersburg, and she's got a lot of expertise in this area, but the entire team and, of course, the council staff and a lot of other people are going to have to be involved in this. Unless you have questions, that's pretty much where we are with developing a fishery ecosystem plan.

CARLOS FARCHETTE: Miquel.

MIGUEL ROLON: Bill, how difficult would it be to convert our island-based FMP to ecosystem-based management plans, if we can merge the two?

BILL ARNOLD: We were intending to keep them separate, because, the fishery management plans, we do fisheries management. The management plans are actually regulatory documents describing how many fish you can catch, when you can catch them, where you can catch them, how big they have to be, et cetera, et cetera. All that translates into actual codified regulations that guide how our fisheries operate in the Caribbean.

The fishery ecosystem plan is not regulatory. It's a planning document that allows you to draw on it for information and it guides the understanding of how those regulatory activities operate and affect other components of the ecosystem.

MIGUEL ROLON: It seems that's kind of a compromise between what they asked from us ten years ago, for councils to prepare ecosystem-based management plans or convert the regular FMPs into ecosystem-based management plans.

BILL ARNOLD: I wouldn't really call it a compromise, Miguel. It's just a different approach, but it's not really a compromise.

MIGUEL ROLON: We have been old enough to know that it's a compromise. Don't worry about it, but the thing is, as per your presentation, then the next step could be taken in 2017 or we should wait until 2018, because we have a lot on our plate for 2017.

BILL ARNOLD: We always have a lot on our plate. Now, I'm not saying we're going to do a lot in 2017, and this is really sort of a planning document, and so a lot of it will be done -- A lot

of the data acquisition and the organization and writing will be done behind the scenes without real direct council involvement. We will bring it to the council to keep them informed and updated, and it will be utilized as we do council-based fishery management plan development, but, like I said, it's more of a background-type document.

MIGUEL ROLON: Do you think that you can bring an outline, as you suggest, to the meeting in April, just an outline?

BILL ARNOLD: A draft outline. We can bring a draft outline just giving you -- I mean, this is going it be very much a stepwise process. It's going to take a while, and certainly development of island-based fishery management plans and getting critical amendments to those plans, either before they're implemented in like the reef fish, with the triggers, or after, with the permits or something like that, will be prioritized for the staff, but we will be constantly working on this. As I said, it's a dynamic document. It will always be there to be enhanced and improved.

MIGUEL ROLON: Yes, because, Mr. Chairman, if I may, the other thing is that, Graciela, the essential fish habitat plan is due for revision next year also.

GRACIELA GARCIA-MOLINER: The end of this year or next year. I mean, the five-year review is five or seven or thereabouts, and so we've been talking about how to best go about the five-year EFH review, and that is still not defined yet.

MIGUEL ROLON: Because, Mr. Chairman, what I am trying to convey here is that we should have kind of a priority for the staff to work on, and I believe the island-based FMPs should be priority number one and then the draft outline, just to give you an idea of where we're going with this FMP that we call the ecosystem-based management FMP.

Then, on the side, probably we will have to follow Graciela's and Bill's advice on when to engage into the essential fish habitat, but our number one priority will be to get the island-based FMPs going.

From the outline that you saw this morning, if everything goes smoothly, which rarely happens and it's very rare when that happens, but, if everything goes smoothly by 2018, we are supposed to have these three FMPs in place.

CARLOS FARCHETTE: Okay. Clay.

CLAY PORCH: One of the challenges we have in arenas like this is even just doing single-species assessments and having enough information to do something useful. When we try and envision how we actually implement something with ecosystem-based management, because we all agree that we need to account for the various elements in the ecosystem beyond fishing and just the fish that we target, but exactly how we do that is kind of challenging.

I wonder, Bill, if you have thought of any examples, concrete examples, that might illustrate to people how exactly we can implement ecosystem-based management besides just creating a document that says here is some nice things to do.

BILL ARNOLD: Ecosystem-based fisheries management is a step beyond developing this fishery ecosystem plan, which is not a management, but an informational thing that might provide us with guidance on how we could take a more broad-based approach to fisheries management, but the example I always like to use is parrotfish.

You've got parrotfish interacting with grazing and cleansing substrate for Acropora settlement, and so we don't always manage parrotfish just to the harvest capacity of that species.

We manage it as well towards the grazing obligations that we have to maintain, and that would be one ecosystem-based management approach that we have taken in the past. I might be able to come up with other ones, but that's the example I like to use, because it's pretty clean and pretty straightforward and the folks in this room would understand it pretty well, and so does that help?

CLAY PORCH: That's a way. I'm just wondering if there's any thoughts on the council about reaching out to other bodies, because ecosystem-based management ultimately includes cleaning up the environment and taking into account factors that have changed the environment that the fish live in and make the fish stocks more or less productive.

CARLOS FARCHETTE: That's a real good point, because ecosystem-based -- I know that we only manage in the federal waters, but something has to be done about point and non-point sources of pollution, because we can do whatever we want and, if that's not being addressed, we still have problems. Anything further for Bill? Hearing none, I have Identification of ACL Overages and the Need to Apply AMs in the 2017 Fishing Year.

IDENTIFICATION OF ACL OVERAGES AND THE NEED TO APPLY AMS IN THE 2017 FISHING YEAR

BILL ARNOLD: This is going to be a preliminary presentation, because we do not yet have the expansion factors for Puerto Rico, and so we do not yet have the expanded data for the commercial fisheries, and so we can't determine if any of the commercial components of the Puerto Rico fisheries exceeded their annual catch limits.

Until we have all of the data and have made all of the determinations, the Science Center is not able to make the critical determination as to whether any overages are due to enhanced reporting or whether they actually reflect an increase in catch.

if we can attribute an overage to enhanced As you know, reporting, then we do not apply the accountability measures, but I can go over -- We have all of the Virgin Islands data, and so I'm going to go over those, and we have the Puerto Rico recreational data from the Puerto Rico Marine Recreational Information Program, and so I'm going to go over those, but, again, this is preliminary, but we can't wait until the spring council meeting to get this settled, and so we're going to have to come up with something, but I anticipate that we will have those Puerto Rico commercial landings very soon and then we will finalize this and make the decisions as to ACL overages and the timing and length of closures accordingly and as quickly as we can, because we've got several things playing into this, the most important of which is when the AM timing, the start and end date, is.

 Is it going to stay December 31 or is it going to become September 30? Obviously that will affect when any closures that have to take place take place, but, first, I will show you St. Thomas/St. John.

 The ones in red actually exceeded their annual catch limits, and they are the usual suspects. Queen conch, of course, because you can harvest queen conch in St. Thomas/St. John in state waters. We just have a zero ACL in federal waters. While the harvest is legal and doesn't require any sort of closure, it is over the ACL, but that's sort of separate. We put queen conch up there, but they're not really worth worrying about.

The others are the three that we deal with every year of angelfish, squirrelfish, and wrasses. Every year, they exceed

their ACL, because they were not on the forms when we established the ACLs, and so we didn't have the data. Now they're on the forms, two of them are, and I forget which two, and one of them had some other component of enhanced reporting that occurred since we established the ACLs, and so, as you can see, they exceed their ACL by substantial amounts of 11,000 pounds, 4,400 pounds.

Percentwise, these are hundreds to thousands of percent, but, because it has been, in the past, due to enhanced reporting, that enhanced reporting in the form of these things now being on the reporting forms, we don't apply accountability measures.

Now, again, it's up to the Science Center, in consultation with the SSC, to determine if that's the case for this year. That's not up to me to make that determination. I am not going to jump the gun on it, but, historically, that's been the situation with these.

Very similar with St. Croix, except queen conch does have an allowable harvest there of 50,000 pounds from state and federal combined, because queen conch is open off the east end of St. Croix. Again, here, it's angelfish and squirrelfish. Basically they weren't on the form and now they are. It's sort of the same setup, and so they exceed their ACLs. They even exceed their OFLs, but it's really due to enhanced reporting and not due to an increase in catch.

Like I said, in the past, that has been an attribution, but I can't promiser that it will be this year. That's not up to me. It's up to the Science Center and the SSC.

It gets a little more meaty when we get to Puerto Rico recreational. Again, I can't say whether any of these are going to be attributed to enhanced reporting, but, in the past, they have not been, but, from the 2010 species, the species that we did in the 2010 amendment, those species that were subject to overfishing at the time, parrotfish exceeded their annual catch limit by 9,000 pounds.

They did not exceed their OFL, which is good, because, once you start overfishing the species, things become a little more dire, but they did exceed their ACL. That would suggest, to me, that, unless it's attributed to enhanced reporting, an accountability measure will have to be applied to the recreational parrotfish sector next year.

If we had a total AM trigger instead of sector-specific AM

triggers, I can't tell you whether this would or would not have happened, but I just didn't do the math on it, and that is the case with all of these.

The other ones that are over, as I mentioned earlier today, are the recreational jacks fishery in Puerto Rico. Importantly, the jacks also exceeded their ACL last year, and so that's a potential problem that may have to be addressed one way or the other, and Iris may or may not want to comment on that. Now, they didn't go over by much, two-hundred-and-fifty-some-odd pounds, which is 0.5 percent, but they are over, and, more importantly and more confusingly, they're over their OFL. No, they're not. I'm sorry. They were over their OFL last year, but they're not over it this year. That's good. That's a relief.

 Puerto Rico triggerfish and filefish, they did not exceed their annual catch limit. They exceeded their overfishing level for the second year in a row, and so that's going to be a problem, because, if you continually overfish the resource, then you have to take action.

Then, finally, Puerto Rico wrasses, they were substantially over the ACL, with average landings of almost 15,000 pounds against an ACL of 5,000 pounds. That's quite a bit over. You can anticipate a pretty decent closure period for wrasses, but, last year, they exceeded their OFL as well. They did not exceed their OFL this year, and the cause for that is that, when we compare landings against the annual catch limit, we compare a three-year average, but, at present, when we compare the landings to the OFL, we only compare the most recent year of landings.

If you have a high recent year and two low previous years that go into that three-year average, you may not exceed your ACL, because the average is lower, brought down by those two years, but, if the most recent year is high, you can still exceed your OFL, and one thing I would like to pursue is having -- I think that the NS 1 standards allow this, I'm sure they do, allow this, but you can now use a three-year average for your OFL determination as well as your ACL determination, and so that's another opportunity within the new NS 1 standards that the council might want to consider taking advantage of. That is Puerto Rico recreational.

Here are the predicted recreational closure dates, based upon a December 31 start date, which may or may not stand. For parrotfish, you've got November 4. For jacks, you've got

December 31. For the recreational triggerfish and filefish, it's December 20, but, critically, for wrasses, it's April 19. That's with a December 31 start date. If you use the September 30 start date, there is a decent probability that that closure would go all the way up to January 1 and beyond. Most importantly, it's not the January 1 date, but it's the date that we can get this new rule in place, and we probably won't get it in place until March or so.

If the September 30 closure had to take place before the new rule that establishes that September 30 closure is put in place, we won't be able to use the September 30 closure. We will have to fall back to the December 31 closure, and I do believe that that is okay and that we would apply the December 31 to wrasses. We could still use the September 30 for the other three species, which is what the fishermen have desired. Iris, if I'm wrong on that, please let me know, but I don't think that there's anything to prevent us from doing that.

IRIS LOWERY: Right, and I think that it will depend on the timing and how we can move forward with that and what makes sense.

CARLOS FARCHETTE: We have a question here from Marcos.

MARCOS HANKE: Can you go back to the table on the wrasses? That annual landings of 14,000, how many fish are on the raw data, before they expand and they play with the numbers?

BILL ARNOLD: This is not commercial data, and so the expansion factors are not applied to recreational data. Instead, what they do is they go out and they do creel surveys and find out what your, quote, unquote, average fisherman catches on an average recreational trip and then they multiply that by their coastal household telephone survey, and I think they're still using that, a determination of how many fishermen fish on any given day, and they multiply it through and that's how they get the number.

MARCOS HANKE: I just want, for the record, to state that I have a lot of problems with this data and the methodology that is implied in there and one of the problems is that they go to my dock to intervene and the guys sit down there, and there is different people that intervene, and they sit down there, and I have to wave to the guy to come here because I have people on my boat and please interview them. When they come, they spend two hours to know if it's a coney or a red hind and things like that bother me. Then we apply those methodologies to it and you

close the fishery, and we have to be aware of that.

BILL ARNOLD: Okay. Two things, Marcos. One is there is a nationwide guidance document for how recreational data are collected, and they have certain sampling requirements. Like they sample a mode, which would be individual vessels or tournaments or charter boats or whatever it may be, and then they have specific requirements as to how they go about doing it. They're not just a bunch of slouches. They're following a very tightly-designed protocol.

The second things is we are reviewing -- We are developing a recreational implementation plan, a regional implementation plan, for our MRIP program in the U.S. Caribbean, both Puerto Rico and the USVI, that provides guidance on how these programs in Puerto Rico can be enhanced and improved and in the USVI can be developed.

We are just finishing that regional implementation plan up, and it should result in revisions and refinements to the program that would hopefully provide you and people like you with more confidence in the data that are derived from the sampling program, but it will never be perfect. We cannot possibly sample every recreational fisherman's catch every day, and so you have to do a statistically-based approach.

MARCOS HANKE: One other comment, because this is for everybody to have an idea of how it works. In Puerto Rico, the recreational fishermen, part of the survey is done on the shoreline, where people fish from the shore, and one of the fishes that are most susceptible of being caught with the technique that the weekend warriors go there with a little hook or whatever bait it is are the jacks, and there are some problems with that, and I just want you guys to know.

CARLOS FARCHETTE: Do we have more, Bill?

BILL ARNOLD: We have my blank tables. These are going to be filled in when I get the commercial data, and hopefully that will be like next week. I mean, we're right there, and that's enough. Thank you, guys.

EXEMPTED FISHING PERMIT FOR PUERTO RICO DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES

CARLOS FARCHETTE: Thank you, Bill. Outcomes of the Exempted Fishing Permit for Puerto Rico DNER. Graciela, are you handling that?

GRACIELA GARCIA-MOLINER: No, but we just wanted to know if there were any comments from Ricardo.

CARLOS FARCHETTE: No comments?

RICARDO LOPEZ: I don't have any comment.

CARLOS FARCHETTE: Okay. Maria.

 MARIA LOPEZ: This is going to be very short, but I just want to give you a summary of the outcomes of the Exempted Fishing Permit that NOAA Fisheries granted to the Puerto Rico Department of Natural and Environmental Resources back on November 2, 2016.

 We presented this EFP request back, I believe, at the $156^{\rm th}$ Meeting, and it was also published in the Federal Register for comments. After that, the office and NOAA Fisheries, they went through the review process and then granted the permit to the DNER

This EFP authorizes the use of contracted commercial fishermen aboard research vessels and contracted private fishing vessels to collect reef fish species through two projects in waters off the Puerto Rico EEZ. These projects will collect fishery-independent data on abundance, distribution, and reproductive condition of reef fish in eastern and western Puerto Rico.

In the next slide, I'm just going to tell you, just quickly, what they are. This EFP is because of the collection for scientific activities, and it involves activities that would otherwise be prohibited by our regulations pertaining to reef fish in the Reef Fish FMP.

This EFP, specifically, will exempt these research activities from certain regulations that are related to seasonal closures, to size limits, and to bag limits. As I said earlier, it was granted on November 2, 2016, and it is going to be valid until May 31, 2018.

These are the two projects. The first project is just to continue the collection of information through SEAMAP, which is the Southeast Area Monitoring and Assessment Program, for reef fish monitoring. That has been going on for a while. They used to have an EFP before, and it expired and then they requested a new EFP, so they can continue their research in these areas.

This EFP authorizes the DNER to harvest reef fish by hook-and-

line. This is going to be done through drift and anchor fishing and using also bottom longline gear in federal waters off the west and east coast of Puerto Rico, and they're also going to be doing some surveys with underwater cameras.

They are requesting that all reef fish, including undersized and seasonally-prohibited reef fish species, are going to be retained as part of this project. This is not something new. This is something that they have been doing for a while. However, they cannot retain goliath grouper, nassau grouper, or any of the species of parrotfish.

The second project is dealing -- This is from the Fisheries Lab. They are going to be dealing with reproductive cycle and minimum size of maturation of some species that are important for the recreational sector, and so they're going to be using contracted fishers, and they are going to be using hook-and-line and spear guns to collect samples of mutton snapper, red hind, coney, white grunt, tomtate, and pluma porgy, which are species that are managed by the council.

They are requesting permission to do ten trips in federal waters off the west coast of Puerto Rico. They are not requesting to conduct these activities in Bajo de Sico, Abrir la Sierra, or Tourmaline, and so they're not going to be doing that in there.

 In the EFP that was granted by NOAA Fisheries to the DNER, these are the conditions. It was granted. I want to be clear that they have a number of pounds that they are allowed to harvest, and these are based on previous harvest from previous years, and so, if you have any questions about those, I have that information, but there is a maximum number of pounds that they will be collecting of these species, but it does not allow taking of goliath grouper, nassau grouper, or of any parrotfish species. Those species, if they are caught, they cannot be retained.

It does not allow anchoring in federal waters of Bajo de Sico. As I mentioned before, part of this project is going to be that they're going to do random sampling through anchor fishing and reef fishing, but one of the conditions is that this is not going to happen in Bajo de Sico.

It authorizes only the use of hook-and-line, which includes bottom longline, aboard vessels to collect the reef fish for this first project, and also to use hook-and-line and spear guns aboard vessels to collect the reef fish species that are in the second project.

It will not allow the use of bottom longline gear to collect reef fish in federal waters of Bajo de Sico at any time. This is one of the conditions. The fishing vessels need to carry proper de-hooking gear onboard, and it will not allow fishing for reef fish in federal waters of Bajo de Sico during the seasonal area closure that we have for reef fish during October 1 to March 31 of each year.

Finally, these are requirements of every EFP. They need to provide an annual report and total landings by January 15 of the year following the landings, and there is some specific information that needs to be provided, like, for example, the number of fish from each species and the area collected, et cetera, and they also have to provide a final report on the project findings after they are done. This is it, and I don't know if you have any questions.

CARLOS FARCHETTE: Any questions for Maria? Graciela.

GRACIELA GARCIA-MOLINER: Is it all of the parrotfish species from the EEZ or just the three that are prohibited?

MARIA LOPEZ: No, one of the conditions is no retention of any parrotfish species, and, based on previous landings reports from previous projects, they didn't have any parrotfish species in there, and so I don't think that should be a problem.

CARLOS FARCHETTE: I don't think that you can catch parrotfish on hook-and-line. I would like to see something like this occur in the U.S. Virgin Islands, so we can actually have this information after -- Is it Puerto Rico DNER who is proposing this?

GRACIELA GARCIA-MOLINER: I think it's mostly specifically to SEAMAP.

MARIA LOPEZ: This is SEAMAP, and so the first project is SEAMAP. Then the second project is one of the projects from the Fisheries Lab, which is the maturation project, but my understanding is that the U.S. Virgin Islands also conducted this kind of project, or at least very similar, through SEAMAP as well.

CARLOS FARCHETTE: Great. Thank you. We are down to the wire here. Public Comment Period. So far, I have one person that wants to make a public comment. That's Yasmin for Pew Charitable Trusts. Is there anyone in the back that would like

to do a comment for five minutes? If you want to, just say so.

PUBLIC COMMENT PERIOD

YASMIN VELEZ: Thank you, Mr. Chairman. As he said, my name is Yasmin Velez, and I represent the Pew Charitable Trusts. We appreciate the opportunity to provide comments on the topics discussed today.

The first thing is that we would like to commend the council for the work done to develop the goals and objectives for each of the island-based fishery management plans. The goals and objectives lay the foundation to identify the priorities to manage fisheries and provide guidance on specific management actions that could be discussed in the near future, such as describing and identifying essential fish habitat, protecting spawning aggregations, and ensuring, through the best data collection practices, the socioeconomic health of the fishing communities dependent on federal fishery resources.

We also want to recognize the importance, as stated in the morning session, of conducting additional studies, through cooperative research, to gather data that will help inform management actions for species managed in this region.

We strongly support cooperative research efforts that allow the fishermen to get involved in doing science, as well as being part of the management process. It was evident during this morning's discussion that all stakeholders agree that it is important to get everyone to the table to be part of management discussions and secure sustainable fisheries for years to come. We at Pew are supportive of these efforts, in order to make management decisions based on sound scientific information.

Finally, we would like to stress the importance of making sure that robust outreach and education efforts take place before conducting public hearings to discuss the island-based FMPs. This will allow for the fishermen to be well informed about what are the management changes being proposed and why the council is proposing island-based management. This will also allow them to have the chance to analyze this information beforehand and prepare to participate in the public hearings. We will be glad to assist the council in this process, as needed. Again, thank you for the opportunity to speak here today, and we appreciate, as always, your consideration for these comments.

CARLOS FARCHETTE: Okay. Thank you, Yasmin. All right. We are at the end of the first day. We have Administrative Matters to

deal with now, but only council members.

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MIGUEL ROLON: No, it's open.

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CARLOS FARCHETTE: Okay. Administrative Matters is open, and then we'll have a closed session that will only have council members.

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ADMINISTRATIVE MATTERS

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MIGUEL ROLON: Mr. Chairman, to keep matters very easy and simple, we don't have a budget yet for 2017, which is what we wanted to offer today, and so we need to wait until the next February meeting for NMFS to inform the councils what will be the status of our budget for 2017.

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19 20 We have some money that will be carried over to 2017, and we have already have identified the projects that will be carried on with that, and we don't expect any constraints for the council to fulfill their mandate in 2017. That's it, and then we can have now a closed session to talk about people.

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Okay. It's a closed session, and so we will CARLOS FARCHETTE: give everyone five minutes to vacate. The spiny lobster people back in this room at 7:30, the Puerto Rico spiny lobster.

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(Whereupon, the meeting went into closed session on December 13, 2016.)

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> 32 December 14, 2016

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WEDNESDAY MORNING SESSION

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37 The Caribbean Fishery Management Council reconvened at the 38 Marriott Frenchman's Reef, St. Thomas, USVI, Wednesday morning, 39 40 December 14, 2016, and was called to order by Chairman Carlos

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CARLOS FARCHETTE: Good morning. This is a continuation of the 158th Caribbean Fishery Management Council being held in St. Thomas, U.S. Virgin Islands, at the Marriott Frenchmen's Reef 45 We're going to start a roll call, start on my left with 46

47 Vivian.

Farchette.

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1 VIVIAN RUIZ: Vivian Ruiz, council staff.

GRACIELA GARCIA-MOLINER: Graciela Garcia-Moliner, council 4 staff.

6 BILL ARNOLD: Bill Arnold, NOAA Fisheries.

CARLOS VELAZQUEZ: Carlos Velazquez, council member, commercial sector.

11 TONY BLANCHARD: Tony Blanchard, St. Thomas/St. John, 12 councilman.

14 RUTH GOMEZ: Ruth Gomez, DPNR, U.S. Virgin Islands.

RICARDO LOPEZ: Ricardo Lopez, Puerto Rico, Department of Natural Resources.

19 CARLOS FARCHETTE: Carlos Farchette, Council Chair.

JACK MCGOVERN: Jack McGovern, NOAA Fisheries.

21 MIGUEL ROLON: Miguel Rolon, council staff.

DIANA MARTINO: Diana Martino, council staff. 24

- 26 27 IRIS LOWERY: Iris Lowery, NOAA Office of General Counsel,
- 28 Southeast Section.

CLAY PORCH: Clay Porch, NOAA Fisheries, Southeast Fisheries 31 Science Center.

33 TARA PRAY: Lieutenant Tara Pray, U.S. Coast Guard.

35 MARIA LOPEZ: Maria Lopez, NOAA Fisheries.

37 LYNN RIOS: Lynn Rios, NOAA Fisheries Enforcement.

JEFF RADONSKI: Jeff Radonski, NOAA Enforcement.

41 KATE QUIGLEY: Kate Quigley, council staff.

43 MARIA DE LOS A. IRIZARRY: María de los A. Irizarry, council 44 staff.

NELSON CRESPO: Nelson Crespo, DAP Chair, Puerto Rico.

48 ALIDA ORTIZ: Alida Ortiz, O&E AP Chair, Puerto Rico.

RICHARD APPELDOORN: Richard Appeldoorn, SSC Chair.

4 CARLEN BUTLER: Carlen Butler, St. Thomas.

RAY GONZALEZ: Ray Gonzalez, St. Thomas.

WINSTON LEDEE: Winston Ledee, St. Thomas, commercial fisherman.

DEAN GREAUX: Dean Greaux, St. Thomas, commercial fisherman, DAP member and FAC member.

BRIAN MATIAS: Brian Matias from Puerto Rico, commercial 14 fisherman.

16 TONY IAROCCI: Tony Iarocci, commercial fisherman.

DELISSE ORTIZ: Delisse Ortiz, HMS.

JENNIFER CUDNEY: Jennifer Cudney, HMS.

22 ERIN SCHNETTLER: Erin Schnettler, NOAA Fisheries.

HELENA ANTOUN: Helena Antoun, contractor.

MARCOS HANKE: Marcos Hanke, Caribbean Fishery Management Council, Vice Chair, Puerto Rico.

CARLOS FARCHETTE: Thank you. Before I go on, at lunchtime, we want the council members to remain for a couple of minutes. The paparazzi needs to take a picture of us against the wall. That's at lunchtime, and it will only take a minute. Continuing with the agenda, we are going to start with the outcome of the meeting last night with the spiny lobster fishermen from Puerto Rico.

PUERTO RICO FISHERS SPINY LOBSTER DATA COLLECTION INITIATIVE

MIGUEL ROLON: Okay, Mr. Chairman. Yesterday evening, we had an opportunity to meet with the Puerto Rico fishers to discuss an idea that they put together, which is to see if they can improve the data collection program in Puerto Rico. At present, scientists from the Center, and we had Clay Porch, and Todd Gedamke, also a contractor, and we had Richard Appeldoorn the SSC Chair.

We discussed thoroughly the issue at hand, which is the point that the fishermen would like to demonstrate, statistically,

that the spiny lobster perception could be a reality, which is that the spiny lobster is in good health, the status of the stock is in good health. However, in order to do that, we have to follow the applicable laws and regulations, and the applicable laws and regulations at this time set an ACL, an annual catch limit, for the spiny lobster based on the best available information at the time that that limit was set.

Yesterday, a good exchange between the scientists and the fishers came into play, and the bottom line is that, to keep it simple at this time and also to move forward, the fishers offered to have an inventory of fishermen in Puerto Rico who are willing to participate in the project.

They will develop a table of parameters, and when Brian gives a presentation, you will see the table of parameters that the fishers are willing to supply to the Center. Once we have that information, which is the inventory of the fishers, and, by the way, Ricardo promised also to send, from Dr. Lopez from the Department of Natural Resources, a list of the fishers who fish for spiny lobster.

At this time, we are going to concentrate on the lobster fishery that is fished with the trap for the lobster fishery, but Ricardo also has information as to the number of divers and the number of gill netters, and so that information will be provided also.

 Once that inventory, what we call the horsepower inventory, is prepared by the fishers -- By the way, they are going to knock on the doors of every fishermen's association around Puerto Rico. Then that inventory will be provided to Dr. Clay Porch. Then the Center will identify the best methodology that can be used to assess the status of the stock using those statistics.

In a nutshell, that's what he said, and we have the opportunity now to have a fisherman from Puerto Rico who fishes lobster, who is brand new to the system, but we are recruiting him, and he will give us the fishers' perspective.

 Remember, this is a project that was created by the fishers and is something that the fishers would like to follow with the assistance of the scientists. This is a perfect storm to get the best information that we can, and remember that all the information that we get has to be determined as the best available information. In order for the Center to declare that, they have to make sure that the best methodology has been used.

48 Brian, can you introduce yourself and start the presentation?

BRIAN MATIAS: Good morning, council members, staff, and attendees. My name is Brian Matias. I'm a spiny lobster fisherman out of San Juan. All the fishermen have realized that it's good to work with the council and push forward to give you guys as much data as we can.

I have a data sheet. It's very important to try to get as many small lobsters and big lobsters. I've been a fisherman for twenty years, and I think the more information we have, the better it is for everyone.

We propose to work with the SSC and the Science Center and the council, whatever you guys need. We have, as of right now, about fifteen fishermen from the north side, from Naguabo and from Rincon, and from the east side, from Fajardo, which are willing to help give data. We want to know also what kind of data that you guys will need, compared to what we have as of right now. We have six different trips.

On the first section, you will have your trap, because I only picked ten traps, and so your first line is your first trap. You have got your male keepers, and those are the sizes. You've got your female keepers, your small females and small males, eggers, if there was an egger in the trap, the total of the lobsters in that single trap, the location, and then the depth of where I caught it.

 MIGUEL ROLON: This is where the fishers will need to -- Not at this time, but they will need to have some assistance here. Out of this table, the fishers would like to know what else the scientists would like to see on that table that the fishers can provide, and we were discussing, for example, if you can identify whether you fish inside the nine nautical miles or outside, to give an idea of whether you are fishing in the EEZ or not.

There are people who fish on the north coast of St. Thomas, but they land in Puerto Rico, and that's something that we should know also. Then, once we have that table agreed on by scientists and fishers, then the fishers will take this information to the different fishing villages and the fishermen will talk to the fishers.

We will be able to assist in some way, if need be, on what the project is all about and what is it that we want to achieve and how they envision that this can be done, but, before we do that, the first step is to have that inventory that Brian mentioned

that we are going to have probably as soon as possible during the first quarter of 2017.

When we have that inventory, we will send it to the Center and to the SSC, so they can tell us that, okay, with that information, this is what you can do, in terms of the sampling design that we need for this.

 The other issue that was discussed by the fishers, and Brian and Nelson also can jump in and Carlos, is that there are other gears that fishermen are using for catching the spiny lobster. We are talking about divers and we are talking about netters on the west coast of Puerto Rico.

The answer at this time from the scientists is that we would like to keep it to one parameter, one variable, that we can manage, because we are after -- Let me backtrack a little bit. If this was a perfect world, everybody would submit the data and we would have 100 percent coverage.

We know that that's not something that can be done in real life, and so the best thing that we can do is we have a design to take a sample of that fishery that can be used on a short term and maybe on a long term. Based on that study then, the fishers can not only get information the way that they perceive the information should be taken, but also we'll be able to provide the methodology to other species that can be used in the future to improve the data collection system that we have.

The main goal is to see if the lobster population can sustain the fishery that we have at this time. In order to do that, you have to collect certain information, and so I believe that --Brian, how many fishers do you think you have on the east coast, San Juan, people that you know that can participate at this time?

BRIAN MATIAS: I know, on the west side, I think we have about six fishermen. On the south side, Carlos was telling me this morning that he's got about four. In Fajardo, I know there's at least three. In the north right now, it's me, but I will try to find as many as I can.

MIGUEL ROLON: Okay. Nelson, how many on the west coast do you think can participate?

BRIAN MATIAS: It's six, as of right now, that we know of.

48 MIGUEL ROLON: On the west coast it's six?

1 2 BRIAN MATIAS: Six.

NELSON CRESPO: Yes, around six. Maybe more, but I have to find out.

MIGUEL ROLON: Just for the sake of the discussion, if you have six, you have around fourteen or fifteen fishers at this time that you know that can participate. They said that you have a hundred fishermen only that fish for lobster. You are talking about 15 percent of the lobster fishery, and so at least you have an idea of the sample size that you have, if you don't have anything else with that.

Then you have to stratify the sample size, and the scientists have to tell you, because Brian, for example, he fishes with five different traps for lobster and that adds another variable, and so the result of the meeting yesterday, to recapitulate again and also open this for discussion with the council members, is that, one, the fishers of Puerto Rico will talk to the fishers of Puerto Rico to see how many will be able to participate.

They will provide an inventory to the Center and the SSC and the council as to how many fishers will participate. They would like to see a reaction to that table from the scientists. Is there anything else that they would like to include in that table?

Also, the definitions, because "keeper female" makes sense for Brian, but, for other people, they are thinking about something else. "Egger" is another thing that we need to clarify, and so we need to make the table compatible with the statistics design, and the terminology also has to be compatible with the Puerto Rico fishers. It has to be in Spanish and/or English, and that's the first thing that we could do.

The other take-home message is that Ricardo is going to provide the inventory that he has. The Fisheries Laboratory is in charge of collecting that information, and then Dr. Clay Porch may want to speak for himself and he can express that, but he said yesterday that the center is willing to cooperate to find somebody that can assist. Todd Gedamke talked to the fishers, and he also has a project that is ongoing, and he is another asset that the fishers can use to improve this data collection system.

CARLOS FARCHETTE: Jack.

JACK MCGOVERN: You mentioned that there are five different traps that are used in this fishery, and do you use different traps on a trawl? I was thinking, with this form, and I think Todd mentioned this last night, that the form might want to include the trap type that's being fished.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I was just looking at the form, and I've got something that jumped out here to me, and I'm going to make a statement, probably a suggestion, and a question. This question is directed to Clay. How many participants, how many fishermen, would they actually need to supply this data, in order for it to be workable, the minimum? Do you have any idea?

CLAY PORCH: Again, as we talked about last night, it depends on what we want to use it for. The main key, if you want to use it for something that would have the best chance of having an immediate impact on ACLs, and by immediate, I mean a couple of years, because it takes some time to collect the data and process it and all that, and then you need to have representative samples across the fishery, and so it's not so much the number, but it's how you pick the actual trips that are going out.

 Now, if you end up getting up most of the fishermen in the area, you probably don't have to worry about the representative sampling, because you have most, but if you only have say one fisherman in one area and there is fifty fishermen operating out of that area, how do you know that one fisherman actually represents the rest? That kind of issue needs to be satisfied.

 It's not so much the number, but it's how you select the trips, but, again, I heard, in some conversation, there is places where there is three fishermen and two of them catch 80 percent of the catch. Probably, if you get those two fishermen, you're doing pretty well, if they're cooperating in this program, but I do want to add that Todd and I were sitting up here looking at this and we were like, wow, they're going to give us all of that? That's a lot of information there, and it's all very useful information, and so we were impressed.

The only thing that I think we came up with is Todd was mentioning things like what Jack already mentioned. There may be some issues with the type of trap and bait, whether they're using bait or no bait, and other things you know better than I that maybe should go on there to help us understand why, for

instance, maybe the catch per trap is different among different trap types.

If we don't have that information up there, we couldn't incorporate it in the analysis, but that was the only thing that we really came up with. Otherwise, that's more than we would have asked for, because we wouldn't think that we could ask for that much.

CARLOS FARCHETTE: A follow-up from Blanchard.

TONY BLANCHARD: This is my statement, or what I should say is my suggestion to Brian. If you want fishermen to participate, then I suggest you take out the GPS coordinates, because I'm going to tell you that if you come to me with this, you ain't getting me to work with you, and I don't care how good friends we are, but it ain't happening.

Just like Clay was saying, I was surprised that you were willing to give all of this. My suggestion to you is to take off the GPS coordinates and you're going to have some other guys willing to work with you, but, once you put this up there, because they don't know where their information is going and they don't know who is seeing it, and, to be honest with you, I know Puerto Rico ain't no different than the Virgin Islands. We don't really trust what is going on, to a certain degree, and so that's just my suggestion.

MIGUEL ROLON: Actually, that's something that I want to ask Brian, now that he's here, because we discussed that yesterday. Brian, if we want to go and ask for the sun and the moon and then we can come back with whatever we can get, and so one alternative to these actual coordinates was to talk about the -- We can have quadrants, or five-miles square, and the fishermen can identify that around here I fish.

 You also can identify whether you fish inside the nine nautical miles or outside the nine nautical miles. That information is important somehow. The other thing is if you have a quadrant and then the scientists can tie the habitat to that quadrant. There is information there that can be used for other purposes that can assist the status of the fisheries somehow.

As an example, we did that in the 1970s, when we were working with the lobster. What we did was we hired a lobster fisherman who happened to be a scientist, and he had a theory. He could take a map -- He took a map of Puerto Rico and the U.S. Virgin Islands and looked at areas where there was habitat suitable for

lobster that are adults, habitat suitable for lobster that are juveniles, and he was able to come to a number for the MSY for lobster at that time.

The Center did it using the classical approach, the statistical approach, and they were almost identical. Actually, they were not different, statistically speaking, and so it shows, to us, that there is a lot of information out there that the fishermen can provide without jeopardizing their secrets of the trade that the scientists can use to assess the status of the stock in a better way.

Richard Appeldoorn said something some time ago that is very important. You may not have an accurate, exact number, but what you want is to detect the trends in the fishery, whether you're going downwards or upwards or you are remaining the same. That is also important. What is the next step, Brian?

BRIAN MATIAS: The next step would be, of course, to take out the lat/longs and we'll put within a five-mile spot and say that's where we are catching the quantity and within the traps.

CARLOS FARCHETTE: And also add the information about the type of traps.

MIGUEL ROLON: So then, for the record?

BRIAN MATIAS: We would also do the style of trap and if it had bait or no bait and I think that's it. If there's anything else that you guys would like to add to the chart --

CLAY PORCH: The only thing we thought of were any distinctives that would cause one trap to fish differently from another trap, and so trap size and trap shape and bait and style, but you guys know better than I do how the catch rates vary among trap types and bait and all of that, and so we would punt that back to you. Put what you think is important to characterize how traps fish.

CARLOS FARCHETTE: Carlos.

CARLOS VELAZQUEZ: Thank you, Mr. Chairman. Brian, very good job. (The rest of the comment was in Spanish and was not transcribed.)

MIGUEL ROLON: What Carlos is saying is he wants to get this off his chest, but, ten months ago, he started this project with the fishermen of his village and others from around Puerto Rico, and ten months is too long for a fisherman to wait for something to

happen, and so they got desperate.

Out of those fishers, four of them, for example, they are not that willing to come back and discuss this, and so it's frustrating, and it's difficult for him then to go back to his fishers and tell them, okay, this is what we're going to do now, and so it will take some time for him to convince the fishers.

Even the frustration, if he got it off his chest, if Carlos is willing to participate and work with the fishers and go back again, I am saying that the most important part is that the fishers talk to fishers. Once the key fishermen know what this is all about and we can have that inventory and have that table, it will be a matter of asking them whether they want to participate or not.

The other component of this is for how long, and, until we have that inventory, we don't know how long, and so we can tell them half a year and see what happens, but don't tell them that it's twenty days, because then they will be desperate and they might kill you for lying to them, and so I believe that we are -- Now, at this juncture, we have the fishers talking to fishers, and I copied that phrase from Alexa, from MREP.

I believe that, if we do this in the first quarter of 2017, then we can have some dates, and so, the sooner we submit that inventory to Clay and the scientists, the sooner they will be able to tell us that, okay, this is what we can do, fellas, because remember that they have to use the best available data and the best methodology possible, in order for us to have some assessments.

Mr. Chairman, I believe that, unless if you have any more questions, the council is committed to assist the fishers in putting together meetings with the fishers to assist them with the table. Graciela is an expert at putting together tables, and so we can ask her to help us help Brian and the group of fishers to see the tables there.

We don't want to modify the table unless the fishers and the scientists say so. It has to be a unanimous decision by the fishers and the scientists how we want to proceed with this table. Right now, we are going to add the type of trap fished and we are going to also maybe attach a diagram with squares, five-mile squares, so they can mark with an X that this is where I fish, rather than giving the exact coordinates of where they fish. Any other questions for Brian?

 CARLOS FARCHETTE: Carlos.

CARLOS VELAZQUEZ: (The comment was in Spanish and was not transcribed.)

MIGUEL ROLON: His last thought is that it's important that timely is the most important part, and he said that the National Marine Fisheries Service usually asks for this information, and I want to explain that it's not the National Marine Fisheries Service that does that. It's the Act that requires that to happen, and it's not the persons sitting around the table, but it's just that we have to follow the regulations.

The main point is that we would like to do this as quickly as possible for other projects. If this is a successful story, then we go into other species, and now we will have an opportunity to apply this same way, the same methodology, the same procedure to other species, and the key part that Carlos is mentioning is that it should be fast. You should have effective feedback to the fishers as to where are we at all stages of the game, because that's what discourages fishers in the participation.

Remember, a fisherman is somebody who makes quick decisions. When you're out there fishing, if something happens to the engine, you don't call Miguel to say, hey, something happened and can you put together a meeting so that I can start the engine again. No.

That is the human component that we have to work in, and so, if there is no more questions to Brian, the commitment from this table is that we will assist the fishers of Puerto Rico.

By the way, we need to thank Julian Magras. He offered some tips of the things that have been done by the fishers in St. Thomas/St. John and St. Croix, and especially St. Thomas/St. John, which was to identify the fishermen in each one of the villages that can understand the process, that can understand the project, and he or she can explain it to the other fishers, and I believe that that was a good suggestion to the fishers of Puerto Rico.

CARLOS FARCHETTE: Blanchard.

TONY BLANCHARD: I've just got a question. How much different 46 ways in Puerto Rico do they catch lobsters commercially?

MIGUEL ROLON: Excuse me, but how much --

TONY BLANCHARD: Different ways.

MIGUEL ROLON: We have a couple of things. There are about four or five or six traps that are different.

TONY BLANCHARD: No, not the traps.

MIGUEL ROLON: I was starting with the traps. Then we have netters that use trammel nets, and they are about eighteen to twenty-four inches high and about six feet wide. Then the divers, and the divers, unfortunately, fish with hook, and not necessarily with the hook that we have, but they also use spears and by hand, and some of the divers use nets.

They go out with nets and they chase them, or they use an octopus at the end of a stick to scare the hell out of the lobster and put the net. The lobster caught that way has a better return to investment, because it doesn't lose that much weight, as to when you punch them or spear them. By the way, that is illegal anyway.

 The last thing that I was going to say is that the fishers, not at this time, but one thing that they would like for the council to do is to revisit the mesh size of the traps and the traps that are allowed. Fishers believe that probably we should — The same way that St. Thomas did, the fishers, to use something like this, a vent that allows the juveniles to escape, the small ones to escape, is something that fishers have been pondering for some time.

 Later in the game, probably we can address the issue of the trap design and all that, but we will not know how to proceed on this one until we have that inventory made, and so, with the table that we just modified a little bit, we will be able to detect how many traps we have that are different that are used in the spiny lobster, and I believe that Daniel Matos in the Puerto Rico Fisheries Research Laboratory, when they have the inventory of fishermen and gear around Puerto Rico, they tally up the different traps that we have. I don't know how much detail he has at this time, but that's something that Ricardo will provide to us in the future.

TONY BLANCHARD: The point that I was trying to make is maybe we need to ask some of the divers, the commercial divers, the guys that are catching them with nets, to supply some of that information. Not necessarily the same thing, but some of the information, because they could be catching more than them.

MIGUEL ROLON: Yes, we discussed that yesterday too, but what we would like to do is use these traps as sort of an index. Then, for example, Nelson is going to supply to us the number of fishers who use nets. More or less, using that information, we will know how much they land, so you have an idea.

The divers is kind of an elusive group of people. Some of the divers, they do have commercial licenses and they do supply the information, but the majority of the fishers, according to Dr. Valdés-Pizzini's report, do not provide the information, as they are supposed to, of the catches that they made.

We have, for example, to give you an idea, when Dr. Valdés-Pizzini did the study, there were about ten fishermen in the area of Cabo Rojo fishing for fish and crustaceans and queen conch. Now there are more than 200 that do that, and that is why probably, for the divers and the netters, we may need to think about something that we can do to capture that data a little bit different that we use for the lobster traps.

The other issue, or not an issue, but the other component of this is what is the percentage of the spiny lobster that is landed using trap versus other gear. This is what your question is all about, and we end up knowing that -- At the end of this project, we may know more than we know now, and we also need to identify the gaps. That is something that Dr. Clay Porch mentioned yesterday that I forgot to mention in the report here, but the gaps in the data is something also that we need to know.

Probably, once we have this ball rolling, you have people in the universities, graduate students, that may jump in and maybe provide some more information about the status of the lobster.

For example, Dr. Richard Appeldoorn mentioned a tag and recapture. That is a project that can be done, or maybe one of the graduate students can take that and tag and recapture the lobster, with the appropriate permit, but, to conclude, the fishers will meet the first quarter of 2017 in Puerto Rico and they will develop a strategy to collect the information that they need, which is an inventory of the fishers who fish for lobster in Puerto Rico.

They will use that table and modify it by the way we just mentioned this morning. Once they have that, they will send the inventory to the Southeast Fisheries Science Center. Then the Center can determine the best way to develop a sampling strategy, a sampling design, for this information.

Once they do that, and, by the way, they can also tell us how long it will take for the survey to be conducted. Once they have that, they will submit it back to the council, and we will be able to assess the status of the fishery. One important key of all of this is don't go to the fishers telling them that then, if we do this, the ACL will disappear and everything will be rosy.

You may end up having an ACL lower than we have now. We don't know, but the perception is that the lobster fishery, the way that people are seeing the landings of big lobster most of the time and it seems that the lobster is a healthy fishery, but we have to be mindful that we don't tell the fishermen something that we cannot stand. You lose all the credibility and, worse than that, they will never come to the table again to talk to you about anything that they fish or want to do. Brian, do you have anything else to add?

BRIAN MATIAS: I would like to thank everyone, the council and the SSC, for giving me the opportunity to give you guys this information and to move forward with the fishermen's project, because we're the ones that really want this to raise the ACL and everything else. I would like to also thank Tony Iarocci for helping me get the statistics sheet together and Bill Arnold and Carlos Velazquez and Nelson Crespo and Marcos Hanke. Thank you very much, everyone.

CARLOS FARCHETTE: Okay. Thank you. Next on the agenda is the Marine Recreational Information Program - Status of Regional Implementation Plan. First, did we do a roll call for the people on Go to Meeting, or is there anybody on there?

VIVIAN RUIZ: Yesterday, the attendees were Adam Bailey, Julie Neer, --, Jeff --, Stephen Holliman, Jennifer Lee, Shannon Calay, and Frank Helies. Today, it's Jennifer Lee and --.

CARLOS FARCHETTE: Thank you. That's just for the record.

MARINE RECREATIONAL INFORMATION PROGRAM - STATUS OF REGIONAL IMPLEMENTATION PLAN

BILL ARNOLD: I'm going to go ahead and get started on this. What I'm going to talk about for the next few minutes is the Recreational Information Program, MRIP, and development of the regional implementation plan for the U.S. Caribbean. This is an effort that is taking place throughout nation. All the regions are developing

implementation plans, and the team we put together is just doing it for the U.S. Caribbean.

This is just a quick overview. Obviously effective management of marine fisheries, as we've been discussing, requires accurate and timely data. Collecting data is costly and time-consuming, and adequate funding rarely exists, and this is going to be no exception in refining or building recreational data collection program in the U.S. Caribbean.

Because of that, it's necessary to prioritize alternative approaches within the context of cost and need, and so the implementation plan is designed to needs, collection recreational data alternatives, prioritize those needs, so that funding and need can be matched up.

These data needs will be ranked within the context of goals and objectives, and those goals and objectives may be region-wide or they may be island-specific, as you guys well know. Here is just a brief list of the goals and objectives. You don't really have to read them all, but you're certainly welcome to, but what we need to do is to ensure that recreational data collection meets the constituent's needs, and there are a lot of different constituents, local and nation-wide.

These needs pertain to timeliness of data collection, the coverage that results, and also collection of event-specific data, such as tournament data, and we need to ensure the standards are met, and these standards pertain to precision, accuracy, and data quality. Also, very importantly, and this is what we've had trouble with in the U.S. Caribbean in the past, we have to make sure the sampling program is durable, efficient, and cost effective. Efficient and cost effective so we don't waste anybody's time or money and durable so that we get the critical, long-term data that we need.

Just as a quick reminder, they attempted to develop an MRIP program in the USVI back in 2000, and it failed, due to a variety of logistic problems, and that is what you can't afford to have happen, because you need long-term, continuous data to be able to use those data in an analytical and assessment context.

As I said, the objectives may differ among island groups, but they generally include a durable and overarching structure, some strategy to ensure continuous data collection, which is going to be a very big challenge, and steady data collection. It can't vary from year to year, because then you create all kind of complexities in data analysis and application.

One thing that was called for was establishing a regional data management portal. You get the data, but how do you get it out there and get it to the people who need it, and then an oversight team. I will talk about some of these things as I go through this, which is a relatively short presentation.

You don't need to go through all of these MRIP objectives, but just to note that they're similar, but not identical, between Puerto Rico, which I present here, and the USVI, which is on the next slide. Puerto Rico has a recreational data collection program in place, and it is operating and has been operating since 2000.

It's not perfect, and nothing ever is, and there has been some year-to-year variability that has caused concern with the Science and Technology Group that runs the MRIP program, and that, again, goes back to needing steady, consistent, reliable data collection, and so you want an access point angler intercept survey, and that's just basically a map and a strategy for knowing where the fishermen are going to be, so you can go there and ask them questions about what they've caught and how much effort they put into catching that.

You need good coverage, and you need sampler accuracy, and that means maintaining a strong base of samplers to go out and do this very hard and time-consuming work, and it may be that important invertebrate species need to be included, and I don't think anybody would deny the recreational demand on queen conch and spiny lobster, and there may be others, like octopus and whelk, and, again, this depends not just upon need, but it depends upon funding availability, and so you have to rank these. If you could do two invertebrates, which two would you do, given the money you have available?

 Another thing is there has been a switch from the Marine Recreational Fisheries Statistics Survey, MRFSS, to the Marine Recreational Information Program, MRIP, and it's important to be able to inner-calibrate between those. Those are two separate sampling designs, and, to maintain that long-term database and the utility of that long-term database, you've got to develop some calibration coefficients to allow you to match those different data up.

Another problem is the MRIP staff is very concerned about the coastal household telephone survey. They feel like, in this day

and age of cellphones, that your phone book and your desktop phones are just not going to allow you to contact the full universe of people that are recreational fishing, and so that is a switch from the coastal household telephone survey to the fishing effort survey in both Puerto Rico and -- The fishing effort survey is basically mail-based, and that is a problem as well, because not everybody has -- We have learned, as we have gone through this, that not everybody has mailboxes.

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mailboxes are shared, and so mail survey won't а necessarily solve the problems anyway, and there may need to be hybrid approach, and so just another example of the complexities involved in developing an effective program.

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There are a variety of recreational modes. The mode, as I mentioned yesterday, is just the approach to fishing, the group of fishermen, like private vessel people, as you can see in the list, for-hire, i.e., charter folks, and shoreline fishers, who can be very difficult to access, and then tournaments, which are very much event-oriented, and so they are discreet events that you have to be able to access.

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24 25 Actually, Puerto Rico, at the present time, is doing a very good job of accessing tournament activities and the USVI is very much -- Both of those state governments are doing a great job with the tournaments, and all people seem to agree on that.

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I mention here the United States Postal Service Household Database, but I reiterate that the mail service to individual households is not necessarily complete. Then the desire would be, and this is from the Science and Technology Group, to a percent standard error, the variability around your estimates, of less than 25 percent. That is a component of how you design the sampling program.

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Some other things are you need statistically-robust tournament sampling methods and a verification methodology, and so that's Puerto Rico. These are enhancements to Puerto Rico. these are in place and they're doing great in many ways. USVI, we do not have a recreational sampling program. are basically the same, but it just needs to be constructed from scratch.

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47 48 Information needs, there are two basic sources of data that are One is how much effort was expended and what they caught using that effort, and so, if you're out on a boat, how long was your line in the water? Then you ask them, well, given that four-hour effort, what did you catch?

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Then there are a lot of details associated with it. What mode were you operating under? What variables should you record? What is needed? These need to be ranked and prioritized, because each one of them has a cost associated with it. How frequently do you sample, again, and that drives up the cost or it drives down the cost.

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The sample level, do you just talk to the boat owner or do you speak with every individual, et cetera, et cetera? Of course, the more people you talk to, the longer the survey takes and the more costly it's going to be.

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You can get other data, depending upon needs and priorities, of what kind of gear did you use, where did you fish, et cetera, et cetera. These data are going to be more or less easy to obtain, and, again, you've got that data accuracy target. That is less than 25 percent PSE.

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Here is a proposed administrative hierarchy for this. You would have a steering committee, which would be composed of, for example, folks from the Science Center, the Science and Technology Group, the local governments, perhaps the managers, et cetera, et cetera.

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would have separate group that handles financial You а management, because you've got to be able to manage the funds and distribute them as needed, and then you would have a regional administrator, somebody located in the U.S. Caribbean region, that oversees this entire program. Then, under that Regional Administrator, you would have island-based supervisors that are responsible for what goes on on their particular island, and they would administer the actual field samplers.

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One thing that I think is important in this is to have some flexibility, because people come and go. They get sick and they go on vacation, and so it would probably be ideal, for folks who operate generally, for example, on St. Thomas/St. John to be able to operate equally well on St. Croix or on Puerto Rico, and so that's sort of the flexibility that's needed to be built into this program from the sampler perspective.

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In summary, we're developing a regional implementation plan. This will guide refinements of MRIP in Puerto Rico, and it will provide the framework for developing MRIP in the USVI. collection cover data needs, but also administration, but it will not cover data management, statistical integration, and funding. These things depend on the details of the final program, and so they cannot really be laid out until that final program is designed.

The goal is to have this thing completed this month, and we have put a draft together, and it's being reviewed by the Science and Technology Group. Then we will respond to their comments and send it out to the full team and then we'll have, hopefully, a regional implementation plan that can guide the development of this program. There is still quite a bit of work to do.

 Remember this is just a plan. Then we have to find out -- There are going to have to be some research projects to fill gaps in knowledge before you can actually get these guys on the ground in the USVI or implement refinements in Puerto Rico, and so I would anticipate you've probably got a good two years before what we really need, which is a USVI data collection program, but also to ensure that programs throughout the region are functioning in a consistent and continuous manner, and so that's it. Thanks.

CARLOS FARCHETTE: Miquel.

MIGUEL ROLON: Bill, can you put up the diagram?

BILL ARNOLD: This is a proposed tentative organizational chart.

MIGUEL ROLON: Yes, I know, but where do you see the local governments in that chart?

BILL ARNOLD: Most importantly, on that steering committee.

MIGUEL ROLON: Okay. Then those supervisors could be PIs or people from the government too?

BILL ARNOLD: All of that remains to be determined, Miguel.

MIGUEL ROLON: We have been following what MRIP is doing, and why we are doing this is because Puerto Rico and the Virgin Islands did not have enough information or they didn't have the infrastructure together to provide information that is needed for the national Marine Recreational Information Program.

In the Western Pacific, they did it differently, and so, here, 44 being led by Bill Arnold and others, what we are trying to 45 achieve here is to see if we can develop that infrastructure 46 that not only will serve the purpose of organizing the way that 47 we are administrating the program, but that could establish a 48 program that could continue in the future to provide the recreational information data that we need, and it's important, especially for the two local governments, to participate.

In the case of Puerto Rico, they already have it. In the Virgin Islands, it was mentioned that we've had different projects in the past and ongoing, and so, once that plan is put together, in the first half of 2017, Bill, what will be the next step after the plan is put together?

 BILL ARNOLD: A couple of things. One is you need to identify data gaps. A good example would be do we have an adequate boater registration database, and that's something that Toby Tobias and Barbara Kojis have worked on. That would be the type of research project, research, quote, unquote, that would go out and determine what's available and what is not available and how easily accessible it is and things like that.

Another thing might be that we need to better identify and map the access points, because you've got to know where the fishermen are, where they're bringing their boats in, where they're conducting charter operations from, where tournaments take place, so that you know where you're going to be sampling and how you're going to have to distribute effort.

That's going to influence how many samplers you need to have on each island. You need to know, for example, and I'm just tossing out some examples, what is the influence of Culebra and Vieques on recreational harvest, because it's extremely expensive and not easy to get samplers out there and to get statistically-valid data. Do you even need to do that? If you do, how frequently and how many people?

You've got security considerations, and you've got timing considerations. Are you going to sample at night? If you're not going to sample at night, which is considered much, much, much more risky, what are you going to miss if you don't sample at night? Are you going to miss all the yellowtail recreational fishermen? What are the implications?

If you are going to sample at night, how are you going to go about it to ensure the safety and security of your sampling staff? Those are the kinds of questions that are going to have to be put out there and discussed.

Then you've got to determine what kind of money is available to do this. That's going to start allowing you to address priorities and start building a true plan as to how you're going to approach this, because obviously, if we have unlimited funds,

we're going to be sampling everything we can get our hands on, but this won't be unlimited funds.

These funds are competitive throughout the nation, and so it's going to be a matter of need and data interest, and these are the factors that have to be taken into account, and so those will be -- This is the start-point. The plan is the start-point and not the endpoint, but any means.

CARLOS FARCHETTE: Any more questions for Bill? Okay. Hearing none, next on the agenda is Atlantic HMS Fisheries and Delisse Ortiz and Jen, but first we need a ten-minute break.

(Whereupon, a brief recess was taken.)

CARLOS FARCHETTE: We are going to get started again. We have Delisse Ortiz and Jen Cudney for the Atlantic HMS Fisheries.

ATLANTIC HMS FISHERIES

JENNIFER CUDNEY: Good morning, everybody. I am going to be talking about Draft Amendment 10, which is our essential fish habitat draft amendment that is currently in the public comment period. There will be a slide at the end that provides some extra information on how to submit comments, and so we would encourage you, individually or as a council, to consider submitting a comment. The comment period will end on December 22.

To give you a quick introduction to the talk, I am going to give you a brief overview of our EFH procedures. I don't think that I need to spend a whole lot of time on what actually EFH is, since you work with it, but then we'll go through some of the preferred alternatives and, as I said, we will touch on a few final points and the information on the actual rulemaking and the comment period and all of that at the end.

HMS EFH, of course we're talking about the waters and the habitats that are necessary for fish for spawning, breeding, feeding, and growth to maturity. From an HMS standpoint, the things that are important regarding EFH is that we do have the choice of including state waters in our EFH designations. We do that, and then we do not designate our EFH in international waters. If you go and look at some of the EFH maps that we have on our website, you will see that, for the most part, our seaward EFH boundaries are going to be cut off at the outer extent of the U.S. EEZ.

 This is a timeline of recent HMS EFH actions, going back to when EFH was first designated for Atlantic HMS in 1999. We had a follow-up in 2003, under that particular fishery management plan. In 2006, which isn't on here, because of space, we consolidated our fishery management plans into a single HMS consolidated plan. Basically, the amendments and rulemaking that came after 2006 are reflective of any actions that are happening under that consolidated plan.

We had our first EFH update in 2009 under the new consolidated plan, and that was Amendment 1, and that whole process did include a five-year review and updates. In 2010, we had a couple of amendments and rulemakings that added new critters to our management units, and so we had to designate EFH for those species.

In 2014, we initiated the next five-year review for Atlantic HMS EFH. In 2015, we finalized that five-year review, and we published a Notice of Intent to prepare Draft Amendment 10, and that was released in September of this year.

The purpose and need for this draft amendment are fairly simple. Through that five-year review process and public consultation, we had identified new information that has either come available through surveys or come available in the literature which warranted updates to our EFH boundaries, and so these updates are consistent with MSA Guidelines and National Standard 2 Guidelines that basically indicate that it's best to manage on the best scientific information available.

Now, EFH is also intended to minimize adverse effects of fishing and non-fishing activities and to identify actions that encourage conservation and enhancement of EFH, and this is usually done through either the consultation process or through the inclusion of alternatives that might have implementing regulations, such as time/area closures or that sort of thing, restrictions on fishing.

Now, with this amendment, as we went through the five-year review process, we did look at gears and fisheries that might affect EFH, and we did not identify a need for implementing regulations, and so, as I go through the preferred alternatives, you will see that they are mostly concerned with updating the boundaries and looking at HAPCs and not necessarily restricting bottom longline fisheries or the HMS pelagic longline fisheries, just because we didn't see the need for it this time around in our five-year review.

 Getting into our preferred alternatives, the first set alternatives actually deal with EFH delineation itself, and our Alternative 1 is the basic no-action alternative, which was to retain our current designations.

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Alternative 2 is to update our EFH designations with new data 6 7 collected since 2009, using the protocols that we established under our last revision, which was Amendment 1, 8 and those 9 protocols are basically using a statistical methodology called kernel density estimation, which is shown here. 10 You basically assemble all of your points together and you put it into a 11 We used Geospatial Modeling Environment, 12 geospatial tool kit. which is a GIS add-on, and it generates a raster surface that 13

each one of them have an estimate of density for your points.

We took this surface and basically used a tool that would draw lines around the areas that contain the most number of points, and so, in this case, those lines contain 95 percent of the We decided that that would be the actual boundaries of our essential fish habitat.

has -- They're little individual cells on this map here, and

Quickly, I am going to walk you through an example with some HMS This is all agency-collected data, and it is regarding bluefin tuna spawning eggs and larval life stage in the Gulf of This is actually the only point data that's in our amendment, because it is the only dataset that consists entirely of agency-collected data. We also use observer data and some other types of data that are confidential in our analyses, and so our maps are basically just showing the results and not the actual input of our analysis.

Basically, once we would get the points together and get it all formatted and standardized, we would run it through this tool and it would produce a surface that looks like this. example, dark-red areas are areas of high point density. light-pink areas are areas of low density, and white areas are places where we had no points.

You can see that we clearly have larger numbers of larvae and eggs that are being collected in the central Gulf of Mexico than in other locations, and this is a pretty rough output, and so we have a polygon that is intersecting with land, we have it extending out beyond the federal EEZ boundary, and so what we would do after we would generate these surfaces is subject them to internal review and come up with something that makes more sense, based on the biology.

In this example, we have the spawning eggs and larval life stage and the adult life stages for bluefin tuna on this map, and this is a more polished version that basically reflects the fact that most of our data is collected offshore. We don't really have bluefin tuna larvae that are coming into inshore waters in Pamlico Sound or in other places, and so we do take that into account.

Now, being the Caribbean Council, we do have some species where we don't have data that are collected in the U.S. Caribbean territories, and so, in that case, you would not see an inset showing up in the upper-left corner of the map. However, there are other species where we do have data from the U.S. Caribbean. In that case, we would either have a map that zoomed out, so you could see the U.S. EEZ here and the Caribbean perhaps down here, or we would have an inset map that does show Caribbean waters.

The other alternatives that we had are concerned with HAPCs, and so, as you know, HAPCs are subsets of EFH that are evaluated and selected based on one or more of the following criteria, meaning the importance of the ecological function of the habitat, sensitivity to human-induced degradation, development activities, or rarity of the habitat type.

Since none of the HAPC alternatives are actually dealing with areas that are in the U.S. Caribbean, I wanted to show you where those are, but not spend a whole lot of time on them. We have one alternative that is looking at the bluefin tuna HAPC in the Gulf of Mexico and possibly extending it eastward to encompass more area, based on some additional data that has been collected by the agency and published in the literature.

We also have an alternative that looks at modifying our current HAPC for sandbar shark. This is based on some of the requirements of HAPCs. They have to be contained within EFH designations, and our current HAPC actually does not do that, and so these are just some minor modifications to make sure that we're following our own regulations.

We are looking at a HAPC for lemon sharks off the southeastern coast of Florida, between Cape Canaveral and Jupiter Inlet. Then, finally, we've got two HAPCs for sand tiger sharks, one in Delaware Bay in the Mid-Atlantic and one up in coastal Massachusetts.

To wrap up, I just wanted to remind everybody that our designations and habitat alternatives are not time/area closures. If we were going to implement a time/area closure, we

would need to follow through with separate rulemaking and provide notice and detailed economic and social analyses. Again, there are no implementing regulations in this draft amendment.

This is the information for submitting public comments. As I said, the comment period does close on December 22. You can send comments to me or you can go to regulations.gov. I also want to point out that we have maps and shape files available on our website, and we actually just finished up some habitat mapping online applications, using ArcGIS Online, and we are going to be making those available as well. Now I am going to turn it over to Delisse to talk about Amendment 5b.

DELISSE ORTIZ: Hello. I am Delisse Ortiz, and I'm with HMS Fisheries. First, I will be presenting Amendment 5b, and I have to say, right off the start, that I am not directly involved in this rulemaking, and so, any questions and comments, I will do my best to address them, but, otherwise, I can get back to you on any specific questions that I may not be able to address. This amendment is related to dusky shark management, and it is in the comment period right now. It ends on December 22.

 In terms of the outline for the presentation, I will go, very briefly, through the management history and then updates on the recent stock assessment and addendum that was done on the dusky shark populations, the alternatives considered on the recreational and commercial sectors, and then talk a little bit about a clarification that is made in this rulemaking regarding the ACLs and AMs for prohibited species complexes that we have, and, at the end, a request for specific comments on some of the alternatives that we have.

In terms of the management history, it's a little bit long. Dusky sharks became a prohibited species in 2000. It was first assessed in 2006. It was determined to be overfished and overfishing occurring. In Amendment 2, in 2008, a rebuilding plan was established, among many of the other measures, with a rebuilding time of 2108, and so it's a very long rebuilding plan.

It was assessed again in 2011, with SEDAR 21. It was still overfished and overfishing. Then, in 2012, we started the process of creating Amendment 5 that included not only dusky sharks, but a lot of other multiple species of sharks. During this time, it was determined that -- There was a lot of public comment that said that additional analysis was required and that some of the alternatives that were presented just needed further

analysis and should be separated from the other shark species.

What HMS did was that they separated the measures. They went ahead and implemented non-dusky shark measures in what we called Amendment 5, and then we did a separate Amendment 5b to address dusky-shark-specific management measures.

 A draft was released in March of 2014. Then Oceana filed a complaint regarding the dusky shark management in 2015. We reached a settlement agreement, where basically Oceana understood that we were working on implementing shark management measures, but we were waiting for the updated stock assessment results, and so we reached an agreement to submit a proposed rule by October of this, with a final rule by March 31 of 2017.

In October of 2016, that update and addendum came back. It was still overfished and overfishing occurring, and so Draft Amendment 5b and the proposed rule were published and released in October, as agreed upon, with the potential shark management measures to reduce bycatch mortality of this prohibited species.

I am not going to go into detail on this graph, but I will mostly say that the determination was published in October. Like I said, the population is still overfished and experiencing overfishing.

From this line up is bad and this direction is bad as well, experiencing overfishing, but what the models show is that, while that is still the case, that we're in an overfished and overfishing state and we need to reduce fishing mortality by 35 percent, according to the stock assessment, we're getting better, in the sense that the indices for those models that came out of the 2011 stock assessment and the 2016 stock assessment and addendum have decreased, and so we're getting closer and closer to not being in an overfishing scenario, but, again, we still need to reduce fishing mortality on a prohibited species by 35 percent.

We're looking at preferred alternatives that should meet those goals, which is to reduce the fishing mortality levels by 35 percent relative to the 2015 levels and that we can ensure rebuilding by 2107. These are the recreational alternatives and these are the commercial alternatives.

 For recreational alternatives, we are requiring HMS permit holders fishing for sharks recreationally, and so basically HMS permit holders that would need to obtain a shark endorsement, which would require completion of an online shark identification

and fishing regulation training course, plus additional recreational fishing outreach, and the idea is there is a problem with identifying dusky sharks. They can be confused with other species, and so the idea is to educate the anglers, so that they can distinguish dusky sharks from other species.

In Alternative A6a, we would require the use of circle hooks by all HMS permit holders fishing for sharks recreationally and when using natural baits and using wire or heavy monofilament or fluorocarbon leaders. The idea of using the natural baits and wire or heavy monofilament leader sort of characterization is because we're assuming that most of the fishermen targeting sharks recreationally are using that type of tackle.

For the commercial alternatives, fishermen with an Atlantic shark limited access permit with pelagic longline gear onboard must release all sharks not being retained using a dehooker or cutting the gangion less than three feet from the hook. The idea is, again, to minimize at-vessel and post-release mortality of sharks that are not being targeted or retained.

Alternative B5 requires completion of a shark identification and fishing regulation training course as a new part of all safe handling and release workshops for HMS pelagic longline, bottom longline, and shark gillnet vessel owners and operators.

 Right now, we require a safe handling and release workshop, and that lasts for three years, but what this would allow us is to modify that protocol so that there is a specific sort of shark identification workshop with a focus on prohibited species. Again, the idea is to educate and provide outreach so that folks get acquainted with how to identify dusky sharks.

Again, Alternative B6 would increase dusky shark outreach and awareness, through development of additional outreach materials, and require HMS pelagic longline, bottom longline, and shark gillnet vessels to abide by a dusky shark fleet communication and relocation protocol.

What this ultimately says is that, if you're out fishing and you encounter a dusky shark, you communicate the location of where you interacted with dusky sharks with other vessels, so that other vessels can avoid dusky sharks and are therefore not — They should not get closer than one nautical mile from the interaction with the dusky shark, and so, again, the idea is to minimize interactions with dusky sharks in the pelagic, bottom longline, and gillnet fleets. Alternative B9 would require the use of circle hooks by all HMS-directed shark permit holders

using bottom longline gear.

In the proposed rule, there were a lot of other measures, both from the recreational and commercial sort of sectors that were considered, but this included like closed areas, implementing bycatch caps, individual dusky shark bycatch quotas, limiting the amount of hooks, limiting the amount of gangions, not taking any action, but a lot of these seemed unnecessary or that basically they would end up causing a lot of negative economic impacts to the fleet, and so, while they were considered, they were not the preferred alternatives.

The other thing that the proposed rule does is clarify the annual catch limits and accountability measures. For the prohibited shark complex group, where dusky sharks are included in this group, the ACL is set to zero right now, and the table shows all the prohibited species that are included.

According to Magnuson, small amounts of bycatch are permissible where the ACL is set to zero and the bycatch is small and does not lead to overfishing. For most of these species, based on the most available data that we have, overfishing is not being caused where there is small bycatch, like of bigeye thresher or basking or longfin mako. However, for dusky sharks, those small levels of bycatch are causing, and continue to cause, overfishing, even though it's been prohibited since 2000.

That is what the measures proposed in Draft Amendment 5b are. They are mostly accountability measures to try to prevent overfishing, but they're not really needed for any of the other species in the prohibited shark complex.

Now, in terms of specific requests for public comments, we are trying to get feedback during this comment period on how to reduce the mortality and the sort of rebuilding objectives. Specifically, Alternative A2, how to implement that shark endorsement that we're talking about that would trigger some of these requirements, what would be an appropriate effective date, what would be the best way to implement it.

 In terms of Alternative A6a and A6b, will the circle hook approach ensure the measure applies to the shark fishery? Basically, we're trying to reduce at-vessel and post-release mortality of these dusky sharks, and so the idea is -- Studies have shown that most of the fleet uses j-hooks or circle hooks and that circle hooks, compared to j-hooks, have a higher probability of minimizing post-release mortality, because they prevent those sort of sharks getting deep-hooked, as opposed to

a hook in the mouth or a hook in an area where they can easily be dehooked and thrown back.

It is basically trying to figure out the criteria that we should use to encompass the recreational fishermen that are solely targeting sharks. Is that being met by saying our more than 200-pound test monofilament and fluorocarbon leaders are good indicators, or is it more the size of the hook a good indicator? These are the kind of specific feedback we're trying to look for.

Then the necessity of a PRA of requesting all this information from the fishermen, since they will be going through what we call a dusky shark school, to try to get better educated on identifying dusky sharks. Again, the comment period closes on December 22. This is the information, and it would be really helpful for the council to comment on some of these.

The second thing that I want to do before we go into a comment period is to revisit the presentation that I did in August to the council. I want to clarify that this is not under any comment period or any rulemaking at this time. We are mostly seeking information from especially the council, given that commercial and recreational agencies and all the sectors are represented here, because we are trying to modify some of the shark and swordfish management measures.

I gave this presentation in August, and I am not going to give it again, but I just kind of want to get to the slides that show some of the questions that we have for you guys to hopefully just have an informal discussion on some recommendations that you would give or some just feedback that you would give the HMS staff on some things that we're curious about.

 Again, the background is many fisherman on the island want to be able to retain sharks through the commercial Caribbean small boat permit and land more swordfish. We are looking into modifying what exists right now in the permit. This is the current permit, the Caribbean commercial small boat permit regulations. It allows for tuna and swordfish and potentially sharks, although right now the retention is set to zero at this time.

Then we have the number of fish per vessel per day, minimize size requirements for swordfish and tuna, and then the authorized gears, and so the idea would be that we would modify the retention of sharks to possibly allow shark fishing to occur in federal waters. Again, this all applies to nine miles out in

federal waters, and then potentially increase the retention limit for swordfish.

Right now, it's set to two, and we don't have an in-season criteria to increase that limit, and so some of the questions would be how should we increase it and by how much, when, where and how. I'm just going to skip right through and just get to the questions.

These are some of the questions that I presented. One is allow landings of sharks with the Caribbean small boat permit. retention is zero. The potential challenges is that some are prohibited species. They're in that prohibited species complex that I presented that includes the Caribbean reef, Caribbean sharpnose, sevengill, and so some of the questions are do we maintain prohibited species list and only allow authorized We know that tigers are landed here and lemon. I know although hammerheads and nurse, nurse is prohibited in Puerto Rico.

Remove some species from the prohibited species list and allow them to be landed. That's the other question. If we do remove those prohibited species that right now don't have an ACL and are in a different shark complex than the authorized species that we do allow, the question is where do we put those species? Do we put them where they used to belong, either in our large coastal shark group or small coastal or pelagics, or do we create a new management group for these Caribbean shark species?

In terms of how we account for Caribbean shark commercial landings, right now, they are counted towards the Gulf of Mexico commercial shark quota, and so the question is do we maintain that structure? Do we allow those landings of authorized shark species and still count them against the Gulf of Mexico or do we remove some of the species, again, and allow some of those prohibited species to be landed and count them against the Gulf of Mexico, or do we just get rid of that altogether and remove the species from the prohibited species list and authorize their harvest only in the Caribbean against a Caribbean-specific only quota, as opposed to counting it against the Gulf of Mexico quota?

The other one is, again, the retention limit for sharks is zero at this time, and so the question is do we establish criteria to adjust retention limits? What should those retention limits be? Should it be one, two, three, or four sharks? Then do we require shark dealer workshops and the electronic reporting requirements for Caribbean small boat permits, because, right

now, folks who have the Caribbean small boat permit, they just report to the territories.

Like the state commercial fishermen, they don't have to go through the process of reporting basically electronically through us. When you sell your product, and this doesn't apply, again, to the Caribbean small boat permit, but usually, when a fisherman sells HMS, they have to do it through a federally-permitted HMS dealer, and those dealers have to get set up with an electronic program. They then have to report any landings of HMS that they purchase weekly to HMS staff.

Right now, with the Caribbean small boat permit, they're the fisherman and the dealer, and so they pretty much sell their catch themselves and then they just report the landings to the territories. Then those landings go to the Southeast Fisheries Science Center and then we account for them in our quotas.

Some of the challenges, in terms of like scalloped hammerhead, and I've seen it in some of the data that's been collected for the Caribbean, and so one of the concerns would be, since it's listed as threatened under ESA, what potential measures should we consider.

The second thing is increase retention limit of swordfish for the Caribbean small boat permit. Right now, it's set to two per vessel per day, and so the idea is to establish a range within which we can adjust the retention limits. Should it stay at two or should it go from two to four or two to six? What would that look like? What would be a good amount that would offer additional opportunities for folks in the Caribbean to land more swordfish?

 That is it. Sorry to rush through that, but I'm trying to keep within the thirty-minute timeline, and now I would open it up to comments for Amendment 10, Amendment 5, and the Caribbean small boat permit measures. Thank you.

CARLOS FARCHETTE: Thank you. Any questions for Delisse? Marcos.

MARCOS HANKE: I am going to start the discussion by saying that everything that I'm going to say now is in relation to the Caribbean small boat permit recommendations. I recommend to create, under that permit, a special Caribbean small boat permit shark list, and the rationale behind that is that the sharks that we have here are different.

 The amount of the sharks that show up here, the species and so on, are different than Florida. For example, we have, in the shallower waters, a great amount of Caribbean sharpnose and a lot of, especially on the north coast of Puerto Rico, a lot of Caribbean reef sharks that interact with the fishermen, and there is not a culture of catching them.

There is an incidental catch of them and some very small artisanal-scale landings of those sharks in state waters that is reported, but it is the most common shark in our area. For those reasons, and for the same reasons that we created the Caribbean small boat permit since the beginning, our area is special, because of our geographic location and our characteristics, and we should make a custom list of sharks that are the participants and the members of our fishery.

Another point is I want this quota -- My opinion is that this quota should be apart from any other jurisdiction in the U.S. and that doesn't share the same geographic characteristics and everything that I explained before. That quota, or that amount of quota, should be assigned to the Caribbean small boat permit, apart and not sharing with the Gulf or anybody else, and require shark ID workshops once the sharks are allowed to land -- If that's the pathway we take, I think the people that have this permit should pass through that training, because they will be responsible for identifying and keeping the sharks and reporting.

It makes sense that those workshops are given to them and like this is the best method to guarantee that knowledge about sharks that we lack in the Caribbean. People think that they know how to identify sharks, but they are extremely difficult to identify, and that will be an effort that will benefit not just shark fishermen, but the rest of the fishing community.

 Establish a quota, and once you establish the quota under the Caribbean small boat permit, I think that, because the species lists are different from Florida and the Gulf and so on, we should take into consideration the biological aspects of the most susceptible sharks on that list, once we analyze this, because the quota, in my opinion, should be a multispecies quota and not specific for each species.

A multispecies quota, because it's going to be easier for those fishermen to comply to the quota and those sharks that are difficult to identify or whatever are going to be in that mix and we are not creating an artificial situation in which, because of ignorance or lack of education, the fishermen will be

not complying with the regulations.

In terms of the swordfish, the increase of the quota in the Caribbean is important, even though, recently, we didn't see an increase in Caribbean small boat permit fishermen requesting that permit. The main reason, and I have been explaining this over and over, is because we don't have the shark quota under that permit and people don't want to engage on that permit and then get in trouble with other styles of fishing that they do that create a big, big problem.

Once the sharks are included, at least that is doable with them with the sharks that we have in the area, under all the parameters that, based on science, then I'm sure that a lot of people will be engaging on that fishery and then fish more swordfish and other pelagics.

For that reason, and I know firsthand that the U.S. needs swordfish to be landed to protect our quota, and this way, I think it's step forward, adding that incentive on the Caribbean small boat permit participation by adding more swordfish to the quota. That is my opinion.

JENNIFER CUDNEY: Do you have a specific number in mind for the number of swordfish, since we are talking about a range?

MARCOS HANKE: Yes, because the Caribbean small boat permit already has a description of the boat size and the duration of the trip and the gear and so on, and it's basically an artisanal approach to it.

 I think that, right now, it's limited by pretty much a fisherman with a very small boat can catch one or two swordfish and go back to the dock and at least double or triple that size, because, otherwise, the boats that are active now on the fishing, and maybe that will change over time, will not have the storage capacity and so on to keep a great amount of swordfish, and the idea of this permit since the beginning was to create something that was economically valuable, but, at the same time, we don't want to waste the fish and mismanage them and not preserve them well or to have a place to store them, but, for sure, the increase should be taken into consideration.

CARLOS FARCHETTE: Maybe up to six. Blanchard.

TONY BLANCHARD: I am going to support Marcos's strategy and his analysis of the situation and his suggestions.

 CARLOS FARCHETTE: Okay. I've got a couple of questions. I know, in St. Croix, they're fishing for swordfish at 1,800 feet deep, but they are inside the three miles, and so they're not in federal waters, in the EEZ, and does that small boat permit go to the species all the way to the shoreline, like tuna, and so it doesn't matter where or it's just in federal waters? Okay. If you have an HMS permit, you cannot possess a commercial small boat permit? Is that true?

DELISSE ORTIZ: I'm sorry, but what was that? If you have a what?

CARLOS FARCHETTE: If you have an HMS permit, you cannot also have a commercial small boat permit. Do you either have one or the other?

DELISSE ORTIZ: For the Caribbean commercial small boat permit, that's right. You can only have that. It can't be combined with the other HMS permits.

CARLOS FARCHETTE: On the sharks, I agree with Marcos. In the USVI, it's an incidental catch. They're not targeting sharks, but, when they go out yellowtail fishing, they may be -- I know, for Lang Bank, which falls into federal waters, they may hook onto a tiger or something and eventually land it, just to get it out of the way so they can keep fishing for yellowtail, or sometimes they just leave, because there are just too many sharks eating their yellowtail, and so they will stop fishing and leave. They would be required to have this commercial small boat permit, but you cannot just have a commercial license and harvest a shark. Is that --

DELISSE ORTIZ: For the Caribbean small boat permit, it applies to federal waters. For tunas, you would need a commercial small boat permit in state waters, assuming that there is not a moratorium on commercial fishing in state waters.

CARLOS FARCHETTE: Marcos.

MARCOS HANKE: I want to add to the comment that Carlos said, because it's nice, because he is from St. Croix and his experience, and maybe Tony can complement this. I already stated on the AP for HMS, in which the council -- It's very important culturally here. People move away from the shark. If you're fishing for yellowtail or whatever, it's like, oh, man, these guys are here again, and I move.

There is not that culture of staying and dealing with it, and

they are limited, because of the gear that historically they use. The experience that they -- They don't have experience with the shark of managing and keeping or handling the shark. Everything is done without experience or the culture behind that of the shark fishery. Basically, what I'm trying to say is that, once you add the quota, it's naturally and culturally limited already.

 That risk of impacting those sharks on a bigger scale, like you have in other countries, in which the gear and the boat size and all of that, the market behind it and so on are different. We don't have that, up to now, and one other thing that -- I don't know if you want to split it, Delisse, but I have a comment about the dusky shark and the 35 percent reduction. Do you want to have that now?

DELISSE ORTIZ: Do you mean dusky sharks? Yes, it's open for all three presentations.

MARCOS HANKE: Okay. I will wait for him to comment on the Caribbean small boat and then I will go back.

TONY BLANCHARD: I would have to agree with Marcos. The sharks, especially in the Virgin Islands, is not a target species. It's basically incidental. If you're fishing, the last thing you want is a shark, because, every time you hook, chances are that you ain't going to get a fish to the boat with a shark sitting right behind the back of the boat.

 A lot of times, the guy is going to move off to avoid a situation, and so, really, a lot of times, it's incidental. There is no real market for pushing sharks on the market. They don't have that kind of demand, and so that, in itself, is, to a certain degree, a restraint on targeting the sharks.

 MARCOS HANKE: Now my comment is with the 35 percent reduction for dusky sharks. I was in the meeting on the AP, and one of the main things, and I want the council to be clear about this. Basically, what it boils down to on the discussion, and this is not an agency decision, but what it boils down to in the discussion during the AP is that you can check-mark under your permit of let's say a charter.

Okay, I have the intention of fishing for shark and I'm some way, somehow, going to check this box and then trigger all those other things, the leader and the wire and the hook and so on. That's the way that things are going to look, and those details, once you check-mark, are under discussion and development now.

The problem, again, in the Caribbean-specific situation, is that we are a multispecies fishery. Once we go out fishing for blue marlin with heavy leaders, with circle hooks and natural bait, that is for recreational side, or for tuna with bigger leaders, if sometimes they use it, or for wahoo, or for many other species that have teeth, we are going to fall under the same description that you guys follow there.

I don't think that the leader is at all for the Caribbean, and I heard from other places in the U.S. the same, is the way to go, because it's going to create a lot of problems to the rest of the fishery and the other things that fishermen do.

Also, the size of the hook, because nowadays, technically, a small, small hook can be very strong, or a heavy, heavy hook can be very, very weak, and you have consideration of the gap of the circle hook or the j-hook and the wire gauge and on and on.

I think it's too complicated to get into that, and, at the end of the run, it will be not effective, because, on a fishery that is multispecies, I have on my boat a great scenario of hooks and situations, because I am a charter operator that doesn't target sharks. If I'm obligated to have circle hooks only, what do I do with the mahi that I want to make sure that I hook up the mahi with the j-hook, and this is personally. I prefer to use j-hooks for them, for that mahi not to go away and not to lose the school and not to hook them in the side of the mouth with the circle hook that you tend to lose them more than with the j-hook.

That is going to create a lot of problems, okay, but, my recommendation then is that, once you check the box, it should require onboard cutters for the wire and equipment that is related to the sharks, cutters for the wire and a dehooker, a specific dehooker format or style or whatever. You guys have to work on that, which dehooker you guys want to do that. I have a simple dehooker that is used for the turtles on my boat all the time.

 The shark training or school for ID, once you check the box, I think that should be there, for the same reason that I explained before, for the Caribbean small boat permit and the placard. You have to have the -- For me, you have to have the combo of things onboard that this is all going to help to learn how to release the sharks, to identify the sharks that we want to protect, and have them be more knowledgeable and to reduce the

interaction with the sharks that we want to protect. Thank you.

CARLOS FARCHETTE: Thanks. I give my support to Marcos, since he's been so involved with the HMS AP, but I have a question on landings, because I know that, south of St. Croix, and it's within the EEZ, and so it's maybe forty or fifty miles out, there are longliners, and, if we have a separate quota for the U.S. Caribbean, that quota may be met just by those longliners and then the artisanal fishermen may be on the bad end of this quota, and so I'm not sure how that -- Go ahead.

MARCOS HANKE: The request, since the beginning, and the purpose of the Caribbean small boat permit is a separate quota apart from the other permits, longline quotas and tuna quotas and quotas that are connected to the other jurisdictions. The Caribbean small boat permit, custom fit to us, should be, for the reasons that we are seeing here, apart and not to create problems in the future.

CARLOS FARCHETTE: Good. As long as the small boat guy gets an opportunity to land something instead of, well, the quota has been met and you can't fish anymore, because of some other industry, although I have issues with the longliners in the U.S. Caribbean, but that's another story. Clay.

CLAY PORCH: I noticed that there was a suggestion of some potential bag limits on swordfish. I think that was one of the options that you discussed, and I'm just curious. I don't know about this year, but, in the recent past, the U.S. actually hasn't been meeting its quota of swordfish, and so I'm wondering what the motivation for having any limits on swordfish is.

DELISSE ORTIZ: Just any limits on the Caribbean small boat permit?

CLAY PORCH: In terms of bag limits of swordfish. If we're not meeting the quota anyway, is there some other motivation for having some limits on the number of swordfish that can be taken from the Caribbean, regardless of the means?

DELISSE ORTIZ: I think a lot had to do with fitting the permit to the specific sort of artisanal characteristics of the fishery. They're limited by the size of the vessel and how much they go out and, like Marcos said, how much they can really hold in the vessel, and so we were trying to just provide a limit of what would be safe and what would be possible, but, at the same time, that was one of the reasons that we even created the permit, was to offer additional opportunities.

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8 9 We also created the swordfish general commercial permit, which has different regional -- The retention limits are by region, and so that offers, again, additional opportunities to land the swordfish, and so a lot of the limits are just -- In terms of the Caribbean small boat permit, it was designed specifically for the fishery that occurs here, where they can only really handle a limited amount, but, again, offer the opportunity to swordfish, and so the agency continues to opportunities to land swordfish, since there is a lot swordfish quota available.

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CARLOS FARCHETTE: Any more questions for HMS? Clay.

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CLAY PORCH: One for Jennifer, actually. You mentioned that designating something as EFH, essential fish habitat, or the HAPCs doesn't necessarily trigger any fishing regulations, but maybe it would help if you could give some examples of ways they actually have contributed, because, eventually, maybe the council has to make some decisions regarding what would be their role. What does designating something as EFH ultimately lead to?

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HMS is sometimes a little bit of an odd bird, JENNIFER CUDNEY: because our species are mostly pelagic. Some of the examples that we would think about tend to be more focused on either sharks or gear interactions. Like in the 2006 Consolidated and in Amendment 1, there was quite a bit of work looking at whether bottom longline gear fishing or gillnet gear might corals, and so, in that example, if it was found that HMS fisheries would indeed affect corals, corals themselves or coral EFH for other species, then there might be restrictions that would be considered necessary in order to protect habitats.

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However, I think, through the public process, when that was actually being considered eight or ten years ago, they did determine that most HMS fishermen are fishing not specifically on the corals, but maybe near the corals, and they are able to avoid it or otherwise mitigate that fishing effort, so that it had a minimal impact, and so that's one example.

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I know of other examples of rulemakings where we have considered the boundaries of EFH perhaps as -- It's sort of a -- Especially when you get into HAPCs, you're talking about areas that have recognized importance to certain species, and so, if you need to do any sort of conservation or you need to do something that might promote stock recovery, you might want to restrict

activities in those areas.

For example, we take special pains to look at nursery shark habitat, and our current HAPC for sandbar shark was established to protect nursery habitat. I know that when they were considering some of the sandbar regulations that were passed in 2008, one of the alternatives did look at whether or not restrictions might be necessary, and the way that geographically delineated the area where those restrictions might occur was to look at whether or not the area that was EFH was an appropriate boundary for those measures or whether the HAPC was an appropriate boundary, and so that's an example of how that could be used in the future, but, for a lot of our species that are data limited, we tend to go -- Our boundaries are rather large, and so, in that case, it may or may be appropriate to do a gear-restricted area or gear restrictions across the entire EEZ. Does that answer your question or provide good examples? Okay.

CARLOS FARCHETTE: Nelson.

NELSON CRESPO: I just want to say that I support all the comments made by Marcos Hanke. It's very important to take into consideration the shark fishery on the west coast of Puerto Rico.

CARLOS FARCHETTE: Miquel.

MIGUEL ROLON: A question for Delisse. Before, during the break, we were talking about reaction from the council that you wanted for the HMS process. Do you think that this discussion is enough or is there any question that is pending that we can take the opportunity now to get the feeling of the council?

DELISSE ORTIZ: Well, I mean, there is always more questions, right? But I think the input that we've received from the council is great. I mean, there would be additional questions, like what species are you seeing being landed and what gears are being used in the shark fishery.

 Anything that could provide information on characterizing the shark fisheries in the Caribbean would be helpful, or, like Jen said, if we do have a retention limit for sharks, how many should that be, given that it's an incidental fishery and more of a nuisance than anything else? What is the market like in Puerto Rico versus the USVI? Is there more of a market for meat? Is there any export of shark fins occurring? Any tidbits like that would be appreciated, but, overall, the input has been

great. Thank you.

MIGUEL ROLON: Ricardo and Ruth, when you get back home, if you have any information on sharks, you can send it to them, because I know, in the past, we used to collect that information. Anecdotal information, we have a lot, but we also have the experience of the use of shark meat in Puerto Rico for many years. They use it for turnovers. It's a commodity that the fishermen have been using for some time, and I believe that some of them have increased the use.

You can go to, for example, Fajardo, and sometimes you can see a shark displayed there and the fellows selling shark meat. The same goes for Cabo Rojo. There are a couple of fishermen that used to fish for sharks. However, most of them fish within the area of jurisdiction of Puerto Rico, the nine nautical miles. They both are small and they don't target sharks during the year. They just target shark when the other fisheries are low, and that's as far as I know. Then Daniel may be able to get that information through Ricardo and whoever has information from the U.S. Virgin Islands can do it through Ruth.

DELISSE ORTIZ: One question. What species are you using for the meat?

MIGUEL ROLON: Remember that to identify a shark that you have to have an ichthyologist next to you, but my experience has been that they use reef sharks. When there is nothing else, even a tiger. Tiger tastes lousy, but sometimes they use it. The other that they use is the ray. They cut the fins off the ray and they sell it. They used to sell it as turtle meat, but, now that turtle meat is prohibited, they don't do it that way.

Then they go and use it for empanadas and pinchos, the shish-kabobs. In La Parguera, there is a couple of people who use sharks for shish-kabobs, and they sell everything that they bring to the table. The customer has developed a taste for shark meat with that name. They look for it, and they use it.

Sea Grant also did a study years ago, and maybe you are familiar with it. At that time, sharks were okay, and they have -- It's an old project, but they had a tasting of shark meat, and they were trying to develop the fishery. I guess it was the 1980s and 1990s. Sea Grant may have that information.

CARLOS FARCHETTE: Nelson.

NELSON CRESPO: We also use the small sharks, when we fish in

the deepwater, to make turnovers. There's like a stew meat made 1 2 from the shark that they take all the water and it's very dry, but it's a stew meat. They eat with rice or plantains or whatever.

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One of the comments that you made concerning CARLOS FARCHETTE: the export of shark fins and stuff, that doesn't occur in the We export nothing from Puerto Rico, St. Croix, and St. Thomas. There is intra-island transport. Like St. Croix would carry fish to St. Thomas or to Puerto Rico, but there is nothing that goes outside the U.S. Caribbean.

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When it comes to the local government, since I am the Secretary for the Fisheries Advisory Committee, I can get information from those guys that I know hunt swordfish, for a gear type that you are requesting, and I will pass it on to the Director and she will get both islands and then send out that information. Anything else on HMS or sharks? Hearing none, we are going to -- We have a little change on the agenda again. We're going to have Jennifer Lee speak on the Update on Ongoing Reef Fish and Spiny Lobster Endangered Species Section 7 Consultation. Jennifer Lee here?

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MIGUEL ROLON: We can go to the next agenda item and whenever she shows up, we can do that. Jack, I understand that she was leaving early?

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JACK MCGOVERN: She's not here. She was calling.

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MIGUEL ROLON: But she will be back?

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DIANA MARTINO: She didn't come. She is calling in.

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MIGUEL ROLON: Excuse me.

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UPDATE ON ONGOING REEF FISH AND SPINY LOBSTER ENDANGERED SPECIES SECTION 7 CONSULTATION

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JENNIFER LEE: Thanks for the opportunity to update Thank you. you on the ongoing Caribbean reef fish and spiny lobster ESA Section 7 consultations. For those of you that don't know, I work in the SERO Protected Resources Division, in the Sea Turtle and Fisheries Coordination Branch.

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It's been a while, due at least in part to some workload and staffing issues, but, in late 2014, we did reinitiate consultation on the 2012 reef fish biological opinion and also the spiny lobster biological opinion, because we had five new coral species that had been listed under the ESA that may be affected, and I have the list on the screen, and I won't read them to you.

More recently, we have published two additional final listing rules requiring expansion of the consultation to analyze several new species. On April 6, we published the final rule removing the range-wide listing of green sea turtles, but, in its place, we listed eleven DPSs. Two of those occur in the U.S. Caribbean. Then, in addition, on June 26, 2016, we published the final rule to list Nassau grouper. That listing became effective on July 26 of this year.

Just to give you an idea of what is ahead, the new opinions will replace the active 2012 biological opinions in their entirety, and so they will include analyses of all listed species in the action area and not just the new listed species that I just went over that triggered the consultation, and so that means Acropora. Sea turtles will also be analyzed, like in the existing ones.

In conducting the consultations for each listed species likely to be adversely affected, we generally examine the types of interactions that occur when exposed to each fishing gear and then we consider the factors that may affect the likelihood and frequency and severity of exposure, but then, ultimately, we are evaluating and quantifying the effect and we're looking at the number of individuals of each species and the fate of those individuals, using the best available information.

The focus, to date, has been on updating the literature and best available science to incorporate information not available during the last consultations and then analyzing the additional coral species. For those of you that know Andy Herndon, he had been the lead consultation biologist for the reef fish consultation. He accepted a new job with PRD a while ago, and so I will be taking over that responsibility.

Over the next couple of months, we will be focusing on analyzing the new species that I mentioned, particularly Nassau grouper, and also wrapping up the other analyses, hopefully. We anticipate completing the Reef Fish FMP consultation sometime in the spring of 2017, is what we're thinking, and then the Spiny Lobster FMP consultation would be completed most likely shortly thereafter, just because a lot of the information we would use is similar.

In June, you did receive a presentation from Adam Brame on the

recent listing of Nassau as threatened. Because you may not have another meeting for another few months, I just wanted to review a couple of points about this status and point out a potential concern we may have.

Nassau, as you know, are listed as threatened, with fishing on the spawning aggregations and inadequate law enforcement protecting spawning aggregations the most serious threats to the status and recovery of the species. Consequently, protection of spawning aggregation sites is considered a high priority.

We need to search for the best available information. We do expect bycatch and data sources to be limited, which always makes things more difficult, and we also know that there are two spawning aggregations, as you know, at Bajo de Sico. The seasonal protection that prohibits fishing of reef fish species expires March 31. Then, at the Grammanik Bank, the seasonal protection ends on April 30, and so the presence of Nassau grouper at both spawning aggregation sites does extend beyond the duration of the seasonal closure at these sites.

Therefore, the timing of these seasonal regulations is not fully covering part of the Nassau grouper reproductive season, at least in some years, depending on what the actual season is, and I know that you had a presentation, and I don't know how recently, but I heard you had a presentation about some of that new research with recent tagging studies of two grouper species as well as some passive acoustic recordings of sound produced.

A lot of reproductive behaviors at areas near the Grammanik Bank established that the timing of these aggregations can extend into May, depending upon the lunar cycle of each month. At Bajo de Sico, the timing of spawning was determined to be from February through March, based on some passive acoustic data.

You, of course, have regulations prohibiting harvest and possession, but we'll have to look into potential bycatch during that time, and so that's all I wanted to share with you. I just wanted to give you, again, an update, because it's been a long time, and, depending on the timing of your next meeting, I didn't want there to be any surprises because we hadn't talked about it in a long time, but, if you want to talk to me, my contact information is on the screen.

I haven't gone to a council meeting in a long time, due to budget and a lot of other just workload, but I am always here, and you can feel free to reach out to me if you have information or want to talk about these consultations, but really any

protected resources issue. Just don't forget that I'm around and happy to help. That concludes the update.

MIGUEL ROLON: Jennifer, can you refresh our memories here of what consultation means, because, when we had consultation with spiny lobster, it made some people nervous around here.

JENNIFER LEE: Sure. I'm sorry that I didn't put in a lot of background information, and perhaps I should have, but basically, under the Endangered Species Act, for any species that we think may be affected, and basically they're in the same space and time, the bar to trigger a consultation is pretty low.

A consultation basically is any type of back-and-forth exchange on the effects of a particular action and a formal consultation is when -- We do those when we believe that adverse effects are likely. A formal consultation process involves analyzing the effects and preparing a biological opinion, which basically specifies what the particular action is that we're looking at.

In the case of reef fish, it would be looking at how the fishery is conducted and the regulations in place. Then we look at the species that are endangered or threatened in the area. We look at their status and other things that are impacting them. Then we get into the nitty-gritty of trying to break down the effects of the actions, and so looking at what is the interaction and are they being incidentally captured and how many and things like that, like what information do we have as far as are they dying from the interaction.

Then you move into going from the individual effects to the effects as a whole on the species. Ultimately, through a biological opinion and the consultation process, we determine whether or not we think the proposed actions or the continuing authorization of these activities is likely or not to jeopardize the species, meaning it's going to result in some appreciable reductions in their survival and recovery likelihood. Is that a broad enough description?

MIGUEL ROLON: Yes. Thank you.

CARLOS FARCHETTE: Any other questions for Jennifer? Ruth.

 RUTH GOMEZ: Jennifer, you mentioned, in your presentation, and I could be wrong, that you have data that shows that there are grouper spawning outside of the closed season. My question to you is where did that data come from and exactly what grouper are you referring to? Is it Nassau or some other grouper?

 JENNIFER LEE: I couldn't quite hear the end of that, but I got the question as far as where is the data coming from that we think the spawning is occurring after the closed season, and I got that -- We have been looking at that. I know there is at least one publication that we're basing that information on, and I am trying to see if I have the name of that publication readily available.

MIGUEL ROLON: Jennifer, the last part of the question was whether that applies only to Nassau grouper or do you have any other grouper species involved at this time.

JENNIFER LEE: Thank you. Nassau grouper is the only one that's listed under the Endangered Species Act right now, and so the consultation for groupers will only focus on the impacts of the fisheries on Nassau grouper as well as like sea turtles and we look at the various listed corals. Those are the ones that we believe are likely to be adversely affected, and so that will be the focus.

I am having trouble. I am trying to go as fast as I can looking up the name of that paper, but I understand, through Sustainable Fisheries staff, that you have had a recent presentation on spawning aggregations and how they can be expanded based on the lunar cycle, and so does that sound familiar?

MIGUEL ROLON: Yes, the presentation was Michelle Scharer and others, and they were addressing the aggregation and the moon cycles and so forth.

JENNIFER LEE: Okay. That's what I am referring to. Again, we are just -- As I said, over the next couple of months, we're going to be looking into and working on this analysis. At this point, I haven't gotten into it all, and I was just letting you know and I just wanted to make sure that you guys were aware that these are consultations that we're working on and these are some of the things that we'll be thinking about, but it's pretty early on in terms of actually looking at it, which is why I apologize that I can't come up with that particular paper right now that I'm thinking of.

MIGUEL ROLON: You can send an email later and I can distribute it to the group.

JENNIFER LEE: Sure.

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CARLOS FARCHETTE: 48 Education Report by Alida Ortiz.

I think the second part of Ruth's question still JULIAN MAGRAS: hasn't been answered, and that is which species of grouper is spawning after the spawning period.

They did say that it's only Nassau that CARLOS FARCHETTE: they're looking at. Is there anything further for Jennifer? Hearing none, we will move forward. Thank you, Jennifer.

CARLOS FARCHETTE: The SEAMAP Update.

JENNIFER LEE: Thank you.

MIGUEL ROLON: Mr. Chairman, the SEAMAP was covered yesterday, and Graciela is not here, but she told me that all the elements were covered yesterday, unless Ricardo has something else to At this time, I believe that we covered that part of the

SEAMAP UPDATE

agenda. RICARDO LOPEZ: SEAMAP is meeting again on January 13.

planning to get some camera arrays and longline gear to Puerto Rico and the Virgin Islands. They are planning to have two days on each island and start testing those cameras in the sampling methods. It's a new way to get data, and that is my update.

CARLOS FARCHETTE: Okay. Thank you, Ricardo. Then we will do our photo-op and then break for lunch. We will be back at 1:30.

(Whereupon, the meeting recessed for lunch on December 14, 2016.)

December 14, 2016

WEDNESDAY AFTERNOON SESSION

The Caribbean Fishery Management Council reconvened at the Frenchman's Reef, St. Thomas, USVI, Wednesday Marriott afternoon, December 14, 2016, and was called to order by Chairman Carlos Farchette.

Next on the agenda is the Outreach and

OUTREACH AND EDUCATION REPORT

ALIDA ORTIZ: Good afternoon. I hope you had a lunch. We will have our report, and in our report about the outreach and education activities that have been completed before this meeting, and we will have today with us Helena Antoun, who is going to speak about the social media activity that we had and how it's going to work. Then Alexa Dayton will give us an update on the MREP program, especially the Virgin Island parts of the Caribbean.

The first activity that we had, we were invited by the Mesoamerican Congress on Economics and Ecology to deliver a presentation on the ecological services of the reef that are used as fisheries, and it was a very interesting group to work with, because, most of the time, we talked about the coral reef, in terms of the habitat, in terms of the biodiversity and the environment and all of these things, but we see it only from the nature part of the reef.

For the economics and ecology aspects, we had to put in how the ecological services, especially biodiversity, is used as the source, as the basis, for the fisheries and the impacts that the fisheries have on the reef, but, on the other hand, the regulations and the accountability measures that are placed to protect the biodiversity has a social impact on the community, and so how do we put those together?

The presentation was, I think, very well received, and we had a lot of discussion, especially with the fact that there is very poor data available to make management decisions, but we have to manage that, and they have requested that we extend our presentation to a full paper that will be published with one of the universities in Mexico that participates in the Mesoamerican Association of Economics and Ecology, and so we did that.

The other activity that I would like to share with you, not because of the content, because you discussed that already in the two scoping meetings that were held in Naguabo and in Mayaguez on the permits, the federal permits, but, to me, it was very interesting that in over thirty years, more than thirty years that I have been working with fishers and with fishing communities, it was a long, long, long time that I didn't see that many people, that large public, attending, and not only the public from all parts, all types of fishers, politics and everything, but they participated.

 They asked questions and they presented recommendations, and, to me, that's very inspiring, that we do have the fishing community getting to learn more about what is all this about management and how does it affect them, but also how they can work with the management officers, and, to me, that was important. This is the one in Mayaguez, and there were over seventy people there, and it was very, very well conducted.

My best memory of the meetings of fishermen like this were that they always ended up in a fight with the DNER or with whoever was conducting the meeting, but this one was very, very organized, and they were very, very sure of the way that they were saying the things, and so I feel very happy with that.

The other thing that we have, and I think it is in the press right now, and it should be in your mail probably by the first of January or something like that, before the year begins, is the calendar, the 2017 calendar.

This calendar was dedicated to the women in fisheries, women that are working in the fishing industry, either as fishers or as managers of the fishing store or the fishing market and the academics and the scientists and women from Puerto Rico and from the U.S. Virgin Islands also. We have them all there. It's people like Barbara Kojis and Lia and Ruth and Vanessa and Graciela.

 MIGUEL ROLON: One comment, if I may. People tend to think that fishers are all males and scientists are all males and even lawyers are all males, and that is not true anymore. We have one lawyer here, and she is a woman. To us, that's kind of paying homage to these people that have been working with us.

We have fisherwomen. That one on the top, the second from the right, she goes and fishes by herself if she needs to. She dives and she pulls traps. She is from Naguabo, and so we have good people. Of course, we have the scientists, like Graciela and Ruth and Aida Rosario and Alida Ortiz.

We all knew Dr. Barbara Kojis, when she was here. She is now in Arizona, but she is still working in St. Croix especially and doing work, and we have a recreational fisherwoman, Carmen. She even had records of sportfishing in Puerto Rico, and so I think that this is well deserved, and it's an example, just a minor example, of all the women involved in fisheries science and fisheries in general, the industry, and so we are very proud of the calendar.

 ALIDA ORTIZ: I think one the myths that we have wiped out is that the women in fisheries, especially in the industry as such, that they only did the cleaning of the fish, but that's not true. We have many, many women that fish by themselves and many of them that own the fish market and they manage the fish market, and so it's a big enterprise, and they have been very sympathetic to us with the outreach and education.

Like we have had some of them in our meetings to tell us how do they get to the public and how do they get to the fishers in communities, and we are following many of their recommendations, and so you will receive the calendar very shortly.

The other activity that I would like to update is the campaign on responsible seafood consumption, and we have begun with this short press release to the *La Regata*, and that is a newspaper that goes to many of the fishers and many of the people in the marinas. The idea is that we cannot produce the entire thing at once.

We have to sort of go little by little and see how the people react, and now we are going to -- We have already the list of the fish that can substitute those that are either endangered or that have closed seasons, but then we have to learn a little more about those fish, so that we don't displace all the demand to a population that we don't really have that much information.

 We are now collecting information. We are collecting good photographs of the species that can be substituted, and we have a meeting with the chefs and the restaurant owners and the people who are selling at the fish markets, so that we have like a consensus of really are these the species that we can promote or are we sort of opening a new way, so that you have another species that will be then overfished, and so we are taking much care of that.

The other thing is that, like Miguel mentioned early in this meeting, we will be working on the idea of making a fish fry event in Puerto Rico. That will be probably the culmination for this activity, and so, when we have all of that ready, the posters and the material for the restaurants and the materials for the fish market, it will be then produced, but we are using, right now, it more as an education phase than as a promotion phase.

Eventually, we hope to have posters, small posters, where we can have very good photographs of the species that will be substituted first with the scientific name, and I think that we should learn the scientific names. I am not trying to be elitist, but they do have a name, and, when you say groupers, all groupers are not the same, and so we should learn to recognize the groupers that we eat.

We should learn to recognize the snappers that we eat and make sure that they don't give one for another, because not all species undergo the same habitat constraints, and so that's something that we have said, no, it's just the common name, but the common name may be one in Naguabo and the same fish has a different common name in Cabo Rojo, but we are talking about the same fish, and so we should have that very clear as part of the education, and so we hope to have posters, more posters like this, that will go to the fish markets and to the restaurants and to the places where people consume fish and seafood.

Now we will take the two probably most important activities that we have been working with. One is the social media that we were told to investigate to find out how to establish social media efforts for the council. Helena is going to present that to us, and then we will have the MREP project update by Alexa Dayton.

MIGUEL ROLON: Before Helena, remember that we discussed this at the council before. We informed you that we were going to prepare a Facebook page and maybe some other media, like Twitter and any others, but, so far, we started with this one, and we will give it kind of a year period for assessing whether this is something that is good or not for us.

If it creates more problems than it solves, probably, at the end of that year, we may not be able to have that page, but, so far, the page has been a success story, and there are a couple of issues with having a webpage, a Facebook page, that we can address today.

Helena has been instrumental in putting this together, but also we received assistance from Emily Muehlstein from the Gulf Council. She was the one who started the Facebook page at the Gulf Council, and she gave us all kind of insights as to what to do and not to do on the Facebook page, and also Kim Iverson from the South Atlantic assisted us and Christina Olan from Sea Grant. These three women have experience with Facebook pages and have helped us, and especially Helena, to put all of this together.

 I didn't know much about Facebook, and so I bought a book that is called *Facebook for Idiots*, and I encourage you to look at it, because Facebook is interesting. It's a good tool, but it's

a double-edged sword, and so, Helena.

HELENA ANTOUN: Thank you. Yes, a big thank-you to Kim and Emily and Christina. They really helped put this together and gave us a lot of -- They pretty much showed me how to do this, and so a big thanks to them.

This is the Facebook page, and I'm just going to run over it really quickly. Then you can click on it and you can look for it and play with it when you have some time. Just look for "Caribbean Fishery Management Council", and it will pop up. I just posted today's picture, and so there is already today's picture and yesterday's picture.

I am just going to go here really quick to the About Page. The way we're doing this is simultaneous translation, and so everything that is being posted is simultaneously being posted in English and Spanish. If you go to the About Page, all of the information here is -- Like, for example, you have the English and the Spanish, and so it's all simultaneous.

What you're seeing right now is what I am seeing, because I am the administrator, and so you're not going to get all of this. There is a lot of things here that you're seeing right now that you're not going to see when you guys go on it, but what I want everyone to notice is that, if we go to Insights, this shows me the engagement that we're getting, and we have just started this. This is a month maybe, more or less, since we got this posted.

If I look at it, this is the posts I've put. These are all the posts. We've had Fish Fact Fridays that we got as an example from the council and videos and stuff like that. Fish Fact Friday is just like a little fun fact thing, where you have like little examples of little fish facts that you post. The first one was, for example, barotrauma, and I will show you an example of that.

ALIDA ORTIZ: That's from the Gulf.

HELENA ANTOUN: Yes, and they've been very gracious. They were like, do not reinvent the wheel here and take this, and so we've pretty much been just adapting. If we add anything more, we can add it in and modify it as we like.

For example, here, if you look at this, this shows you the level of engagement that the public has had. Now, I've been posting several different things, but one thing that I have noticed is

that the posts that have gotten the most engagement, like this one -- It's got 473 engagements, and then the other one, which I want to see that and I don't know why it doesn't show up now, but the other one that also had a lot of engagements had over 1,200 engagements, and that was one that was the scoping meetings that we posted, the pictures of the scoping meetings.

In other words, what I want to say is, so far, what this is showing me is, when I put information on the council, like information on what the council is, who the council is, how it works, the meetings that are going on, people really are interested, and there are a lot of engagements in that. In the other things, like Fish Fact Friday, there is some engagement, but it's not as much, and so it's telling me that people want information about the council.

 If I go back here, this is an example of a Fish Fact Friday. The week before, we talked about barotrauma. Then, this week, we were talking about burping, fish that burp, and so you have the nice little picture of a fish burping and then just an explanation of little biological facts of fish and stuff, and so that's an example of a Fish Fact Friday.

Other things that we have are, if you keep going down, and -- We are putting notifications of seasonal closures, and, for example, the lobster events, like meetings, are being posted here. Then another thing that we also have is videos and pictures, of course.

One video that got a lot of views is this one that we made. This is something that we just put together. It was more of a trial video, really. It really wasn't anything that we were going to use like officially, but it turned out pretty okay, and so I decided to go ahead and post it, and it's on sustainable seafood, like the whole point of sustainable seafood and the effects that seasonal closures have had. It's fishermen interviewing fishermen and them talking about the seasonal closures and the benefits and the alternatives that people can look for when something is in closure. We have had -- It reached 883 people, and it had over 200 views, and so it's really getting out there.

MIGUEL ROLON: The video is not to be taken lightly. The video is fishers asking the public to help them sustain the fishery outside, and the stars of the show is Carlos Velazquez and some of his friends, and the idea is, when people go out and shop for fish, the fishermen are asking them to be mindful of the status of the fishery out there only by buying fish or any other

animal, seafood, from sustainable fisheries, and it has been a success story here, too.

HELENA ANTOUN: Yes, and, like I said, in events, we have notifications of the meetings and stuff, and already here, just today, going to notifications, we have people liking our page, and so people are really starting to get involved on it, and so, so far, it's been really good, and so please like our page and follow.

ALIDA ORTIZ: I think it's very important as an outreach.

 MIGUEL ROLON: We also wanted your reaction, but, not only that, if you have an idea of something that you would like to see posted that is related to the council work, please contact Helena so she can put it together and load it up on our webpage. Issues that we have found this month is that when you do a search and put "Caribbean Council", everywhere that we have "Caribbean Council" will show up on the page, and at least some people have been confused in what they see with what they have on our webpage, and so it's a learning curve.

We are going to work on it, in clarifying when the shared item is a council official item versus it's just somebody else's opinion, but, so far, I believe, Helena, that the reaction has been very positive. Fishermen are contacting us through that, and they are beginning to go to that page for looking at future events that involve the council.

CARLOS FARCHETTE: Ruth.

RUTH GOMEZ: I am looking at the page right now, and your posts are in Spanish?

 HELENA ANTOUN: Spanish and English. I did a little experiment, and I would really appreciate feedback on this one. I started posting first in English and then in Spanish, and I started noticing that I wasn't getting very much engagement. Then I decided to do a little experiment and do it in reverse, the first post in Spanish and then do the English underneath, and I started getting more engagement.

In Puerto Rico, the majority of the people speak Spanish, but they're always going to be Spanish and English. The thing is that, if it's a small post, you will see both translations, but, of course, if it's something a lot longer, you're only going to see the first language, and so you would have to click on "more" to see that there is the English translation.

1 2

Here is a question. Do you do double posting in one language and then in the other or do I just alternate between the first posting in English and then in Spanish and vice versa? These are all things that we can --

MIGUEL ROLON: That's the kind of question exactly that we want the reaction from the council, how would you like to see it. In some of the big ones, probably what we need to do is to link the page that has the information from the council or NOAA to that, but we want to have your feedback on this.

CARLOS FARCHETTE: Ruth.

RUTH GOMEZ: I'm a Facebook addict. Yes, hi, my name is Ruth, and I'm a Facebook addict. Here's my thing. If it pertains to Puerto Rico, Bajo de Sico or something that solely pertains to Puerto Rico, knock yourself out in Spanish, but, if it's something that affects the Virgin Islands, then we've got to have it in English. If it's something that potentially affects both places, then you've got the double post in English and Spanish. That's my suggestion.

ALIDA ORTIZ: I agree with that, too.

MIGUEL ROLON: We have to be mindful that in St. Croix that some speak Spanish and they prefer things in Spanish, but we can take her advice. Whenever we have something with the U.S. Virgin Islands, the English post first and then --

HELENA ANTOUN: It's really not extra work for me, because I'm doing the translation anyway.

MIGUEL ROLON: It will actually be easier for you in English.

HELENA ANTOUN: It will just be annoying for the person that is seeing the thing twice.

MIGUEL ROLON: Let them be annoyed.

CARLOS FARCHETTE: Marcos.

MARCOS HANKE: Can it be, on the case that you have the dual language, a note at the beginning to scroll down for the English version or the Spanish version, like a note at the beginning?

HELENA ANTOUN: Yes, that's another alternative that I could do. 48 In the beginning, for example -- If I go to a long one, like,

for example, let's say like this one. Instead of starting here, just put in the beginning, for the English version, to just scroll down or something. Ruth, what do you think?

RUTH GOMEZ: I agree with Miguel. If it's pertaining to the Virgin Islands, the English should come first. Then it should say to scroll down for the Spanish. It should say scroll down for the Spanish version. If it's for Puerto Rico, then you do the opposite. If it pertains to both places, then I don't really care who comes first, but just make sure that it's in English for me to know that I've got to scroll all the way down and there it is.

HELENA ANTOUN: Okay. Got you.

MIGUEL ROLON: The other thing that we want to say, for the record, is that whatever we have there is not the staff opinion. What we are doing is Helena will be cutting and pasting the official information that we have from the council, and so, if you want to hear an opinion from us, you won't hear it here or see it here. Everything that will be posted on our webpage either comes from the minutes or comes from regulations or comes from documents that you can go back and get the information from.

That way, we do away with any misinterpretation of what we have here. This way, it's safe for the council, because what you are going include there has been either cleared by lawyers or is already part of the record, of the public record.

 ALIDA ORTIZ: I think that also, and this is my question, but, if you have an announcement to make that comes from the Virgin Islands, it has to go to Helena first. Helena is the one that is going to put the information there.

Another thing that we have been discussing in our O&E AP meetings is the administering of surveys to see how the public receives the communications, and so what we did is we spoke to Emily and to Kim, and they have sent us the surveys that they used, that were already used in the Gulf and the South Atlantic, and we are going to go through that, and that can be adapted, because those surveys already have passed all the federal certifications, and so we don't have to ask for more permits, and so we will do that and probably give it a little time, to see how this information goes to the public. I think it's a very good outreach strategy, and we have to account for that. We have to see how well it works.

MIGUEL ROLON: One last thing is that we are not going to use the page for collecting official comments during public comment periods. We will continue using the public hearing period, and people will have to send us written statements, either by email or whatever, within the timeframe that we allocated. That way, we will be able to be more responsive to the comments received and on time for council actions. Any other comments for Helena?

CARLOS FARCHETTE: My name is Carlos, and I do not Facebook and I do not tweet, but I think it's a great idea. I just want to know, who is it that provides you the information? Would it be the council members that provides you what needs to go on Facebook?

13 Face

HELENA ANTOUN: So far, what I've been posting has been, for example, meeting events. I just pretty much copy and paste and reduce it, of course. I am not going to put the entire Federal Register, but information from the Federal Register and seasonal closures and that sort of stuff.

Now, things like for Fish Fact Friday, we got it from Emily, and these are like little fun facts that I get. Also, another source that I'm looking at is, for example, if NOAA, per se, has something that could be relevant to fishermen. That could be a Fish Fact Friday thing. Since that has already gone through its channels, I know that it's okay and so I can share and copy and paste and that sort of stuff.

MIGUEL ROLON: Helena, if any council member has something that is relevant to what we do that you think the media of Facebook can use it, we welcome it. The only thing that we require is that it has to be cleared by Helena first before we post that. Mr. Chairman, you don't tweet, but if you want to be presidential, you had better start tweeting, especially between twelve midnight and six o'clock in the morning. Any more questions for Helena?

CARLOS FARCHETTE: This is all federal waters stuff, right, all federal regulations?

MIGUEL ROLON: No, we tend to post anything that -- First, we pay attention to the EEZ, but in the Fish Fact Friday thing, we put anything that is of interest regarding fisheries all the way from the shoreline and outside. For example, something that we can put there is the concern that people have about the lionfish. That is probably information that we can cut and paste there.

If you have something from St. Croix, for example, that you think that should be on the webpage, maybe an announcement from the government or the fishers, and so be it. The same with Ruth from St. Thomas/St. John and in Puerto Rico.

I was going to also tell you that there's a lot of fishers who have their own webpage with Facebook, and they are beginning to interact with us. One member of the advisory panel, the Outreach and Education Advisory Panel, Andy Maldonado, he has his own webpage, and he uses it. Actually, the way that he communicates with council member Carlos Velazquez is through Facebook, and so it's a tool, but it's just a matter of we have to be careful how we use it and use it as appropriately as possible.

CARLOS FARCHETTE: Great. Anything further for Helena?

ALIDA ORTIZ: Then now we are going to have an update on MREP Caribbean, and that will be Alexa Dayton. Then I will finish the entire thing.

ALEXA DAYTON: Thank you, Alida, and thank you to the council. My name is Alexa Dayton, and I'm with the Gulf of Maine Research Institute. I come to you from Portland, Maine. The Marine Resource Education Program is by fishermen, for fishermen, and the program is aimed to clarify some of the confusion of what goes on at the council table and the science that goes into the advice.

We have been running the program on the mainland of the United States for fifteen years, in almost all of the council regions, but not quite, and we've been inviting participants to come up from the U.S. Virgin Islands and the island of Puerto Rico for the last few years, and we hope that that's been well received and valuable. I see Carlos Velazquez, one of our graduates, at the table here today, and so we are able to hopefully provide the training necessary to engage with the council and make those decisions to shape the fisheries.

We also recently invested in some of Ruth's staff, and we were able to bring two of her biologists to the mainland, in Florida, to give them a sense of how the council operates and what happens with the data.

Last summer, I came down and we held some scoping hearing meetings to determine if this was an offering that we might want to bring to the island instead of exporting fishermen to the mainland U.S., should we develop and tailor a program to both

Puerto Rico and the U.S. Virgin Islands. We've done it in Puerto Rico, and we held a meeting this week to really detail what a U.S. Virgin Islands program might look like.

A number of you in this room were present to help advise on that, and we believe we have a good basis for what might be included in the curriculum for a U.S. Virgin Islands-specific program, some science and some explanation of the acronyms. We might make up our own acronyms just to check people. Then, equally, some of the law enforcement considerations.

The group voiced very clearly that sloppy data in gives you sloppy decisions out, and we want to really be careful that we help everyone understand how the data are used, so that we can hopefully lead towards some improvement on that side.

The short of it is that we are going to proceed with a program, and we are looking at both commercial and recreational fishermen attendees, including divers. We may equally look to attract some people who are vocal and outspoken, whether they be media or maybe some restaurant and/or hotel fish buyers, so they understand what's going on equally in this process and some of how the ACL and the catch may guide what is available in the market and their role in that.

 The steering committee agreed to stay together. We had fifteen of us together, and they have all agreed to continue to work on this and shape the curriculum. It will look very different than any other Marine Resource Education Program. It will be very specific to the USVI, and we will draw on local staff and local government scientists and council members to help provide that education.

Really, we're aiming to, as Tony said and Julian, they said they rely on us to represent their interests, and we would like to deepen that pool of people who can represent the interests of the fishing industry and maybe even help cultivate some new council members when those at this table choose to term off.

We are looking at May of this year, 2017, for the first offering, and the group felt that a two-day educational workshop would probably be the maximum number of time that we could get fishermen to sit in a room and participate, and so roughly covering six topics.

46 We did sketch out what those broad topics will look like. It 47 will be a little bit of science, a basic outline of the 48 acronyms, the way the council works, and hopefully a basic introduction to how you get involved.

Equally, we identified the Fishery Advisory Committee as a good source of a group that we might want to connect with very closely. A number of those members are here today and have recently been appointed and equally expressed an interest in this type of education, and so we think that the convincing of fishermen to attend an education certainly may require some personal extension of invitations and official letters, and we talked about what kind of benefits would we need to cite in order to get the participation at the education program.

We kind of landed at the point that really the benefits are in understanding the process and we may want to consider some additional messaging, and we would certainly welcome ideas on that, on how we can make that clear, but we will be looking for eighteen to twenty fishermen who want to participate in the education, in the May timeframe, and we will continue to update the steering committee on the evolution of the curriculum over the next few months.

Ruth has also offered to be a point of contact and liaison, and we're glad to have the support of the Southeast Fisheries Science Center staff. Clay Porch was there with us, and then, equally, we've got some support from the Regional Office as well, and so we're really excited to kick this off, and we look forward to updating you as we go forward and delivering and helping those fishermen who want to become involved in this process to do so in a way that they can be effective in the future. Thanks.

CARLOS FARCHETTE: Thank you. Any questions or comments for Alexa? Velazquez.

CARLOS VELAZQUEZ: Hi, Alexa. I'm very happy for your time and explaining this program. This program is helping the community of fishers in Puerto Rico, and I expect that there will be another project of MREP in Puerto Rico. Thanks for your time.

ALEXA DAYTON: Thank you.

CARLOS FARCHETTE: I also think it's a great program. I went to the one in Tampa. I think it's important that the fishermen learn about the science and the scientists learn from the fishermen, and so it works both ways. It's real good. Marcos.

MARCOS HANKE: MREP is the missing link that we had on the outreach and education and science that compiles all the

discussion that we've been having about the lobster and everything. I think that the level of discussion that we had on those issues recently have, some way, somehow, benefited from the MREP that opened the eyes about those technical issues and the things that don't fit the fishermen now are starting to be embraced and used for good, for good management, and MREP is instrumental in that. Thank you.

ALEXA DAYTON: Thank you.

CARLOS FARCHETTE: Schuster.

 EDWARD SCHUSTER: I also attended the MREP with Carlos in Tampa. That's where I met Clay. We got the opportunity to switch roles, and that was pretty cool, being on the other side. It really opened your eyes to a broader thinking of being on the other side of science and so forth, and so I would like to participate again in it.

ALEXA DAYTON: Great. Thank you.

CARLOS FARCHETTE: Iarocci.

 TONY IAROCCI: Thank you, Mr. Chairman. Ms. Dayton, how could I not acknowledge your presence here in the Caribbean? I am trying to think back to my first MREP meeting that snowy day up in Newport, Rhode Island, and we've talked about bringing you here and into the South Atlantic and the Gulf for so long, and, as Carlos Velazquez and even Eddie, and we've talked about the importance of what you do, and I just want to thank you for making it possible to come here, and I look forward to seeing you in Nicaragua and the Honduras next year.

 ALEXA DAYTON: I just want to reiterate that, while we are bringing the program to the Virgin Islands, we will continue to invite one or two fishermen to the mainland program, if that's appropriate and if you have identified individuals who might benefit from that, and so thank you for the invitation to come down here and bring the program here. I am very much looking forward to it.

CARLOS FARCHETTE: Thank you. Okay. Moving back to Alida.

ALIDA ORTIZ: Thank you so much, Helena and Alexa, and we will have an MREP in February in Puerto Rico, and so you will learn about that as soon as all the information is completed.

The other thing that we have here, that was provided by Maria

Lopez, is the information on the summary of commercial and recreational fishing regulations that you may have seen before, the ones for Puerto Rico in Spanish and the Virgin Islands in English, and there is one copy of a summary of all the regulations, and she has them in the corner there. With that, Graciela.

GRACIELA GARCIA-MOLINER: Let me use this opportunity. We have had a number of calls at the office regarding these regulations, and what they have requested is that would like to see both the Puerto Rico and federal regulations and the USVI and federal regulations on the same type of layout. We have had four requests for that kind of thing here already, and so that is just to let you know.

ALIDA ORTIZ: Okay. What do you mean by the same layout?

GRACIELA GARCIA-MOLINER: Here, it's EEZ regulations, and there are some differences between the Puerto Rico and the federal regulations, and so they would like to see everything on one page. They really use these pages. These are really useful to them, and they can be on the boat and everywhere, and so that wsa a couple of requests that we have had.

ALIDA ORTIZ: Maria, will you take note of that, of what they want?

MARIA LOPEZ: Yes.

ALIDA ORTIZ: Okay. That completes our report.

MIGUEL ROLON: We also, now that you have mentioned the pages, we have an application that we have been telling you all the time that we have it, and the application was put together by Helena and a contractor.

 In that application, and it's iPhone and Android, you have all the regulations for Puerto Rico, the Virgin Islands, and the federal government, and so anybody can download it. There, you have all the information possible.

 We're still working on it. It has some glitches, but, so far, it has been received by the public very well, and we copied that from the same application that they have in the South Atlantic and the Gulf Councils, and it works.

ALIDA ORTIZ: Yes.

CARLOS FARCHETTE: I would like to get some of that in bulk, because I can give it to the marinas and the fish shops. When people come into the store, it can go with them. I know one of our stores that sells fishing line and hooks and stuff, and they have already used up all of theirs, and so I can get some more and then --

ALIDA ORTIZ: I think there's quite a few of them at the council, of these ones.

 MIGUEL ROLON: Actually, that's the other thing that I was going to mention to Ruth and anybody interested in the Virgin Islands. We have some materials that we share all the time with the Rangers in Puerto Rico. We even have coloring books that they use, the Rangers.

They go to schools and they have special events, where you have the -- The old guys, we are not going to change, but the young guys are going to be changing the way they operate, and, believe me, there is a lot of kids who are more interested in conservation of the marine resources than even us. They call us and they ask for information and so, if you have an event that you think any materials from us can help you, let us know.

Also, Natalia Perdomo at the office is an intern, and she keeps an inventory of what we have. So far, Diana is the one who put together the list of materials and we order them, and so, Ruth, if you have something that we can send you materials and help you, so be it, and I will take a note, so we can send the materials to Carlos for distribution in St. Croix.

CARLOS FARCHETTE: Marcos.

MARCOS HANKE: Exactly on that point, Miguel. I want to acknowledge the council and the office for outreach, because, for a few years in a row, I have been conducting activities with kids in my kids' school with the coloring books and basically talking about the environment and the fishery, and it is a very big thing for the kids.

After the activity, they are talking about fisheries all around the school for two or three weeks with the materials that the council provides, and I am thanking you guys for that, and I encourage you not to just support any effort like the one that I was able to make, but to extend that effort to the kids, for the same reasons that Miguel explained. Thank you.

MIGUEL ROLON: The last thing that I was going to mention is

that we are embarking into a coordination with Sea Grant on several projects, and we can announce that next year, but, one of them, Sea Grant is going to be working with Diana on the seafood festival that we discussed before, the first day. That way, we save money and we don't have to reinvent the wheel, because they already have a lot of materials.

Alida actually was the pioneer of the Sea Grant program. She was the one who brought the program to Puerto Rico a long time ago, and the ups and downs of Sea Grant and the council is history, but we are working well with them so far, and they are part of our O&E AP, and so we are going to work with them with a manual that they put together for education.

They have a manual that now has been blessed by the Department of Education, and, believe me, that is something very difficult to do, and now there are school teachers who are asking for that manual, and the council will assist Sea Grant in some other materials that they have that are common to our cause, which is they are related to fisheries and the fishery environment, and we will be able to work with them, and I will be able to inform you of that next year.

I believe that Alida is working on something else with Sea Grant, and, when we're ready, we can report to you on those things. Also, we want to encourage any council member who has any idea for outreach and education.

By the way, the way that we approach outreach and education in the Virgin Islands is different from Puerto Rico. In the Virgin Islands, the fishermen have told me that they pay attention to the radio. They like meetings with the Fishermen's Association better than anything. That's the first one.

In Puerto Rico, they prefer, believe it or not, the good old snail mail. They want to see documents on paper, and it's followed by electronic media and all that.

Taking that in mind, the Outreach and Education Panel is working toward being more effective in the way that we communicate with our constituents in both areas.

ALIDA ORTIZ: Okay. That is the end of our presentation, and 44 Happy Holidays.

CARLOS FARCHETTE: Thank you, Alida. We have Enforcement Issues, Puerto Rico DNER.

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ENFORCEMENT ISSUES PUERTO RICO DNER

RICARDO LOPEZ: I managed to get some information late this afternoon. This was a graph presented in the last meeting that will include information from 2014 and 2015 and from January through April of 2016 and May to July in 2016.

This was information that I just got, and you see that it's in Spanish. Sorry for that. It's information from Barceloneta, Vega Baja, Aguada, Quebradillas, San Sebastian, Cabo Rojo, and Boquerón, which is within Cabo Rojo. They managed to put those cycles in the map, just for you to see where are those municipalities, and it's basically a capture of land crab in natural reserves and doing some fishing with live bait in freshwater lakes. Also, a minimum size of tucunaré and fishing lobster with an illegal gear. In terms of federal jurisdiction, maybe only the lobster, the last point, is the one that we have to see. All the rest is in state jurisdiction. Any questions?

MIGUEL ROLON: Carrucho, Miguel.

RICARDO LOPEZ: You're right. There is a carrucho in Cabo Rojo, a small size of carrucho, of queen conch. That is the other one. That is for the last three months until yesterday.

CARLOS FARCHETTE: Okay. Graciela.

GRACIELA GARCIA-MOLINER: There was also some intervention with red hind, because of the differences in the dates when the closure ends, and do you --

RICARDO LOPEZ: Yes, and, at the beginning of the meeting yesterday, you asked me about those two different dates, the 28 and 29 of February, and I asked the commissioner about that, and I don't have an answer yet. The same happened when I asked about the investigation that has been done with the fishermen of sea cucumbers. I don't have an answer yet for that either, but I will be looking for that answer for the next meeting.

 MIGUEL ROLON: Okay. We need the answer for the next four years, because, every four years, we have the 29th of February, and so we are not in such a hurry. I consulted with Iris at that time, and she gave me some insight into what happened.

The Rangers, they consulted with the lawyers of the Natural Resources Department, and the answer was that they could sanction the fellow because of the regulations they have. They

were fishing west, and they were not supposed to fish, and it doesn't necessarily have to do with the 29^{th} of February.

The other thing that I wanted to add is that we received a communication from Mr. Font, Pauco, from the west coast. He was intervened by the Rangers because he was fishing with what they call the yo-yo gear, and I don't know if you're familiar with that, Ricardo, but he checked the regulations, and there is nothing in the regulations, in the books, that prohibited him to use that, and so he wanted the council to take note of that and ask the lawyers at the council whether there is anything illegal to fish with that gear in the EEZ or inside the waters of Puerto Rico.

15 That is something that -- I don't know whether we are prepared, 16 Iris, to say anything, or do you prefer for us to send you an 17 email and then maybe, for the next meeting, we can answer Mr. 18 Font?

The yo-yo gear is a drum, and they get the line wrapped around that drum, and you can have five or six of them. Of course, you have the hooks at the end, baited or not baited, or with light or not light, and then, as you go cruising, you drop those in the water. They unwrap themselves, and then you come back again and pick them up, and it's a gear that is used by one fisherman or several fishermen.

 It is not considered a longline fishery. It's a vertical longline, and he was intervened. He was told that he was in violation of a law. When he asked about what law, the fellow who intervened said, well, I don't know, but it's illegal, and so he wanted the council to take note and make sure that in the EEZ that there is no constraint for him to fish with that gear.

IRIS LOWERY: That's something we can look into, certainly.

CARLOS FARCHETTE: It's a buoy gear. The yo-yo is attached to a buoy, and then they just drop it and the strap of hooks goes down to the bottom.

IRIS LOWERY: If you could send an email with the specifics, that would be helpful for us.

44 MIGUEL ROLON: I will do so. I will include his translation of 45 his letter and send it to you.

IRIS LOWERY: Okay. That would be great. Thank you.

CARLOS FARCHETTE: Graciela.

GRACIELA GARCIA-MOLINER: The issue with cucumbers and the reason why we're bringing it up is because there was some illegal fishing of over 500 cucumbers, and it's within the state waters, but it is related to the species that we are going to be managing in the federal waters.

There is a prohibition on the take of cucumbers, because of their ecological significance, and they are in the federal list of species to be managed, and so we want to follow up on that, because it's something that is being repeated all along the island.

RICARDO LOPEZ: If I can add, it's the same person. It's a Cuban, and his name is Pedro, and he is under investigation right now. As soon as I get more information, I will let you know.

MIGUEL ROLON: For the future, please do not bring any names of people who are under investigation to the record, because they jump at us.

RICARDO LOPEZ: Sorry.

CARLOS FARCHETTE: Thank you. U.S. Virgin Islands doesn't have a report, and so we have the U.S. Coast Guard.

U.S. COAST GUARD

TARA PRAY: I just want to update you on some Coast Guard efforts and not some great successes, but I just want to highlight the effort. We are at our full complement of six fast-response cutters, one eighty-seven-foot patrol boat, and we have station boats at Sector San Juan, and typically we have one major deployed cutter to the region.

All of this probably seems like a lot of effort, but it's not necessarily directed directly at living marine resource protection. If you incorporate all of our inspections, international engagements, and other missions that the Coast Guard is doing, typically we get one cutter directed towards fisheries about once a month, and I'm going to highlight one of those future operations coming up.

We had one case where Coast Guard Cutter Joseph Tezanos stopped a Dominican-flagged fishing vessel just eighteen nautical miles north of Mona Island. Unfortunately, what we thought would be a solid case for EEZ incursion, the case package was not prepared appropriately. Documentation by the boarding team, video imagery and still imagery, wasn't available, and so NOAA OLE recommended not to prosecute the case, but we were out there and we were patrolling in support of living marine resources.

The other case was Coast Guard Cutter Richard Dixon, who was patrolling in the vicinity of Culebra, where they had initially detected a vessel thought to be on a continuous air supply who was fishing for conch. When they got onboard, they realized that they were wrong, and then they noticed that they were harvesting the conch, which the boarding team didn't understand that near Culebra that they could do that. Where a violation was issued, it was later determined that we would not prosecute the case. Those are two unsuccessful cases, but we are out there, and we are patrolling, and so I just wanted to highlight that for you.

Also, upcoming, due to the closures off of the west side of Puerto Rico, we're going to have an increased law enforcement presence there patrolling those areas. We also have directed support, a dedicated cutter, that will be doing a pulse operation with DNER and some NOAA OLE and some University of Puerto Rico scientists will also be involved.

We will aircraft overhead patrolling those closed areas as well, who will assist in the detection of people fishing in the closed areas, and so I just wanted to highlight that. Are there any questions?

CARLOS FARCHETTE: I have one. A while back, we had this -There was a concern from the fishermen, and they wanted to know
what was the status on a waiver that was requested for the
canister life raft requirement that's coming up.

TARA PRAY: For commercial fishing vessels operating outside of three nautical miles, I am not positive, because Puerto Rico claims out to nine, and I can double-check, but the requirement would require any commercial fishing vessel to have that out-of-water survival craft. Where that came into play in February, is when it was supposed to be instated, and it was then revoked, and so the requirement is not there now.

CARLOS FARCHETTE: Okay. That's good news. It was going to become a real --

TARA PRAY: It's expensive.

CARLOS FARCHETTE: And it's a spatial problem for the small, artisanal vessels that they use to have those canister life rafts on it. Marcos.

MARCOS HANKE: Because we have a lot of turnover of officials that do different things at the Coast Guard, I just want to state my commitment on keeping up with the exercise for fish identification for the officials that come to this area. I have been doing that in the past, and I think it's a very good exercise. The council, and Graciela especially, has been very instrumental in that, in supporting the effort, and, from my side, we are available, just for you to know.

TARA PRAY: Excellent. Thank you, Marcos. I was previously absent from the past two meetings, but my colleagues from Sector San Juan were able to attend, and so I think that that's good, to have the engagement at the local level, whereas I'm in Miami.

Also, I believe Lieutenant Warren Fair from our Southeast Regional Training Center -- He is on the DAP Puerto Rico, and he typically will come down and do training. If we can bring him into that, that will be excellent. Thank you.

CARLOS FARCHETTE: Okay. Anything else for the Coast Guard? Graciela.

GRACIELA GARCIA-MOLINER: We have had a couple of requests that —— At some time in the past, you used to bring the DNER Rangers to the training, the living marine resources training and other such trainings, mostly about boarding. There have been requests from local fishermen to have them come back to you and train with you in boarding and intervening with people at sea, and so the gentleness of the Coast Guard versus the roughness of some of the Rangers and that kind of thing.

The one complaint that they do have about the Coast Guard is because of the change in training, and so we are trying to work on fact sheets for the actual species that we have under management, because, when you come from the Northeast or something like that, the species are different, or the Gulf of Mexico, and so they are still complaining about that, whether that's recent or from years ago, but I'm just going to pass along the information, and so, boarding, bring the Rangers in and training the Coast Guard with the local species.

TARA PRAY: Absolutely. We will definitely take advantage of those interagency training opportunities. Thank you, Graciela.

CARLOS FARCHETTE: Anything further for the U.S. Coast Guard? Okay. Thank you. National Marine Fisheries Service.

NMFS/NOAA

LYNN RIOS: Good afternoon, Mr. Chairman and members of the council. I am from NOAA Fisheries Office of Law Enforcement, Lynn Rios. Going along with the operations she mentioned, in November, OLE brought together members of the Coast Guard and the DNER to coordinate an operation for the months of December, January, and February for the closed areas, focusing on the red hind.

We had the opportunity to have Michelle Scharer there to give us a training on the cycles and more or less when should we be targeting the dates when the spawning aggregation is supposed to happen. It was a very successful meeting. This is where the operation comes out. For the months of December, we're going to be targeting the closed areas, the red hind, the ACL closures for the Snapper Unit 2, and the lobsters and the other closure that you have for November for the wrasses, the jacks, and the parrotfish.

Then, come January, then we're going to focus more on the closed areas and the red hind closures. Second, we had a case, when you guys were talking earlier about the HMS, about shark fins being exported from Puerto Rico. It was intercepted in Miami, and then it was brought for investigation to us.

The investigation revealed that it was happening at the southeast end of Puerto Rico. It was just local fishermen who had been contacted by the Asian community, and this package was going from Puerto Rico to China. The guy did not have -- What he needs is an international trading permit, an ITP permit, to export shark fins.

From the investigation, we were able to determine that we had some blackfin shark and blacktip shark and some hammerheads and some tigers and some reef fish, but all sharks that were harvested were all from state waters, and the guy received the Notice of Violation and Assessment for \$12,000 for the violation. That's it.

CARLOS FARCHETTE: Good job. Any questions for Lynn? Hearing none, thank you, Lynn.

LYNN RIOS: Thank you.

CARLOS FARCHETTE: Okay. That's the end of the agenda. Meetings Attended by Council Members and Staff, I'm not sure that we have any.

MIGUEL ROLON: I guess that we caught all of them, unless Marcos wants to say anything else regarding his HMS meeting.

MEETINGS ATTENDED BY COUNCIL MEMBERS AND STAFF

MARCOS HANKE: Just to state on the record that everything that we discussed before is what happened at the AP meeting of HMS. Thank you.

CARLOS FARCHETTE: Okay. There's a five-minute public comment period for anyone that would like to say something in the audience. Hearing none, we're to Other Business. Is there anything that we have under Other Business? Marcos.

OTHER BUSINESS

MARCOS HANKE: Michelle Scharer just sent to Carlos and I an email stating that there is a wave glider collecting scientific information for the aggregation of different fishes in our waters. If you see this glider that has a radar reflector and different other things, instruments attached to it, just let it do its job. That's just for you guys to know that that is something that is planned to be there and it's performing a scientific study.

CARLOS FARCHETTE: This is drifting with the currents?

MARCOS HANKE: Yes.

CARLOS FARCHETTE: Richard.

 RICHARD APPELDOORN: It doesn't drift with the currents. It uses the waves to generate energy, and it actually can swim at a speed of about three knots, and so it may look like it's just kind of drifting there, but it's actually slowly moving and listening to grouper sounds all the time, and this will be sent out in January in the Virgin Islands and in February on the west coast of Puerto Rico, all along the outer platform.

CARLOS FARCHETTE: Okay. Ricardo.

RICARDO LOPEZ: I sent an email message to Helena and copied 47 Miguel with Michelle also copied for them to take into 48 consideration to put this information onto the Facebook page.

 CARLOS FARCHETTE: Good idea. Richard, this is actually just sending you information through satellite and then you get the information back, or do you have to recover it to get the information?

RICHARD APPELDOORN: That's a very good question, and I'm not on the technical side of this. The glider is built by people at Florida Atlantic University and Harbor Branch, and so they get the information first, but I believe that, yes, it is being sent up by satellite periodically while it's up there, yes.

CARLOS FARCHETTE: All right. I was just asking, because it would be a great loss if somebody saw it and took it and all of that information is lost and it's not being fed through a satellite constantly.

RICHARD APPELDOORN: If they took it and kept it, the loss of the glider would be a lot of money.

CARLOS FARCHETTE: A good idea would be to put a GPS tracking device on that and we can find it in somebody's yard.

RICHARD APPELDOORN: One of the things that it sends periodically is its GPS location, and so, if it does get taken, we can track it.

CARLOS FARCHETTE: There we go. Great. What Marcos was saying is that we're requesting the fishermen out there, if they see it, to please leave it alone. It is doing its job. Thanks. Miguel.

MIGUEL ROLON: Are you finished with all of the parts of Other Business?

CARLOS FARCHETTE: Yes.

 MIGUEL ROLON: Okay. The other business that we have is that we had a closed session yesterday, and we have to bring that to the attention of everybody. The council is considering reappointing Todd Gedamke for another three-year term of the SSC. For that, we need a motion.

We also were informed that the Southeast Fisheries Science Center will be replacing Meaghan Bryan with Dr. Kevin McCarthy, and so Kevin McCarthy will be a member of our SSC. We received the communication from the Center, Bonnie Ponwith or somebody from the Center, and so the SSC will have a complete set of members for next year.

In addition, regarding the O&E AP, Ruth Gomez will be replacing Makisha, and so she will be the new member of the O&E AP replacing Makisha, and she will be representing the government of the U.S. Virgin Islands.

We have vacancies in the O&E AP that we are going to coordinate with the Chair of the O&E AP, Dr. Alida Ortiz, and the Chair of the Council to fill those gaps. Alida has some ideas of inviting a newspaper person that is also knowledgeable about the marine environment, and we believe that he could be an asset to the O&E AP.

In addition, we are looking for names, at least one name, from the Virgin Islands, to see if we can have a fisherman from the U.S. Virgin Islands at the panel. We have one from Puerto Rico, and we encourage always to have fishermen involved, and so Ruth is going to look for some names, and she will send us a note. At the next meeting, you will be informed of what we have. Can we have a motion to accept the appointment of Dr. Todd Gedamke to the SSC and Ruth Gomez to the O&E AP?

MARCOS HANKE: I would like to present the motion as expressed by Miguel.

MIGUEL ROLON: We need a second.

9 TONY BLANCHARD: Second.

CARLOS FARCHETTE: The motion is to accept Todd Gedamke back on the SSC for another term and to accept Ruth Gomez as part of the Outreach and Education Committee for the council. All in favor, say aye; any nays; any abstentions. Hearing none, the motion carries.

MIGUEL ROLON: The last part is that we are going to institute, after revising our charter for the SSC, a sort of policy that, if you do not comply with the requirement of having your financial disclosure filed with the council that you could be expelled from the SSC.

The reason for that is that, although the requirement for the financial disclosure for SSC members is a little bit different from that requirement of the council members -- For example, council members cannot vote if we don't have the financial disclosure submitted on time. The SSC can vote, but he or she will be in violation of the regulation if we don't have the

financial disclosure at the office, and so we want to enforce that as best as possible, because these guys are genius, absentminded guys, but still they need to comply with the requirements. That's all we have, Mr. Chairman.

CARLOS FARCHETTE: Okay. Bill.

BILL ARNOLD: I should probably alert you that there is a new format for your regional operating agreement, and so I have taken the liberty of taking the one that you did in 2013 and smashing it into -- Thanks to Sarah Stevenson, smashing it into the new format, and you will be seeing that. I will send it down to you guys for acceptance and authorization.

CARLOS FARCHETTE: Thanks, Bill. Miguel.

MIGUEL ROLON: This is the last meeting of the year, and we like to recognize always the people who are working very hard with us through the years, and the first one is Bill. In his group, we have Maria and -- I don't know how many other people you have in your branch, but I know they work really hard to put together all this material.

What you see when Bill has a presentation is the tip of the iceberg. It takes a lot of work underneath when Maria comes here, and we want to take note of that and be thankful for what you do with us all of these years, especially Bill Arnold. He is always present when the fishermen want him to come down. The fishermen trust him, because he's a person that is knowledgeable about the fisheries. He has a background that supports what he says, and we want to thank you for that, Bill. The second one is Graciela.

BILL ARNOLD: Maria does all the work. I don't actually do any of the work.

MIGUEL ROLON: Well, we don't want to tell the secret, but Maria has been instrumental in putting all of this together, and most of the material, when you see well-organized material, Maria is behind it. Actually, I keep saying this, but the best presentation about the whole system, from the tip of the iceberg all the way down to the base, about the MSA and the council situation has been put together by Maria, and that was used by the MREP group in La Parguera some time ago.

Then Graciela, and I call her the data person, and she knows where everything is, where every body is buried, and she is always eager to put together the materials that we need, and she

can talk to fishers and she can talk to anyone, and she is very effective in all of that, and we really appreciate your work, Graciela. She is author of a book that hopefully you will receive a copy next year, with the other two. The book was presented to us some time ago, and so we want to, at the end of the year, see that.

Also, I want to recognize the staff at the council. The lady to my right here, she is always kicking me under the table and telling me not to screw it up, and all the council members and members of the family that we call the Caribbean Council, like Julian and Nelson and the guy from St. Croix, Ed, because, through the years, when we started, it was a rare occasion when you saw fishers around the table.

Now the fishermen are more educated about not in terms of academics, but they have more knowledge. They are more aware, and they understand these issues, and they are instrumental in what we do. With that, we are really grateful.

Then we have a lady at the end that looks like a Barbie, but I will tell you that she will be a Barbie mother, and I asked her, do you think that you can come and take it the whole eight hours with us, and she says, yes, and so she takes pictures, she fights with Russell about the computer not working, and she is an asset to the council, and hopefully next year her family will increase by one, and we wish you the best in 2017.

This is one of the things that I like about Diana and Graciela, because they are always kicking me and saying that you are forgetting about Angie. I am terrible about names. I call Graciela sometimes Diana and mix it up, but Angie in the back, she is a silent fiscal officer, but she is the one that puts our numbers together every year, and we also thank you for that.

In the council, we have the face of the council and the voice that you hear most of the time is Iris, Iris Oliveras. She is always there, and she is always willing to help and assist, and so I wish you the best during the holidays to everybody, and I hope to see you next year with the same enthusiasm to work. Whenever you see that we are not doing the right thing, just kick us and tell us that you are screwing up and get your act together, and we will try to do our best, and so thank you for coming and I will see you next year.

CARLOS FARCHETTE: We have the scheduled meetings for next year.

MIGUEL ROLON: We said that it will depend on the two meetings

of the SSC and the DAP. We will coordinate with the Regional Office and the staff to see which is the best time for the meeting, but we will try to lock the dates at the beginning of the year, so those people who are very busy can mark their calendars. Bill, I believe that what you said is around April, probably, the next meeting, if everything goes smoothly.

BILL ARNOLD: I thought you guys liked to meet after Easter, because the prices go down.

MIGUEL ROLON: Yes, after Easter in St. Croix. That will be our next meeting, and so we will send you a note as soon as we can next year as to where and when the meeting will be.

CARLOS FARCHETTE: Okay. I want to thank everybody for coming and Seasons Greetings. I hope Santa fills your stockings with a lot of nice toys. This meeting is adjourned. It is 3:04 P.M. Take care.

(Whereupon, the meeting adjourned on December 14, 2016.)

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