GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

JOINT MEETING OF THE SPECIAL CORAL SCIENTIFIC AND STATISTICAL
COMMITTEE AND CORAL AND SHRIMP ADVISORY PANELS

Gulf Council Office Tampa, Florida

September 16, 2019

CORAL AP VOTING MEMBERS
J.P. Brooker........................................Ocean Conservancy
Scott Hickman.................................Galveston, TX
Morgan Kilgour..................................Sacto, CA
Shelly Krueger..................................Key West, FL
Rob Ruzicka.....................................St. Petersburg, FL
Portia Sapp......................................FDACS

SPECIAL CORAL SSC VOTING MEMBERS
Sandra Brooke.................................St. Teresa, FL
Paul Sammarco...............................Houma, LA
G.P. Schmahl.................................Flower Garden Banks NMS

SHRIMP AP VOTING MEMBERS
Corky Perret....................................MS
Steven Bosarge.................................Pascagoula, MS
Thu Bui..........................................Lafayette, LA
Glenn Delaney.................................Southern Shrimp Alliance
Gary Graham....................................Brazoria, TX
Harris Lasseigne.............................New Braunfels, TX
Lance Nacio.....................................Montegut, LA
Thomas Shultz..................................Biloxi, MS
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Franklin Parker.................................Biloxi, MS
John Williams..................................Tarpon Springs, FL

STAFF
Zeenatul Basher...............................Coral and Habitat Biologist
Matt Freeman....................................Economist
John Froeschke.................................Deputy Director
Lisa Hollensead...............................Fishery Biologist
Natasha Mendez-Ferrer.......................Fishery Biologist
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Leann Bosarge.................................GMFMC
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TABLE OF MOTIONS

PAGE 38: Motion to request that the NOAA sanctuary agency provide the language on transiting through the sanctuary. The motion carried on page 39.

PAGE 79: Motion to request that staff include all relevant information regarding shrimp effort point data for the FKNMS expansion, not just the point data in the GMFMC jurisdiction, for consideration for making recommendations about the FKNMS expansion. The motion carried on page 81.

PAGE 91: Shrimp AP only motion to oppose the proposed northwestern expansion of the FKNMS boundary. The motion carried on page 97.

PAGE 106: Shrimp AP only motion that the Shrimp AP is not in favor of the FKNMS southern boundary expansion. The motion carried on page 110.

PAGE 132: Motion that, given the unexpected substantial declines in nesting activity in Mexico in 2018 and 2019, there is a critical need for a stock assessment update for Kemp's Ridley sea turtles performed by competent sea turtle experts. This stock assessment should address, among other things, if, how, and to what degree density dependence, the 2010 Deep Water Horizon spill, and marine debris may be contributing to this decline. The motion carried on page 136.

PAGE 136: Coral AP and Coral SSC only motion to have the Gulf Council start work on Coral Amendment 10. The motion carried on page 147.

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The Joint Special Coral Scientific and Statistical Committee and Coral and Shrimp Advisory Panels of the Gulf of Mexico Fishery Management Council convened at the Gulf Council Office on Monday morning, September 16, 2019, and was called to order by Dr. Natasha Mendez-Ferrer.

INTRODUCTION OF MEMBERS

DR. NATASHA MENDEZ-FERRER: Good morning, everybody. First of all, I would like everybody to introduce themselves. I also want to mention that this meeting will be transcribed, and so, before you speak, please say your name, so that that can be included in the documents. My name is Natasha Mendez-Ferrer, and I am a fishery biologist with the Gulf Council, and we continue introducing ourselves to my right.

MS. SHELLY KRUEGER: Good morning. My name is Shelly Krueger, and I am the Florida Sea Grant agent in the Florida Keys for the University of Florida IFAS Extension.

MR. SCOTT HICKMAN: Captain Scott Hickman from Galveston, Texas, a thirty-five-year professional charter boat fisherman and commercial fisherman, and I’m currently the Chair of the Flower Garden Banks Advisory Council.

MR. G.P. SCHMAHL: Good morning. My name is G.P. Schmahl, and I am the Superintendent of the Flower Garden Banks National Marine Sanctuary based out of Galveston, Texas.

DR. MORGAN KILGOUR: Morgan Kilgour, and I am a Senior Environmental Scientist with the State of California, but I’m here because I have a lot of vested interest in corals in the Gulf of Mexico.

DR. SANDRA BROOKE: Sandra Brooke, Florida State University, and I’m a coral ecologist, and I’m on the Coral SSC.

MS. PORTIA SAPP: Portia Sapp, and I’m with the Florida Department of Agriculture and Consumer Services, and I’m the Director of the Division of Aquaculture.

MR. FRANK PARKER: Frank Parker, and I’m a commercial fisherman from Biloxi, Mississippi, and I’m on the Shrimp AP.

MR. STEVE BOSARGE: I’m Steve Bosarge, and I’m a commercial fisherman and Vice Chair of the Shrimp AP, and I’m a commissioner with the Department of Marine Resources, and I’ve been doing this for a long time, and I’m looking forward to the
meeting.

MR. LANCE NACIO: I’m Lance Nacio, Anna Marie Seafood, and I’ve a shrimp boat, and I have a reef fish boat, and I’ve been doing it for a while.

MS. THU BUI: Thu Bui, and I’m with Louisiana Sea Grant and LSU Ag Center, and I’m a Marine Extension personnel.

MR. HARRIS LASSEIGNE: Harris Lasseigne from New Braunfels, Texas, retired commercial fisherman, invested in all phases of the shrimp industry.

MR. CORKY PERRET: Corky Perret, Chairman of the Shrimp AP from Poplarville, Mississippi.

MS. LEANN BOSARGE: Leann Bosarge, voting member on the Gulf Council, serving as the liaison for the Shrimp AP meeting today.

MR. JOHN WILLIAMS: John Williams, Executive Director of the Southern Shrimp Alliance.

MR. GARY GRAHAM: I’m Gary Graham, and I’m retired from Texas Sea Grant as a fisheries specialist, and I’m also involved in the commercial shrimp fishery.

MR. PAUL SAMMARCO: Paul Sammarco, and I’m Professor Emeritus at Louisiana University’s Marine Consortium, or LUMCON, in Louisiana, and coral reefs are my thing.

MR. THOMAS SHULTZ, JR: Thomas Shultz, commercial fisherman from Biloxi, Mississippi.

DR. MATTHEW FREEMAN: Matt Freeman, one of the council staff economists and the staff liaison for the Shrimp AP.

DR. ZEENATUL BASHER: Zeenatul Basher, and I’m the Coral Reef and Habitat Biologist for the Gulf of Mexico Fishery Management Council.

DR. MENDEZ–FERRER: We can continue with the members that are in the back, and can we turn on the microphone?

DR. BENNY GALLAWAY: Good morning. Benny Gallaway with LGL Ecological Research Associates, and I have worked a long time with most of the fisheries in the Gulf of Mexico. Thank you.

EXECUTIVE DIRECTOR CARRIE SIMMONS: Carrie Simmons, council
staff. Good morning.

**MS. SUSAN GERHART:** Susan Gerhart, NOAA Fisheries Service.

**MR. FRANK HELIES:** Frank Helies, NOAA Fisheries, Gulf shrimp lead.

**MS. KELLI O’DONNELL:** Kelli O’Donnell, NOAA Fisheries, Gulf of Mexico Branch.

**DR. JOHN FROESCHKE:** John Froeschke, Gulf Council staff.

**MS. SHARON MCBREEN:** Sharon McBreen, Outreach Officer for the Gulf of Mexico for Pew Charitable Trusts.

**MS. HEATHER BLOUGH:** Heather Blough, NOAA Fisheries.

**MS. BETH DIEVENEY:** Beth Dieveney, Florida Keys National Marine Sanctuary.

**DR. LISA HOLLENSEAD:** Lisa Hollensead, council staff.

**MR. KENNETH DANIELS:** Kenneth Daniels, commercial fisherman, bottom longliner, and a member of SOFA.

**DR. MENDEZ-FERRER:** All right. I think that’s all. This group hasn’t met in a while, and so, because we have some new members for the Coral AP, this morning, we will be going through the election of the Coral Advisory Panel Chair and Vice Chair, and so I will open the floor to nominations. I have to remind everybody that only the Coral AP members will be voting on this item.

**MR. PERRET:** Are we going to adopt the agenda before we do anything else?

**DR. MENDEZ-FERRER:** We’re going to have the Coral AP Chair run the rest of the meeting.

**MR. PERRET:** That’s fine, and so he’s going to propose the agenda, or she?

**DR. MENDEZ-FERRER:** Yes, he or she.

**MR. GLENN DELANEY:** Natasha, we have some folks on the webinar that you might want to introduce. This is Glenn Delaney with the Southern Shrimp Alliance, and I’m a member of the Shrimp AP.
DR. MENDEZ-FERRER: Good morning, Glenn. Do we have any other members that are joining us on the webinar? Okay.

**ELECTION CORAL ADVISORY PANEL CHAIR AND VICE CHAIR**

MR. HICKMAN: I would like to nominate Dr. Morgan Kilgour for Chair. I will need a second, I guess.

MS. KRUEGER: I second that.

DR. MENDEZ-FERRER: Do we have any other nominations? Okay. Well, congratulations, Morgan. Now we have nominations for Vice Chair.

MS. KRUEGER: Captain Scott Hickman for Vice Chair.

DR. MENDEZ-FERRER: Do we have any other nominations for Vice Chair? Congratulations. Morgan, now you get to sit next to me, and we’re going to have you read the Chairman’s statement.

CHAIRMAN KILGOUR: Good morning. I am Morgan Kilgour, Chair of the Coral Advisory Panel of the Gulf of Mexico Fishery Management Council, and I welcome you all to the Joint Coral Advisory Panel, Shrimp Advisory Panel, and Coral Scientific and Statistical Committee meeting.

We appreciate your participation in this meeting. Representing the council is Leann Bosarge, and council staff in attendance are Natasha Mendez-Ferrer, Zeenatul Basher, Matt Freeman, and Camilla Shireman. This meeting is open to the public. Notice of this meeting was provided to the Federal Register, posted on the council’s website, and sent via email to the subscribers of the council’s press release email list.

If you have not already done so, please register in the sign-in book at the entrance. An agenda, which outlines all of the topics for today’s discussion, may be found at the council’s website. Hard copies have been provided to you as well.

This meeting will cover the following topics: Election of Coral AP Chair and Vice Chair; Adoption of Agenda and Approval of Minutes from the Joint Shrimp AP, Coral AP, and Coral SSC from the August 3 and 4, 2016 meeting; Update on the Implementation Status of Coral Amendment 9; Update on the Flower Garden Banks National Marine Sanctuary Expansion; Florida Keys National Marine Sanctuary Expansion and Implications for Fisheries Management; Presentation on Stony Coral Tissue Loss Disease; Update on the Coral Reef Conservation Program; and any other
business that might come before the advisory panels and/or the SSC.

This meeting is being streamed live via webinar and recorded. When you wish to speak, please press the talk button on the microphone and state your name before commenting. Please deactivate your microphone when you are finished speaking. A summary of the meeting, verbatim minutes, and digital recordings will be produced and made available to the public via the council’s website. For the purpose of voice identification, please your name beginning on my left. I think we already did that. I need a motion to adopt the agenda.

ADOPTION OF AGENDA

MR. HICKMAN: Motion to adopt the agenda.

MR. PERRET: I would like to add, under Other Business, a discussion of the decline in nesting of the Kemp’s ridley sea turtle. Just a little housecleaning matter. On September 16, I, and other members of all of these committees, got an email from staff advising us of the date of the meeting and that a final agenda and background materials will be forthcoming. I started getting calls from Shrimp AP members, and, as of right now, the Shrimp AP has never received any background materials, nothing, not go to the website or anything.

We have got one Shrimp AP member that has never made a meeting. I mean, he had no idea what was going on. In discussions with - - We’re meeting once a year, at most, and so please send us materials so we can review. I know we can get a link and go to the website, but we never got a link. We got nothing.

I have been a council member for thirty years, and I have been on this AP since I got off the council, and it’s the first meeting that I have ever gone to where I never received any briefing material of any kind. We want to provide input, and we need something to provide input on. Thank you.

DR. MENDEZ-FERRER: I apologize. I guess, if the agenda wasn’t provided via email -- I guess I was under the assumption that the members were familiarized in visiting the website and downloading it from there.

MR. PERRET: You deal with it every day, but we’re asked to come to a meeting once a year, and we try and keep up, but just please provide us with the background -- I am not blaming anybody, but just look at the position, and I assume the Coral
people got no information also, and I don’t know, but the Shrimp AP got nothing.

**DR. MENDEZ-FERRER:** It’s been noted, and it will not happen again.

**MR. PERRET:** Thank you.

**DR. FREEMAN:** Corky, for admin staff at the back of the room, could you phrase again how you would like that agenda item added under Other Business? I believe you made a motion to that effect.

**MR. PERRET:** I would move that we add, under Other Business, a discussion of the decline in nesting of the Kemp’s ridley sea turtle. I guess I need a second on that.

**AP MEMBER:** I will second that motion.

**MR. HICKMAN:** I don’t know if they need to put this in Other Business or tell me, Chairwoman, if -- On the Florida Keys National Marine Sanctuary expansion, the issue with the trolling provision at the Western Dry Rocks, if that can be brought up and discussed during the presentation, or does that need to be in Other Business?

**CHAIRMAN KILGOUR:** I think that’s covered under the implications for fisheries management, and so I am happy to do either, but I think we can cover it there.

**MR. HICKMAN:** Thank you.

**MR. SAMMARCO:** I think some of the material that we’re covering today, the background of it, particularly with respect to the Flower Garden Banks expansion, and not all of it, but most of it, I think we were dealing with that earlier, a couple of years ago, and I think we did have some of that material, maybe just as a reminder, to say, hey, we did send this material to you earlier, some of it, and then supplement whatever is needed and so forth, and I think some of it we’ve had before, and I remember some pretty extensive stuff coming through.

**MR. LASSEIGNE:** The Shrimp Advisory, will we be able to make any comments or anything or ask questions?

**CHAIRMAN KILGOUR:** Absolutely, and so I guess we will go item-by-item on whether or not we want to have a joint motion from both the APs and the SSC or if we want to do individual motions,
which I know is a lot more intensive for Camilla back there, and so, when we did this three years ago, I was a member of the staff, but I do recall that, when there was consensus among the room, we had a joint motion from all three groups, but we also had motions where specifically the Shrimp AP provided that, and I think Corky ran those motions when that was the case, but I think we’ll just go topic-by-topic and see where the group falls, but absolutely you can provide input, and you can make motions, and they can just be shrimp motions, and that’s fine, too.

MR. LASSEIGNÉ: Okay. Thank you.

DR. MENDEZ-FERRER: I don’t know if this would be a motion, but, for Agenda Item Number VI, which would be the Status on Coral 9, the presenter is having some issues, and so it’s been requested if he could be moved to after the update on the Flower Garden Banks expansion.

CHAIRMAN KILGOUR: All right, and so we’ve got a few motions on changing the agenda. Is there any opposition to adding the discussion of the Kemp’s ridley and moving the update on Coral 9 to a later time in the day? All right. I guess the motion passes.

MR. SCHMAHL: I was wondering if you could maybe just briefly go over the logistics part. I know that, with two different advisory panels and the SSC, in terms of voting and motions -- Actually, I’m not quite sure if the SSC can make motions and vote.

CHAIRMAN KILGOUR: Yes.

MR. SCHMAHL: Okay. I wanted to clarify that, and that could either be separately as the SSC or together with one or both of the advisory panels, and is that correct?

CHAIRMAN KILGOUR: Absolutely.

MR. SCHMAHL: Okay. Thank you.

CHAIRMAN KILGOUR: Maybe Natasha can keep us honest and ask if the Coral SSC wants to be part of that motion and if the Coral AP wants to be part of that motion, and, if so, then it can be a group motion. If not, then we can do separate AP and SSC motions as needed, but -- It will make things a little bit more confusing, but hopefully Camilla doesn’t have to write three motions for every single topic. Hopefully there will be some
I am going to need a motion to approve the minutes from the August 3 and 4, 2016 meeting, or are there any questions or comments or complaints about the meeting summary and the minutes? Does anyone want to make a motion to approve those minutes?

**APPROVAL OF THE JOINT SHRIMP AP, CORAL AP, AND CORAL SSC MINUTES FROM AUGUST 3-4, 2016 MEETING**

MR. HICKMAN: Motion to adopt.

CHAIRMAN KILGOUR: Does anyone want to second?

AP MEMBER: Second.

CHAIRMAN KILGOUR: All right. Any opposed to the motion? The motion passes. Now you get to run it.

DR. MENDEZ-FERRER: Okay, and so the next item on the agenda would be a presentation by Mr. G.P. Schmahl, and so he will be giving us an update on the Flower Garden Banks National Marine Sanctuary Expansion.

At this point, we are not asking for additional comments. This was presented and brought up to the council during the public comment period in 2016, and so he’s going to give us an idea of where we are in regard to rulemaking for the expansion.

**UPDATE ON THE FLOWER GARDEN BANKS NATIONAL MARINE SANCTUARY EXPANSION**

MR. G.P. SCHMAHL: I do have a presentation, a PowerPoint. I didn’t know exactly how much background everyone had on it, and I know a lot of the folks here have been involved and at least are aware of what the general proposal is, but I did want to -- I will back up a little bit and kind of give a brief overview of what got us to where we are now.

Basically, the Flower Garden Banks is a National Marine Sanctuary. We are one of fourteen, and now actually fifteen, National Marine Sanctuaries in the U.S. We are the only one that is in the Gulf of Mexico, and, of course, National Marine Sanctuaries, we compare them a little bit to National Parks, except National Marine Sanctuaries, of course, are in the water of the coastal and marine areas of the country and also in the Great Lakes.
We are the only one that is in the Gulf of Mexico. It was designated in 1992, and it is composed of three separate bank features, the East Flower Garden Bank, West Flower Garden Bank, and Stetson Bank, which was added in 1996. It’s located about—Well, depending on which bank, from about seventy-five miles to a hundred miles offshore. If you drew a line straight down from the Texas/Louisiana border out to the edge of the continental shelf drop, that’s generally where these bank features are located.

It was designated primarily for the incredible coral reef that occurs, primarily at the East and West Flower Garden Banks. In this time of major decline of coral reef ecosystems throughout the world, the Flower Garden Banks coral reefs are actually in quite good health. They exhibit over 50 percent living coral cover, which is very high anywhere, essentially, in the world, especially in the Caribbean right now, and it has been maintained at that level since the earliest surveys that were done in the 1970s and through an annual coral reef monitoring program that we’ve done in conjunction with the Bureau of Ocean Energy Management since 1989.

It’s an area that also is a place where encounters with large marine animals, such as whale sharks, manta rays, and sea turtles, actually loggerhead sea turtles and hawksbill sea turtles, can be seen, and it’s a prime destination for recreational divers, and it’s become known as a world-class dive destination for those who are interested in diving.

I think, from the perspective of this council and this group, these areas are also extremely important as nursery areas for a variety of fish and invertebrate species of commercial and recreational importance, and we’ve documented that in our fish counts and population surveys over the years.

This particular photograph was taken at Stetson Bank, which is an amazingly diverse area, and it’s not quite a true coral reef, but there are reef-building corals there, along with a variety of other types of corals and sponges and other benthic invertebrates of significance.

The Flower Garden Banks, those three banks that make up the sanctuary, however, are just three of dozens of reefs and banks that occur along the edge of the continental shelf in the northern Gulf of Mexico. The ones that are circled in yellow there are the East and West Flower Garden Bank and Stetson Bank, but you can see there is a number of features that occur along
those, and most of these areas were created geologically from underlying salt dome formations, and that has caused these areas to be elevated above the surrounding seafloor and exposed hardbottom substrate, which has allowed the colonization of corals of various types, true coral reefs, at the Flower Garden Banks, because they are shallow enough, and there’s enough light penetration in deeper areas on these banks.

Our deeper-water corals are what we call mesophotic corals, or mid-light-level corals, and these are primarily black corals, small branching stony corals, and octocorals.

These features were studies and recognized early on, back in the 1970s, and there was a whole series of studies that were supported by the Bureau of Land Management at that time, mostly carried out by people at Texas A&M University, and here’s a couple of pictures of Dr. Tom Bright and others in some of those early expeditions, and that resulted in the publication, in 1985, of an extremely important book called *The Reefs and Banks of the Northwestern Gulf of Mexico*, and it was the result of those studies that first identified those areas that needed to be protected from offshore oil and gas development, which was, at the time, moving offshore, from the nearshore areas out into the outer-shore areas.

In fact, most of those areas have been designated by BLM, which became Minerals Management Service and is now the Bureau of Ocean Energy Management, or BOEM, as protected areas, or sensitive areas, because of the biological communities there, and they have established no-activity zones on the tops of these features and buffer areas around these features, which other types of regulations are applied for offshore oil and gas development.

Most of these areas have also been identified by the Gulf of Mexico Fishery Management Council. Back in 2006, a number of these areas were designated as habitat areas of particular concern, and you can see that the blue boxes on this map have been separated into eastern area and western area, and some of these -- Many of these are HAPCs without specific regulations, but several of them are ones that exhibited high concentrations of stony corals and were identified as coral HAPCs, and that includes the East and West Flower Garden Bank and Stetson Bank, but it also includes McGrail Bank, which is another very high-density coral area.

I mention this because these areas have been identified by their agencies and other procedures, and it kind of highlights the
level of national significance that these areas have already been recognized, even before we began our sanctuary expansion process.

There is a number of potential threats to these areas. I mentioned oil and gas, and this is a slightly outdated -- This is from a couple of years ago of the number of oil and gas platforms in the Gulf of Mexico and pipelines. At its peak, there was about 3,000, a little over 3,000, oil and gas platforms in the northern Gulf of Mexico, and it has actually declined in recent years.

They are down, I believe, to around 1,800 platforms, but they’re still concentrated in various areas, but specifically around these areas that we’re particularly interested in, because those salt dome features also is where a lot of natural gas and oil accumulates, because of the geology underlying those features, and so these are target areas for oil and gas exploration.

There are also fishing impacts that we have demonstrated and documented in a number of these reefs and banks, and a lot of it has to do with discarded or lost fishing gear and things of that sort. One of the biggest threats that we do have is large vessel anchoring, and, when I say large, I’m talking about ships in the range of 900 to 1,000 feet, and this is actually taken in the Dry Tortugas, but it shows you the size of an anchor compared to a diver, for example, and you can imagine the destruction that could happen from anchoring of a large vessel on some of these features.

Anchoring by large vessels is not prohibited at this time, and most of these areas are right off the shipping lanes that run right south of this line of reefs and banks, and sometimes, for whatever reason, a ship will come up and anchor on these shallow features, to either wait for their next assignment or because there’s a mechanical problem or something like that, and this is just -- As an example, Geyer Bank, one of the features that we’re talking about, fairly recently was documented as anchoring directly on top of the bank, and, unfortunately, we were not able to document the injury associated with that, but you know that it had to be quite severe.

Because of a process that we actually started in 2006 to revise our management plan, because every National Marine Sanctuary has a management plan and is required to review and update it periodically, and one of the things that came out of our management plan review that started in 2006 was the interest in expanding the sanctuary, expanding the protection and the
potential management of the sanctuary program, to additional reefs and banks in the northwestern Gulf of Mexico.

It took a while, but, in 2016, we did release the official proposal to expand the sanctuary along with a draft environmental impact statement, and this was released in June of 2016, and the public comment period went through the summer of 2016.

I’m not going to go into detail about this, but we did, as typical with a federal action, we did propose a range of alternatives for expansion. The area in red is the area that we looked at as our area of interest, and you will notice that it did -- Our area of interest did expand to the east, a good extent to the east, of the Mississippi Delta, and that was primarily because of the major Deepwater Horizon oil spill event that happened in 2010 and the interest from the public to look at these areas farther to the eastern areas of the places that we were originally looking at previously.

Very quickly, we had five alternatives, and there was the no action alternative, where it was the three banks that already occurred inside the sanctuary. The second alternative was to increase the number of banks to be included to nine additional banks in six polygon features, and this was actually a recommendation that we received from our advisory council in 2007.

Our third alternative, and what we identified as our preferred alternative, is a variation of this, but it was slightly enlarged, with fifteen additional reefs and banks, and I will show you that outlined in a minute, because that is the focus of the area that we’re looking now, and then we had two larger-scale alternatives that, like I mentioned, did look at an expanded area of interest, both to the east of the reefs and banks of the northwestern Gulf of Mexico, including some of the areas off of Mississippi and Alabama known as the Pinnacles, and that was in that, and also some of the deeper-water coral areas, both on the shelf slope and in deepwater areas, and what’s of interest there is many of those areas that were included in that alternative are also ones that have been either already recommended as habitat areas of particular concern under this process and also may be subject to future designations by the council as HAPCs.

Finally, there was a little bit even broader expansion of some sites, including some underwater Maritime Heritage Sites, including some shipwrecks of national importance, but the
preferred alternative is the one that’s shown in this diagram here. There is fifteen reefs and banks, for a total of 383 square miles of area, and the existing sanctuary is approximately about fifty-six square miles.

Also, the proposal was then to expand the sanctuary to include those fifteen additional areas in the polygons that we described and to apply the existing regulations that apply now in the Flower Garden Banks National Marine Sanctuary to these new areas, and, very briefly, those regulations, or prohibitions, are shown here, and they’re talking about -- That includes vessel anchoring of all sorts of vessels, any type of vessel, fishing with or possession of fishing gear other than what is defined as conventional hook-and-line gear, and hook-and-line gear can be both the traditional kind of recreational hook-and-line gear, but it also includes what is known as bandit rigs, as long as it’s a single line, and it could have multiple hooks, and it can be either hand-wound or mechanically wound. All of those fall under the definition of conventional hook-and-line. There is no distinction between commercial and recreational. It's just the gear type that is the subject of this prohibition.

There is a general prohibition on possession of essentially any kind of fish, invertebrate, unless it’s those that were taken by hook-and-line gear, any kind of alteration of the seabed, injuring or moving coral, other benthic plants or invertebrates, and then oil and gas exploration and development is prohibited inside the no-activity zones within these areas, and I will talk a little bit more about that in a moment. Our regulations actually do allow for oil and gas exploration and development inside the sanctuary boundaries, but outside the no-activity zones, and those no-activity zones were those that were defined and established by MMS, which is now BOEM, for several decades now.

We know a lot about these areas, and we knew a lot about them from the original studies that were done in the 1970s and 1980s, and, since that time, we have conducted a large program of scientific exploration ourselves, including very detailed multibeam benthic mapping of many of these areas.

We have utilized -- Most of these areas are deeper than scuba-diving depths, and so we have utilized primarily ROV surveys, and we have an ROV of our own, and we have also used other ROVs that are available in the scientific community to groundtruth many of these areas, and that has resulted in being able to characterize most of these features, both with physical mapping and with identifying what kind of biological communities are
associated with those areas and being able to come up with habitat characterization maps and defining these areas of what are most important in terms of deepwater coral and other types of important benthic communities.

I won’t get into this, but it’s like these areas are extremely important, extremely diverse, but they are different than a coral reef, and so, if you are thinking about the coral reef at the Flower Garden Banks, this is not quite that. You get deeper than about fifty meters or so and the community changes quite significantly from those reef-building stony corals to these areas of what are known as mesophotic or deepwater corals, up in the upper-left-hand corner, for example. You can see these fields of -- This is mostly a mix of black corals and octocorals.

Some of the shallow areas, you still have enough light to have a lot of algal growth, microalgal growth, as photographed from Bright Bank. In some of the even deeper areas, there is even some glass sponge communities, which are extremely rare in the Gulf of Mexico. This particular one is from Elvers Bank, and all of these have significant reef fish populations, including some potential spawning aggregation sites within several of the features that are in the proposed expansion.

This is data actually that Paul Sammarco was the lead PI on, in a study that was funded by BOEM to look at what they call their potentially-sensitive biological features, and I mentioned the no-activity zones, which are off-limits to oil and gas, but there is also regulations, lease stipulations, that BOEM requires companies to avoid, potentially sensitive biological features, and that is areas where there is hard bottom, over eight foot of relief, and that have a high density of coral communities associated with them.

Some of these -- These are just basically coral counts per square meter on a variety of the banks that are of interest, and these are actually three different kinds of coral groups, and, if you add them together, some of these, you’re looking at densities of twenty to thirty corals per square meter, and this is some of the highest densities that I know about of mesophotic deepwater corals of anywhere in the world, and so these are incredibly important.

After the release of the draft EIS and proposal in 2016, we went through a public comment period, and we received a lot of public comment, over 8,000 public comments. Also, during that period, we were required, under our National Marine Sanctuary Act, to
consult with the fishery management council. It’s under a provision in our National Marine Sanctuary Act, known as 304(a)(5), and so we did that.

We presented the information, of course, to the Gulf Council, and the Gulf Council came back with a series of recommendations that I believe you are familiar with, and I will go over that in a second as well.

The primary recommendation, without getting into the details, is to look at these areas of expansion and to sort of concentrate on the previously-identified no-activity zones as the areas where most of those stricter regulations would be applied, and so the prohibitions that I mentioned earlier about no anchoring, the no use of types of gear, other than conventional hook-and-line, and this area, of course, would include shrimping, and it would include bottom longlines and other types of fishing gear that would impact or touch the bottom, but that we apply those strict prohibitions only within the no-activity zone areas and the areas outside of the no-activity zones, but still inside the proposed sanctuary boundary, should be allowed to keep open for historical fishing activities, but that there would be an endorsement process, so that the people fishing in these areas would be aware of the sensitivity of them and to come up with types of fishing practices that would mitigate and reduce any potential impact to coral communities that occurred outside that area.

Meanwhile, because of this, because of all of the public comment that we received, and I will say that there also was a good bit of concern from the oil and gas industry about potential impacts to their ability to freely explore and develop some of these areas, and so we engaged our Sanctuary Advisory Council.

All of the National Marine Sanctuaries have an advisory council that is made up of constituents and stakeholders from individual sanctuaries. Scott Hickman mentioned that he is on our council, and, in fact, he was recently elected as chair of our council.

We put together a boundary expansion working group, and we went through a process, and, in fact, it was quite exhaustive, I think. There was, I think, a total of twenty-one meetings that were held and took input from a variety of sources. Again, there was a lot of interest and concern about potential impacts to both the fishing industry, fishing community, and the oil and gas community, and the result of that -- That was over a year period that this took place, and they came up with a -- You might recognize some of the folks on the council. Some of them
have probably interacted a lot with you, besides Scott. Buddy Guindon was on the council and Shane Cantrell, and so we did have a good bit of fishing representation on that working group.

They made a recommendation to our full council, which was adopted by our full council, to modify the preferred alternative that we had presented in 2016, which would generally reduce the footprint of each of those areas that we were proposing for expansion, keying in, again, on those no-activity zones that were brought up by the Gulf Council in their general recommendations and, of course, from the oil and gas industry.

It's a little bit hard to see on this map, but there's a purple line sort of in the background of each of those features, and the white lines are the ones that were recommended by our sanctuary advisory council.

I think you can see, from that, that it is -- That this area has been reduced in size, and, also, of the fifteen banks that were originally proposed, one of those were not continued to be recommended by our council, and so there's fourteen additional banks, with a total of 160 square miles, and so our original proposal was 383 square miles, and this proposal by the advisory council is 160 square miles.

What does that mean? I am going to focus in on just one, to kind of show you what I mean by this, and this is a complex that we call the Bright Bank Complex, and this was named after Dr. Tom Bright, which I showed a picture of earlier, and many of these features are named after the researchers that did the original studies back in the 1970s and 1980s, many of which were associated with Texas A&M University, but this is Bright Bank.

There is a lot going on here, and so I will just try to orient you to this. The bigger box that is kind of the thicker line, that is kind of a yellow line, that's actually the line of the existing habitat area of particular concern, the HAPC, that was designated in 2006.

The purple line is the line that we proposed in our 2016 expansion proposal. As you can see, we tried to follow the existing HAPC lines, where we thought it was appropriate, but we recognize also that the box approach doesn't sometimes incorporate areas of sandy bottom that there was not specific areas that were associated with those kinds of communities that we were highly interested in, and so we modified that. That was our -- The purple line was our proposal.
The areas in sort of bright lime green, those are the existing no-activity zones established by MMS and BOEM, and then you can also see the black line, which is the recommendation from our Sanctuary Advisory Council, and just, also for reference, these kind of reddish areas, those areas are areas that we believe fit the definition of the potentially-sensitive biological features that BOEM references in their lease stipulations for oil and gas. That shows where the existing coral and other biological communities are associated with them, and you can see there is a lot of those outside of the no-activity zones, but, like I mentioned, the oil and gas operators are required to avoid those areas regardless.

I’m going to kind of focus in a little bit more, just on Bright Bank, so you can see it a little bit better, and so the no-activity zone is that area in green, and that was the area that the Gulf Council, if you recall, recommended originally in their comments after the release of the plan to allow -- To put the strict fishing, in this case, prohibitions -- Make them apply only within the no-activity zone, in this case that lime green zone, and that areas outside the no-activity zone would still be open for historical fishing practices.

Now, the advisory council came with their recommendation, what they did, and this was because of a lot of input, and also just from the enforcement aspect. The no-activity zones are based on a depth contour, and so they’re very irregular, and, as you know, and I’m sure that you’ve heard this from enforcement components, that they need designated lines on a map that can be easily deciphered by a user, by someone out on the water, and they like boxes, squares, usually.

We pushed back on that, of course, and we believe that polygons are appropriate, especially in this day and age, with the sophisticated navigation instrumentation, but, in this case, the black line is what essentially -- We took the no-activity zone and drew a polygon around it, but, as you can see, there are some areas that are outside of the no-activity zone that would still be inside of the sanctuary boundary. I just wanted to make that distinction.

I will show you just a couple of other examples, just so you can see a couple of cases. Here’s another, and this is a bank complex that we call the Bouma Bank Complex, and there actually are four different banks associated with this. again, those square boxes are the existing HAPC boundaries that were established back in 2006, and the green, again, is the no-activity zone, and the black lines are the recommendations from
our Sanctuary Advisory Council to be the new National Marine
Sanctuary boundary lines.

Again, these are polygons that were -- I think we attempted to
draw lines very close to the no-activity zones, but, in some
cases, they’re a little bit larger than those areas.

There is also some -- I will show you just one more example.
This is McGrail Bank. McGrail Bank is actually one of those
coral HAPCs that do have regulations that were established back
in 2006 that do not allow bottom-tending gear or anchoring by
fishing vessels, and that’s because of a coral reef, a true
coral reef, that occurs on that bottom lime green area that is
quite significant, but, again, our advisory council drew a line
that is the black line on this, and the reason I’m showing you
this one is this came up with kind of a very kind of strange
boundary, and so that long, skinny finger, and there’s a small
area on the lower-right-hand corner.

This has been raised by the people at NOAA Enforcement that
those types of boundaries are very difficult to enforce, and so
I will just mention that, but this is the advisory council’s
recommendation for McGrail Bank.

Unfortunately, I can’t say yet that the advisory council
recommendation is our new preferred alternative, although it is,
but now what is happening is that we have taken all of this
information, and we are in the process of proposing a new rule,
and we’re going into the rulemaking process, and what we will
do, hopefully within the next sixty days, is be publishing a
proposed rule that will put forward a new revised preferred
alternative, and I will say that it will be very, very close to
what our Sanctuary Advisory Council recommended, and we will
then be going out for public comment on that rule.

Hopefully, depending on the issues that come up during that
public comment period, and the issues that are raised, we will
then be able to move to the final rule and final environmental
impact statement.

Now, we did come to the Gulf Council after our Sanctuary
Advisory Council recommendation, and we presented the advisory
council recommendation to the Full Council, and that did result
in a communication from the council that essentially says, if we
do go forward with our advisory council’s recommendations, in
terms of the boundary, that the original tiered approach, where
you would have an area that was just associated with the no-
activity zone that would apply to the stricter fishing
regulations and then areas outside that zone would be open for historical fishing practices --

Because these new boundaries, the recommended boundaries, are so tightly associated with those no-activity zones, that it didn’t really make sense to apply that tiered approach and that the Gulf Council was comfortable with allowing the full suite of regulations in the Flower Garden Banks National Marine Sanctuary be applied to the full boundaries if we went along with our advisory council’s recommendations. That is, essentially, where that stands with the Gulf Council right now.

As I mentioned, we are in the process right now of trying to get the proposed rule out in the Federal Register to be published, and we hope that will happen this fall. It has gone through our internal review within NOAA and the Department of Commerce already, and it is out for review before it’s finally published.

There will be a sixty-day public comment period after it’s published, and we are planning to hold at least two physical public meetings, at least one in Houston and one in the New Orleans area, and then we will, of course, look at the comment, and this will also include re-engaging with the Gulf Council, and then we would go to final publication of the rule and the final environmental impact statement hopefully in the spring of next year.

That is essentially where it stands. I will say that there’s a few things that we’re going to be specifically asking for additional comment when we publish the rule, and so, right now, we are not proposing any changes to regulations that would be applied in these new areas, and so all the suite of regulations that currently apply in the Flower Garden Banks, the ones that I described about anchoring, about disturbance to the seafloor, about fishing only with hook-and-line would apply to all of these areas, but, because of some public comment that we received, we are specifically asking for additional information, or additional comment, on these areas that I have up here now.

One has to do with spearfishing. We had a recommendation, both from the Gulf Council and our advisory council to allow an exemption for the use of spearfishing gear in the expanded area, not in the existing Flower Garden Banks area, but in the expansion area.

A little bit of twist on this is that our council recommended that spearfishing gear only be allowed to be used in a freediving mode only, and so not with scuba gear, and it’s
interesting. The primary people that we heard from that spearfish out here are not actually going for bottom fish. They are not going for snapper and grouper. They are actually going for pelagics, for wahoo and amberjack and stuff like that, which is interesting, but the council -- The Gulf Council recommended an exemption for spearfishing gear, but they did not distinguish between freediving and scuba diving, and so there is both issues that we will be requesting comment on.

We also got a request from the Highly Migratory Species group of NOAA to allow for an exemption for pelagic longline gear, and so that will also be highlighted in the proposed rule, and we’re requesting more information on that, because we did not get a lot of public comment on that, but, since we did get this input from our sister agency in NOAA, we feel that we need to explore that one further.

There is also a proposal to allow for the possession of spearfishing gear in the existing sanctuary, and that’s a situation that our rules right now prohibit the possession of any kind of fishing gear, except for conventional hook-and-line, inside the boundary, and so, if a group was out and they wanted to do a variety of activities, go spearfishing out on the platform and then do hook-and-line fishing somewhere else, they couldn’t even enter the Flower Garden Banks Sanctuary, and that’s caused problems, and it hasn’t been a big problem, but it is an issue for some people, and so it’s been recommended to look at that as well.

That’s essentially where it is. Hopefully, we will see the release of the proposed rule within the -- Like I say, within the next couple of months, and then we will take it from there, and so that’s essentially the status of the expansion proposal for the Flower Garden Banks National Marine Sanctuary.

CHAIRMAN KILGOUR: Thanks, G.P. Does anyone have any comments or discussion? Scott.

MR. HICKMAN: That was a good, fairly quick explanation, G.P., and thank you. I was in the back of the room, and I don’t know if you covered it or not, but one of the things I would like to say is it’s, being part of the process and being part of the council at the Flower Garden Banks, it was a very transparent, stakeholder-driven process. The pelagic fishermen that shoot the wahoo and stuff, they had their concerns heard, and it’s working through the process.

Those twenty-one meetings were brutal, to say the least, and
there was a lot of compromises met. Did you talk about the
President’s Executive Order, President Trump’s Executive Order?

MR. SCHMAHL: I did not.

MR. HICKMAN: You left that out?

MR. SCHMAHL: Yes.

MR. HICKMAN: That was something else as we were starting this
process, is President Trump had an Executive Order evaluating
these expansions and these national monuments, and, actually, I
got the honor to go up in front of the Senate Transportation
Science Committee and give testimony on this process.

Oil and gas had a lot of issues, and everybody had lots of
issues, and we got through it, and we’ve got a great product,
and we’re real proud of the work, and we look forward to
protecting more of these special areas and keeping these
historic fishermen back in the areas that they’ve been fishing
in, plus protecting these corals, and so we appreciate
everything the agency has done and everything all the fishermen
have done.

MR. PERRET: With all the horrible stuff we’ve been reading and
hearing about the Gulf going to hell with B.P. and oil and
spillway openings, I was quite pleased to hear, in your
introductory remarks, that the Flower Gardens are in, quote,
unquote, quite good health. What do you attribute that to, with
the corals worldwide in decline, yet the Flower Garden Banks are
in quite good health, and how do you attribute that? Good
management by the agency? That’s number one.

MR. SCHMAHL: I would like to say that that’s the main reason,
because I think it’s because of the isolation of it. Like I
said, it’s a hundred miles offshore, and it’s relatively deep.
The shallowest part is about sixty feet deep, and it is sort of
bathed by the waters that come off of the blue current that come
up into the eastern Gulf of Mexico, and then there’s a series of
spinoff eddies that track west, bringing this nice kind of
clear, very low-nutrient waters to kind of bathe these areas.

I think the biggest thing is we’re outside of that -- For the
most part, we’re outside of the area of coastal runoff from the
things that are really causing problems, like the dead zone,
that are typically associated with the runoff that’s coming out
through the river systems and the nutrients that are loading
into the northern part of the Gulf of Mexico, but this is --
It’s diluted by the time it gets out to the offshore areas, and the fact that, because it’s hard to get to, and so we don’t get a lot of visitation, and so there’s that aspect of it, too.

Just as an example, I used to work in the Florida Keys, and the reefs of the Florida Keys get tens of thousands, hundreds of thousands, of people on each individual reef every year. We estimate we get about 2,500 or 3,000 divers, and so there’s that aspect too, but I think that’s the main reason that it’s still in good health.

MR. PERRET: I have four or five questions for you. Saying that, you’ve got mineral exploration in that entire area, and so it is coexisting, I guess. You showed one slide of damage by anchors from large ships, and have there been any enforcement citations for that kind of destruction?

MR. SCHMAHL: There have been in the Flower Garden Banks Sanctuary, and not by those kinds of large ships, but we have had anchoring violations that have occurred inside the sanctuary. The problem is that, these other reefs and banks, there is no regulation that prohibits that.

MR. PERRET: I am talking about where it’s currently in existence, the no anchoring. Has there been any enforcement action taken against anchoring?

MR. SCHMAHL: Yes, there has been.

MR. PERRET: Okay. The preferred alternative that would add twenty-nine or so more areas, what is the estimated cost of that?

MR. SCHMAHL: The cost for management?

MR. PERRET: The cost of implementation and the entire cost. What’s that going to cost the taxpayers of the United States of America?

MR. SCHMAHL: That becomes sort of a sliding valuation kind of question. Right now, we’re saying that, right now, we can provide a level of management and oversight to these areas without an additional increase to our budget.

MR. PERRET: You know, and I know, that’s not practical. You put all these regulations, and, if you don’t have more dollars to enforce them, how are you going to ever make anything out of it, I mean, if you’re having problems with anchoring, and you go
say no anchoring, but you’ve got no enforcement?

MR. SCHMAHL: It kind of depends on -- Sometimes people say that there’s no value of just making a paper park and just putting a line on a map, but, in fact, I believe there is a lot of value of putting a line on a map. When it comes to shipping, when it comes to international shipping, you create a no-anchor zone, and those -- That is part of their insurance and liability situation. They will not anchor there. You don’t need like a guy in a little boat to say that you can’t anchor here.

MR. PERRET: How do you attribute that guy who had his anchor in your area when you showed the slide?

MR. SCHMAHL: That’s outside of the -- That’s a bank that’s outside of the existing sanctuary. The same goes with oil and gas. Now these areas are more restricted for oil and gas, and that becomes part of the review process, and, therefore, these areas are more well protected, just because that line is there, because it’s a process, and nobody is going to run out and sneak in an oil platform.

I think the type of enforcement you’re talking about, things like poaching and stuff, using spearfishing gear where they’re not supposed to, and those are extremely difficult to enforce even in the best situations, and I would say, unless we get more money, that kind of enforcement, you’re correct, will not happen.

MR. PERRET: Scott, I would echo a lot of what you said about your advisory panel being transparent and so on and so forth. Something for the Gulf Council to think about, as well as Scott and you, is it could be advantageous to have a council staff person or member, and Morgan is going to tell me that’s going to happen, sit on that, but my question is, do the state regulatory agencies have a presence on your advisory panel?

MR. SCHMAHL: Historically, no, because one thing is that these areas, the existing sanctuary, is entirely in federal waters, and so there’s no direct state jurisdiction in the existing sanctuary area. We just recently actually added a member from the Texas Parks and Wildlife, because there was an existing oil and gas platform that was decommissioned that was inside the boundary of the sanctuary, and that is now managed by TPWD, and, because now they have jurisdiction, really, in our sanctuary, we have added them to the sanctuary.

MR. PERRET: Do you have to go through coastal zone management
approval for any of your activities? If so, the state’s coastal zone can say yea or nay, and that’s why I wonder about state agency representation.

MR. SCHMAHL: We do. We send -- Like this regulatory package will go to the affected states for review under their coastal management program, and there’s a little bit of question about whether we have to do that, but we do that.

MR. PERRET: I’ve got just one more. Fishermen are the most ingenious people I know, and, in your areas, you allow historical fishery practices. Fishermen are always experimenting. What happens if a new fishery, not a historical fishery, is to develop? Is that going to be allowed?

MR. SCHMAHL: I need to clarify that. Right now, the way we are proposing it is that, within the entire sanctuary boundaries, and these are reduced from what we originally proposed, the only types of fishing gear that would be allowed is conventional hook-and-line gear, and so, as long as this new fishery used what would still fall under that use of conventional hook-and-line, it would be allowed.

MR. PERRET: Not in those areas. In the areas where you still allow shrimping and longlining and all of that. If Scott developed a piece of gear to catch a heretofore unknown fishery, and the stock is there, and there’s a market for it, would that type of new fishery be allowed?

MR. SCHMAHL: Again, I need to clarify that that was -- When we had those larger boundaries proposed, and we were considering like a zoning thing, that there would be smaller areas that only hook-and-line would be allowed and then, outside those areas, historical fishing practices would be allowed. Now that we’ve reduced the size of those boundaries, we are no longer proposing that, and so historical fishing practices would not be allowed in the boundaries that we are now coming forward with, which are our Sanctuary-Advisory-Council-proposed boundaries, and so, no, they would not be allowed.

CHAIRMAN KILGOUR: Corky, I want to step in. I was the staff member that sat in on a lot of the working group, and not all of them, because they were from 6:00 to 9:00 at night, but I sat in on as many as I could, and so I brought all of this information to the Gulf Council.

The Gulf Council made recommendations to adopt the sanctuary-wide regulations out to the boundaries, because, most of the
time, the difference between the no-activity zone and the proposed boundary was less than a kilometer. Not all of the time, but most of the time, and so that tiered approach didn’t make sense anymore, and so the Gulf Council adopted just to have sanctuary-wide boundaries to the extent of the boundary of the sanctuary, and so, in the case of new fishing gear, my understanding is that wouldn’t be allowed if they had sanctuary-wide regulations, and, if there was new fishing gear that was outside of the sanctuary, that would have to go to the Gulf Council to be approved or disapproved, based on those standard procedures.

MR. PERRET: But, from what I’m hearing, you’re recommending that the Gulf Council have a staff member on the advisory panel?

CHAIRMAN KILGOUR: I do recommend that, and I think the Gulf Council, in the original letter to the sanctuary, in the 2016 draft EIS, requested that a Gulf Council staff member help -- Be present in the development of the boundaries, and so that wasn’t an official item, but I did attend as many as I could, and I was filled in as much as staff could fill me in.

MR. PERRET: Thank you. Thank you, George. Thank you, Scott.

MR. HICKMAN: Corky, to answer one of your other questions too, on the law enforcement side of it, dealing with the IUU fishing coming out of Mexico into the south Texas waters and the human trafficking problems and the drug trafficking problems that we’re having off of Texas right now, the Trump administration has allocated some monies, to where Galveston is going to get two new fast-attack cutters.

The Coast Guard has told us that, in this patrol areas that they’re going to be increasing with Home and Defense, they will also -- Falling under that mission will be patrolling these areas at the Flower Garden Banks and the expansion areas, and so, how many they’re going to do, I don’t know, but they’re saying that they’re going to be allocating resources to patrol all of these areas, and so it’s good to have those new assets in Galveston.

MS. KRUEGER: My understanding is this is in the final comment period right now?

MR. SCHMAHL: It’s not open for comment yet. We’re trying to get the -- We have to actually publish the rule in the Federal Register.
MS. KRUEGER: Okay, and so my question is what percent were the NOAA-preferred alternatives selected and sent to NOAA? Of the preferred alternatives, can you give like a guesstimate of what percent were the preferred, versus 1, 2, 3, and 4 Alternatives?

MR. SCHMAHL: Essentially, what we’re working with is the preferred -- It’s a modification of the preferred alternative, and so that was Alternative 3, which was the mid-range one, and it does not include any of those areas to the east of the area that was originally described, and is that what you meant? It’s basically, like I mentioned, all of the banks that were proposed in our preferred alternative in 2016, with the exception of one, is also included in the Sanctuary Advisory Council recommendation that we are going forward with in the proposed rule.

MS. KRUEGER: Yes, that’s what I was asking, is were basically the preferred alternatives selected the majority of the time after public comment, and, granted, there’s still final review going forward.

MR. SCHMAHL: The short answer is yes. Almost all of them were, but it’s just the boundary configurations themselves have been modified.

MR. DELANEY: Morgan, as you know, we have very precise shrimp fishing effort data generated by the deployment of electronic logbooks on most of our vessels, and, as you know, the Shrimp AP and the Gulf Council rely on that data for our consideration of these coral protection areas, habitat areas of particular concern, the Flower Garden Banks, et cetera, and many other management actions with regard to the shrimp fishery.

Maybe this is a question for Mr. Schmahl or someone else in the room, but did the Sanctuary Advisory Council consider or use the shrimp fishing effort data that I’m referring to in the drawing of their revised boundaries for the sanctuary? Thank you.

MR. SCHMAHL: I can answer that, and the answer is, yes, we absolutely did. I didn’t mention this before, but, in the original comments from the Gulf Council in 2016, it included information about shrimp effort using electronic logbook data, and there were -- In fact, for the most part, these areas are typically avoided by the shrimp industry to begin with, just because of the nature of the seafloor, but I think there were three banks that there were some historical shrimping effort in the very edges of them, and, in all of those three cases, we modified the boundaries so that those areas are now excluded.
from consideration.

MR. DELANEY: Excellent. Thank you very much.

CHAIRMAN KILGOUR: Paul.

MR. SAMMARCO: I would just like to say that I support the sanctuary’s proposal to expand the sanctuary in the way they have noted, particularly in your Alternative 3, and I think you said that was your preferred one, was Alternative 3.

Our research group, including the Flower Garden Banks group, spent years collecting data from these banks and years analyzing the data, and, if they were -- If these areas were moonscapes, believe me, I would tell you, and I would say do what you want with them, the same as my driveway, but they’re not. They are very rich areas, and the northern Gulf of Mexico is in a particularly enviable position, in that it has the Flower Garden Banks, which are in very good shape, as G.P. says. They are amongst the best, really, in the world.

We’ve lost 50 percent of our reefs worldwide, something like that, and these banks, although they may not be, most of them, true coral reefs, are very rich and have a lot of corals of various sorts, and they will act, as time progresses, as a refuge for other corals to survive some other things that we’re going through at the moment, and so I support the proposal.

MR. LASSEIGNE: On enforcement, how many citations have been given, and are they visual citations, or are they using transponders, or what is the method of doing a fine, and how many have been done, and have any fishermen been involved, besides anchors?

MR. SCHMAHL: Unfortunately, I don’t have the numbers off the top of my head, but I will tell you that the number is very low. I have been the Sanctuary Superintendent for twenty years now, and I can -- There’s probably only been a dozen violations that have occurred, that they have pursued, since I have been there. Anchoring has been the primary one, and possession of unauthorized fishing gear has been another. I will say, for the most part, those are visual observations by Coast Guard patrols that were out there at the time.

We do get information from visitors out there. In particular, there’s a recreational dive company that is out there like pretty much every day during the summer, and they will report violations, if they see them, and then we can follow-up on them.
I know, at least in a couple of cases, that the violations were pursued based on transponder data, basically that you’re not allowed to anchor, and so, if a vessel is sitting there for hours, you can assume that they were anchored, and you can investigate it, and, in other cases, shrimping for example -- Shrimping gear is an unauthorized gear in the sanctuary, and there were situations where shrimpers were coming in, and they weren’t shrimping in the area, but they were using the mooring buoys, just to tie up to, just for convenience for overnight kind of thing, and, technically, that’s a violation, because they have unauthorized gear aboard. You can have it if you’re just passing through, but you can’t stop, and so I know, at least in one case, there was an enforcement action taken because of that.

MS. BOSARGE: I’m only going to comment just because I don’t think the council is going to -- I don’t know that this is coming back before the council, and I guess we can have a discussion on that, but a few things popped into my head, and so I thought I would throw it out there while you’re here.

First, I just wanted to commend you on the boundary adjustments. That was really important to us, as the shrimp industry, and then also the commercial fishermen on the council, the council in general, and you managed to pare Alternative 3 down from an increase of 326 square miles to an increase of I think you said like 160 square miles, and so essentially half, and so that leaves a lot of bottom and fishing grounds there open, and we really, really appreciate that. I know that wasn’t easy, and so I just wanted to commend you for that. Thank you.

The one thing that popped into my head had to do with what you just touched on, that I guess I didn’t think about it until I really saw the map, where, if you could turn to that map for Alternative 3, the preferred alternative, which I think you’ve pared it down a little from there, but it doesn’t matter. That’s close enough.

Now we’re going to have a lot of areas that are off limits, little areas that are off limits, but what I can foresee happening -- Say we’re shrimping over to the west somewhere, the Flower Garden Banks, and not in the Flower Garden Banks, and we’re shrimping outside, somewhere over there, and we say, all right, we’re going to shrimp a little farther to the east somewhere, and so, when we start running, more than likely, we’re going to run across those areas.
We’re not shrimping, but we have shrimp on the boat, which is prohibited, and we have gear on the boat that is prohibited, but we’re just transiting, and that’s all we’re doing, but, the way the regulations are worded, like you said, we’re going to be in violation.

That’s from the shrimping perspective, but I can see the same thing from the reef fish guys’ perspective, and, in their case, it’s even worse, because what happens in their case is they have a VMS on the boat, right, and so say they’re a bottom longline boat, and there is not that many of them, and so enforcement is very familiar with the boat and all of that, that they’re traditional bottom longline and blah, blah, blah.

Say they’re over there somewhere to the west and they go to move somewhere to the east and they are transiting across. Because they have that VMS, law enforcement never has to go out there and see them. They say, well, that’s a bottom longline boat, and they open a case on that poor guy, and he’s essentially guilty until proven innocent, and I say that because I’ve had it happen to us before.

I think maybe -- I am hoping that the council will be able to give you some feedback on maybe how to address that, so that we can make sure that people that are playing by the rules are innocent and don’t get punished, like what you were talking about with the mooring buoys, because, the way the regulations are worded right now, I think that’s exactly what will happen, and we don’t have a leg to stand on, really, for enforcement purposes.

MR. SCHMAHL: I do want to clarify that. Our regulations actually do provide for transit without interruption, and that’s the wording, and so you can have prohibited gear on your vessel as long as you are moving through and not stopping. The enforcement happened because the vessel did stop, and they were using our mooring buoys just as an overnight stop, and so, in that case -- That was the case. You can transit through the area with prohibited gear onboard as long as you don’t stop.

CHAIRMAN KILGOUR: Before I take your question, I just kind of want to summarize what I understand is this, and that is what the Shrimp AP saw today is the revision of the document that you saw in 2016, which reduces the boundaries so that they more closely mimic those no-activity zones.

The Gulf Council has made the recommendation to adopt those sanctuary-wide regulations within those new SAC-preferred
boundaries, which would extend just slightly past the no-
activity zones, and those regulations include traditional hook-
and-line gear as the only allowable gear, but that also includes
bandit rigs.

In the letter from the Gulf Council in 2018 regarding those, I
think it was requested that more information about the effects
of bandit rig gears, particularly the weights that they use to
get the hooks to the bottom, be investigated, but, as of now,
that would still be traditional fishing.

What my request from the Shrimp AP and the Coral AP and the
Coral SSC is, if you have any recommendations for the Gulf
Council on this new preferred alternative, which shrinks the
boundaries, but extends the regulations to those shrunken
boundaries, now would be the time to make motions and to provide
input and including I heard a transit provision was a concern,
but G.P. just clarified that, but, if you still have concerns,
this would be the time to make those recommendations to the
council. Did I summarize that well enough for you, G.P.?

MR. SCHMAHL: Yes, that is correct.

MR. PERRET: To be perfectly clear, if a vessel with, quote,
unquote, prohibited gear is transiting the area, they are not in
violation?

MR. SCHMAHL: That is correct, yes.

MR. SAMMARCO: Just a quick question, technical question. I
seem to remember, from our last meeting, isn’t there some sort
of monitoring gear either onboard or that’s used, and I don’t
know where it’s used, which shows gear up or gear down for a
vessel, or is that only in some vessels? I remember this being
a -- Is that telemetered, or is it onboard, or --

MS. BOSARGE: We do have electronic logbooks onboard, but
they’re not real time, if that’s what you’re thinking. Now, the
reef fish guys have VMS onboard, and that shows movement, and
then there is an formula, or a function, that, once a year,
takes all those datapoints and essentially says, all right, at
what point was the boat trawling, or at what point was it
transiting, but those are only shown in aggregate and not shown
individually.

If I can follow-up, Morgan, G.P., I just would like to see the
wording one day of the transit provision, simply because we have
different transit provisions for different things, and I just
want to see if there’s any wording about the gear, because, if you think about it, when we’re trawling, it’s constant movement, and so I’m sure there’s got to be more to that transit provision than just constant movement, and I just -- We need to make sure that we’re aware of what it is and that it’s feasible for us.

**MR. SCHMAHL:** I will say that there is two regulations. One is the use of any fishing gear except for conventional hook-and-line is prohibited, and so, if they were actually trawling in the sanctuary, that would be a clear violation. The other prohibition is possession of gear, but that reads -- This is actually just a summary, but possessing, and then, in parentheses, except while passing through the sanctuary without interruption, any fishing gear, device, equipment, or means, except conventional hook-and-line gear.

I will send you that and highlight the actual wording from the regulations, but it is -- It’s very clear that you can pass through the sanctuary with prohibited gear onboard if you’re not using it.

**MR. HICKMAN:** Leann, we found this out a couple of years ago with the Flower Garden Banks. All of our VMSs on our boats, and now it’s similar on the charter boats, they pinged us once an hour, but, when we would get around these areas, like sanctuaries and these other things, they run the rate of -- The law enforcement people that are looking at all of this stuff, they will run the rate of the ping up to like once a minute or once every five minutes, to see exactly what that boat is doing.

They can dial it up and down right there at the law enforcement center to see what’s going on. Shane Cantrell was running one of our boats, and it had some scientists onboard, and he declared out a scientific trip, under a Letter of Authorization through NOAA, and he forget to the tell the sanctuary people that he was going in the sanctuary to take this scientific thing, and, sure enough, my wife got a call saying, hey, one of your boats is in the sanctuary doing science work and why weren’t we notified, and they turned the rate up, and they could see exactly what he was doing, and they follow this stuff pretty close.

**MR. WILLIAMS:** I think, at some point, you might want to look at what we went through in the coral group also with the South Atlantic and the expansion of the Oculina Bank. We have a transit permission through there, and a lot of it is based on speed, and that will tell you whether you’re trawling or steaming across that closed area.
The only difference is they are required to have VMS, and they
don’t necessarily use the electronic logbook, but I am certainly
not suggesting that we use VMS in the Gulf of Mexico, because
that’s a whole different area, because you’ve got so much
Oculina closure that you need to run through there, but not
necessarily with the Flower Garden Banks.

It's small, and you’ll be transiting, and you’re certainly not
going to be working there anyway, because it’s coral, but the
point is that you might want to look at what we have in the
Oculina Bank area for the transit system, and you might be able
to use some of that. Thank you.

EXECUTIVE DIRECTOR SIMMONS: I was just going to mention that
this is on the agenda for October. G.P. is coming to the
council meeting, and he is going to provide an update, and so,
as Morgan mentioned, if you have recommendations, either by
standing and different APs, or together, as a consensus
recommendation, it would be great if you could put some motions
down for the council to consider.

I think, at the time we wrote the scope of work, we didn’t
realize, or weren’t thinking, that this body had not seen those
changes and it had just gone to the council, and so we apologize
for that, but I think these recommendations would be important
to send to the council regarding these changes.

CHAIRMAN KILGOUR: Sandra.

DR. BROOKE: Thanks for bringing that up, John. That was a
solution that we came up with, but I think it is predicated on
having VMS onboard, because there’s no way of assessing that any
other way, but it’s certainly something to consider. G.P.,
could you clarify the scuba rules, as they stand at the moment,
for spearfishing? Is spearfishing allowed on scuba for reef
fish at the moment?

MR. SCHMAHL: No, it is not. Spearfishing, the possession or
use of spearfishing gear, is not allowed in the current
sanctuary regulations, regardless of whether it’s on scuba or
not.

DR. BROOKE: Thank you, and is this being considered then, if I
remember from your presentation, the use of spearfishing --
Sorry. Is scuba gear being considered for spearfishing for reef
fish at all? I’m not sure why scuba and spearfishing came up if
it isn’t.
MR. SCHMAHL: It is being considered. I guess we’re doing this in a slightly different way than usual. We are proposing a rule that would apply the existing regulations, and so, therefore, spearfishing would not be allowed, but we are requesting additional comment on that issue, because of the comments that we received from our advisory council and from the Gulf Council. How we deal with that, I’m not quite sure yet, but, yes, it is sort of back on the table.

MR. HICKMAN: Our advisory council worked on this for a while, and we actually -- I think our first recommendation was non-scuba-assisted spearfishing. There is a growing sport of guys that are extreme sportspeople, and a lot of them are marathon, triathlete-type people that travel around and jump out of a boat in the middle of the ocean and chum and have these giant spearguns, and they have these huge flippers, and they will dive down thirty feet and shoot wahoo, and we have this big aggregation of wahoo on these banks every winter.

People come from all over the country to go out there and do this pelagic spearfishing, and they’ve got sharks trying to -- It’s crazy, but they love it, and it’s a growing sport. It’s an important recreational activity, and it was something we wanted to let them continue to do, and it was a historical kind of thing, and so that’s why it came to be.

DR. BROOKE: Just a comment that chumming sharks, lots of crazy people in the water, and scuba diving recreational people seems like an unhappy combination.

MR. HICKMAN: They really like it, and the GoPro footage is pretty interesting, to say the least.

CHAIRMAN KILGOUR: Okay. Seeing no more raised hands -- Gary.

MR. GRAHAM: I really want to echo what Leann said. That bottom that was inshore of the Flower Gardens was an extremely important shrimping area, and it’s becoming even more important with our need to produce bigger shrimp, and that area holds big shrimp, and it would have been really, really a blow to us to have lost that bottom, and I really appreciate you guys considering that. That was very important, and there were a lot of -- There still are a lot of fishermen that are worried about this in Texas, and I want to thank you all for looking at that and considering it.

MR. HICKMAN: Gary, those boats are still out there. If you
look at the AIS information, currently, I guarantee you there’s five or six boats in there right now, as we speak, and, for our charter boat fleet out of Galveston, where we catch a lot of our blackfin tuna and some of those species, the go-to place is those shrimp boats, inshore of the East and West Garden, and that’s where we catch those fish, and that’s where we run those trips, and so it’s kind of a symbiotic relationship with the shrimpers. If they would have gotten pushed out of there, there would have gone our daytrip blackfin fishery for our charter boat fleet.

CHAIRMAN KILGOUR: Corky.

MR. PERRET: Are we open for motions? Obviously, there is some confusion about what can or cannot be with prohibited gear and transiting an area, and I just -- To get it on the record, I would like to make a motion that we request the official -- Is it a proposed regulation now, or there are existing regulations in the -- I move that the NOAA Sanctuary agency provide us with the exact language on transiting an area and what is or what is not allowed, insofar as prohibited fishing gear.

AP MEMBER: I second that motion.

CHAIRMAN KILGOUR: Okay. We have a motion that’s been seconded. Is there any discussion on the motion? I have a proposal on that motion. Perhaps, if it passes, we ask G.P. to send that to the group and we take a break and then come back and discuss it, and would that work for everybody?

MR. PERRET: You are running the show. Whatever you like.

CHAIRMAN KILGOUR: Would that work for you, Corky?

MR. PERRET: Yes. Thank you.

CHAIRMAN KILGOUR: Is that a Shrimp motion, or is that for everyone? Does the Coral AP want to weigh-in on this motion?

MR. HICKMAN: Yes.

CHAIRMAN KILGOUR: Coral SSC?

DR. BROOKE: Yes, that’s fine.

CHAIRMAN KILGOUR: Okay. Is there any discussion on the motion?

MR. SCHMAHL: Actually, I have it right here, and I could email
it out to you right this moment, and is that what you’re asking? I can read it to you as well, now that I have found the actual language, rather than a summary, but --

MR. PERRET: I hope the language will take care of all of our concerns, but I am not sure just what it says or does not say.

CHAIRMAN KILGOUR: Why don’t we vote on this motion and take a break. Does anyone oppose this motion? The motion passes.

Let’s take a break. G.P., can you send that to either Natasha or Camilla or somebody on the council staff, so they can send it to everybody? That way, we all have it in front of us, because I’m better with visual than hearing. Thanks. We will also put it on the screen. Perfect. Let’s take a fifteen-minute break.

(Whereupon, a brief recess was taken.)

CHAIRMAN KILGOUR: If everyone can come back to the table, staff is going to put the regulatory language up on the board. Is this what you were requesting, Corky? This is the language: Possessing or using within the sanctuary, except possessing while passing without interruption through it or for valid law enforcement purposes, any fishing gear, device, equipment, or means except conventional hook-and-line gear.

MR. PERRET: Well, being a poor, dumb fisherman, it’s as clear as mud to me. The way it’s written is extremely confusing. Why would a commercial boat with, quote, unquote, prohibited gear be involved with valid law enforcement purposes? Why is law enforcement thrown into fishing gear?

CHAIRMAN KILGOUR: G.P., I will let you take a swing at that.

MR. SCHMAHL: That’s a really good question. I don’t know that this is the original regulations. I don’t know.

MR. PERRET: I might be the only one having a problem with it, but it’s extremely difficult to understand, in my opinion, the way it’s written.

MR. SCHMAHL: I will also clarify that this is in a section, and this is Section 922. It’s 15 CFR 922.122, and these are prohibited activities. Then it lists all the things that are prohibited. It’s prohibited to anchor, and it’s prohibited to possess coral and things like that, and then it comes to this one, and this is prohibited to possess or use within the sanctuary any fishing gear, device, equipment, except for
conventional hook-and-line gear.

That is the basic one, but it does have that exemption of except possessing while passing without interruption through it or for valid law enforcement purposes, and I don’t know that -- Unless, for some reason, law enforcement would be using gear for purposes other than fishing, using it for law enforcement purposes, but I don’t understand what that would be. We have a lot of exemptions that exempt law enforcement activities and exempts military activities.

MR. PERRET: So you’re telling me, if I’ve got commercial shrimp gear onboard my vessel, and I am passing through one of these areas without interruption, that I am not violating your regulation?

MR. SCHMAHL: Yes, that is correct.

MR. PERRET: Okay.

CHAIRMAN KILGOUR: Scott, did you want to say something?

MR. HICKMAN: I don’t think I’ve ever even seen this regulation, but I will say, just from reading it straight through, as a dumb fisherman, I look at it as drive through there and don’t stop with that gear onboard, and, if you do stop, damned sure don’t put it in the water, unless it’s hook-and-line gear.

CHAIRMAN KILGOUR: Leann.

MS. BOSARGE: I think, with the motion that was passed, hopefully the council will take a look at it, because, essentially, using the gear, that means fishing with the gear, and so then it becomes a question of how does the sanctuary define fishing, because, for law enforcement purposes, for the shrimp fleet anyway, that’s defined a lot of different ways.

For some places, we have to deck the doors. For other places, we’ve got to take bag straps out, and, in other areas, we’ve got to disconnect gear, and so there’s a lot of different definitions. Some of it, we can just get the gear out of the water, like Scott said, but there’s a lot of different definitions, and so hopefully the council maybe will be able to clear that up, I hope.

CHAIRMAN KILGOUR: It sounds like something they did in Coral Amendment 9. Harris.
MR. LASSEIGNE: It says passing without interruption. Well, sometimes you have to stop to change oil, and sometimes you break a jumper shaft, and you can’t do anything about that, and you’ve got to get towed, and there are reasons sometimes when you stop, and you’re definitely not going to put your nets in the water, because coral reefs are like razor blades, and you’re going to ruin everything and lose your gear, and so sometimes you have to stop, for whatever reason it is.

CHAIRMAN KILGOUR: Sandra, and then I’m going to request that, if there’s specific motions on the Flower Garden Banks, that we make them, because we’re starting to run behind time, and so we need to get caught up on the agenda. Sandra.

DR. BROOKE: I appreciate the legitimate definitions of fishing, and that’s something that we’ve wrestled with the Oculina Banks as well, gear-in-and-gear-out and whatever, but, I mean, this is -- We all recognize that there are exceptions, but these areas are really tiny, and so you’ve got to be really unlikely to lose a drive shaft in the middle of one of these little banks, and so I think we have to make the assumption that these regulations are under normal operating circumstances and just go with that. If you have a problem and you have to stop, then you explain it to law enforcement, and I guess that’s -- I don’t know how else we can get around this and not allow people to be open to prosecution for fishing inside the sanctuaries.

CHAIRMAN KILGOUR: Matt, if you’re brief.

DR. FREEMAN: I am not a lawyer, but I will pretend like I’m playing one on TV right now. Reading a few sections down on this, it seems to pertain to that. It says that the prohibitions, including this part right here, do not apply to activities necessary to respond to emergencies threatening life, property, or the environment, and so it appears that there is some stuff built in, in terms of what you were asking about.

CHAIRMAN KILGOUR: Does the Shrimp AP or Coral AP or Coral SSC want to make any motions with regard to the Flower Garden Banks National Marine Sanctuary expansion document? I believe it’s coming back before the council in October, and so I will open the floor to those motions right now.

MR. SAMMARCO: G.P., this particular regulation, does this exist already on the books, or is this proposed to be on the books?

MR. SCHMAHL: This exists already on the books for the existing sanctuary, but, as I mentioned, we are proposing to apply these
same regulations in the expanded part of the sanctuary.

CHAIRMAN KILGOUR: Okay. Seeing as there are no motions, let’s move on to the update on Coral Amendment 9. Lauren Waters is going to give us an update from NMFS.

UPDATE ON THE IMPLEMENTATION STATUS OF CORAL 9

MS. LAUREN WATERS: Good morning, everyone, and apologies for the slight change in the agenda, that this is coming second. The update, I am at least excited to say, is that Coral Amendment 9, the proposed rule package, will be going up to NOAA Headquarters this week, and so it will start the rulemaking process.

As a reminder, when the council took final action on this last year, shortly thereafter, there was a request by the council that the Highly Migratory Species group backstop the rules in their portion of our rules and regulations, and so that took some coordination this past fall with them, with that group, in order to do that rulemaking process together, and so that was, in part, part of the delay in seeing this through, but, at this time, it is going up to Headquarters this week, and so hopefully, in the next couple of weeks, you all will be seeing at least some kind of notice from the Federal Register.

CHAIRMAN KILGOUR: As an interested party, would it be possible for you to send a link to the proposed rule when it’s published, or somebody on the council staff to send it to the Coral Advisory Panel, at least, when it’s published? Is that possible?

MS. WATERS: I can say at least that we will -- As we always do, NOAA Fisheries will put out a Fishery Bulletin when that notice publishes, and then, at that time, I know normally the council mimics those.

MR. SCHMAHL: I just had a question. I wasn’t familiar with the terminology used about the highly migratory species and backstopping the rule, and could you explain what that is?

MS. WATERS: No problem. Essentially, it’s almost like mimicking the same rules and regulations, and so, in Coral 9, the council put forward that they wanted to put some fishing regulations of no bottom-tending gear, and so they wanted to make sure that the Highly Migratory Species group was also looking at their fishermen and some of that.
CHAIRMAN KILGOUR: Are there any questions for Lauren? Do you have more?

MS. WATERS: I have one more thing that I do want -- That way, there is no confusion later. When you do see the notice in the next couple of weeks, the proposed rule, that might not be the actual proposed rule. It might just be the notice that NOAA has received it. We have had some delays recently in the proposed rules actually going forward once they’re up in Headquarters, and so I just wanted to make sure that there wasn’t extra confusion in a couple of weeks.

MR. HICKMAN: It sounds like it will free up a little time now, and maybe we can get started on Coral Amendment 10.

MS. WATERS: It’s the council’s pleasure.

CHAIRMAN KILGOUR: All right. Thank you very much. Next on the agenda is the Florida Keys National Marine Sanctuary Expansion and Ms. Dieveney.

FLORIDA KEYS NATIONAL MARINE SANCTUARY EXPANSION

DR. MENDEZ-FERRER: Before we begin with the presentation from the Keys Sanctuary, I do want to remind the members that we will have a summarized presentation given by the Florida Keys National Marine Sanctuary Superintendent at the October council meeting, and, during that meeting, we will also be discussing any recommendations and comments that are discussed during this meeting, and so, if you have any motions -- We will wait until after she is done with her presentation, and then we’ll proceed to discuss.

MS. DIEVENEY: Good morning. I would like to introduce my colleague, Steve Werndli. He wasn’t here when we did introductions, but he’s here to support in the presentation and any questions that you may have, and so thank you for having us, and we have presented to the council and various APs throughout our process to review our management plan and regulations, and this is the first presentation that we are giving to the Gulf of Mexico Fishery Management Council following public release of our document, and so all of this is now open for public comment.

This is our initiation with our process, the 304(a)(5) process, with the council that you’ve gone through with the Flower Garden Banks National Marine Sanctuary.

The restoration blueprint is what we are referring to our draft
environmental impact statement that is out for public comment
now that has proposals for update sanctuary boundary, sanctuary-
wide regulations, marine zones, management plan, and marine-
zone-specific regulations, and I’m going to walk through a
little bit of background on the sanctuary impacts and status of
sanctuary resources and then the specific actions that are
before the council for consultation, and then I will give some
context of the larger plan, so that you have that bigger context
when considering your action and proposal.

The Florida Keys National Marine Sanctuary was established by an
act of Congress in 1990, and, in 1997, the first regulations,
marine zones, and management plan were implemented, and I’m
missing some things that show up on mine, but, in 2001, there
was a modification to add the Tortugas Ecological Reserve, and
those are the two green zones out in the Tortugas region, and so
those were added through a separate process, additional
community and public input, a working group process to add
those.

In 2007, we updated the management plan, which are the non-
regulatory programmatic activities that the sanctuary undertakes, and so it’s been since 1997 that we have done a
comprehensive review of the Florida Keys National Marine
Sanctuary, the boundary, regulations, marine zones, and so it’s
a big document, and there’s lots in it, and I hope today that I
can provide a little bit of clarity of how you can review and
respond to it.

To give a little bit of background, as many of you probably
know, the Florida Keys is a really popular area, the local
community, tourism, boating, diving and snorkeling, commercial
fishing, recreational fishing, and it is a playground for the
community in the Florida Keys, and so a lot of the economy is
dependent upon being able to access and use these resources and
having healthy coral reef, seagrass, and water quality in the
Florida Keys.

This just gives a high-level summary of the amount of the
economy that is dependent upon a healthy marine environment,
$4.7 billion, and these are Tourism Development Council numbers
from 2018, and we receive 5.5 million visitors annually, and
approximately 60 percent of the Monroe County economy is
dependent upon the marine environment and a healthy marine
environment.

A healthy marine environment, what are the key resources in the
Florida Keys? We do a status report, and this is a program that
sanctuaries do system-wide. Periodically, we do an assessment of the condition of sanctuary resources, looking at living marine resources, habitats, water quality, and, in the case of the Florida Keys, and this isn’t the same across the same across all sanctuaries, but, in the case of the Florida Keys, we also look at our maritime heritage resources and what is the condition of these resources and what are potential impacts or threats to these resources, what are we doing to address those impacts and resources.

This Florida Keys condition report came out in 2011, and, for the most part, the trends were on the fair to poor, with many of the trends of these resources declining, either staying static or declining, and, to give a few specific examples, declines in coral reef ecosystems, and you’re going to hear some presentations later this afternoon specifically about some of the more recent impacts to coral reefs in the Florida Keys and throughout the Florida reef tract, but the coral reefs in the sanctuary are not doing so well.

Impacts of coral disease, bleaching, poor water quality, changing ocean conditions, marine debris, and this coral cover number, 6.22 percent, is prior to the more recent impacts from Hurricane Irma and the stony coral tissue loss disease, and so our coral cover has declined a lot in the Florida Keys.

Other important resources are seagrass resources. About 50 percent of the sanctuary has seagrass resources, and they are important for fisheries, for juvenile fisheries, for bird nesting, or not nesting necessarily, but foraging and the like, and they are impacted by vessel damage, water quality, etcetera. The statistic at the bottom is more than 56,000 acres of seagrass have scarring damage, and this is a study that was done on behalf of Monroe County looking at prop scarring damage, a comparison from I think it was 1990 to 2016, I believe, this study of the impact of seagrass.

One of the things that we’ll talk about later is some of our marine zones are put in place intended to protect the seagrass resources and manage vessel activities in those areas to protect the seagrass resources.

In addition to the specific impacts that I gave you, this is just a timeline. The condition report came out in 2011, and that’s the last time we did a comprehensive assessment of the resources of the sanctuary, and, since that time, we have had two years of warm water, mass bleaching events, drought, and elevated salinity, that has impacted some of the seagrass
resources, particularly in Florida Bay, harmful algal blooms, sponge die-off, Hurricane Irma impacts throughout the Florida Keys, sargassum strandings, more recently, and a coral disease outbreak that’s been working its way through the Florida reef tract since about 2014, and so lots of impacts in the natural ecosystem in the Florida Keys.

Other issues that we have in the Florida Keys are population growth, increased uses of resources. As I noted, this is a popular area, and there is lots of tourism and lots of use in the area, invasive species, fishing pressure, coastal development, marine debris, climate change, and ocean acidification.

All of these elements are affecting the natural habitats and natural resources in the Florida Keys, and so why create a blueprint? The restoration blueprint, as I noted, is our draft environmental impact statement, which outlines proposed management actions to address some of these threats, allow sustainable uses, support the economy, and plan for the future to manage these resources for the long term and protect the resources while also allowing sustainable uses.

This effort, as I noted, the release of the Florida Keys condition report in 2011 really kicked off this effort with our Sanctuary Advisory Council. They saw the status of these ecosystems and these resources and noted that let’s do an analysis, let’s do a review, of how we are managing these resources and what we need to do to improve our management, to improve these resources.

Our Sanctuary Advisory Council, much like the Flower Garden Banks, led this process, and we have twenty members on that volunteer Sanctuary Advisory Council and twenty alternates, and so forty in all, and they’re all pretty well engaged and involved. Shelly Krueger is one of our Sanctuary Advisory Council alternates, and she represents the research and monitoring seat, and our advisory council, throughout this process -- They kicked this process off in 2012, and, through about two-and-a-half years, led this review.

There have been over seventy public meetings and lots of public comment that they heard, that then they translated into recommendations to the sanctuary staff to review, analyze, and develop these proposals.

This slide is just a high-level summary of some of the Sanctuary Advisory Council goals for this process, and it involves two
components, the natural ecological elements and the goals there of protecting the habitats, protecting large contiguous habitats that serve the entire life cycle for species, improving and maintaining the condition of habitats, including all the habitats, and so deep reefs, patch reefs, nearshore reefs, seagrass habitats, hardbottom habitats, and increase the abundance and condition of selected key species.

They also had goals around the use elements and the economic elements, and so minimize conflicts among uses, prevent heavy concentrations of uses, provide undisturbed research and monitoring sites, and the overall goal is really to achieve a vibrant ecosystem and economy.

Our advisory council also established three community working groups, and so these working groups were a mechanism that the advisory council could get a lot more input from the community, and these working groups met over a series of -- Some of them met over the series of a year, and, for one of the working groups, they met over a series of close to two years, and these three working groups were really looking at the marine zone components of our management plan and regulations.

The Shallow-Water Wildlife and Habitat Protection Working Group was looking at marine zones that are targeted to protect shallow-water and dependent wildlife, and these are an existing zone type, and they are referred to as wildlife management areas, and I will go into details of those later.

The second working group, the Coral Reef Ecosystem Restoration Working Group, this was a working group that was really charged with potentially identifying areas to protect as a new zone type to facilitate active coral reef ecosystem restoration, and so where might it make sense to actively restore coral reef ecosystems, and those two working groups met over a seven-month period and provided recommendations to our advisory council that then were transferred to the sanctuary.

The final working group, Ecosystem Protection: Ecological Reserves, Sanctuary Preservations, and Wildlife Management, this working group met for close to two years, and they had the charge to really look at other of our existing marine zone types, sanctuary preservation areas, ecological reserves, and special use areas, and these are more protective zone types, and they were charged with looking at those existing zones, are they working, do they make sense, should we modify them, and/or are there new areas to protect with this type of zone type restrictions and protections, and I will be going through each
of these zone types and how they show up in the proposal, and so you will get more details.

Throughout the process, as the Sanctuary Advisory Council and these working groups were working, the agency was also working with our other federal and state agency partners and making sure that we were keeping our key partners informed, making sure that information of note that they had to inform the process was a part of the process, and as well, going forward, now that we’ve released the plan, we do have consultation and coordination requirements with many of these agencies, and so the top category there, Florida state agencies, about 60 percent of the Florida Keys National Marine Sanctuary is in state waters, and so we have, and will continue, to work very closely with our state partners on this.

NOAA Fisheries, we’ve been very involved with them throughout the process, as well as the two councils, and we have the South Atlantic Fishery Management Council and the Gulf of Mexico Fishery Management Council jurisdiction that overlaps within the sanctuary, and then, finally, agency partners, the Department of Interior, Navy, and the U.S. Coast Guard, just to name a few.

Just to note, really quickly, that the Department of Interior -- The U.S. Fish and Wildlife Service, there are four National Wildlife Refuges that overlap with the National Marine Sanctuary, and so they are an official cooperating agency on this DEIS, and many of the marine zones are within their jurisdiction, protecting their trust resources, migratory birds, sea turtles, and the like.

Now I am going to turn to the consultation opportunity that the Gulf of Mexico Fishery Management Council has and highlight some of the key elements that are within your jurisdiction, and so, first off, I just wanted to touch on the National Marine Sanctuaries Act.

This is the purposes and policies element, and so it outlines what -- For the nation, the system of National Marine Sanctuaries, what our purposes and policies are. It’s to identify, designate, and manage the sanctuary system, strengthen the system, enhance public awareness, enhance understanding of the system and ecosystem processes, facilitate compatible human uses, and strengthen global protection of marine resources, and so that’s the overarching purposes and policies.

Then Section 304(a)(5) is the specific element that outlines the opportunity we have with our relevant fishery management
councils, in this case the Gulf of Mexico and South Atlantic, that, when we are designating or implementing management in the sanctuary, there is an opportunity for the relevant regional fishery management councils to prepare draft regulations for fishing activities.

The council -- With that responsibility comes two things. One is making sure that any draft regulations are aligned with and meet the goals of the overall management plan process, and so that’s referring back to the high-level goals and objectives that our Sanctuary Advisory Council developed for that, aligning anything with those goals and objectives, and, if the council chooses to draft fishing regulations, making sure that the National Standards of the Magnuson-Stevens Act is used as guidance and the like, and you’ve done this with the Flower Garden Banks, but the same opportunity is now before you for the Florida Keys National Marine Sanctuary.

Our proposed action, and hopefully this will be clear, is we have four alternatives in our proposed action, no action and a range of reasonable alternatives. Alternative 3 is the agency’s preferred out for public comment, and primarily what we will use as the proposal for consultation, but I am going to highlight some things in the other alternatives that might be of interest to you.

In each of the alternatives, there are five components, and so management plan, which is the non-regulatory activities, and these are the activities that sanctuary staff implement on a day-to-day basis, our mooring buoy program, our research program, working with our enforcement partners, and Steve is the lead on coordinating our enforcement activities, and so those day-to-day operations of the sanctuary, and that’s in the management plan section.

Boundary expansions, and so overall sanctuary boundary expansion, and we do have two proposals there. Then sanctuary-wide regulations, and these are the regulations that apply throughout the entire sanctuary, and then the last two components are interrelated, marine zones and marine-zone-specific regulations, and so proposals to update and add new marine zones as well as what are the actual regulations in those marine zones.

The items specific to you that will be of interest to you is sanctuary boundary, and this is the proposed sanctuary boundary. Included on this slide, and I need to edit the title there, but, included on this slide, it has both Alternative 2, 3, and 4, and
so the proposal for the sanctuary boundary includes a proposal
to extend -- The red is the existing boundary, extending out to
the east, to align our existing sanctuary boundary with the area
to be avoided, and this is an area that we have regulated since
the sanctuary was established, and it prohibits vessels over
fifty meters or tank vessels, and that was part of the existing
act establishing the sanctuary, because there were a few large
vessel groundings that impacted the coral reef ecosystem, and so
the area to be avoided really has been in place since the 1990s
to protect that reef offshore, and our proposal is to extend the
existing boundary to align with that regulatory boundary.

In the Tortugas region, the proposal is to extend the sanctuary
boundary to encompass the Ecological Reserve South, the Tortugas
Ecological Reserve South, and those are in our preferred
alternative.

In Alternative 4 is a proposal to include Pulley Ridge, and this
is the -- It would align with the existing and the proposed
expansion that your council has worked through for Coral
Amendment 9.

CHAIRMAN KILGOUR: Beth, is it okay if you take questions during
the presentation? Leann, did you have a question?

MS. BOSARGE: I did have a quick question before you go any
further, so we’ll understand. You said that new area that is
enclosed by the blue lines would have sanctuary-wide
regulations, and you’re going to touch on one sanctuary-wide
regulation, and will you get specific, like G.P. did, where he
said, as far as fishing is concerned, what is prohibited and
what can’t happen?

MS. DIEVENEY: We can.

MS. BOSARGE: Okay. Well, that will help us understand what it
means to us.

MS. DIEVENEY: Yes, and we can also provide our existing
regulations, during lunch or following this meeting, because
what’s in the presentation is our proposed changes and not our
existing, and so, yes, but, as Leann notes, in these proposed
expansion areas, it would be sanctuary-wide regulations that
would apply.

Moving to sanctuary-wide regulations, these are, again,
throughout the entire sanctuary, and these are the sanctuary-
wide regulations that are proposed to either be updated or new,
and the top list are included in Alternatives 2, 3, and 4, and the bottom two that are in the box are included only in Alternative 4, and Alternative 4 is our most protective, and so this list is just a high-level summary of those that are proposed to be updated or new within the entire sanctuary, and there are two that I wanted to highlight specific for your purposes.

The first is a prohibition on fish feeding, and our current regulation is, one, we do not explicitly regulate fish feeding unless a discharge has occurred or destruction, loss, or injury to sanctuary resources has occurred. The State of Florida does prohibit fish feeding in State of Florida waters, and so our proposal is to extend and strengthen slightly the state’s regulation to prohibit fishing, and so our proposed update is to propose the feeding of fish, sharks, or other marine species from any vessel and/or while diving, and, on the bottom, I note that this proposal does not affect the current exception for discharge of fish, fish parts, chumming materials, or bait used or produced incidental to and while conducting traditional fishing activity in the sanctuary. That’s a proposed update new regulation in the sanctuary that would apply sanctuary-wide.

The second, this is only included in Alternative 4, our most protective regulation, and our current regulation prohibits harvesting or possessing any live rock within the sanctuary, except as authorized by permit for aquaculture issued by either the National Marine Fisheries Service or authorized by applicable state authority.

Live rock aquaculture does take place in the sanctuary, in both state and federal waters. In our most protective alternative, only Alternative 4, the proposed change is to require sanctuary authorization for existing and future live rock aquaculture, and what this does is allows the sanctuary a little bit more involvement in the process, and it allows us to put conditions on this activity in the sanctuary, so it is compatible with resource protections and other activities.

Just to note, this is only included in Alternative 4. In our other alternatives, we do have a management plan activity specific to this, which is really to strengthen our relationship with our National Marine Fisheries Service and state partners to work much more closely on these activities. Those are the two of the proposed update or new sanctuary-wide regulations that we thought were of interest or relevant to this body.

With that, I will move on to marine zone boundaries and
regulations. As I have noted, the sanctuary has used marine zones as a management tool since 1997. We have different types, individual types, of marine zones that provide different levels of protection and therefore allow or restrict different activities. The restoration blueprint proposes new zones to address persistent threats to resource health, protect a range of habitats, and also facilitate restoration.

Just because we do have several different marine zones and they can be confusing, to just have a summary here, sanctuary preservation areas are an existing zone type. This zone type manages activities to separate conflicting use and protect habitats. These are generally along the reef tract, smaller zones that separate conflicting activities, generally fishing, from diving and snorkeling.

The regulations prohibit discharge, fishing, touching or anchoring on coral, and so these are marine zones that are no take, and there are exceptions in this marine zone type that we are proposing to eliminate, and I will get to those, but the exceptions allow bait fishing permits in these marine zones and, in four of the nineteen, allows catch-and-release fishing by trolling, and so our proposal is to eliminate those two exceptions to provide clarity of this zone type being no take, no fishing, and separate conflicting use.

MR. HICKMAN: Thanks, Beth. We have had this discussion on the Western Dry Rocks, and I’ve got a lot of people that are concerned about that area, because it’s a huge spawning aggregation site for mutton snapper, and I reached out to NOAA Law Enforcement and wanted more of a legal reading on what they thought trolling was, what their legal interpretation was, and it was basically the boat was moving, and so there is no way to -- In the western Gulf, we like to motor fish, or bump troll, what they call it, and we may have two lines off the back, and we’ll have two or three weighted lines going down.

Under the current scenario, by still including trolling, which could be a quarter mile an hour with the motor gear in gear every once in a while, basically holding up, you don’t -- It’s really not fixing anything, as far as the fishing effort there, or what a lot of people are concerned about is this other part of the spawning aggregation of mutton snappers.

We’ve got the ones at Riley’s that are protected, and then, right over here, you’ve got this other part of the population that’s not, and I’ve seen pictures of sixty boats at a time fishing on the Western Dry Rocks when the spawning aggregation
are there, and, as we all know -- If I’ve got a duck hunting business, I don’t hunt ducks in the summertime when they are nesting in Canada. I need ducks to come back south.

It's a very important fishery, and this isn’t going to really help that spawning aggregation of fish, and so, if there is -- Have you all had discussions about having like a minimum trolling speed? I know John here was talking about that, as far as troll boats going through sanctuaries, where they set a minimum trolling speed, instead of just having this open-ended trolling thing inside this, because I don’t see this actually helping the fishery.

MS. DIEVENEY: I will get to the specific marine zones, and Western Dry Rocks is one that I haven’t highlighted specifically for your consultation purposes, but I will be talking about it, and that is something that we welcome public comment on for our range of alternatives in that area, and trolling, as you note, is one of the proposals in that area, but I will be talking about that a little bit later.

The second zone type, just to highlight, is existing zones, ecological reserves and special use areas. The proposal is to combine those two zone types to just have one called conservation areas, and these are our most protective zone type, and the regulation, the current regulation, in these areas is transit only without a valid sanctuary permit, and the proposal is to make no change to that existing regulation, but there are new areas proposed as this zone type.

Wildlife management areas, these are generally small and nearshore and protect wildlife and minimize disturbances and shallow-water habitats, and they generally -- The regulations vary depending upon the area and what the resource protection needs and goals are, but, generally, they restrict vessel activity, and so they might be no-motor, and they might be idle speed with no wake, and they might be no-anchor, and they might be no-entry. Did you have a question?

MR. PERRET: I think you clarified it. You’re saying idle with no wake, but then you say no motor.

MS. DIEVENEY: These are the regulation options that could apply in these areas, and so wildlife management areas, while we’ve tried to be consistent across the other zones of, if it’s a sanctuary preservation area, you can do this, and you cannot do this. In a conservation area, you can do this, and you cannot do this. To be clear for communicating and compliance and
enforcement, wildlife management areas, it’s a little bit more
difficult, because those are really designed and intended for
specific resource protection goals, and so we wanted to align
the regulations with those goals.

MR. PERRET: But you could be most restrictive and go with no
entry at all.

MS. DIEVENEY: We could, yes.

MS. BOSARGE: Morgan, and I should have done this before we
started the presentation, and I apologize, Miss Beth, but, the
last time that we -- I think it was actually when the Florida
Keys -- When you all presented a few years ago to us, and we
invited some grouper snapper longline fishermen from the eastern
Gulf to come to the meeting, and we reached out to those
fishermen again at this meeting, and I know we do have at least
one of them in the audience, and so I just wanted to -- Because
they are not represented very well on our Reef Fish AP and on
our other APs, and so we invited them, and it’s down in their
neck of the woods, sort of, or it’s at least a meeting in
Florida, and so they are present, and so I hope, if they have a
question, when we get to something that may be relative to their
fishery, if we have time, we’ll be able to recognize them, I
hope.

MS. DIEVENEY: This just, again, is a summary of the zone types,
their goals, and regulations. Specific marine zones within the
Gulf of Mexico Fishery Management Council jurisdiction, in the
Tortugas region, the proposal, and this is Alternative 3, which
is our preferred, the existing Tortugas Ecological Reserve
North, there would be no changes to that area, the spatial
protections, or the regulations applied.

Tortugas Ecological Reserve South, the proposal is to extend
that boundary one mile to the west, to capture additional area,
additional habitat, known to support multi-fish spawning
aggregation activity, and so that is a proposed spatial change,
one mile to the west, with the same regulations, transit only,
without a valid sanctuary permit.

A proposed new zone in the Tortugas region is that yellow zone
with the hash markings, and that is a proposed new sanctuary
preservation area. It is intended to protect fish transiting
between the Dry Tortugas National Park Research Natural Area and
Riley’s Hump to spawn. The proposal, as a sanctuary
preservation area, is that this is no take and, in addition, no
anchor. That is our preferred alternative for the Tortugas
region, which is, I believe, of interest to this council.

I am going to show you -- The next slide shows you the difference across the alternatives, and so the first panel is Alternative 1 with the existing Tortugas Ecological Reserve North and South with no boundary expansion, and the red box there, just to note, is an existing Tortugas Bank no-anchor zone, and it's no anchor for vessels over fifty meters.

Alternative 2 and 3 is what I just walked through on the previous slide, and the only change in Alternative 4 is that Tortugas corridor then becomes the most protective, transit only. This is the proposal for public comment in the Tortugas region.

CHAIRMAN KILGOUR: I am trying to remember in my own head, but that dark green is the state portion of -- There's like a light green in Alternatives 2 and 3, and then the dark --

MS. DIEVENEY: Like the oblong shape, that is Dry Tortugas National Park.

CHAIRMAN KILGOUR: National park, and the state boundary is the white-dotted line?

MS. DIEVENEY: Yes.

CHAIRMAN KILGOUR: Okay. I just wanted to make sure that I had it all in my head right.

MS. DIEVENEY: Yes. We included this, and, looking closer at the Gulf Council jurisdiction map, I don't believe this is within your jurisdiction, but I just wanted to include this, and so this is a proposed new zone in the Marquesas region, and you see, in Alternative 1, there is no marine zone to the west of the Marquesas Islands.

In Alternatives 2 and 3, that is a large square, approximately I think ten square miles, as idle speed with no wake, and so a wildlife management area, idle speed no wake, to protect an area known to be internationally important sea turtle foraging habitat. In our most protective, it would be transit only, idle speed no wake, and so the intent of this marine zone is to protect seagrass habitats known to support sea turtle foraging.

MS. BOSARGE: Sorry, but I’m going to have to ask the question. Can you go back one slide? This is why I was asking about sanctuary-wide regulations, because this gets really confusing
when you look at this. Can you dumb it down to shrimping for me? Let’s just focus on one thing. Alternative 1, versus 2, 3, and 4, where can we shrimp and where can we not?

**MS. DIEVENEY:** The activity for fishing is restricted in the Dry Tortugas National Park, and Tortugas North Ecological Reserve and Tortugas South Ecological Reserve and the Tortugas corridor. The existing ecological reserves, expanding Tortugas South one mile to the west would be new area restricted, proposed to be restricted, and then the Tortugas corridor would be proposed as a no-take area.

**AP MEMBER:** You’re going to have to get a pointer.

**MS. DIEVENEY:** I have one, but it’s not on all the --

**DR. MENDEZ-FERRER:** I don’t know if this is a discussion that we should have now or after Beth is done with her presentation, but council staff have made some kind of maps with -- We overlaid these polygons with the shrimping efforts and with a little table at the bottom that we can have a discussion of like where can we fish and which areas are transit only, and so we can decide if we want to kind of take a quick look at those later and let her finish her presentation and then have that discussion later on.

**CHAIRMAN KILGOUR:** In light of that, should we let Beth finish the presentation, and then I see lunch is here, and we can take a lunch break and then have this discussion with the fishing -- Do you have the fishing information also overlaid on those polygons?

**DR. MENDEZ-FERRER:** Yes.

**CHAIRMAN KILGOUR:** Okay. Let’s let you keep going.

**MS. DIEVENEY:** Those are what staff pulled out as the elements of interest within the jurisdiction of the Gulf of Mexico Fishery Management Council for consultation. I just wanted to put this up. We are here today meeting with you guys, and we’ll be back on October 2 to meet with the Reef Fish AP. As Carrie noted, we will be presenting on October 21 at the Full Council meeting, and we are also doing a similar session with the South Atlantic Fishery Management Council.

Also, I have on here that we’ll be doing briefings and discussions with the Florida Fish and Wildlife Conservation Commission. Public comment opened through January 31, and we
did that extended public comment both for the community in the Florida Keys, but also because that allows us to have public comment open past two meetings with the council.

Now I am going to go through the rest of the plan and the proposals in the rest of the plan, just so you have that larger context.

As I noted, there is a management plan component in all of the alternatives. This is the same proposed management plan in all of the alternatives, and so there is no difference across the alternatives in the management plan, and I just highlight here high-level goals for the management plan. Within each of these, there are a series of objectives and activities.

Some of the activities are working with our National Marine Fisheries Service colleagues to take action to protect ESA-listed coral species, to develop a coral restoration plan, to enhance our enforcement capacity and relationships with our enforcement partners, increasing our team ocean, which is our on-the-water interpretation, working with boaters to educate them of the regulations and provide them information.

Our Blue Star dive snorkel operators and fishing guides, this is a program that’s been in place for some time to enhance our stewardship ethic with local operators and how they educate and work with their clients, and so lots of activities in the management plan elements that we hope we get public comment on for what is good and what to strengthen additional activities.

Sanctuary boundary, I have pretty much walked through this. This is Alternative 2 and 3, which is our preferred, which is to extend to that regulatory boundary of the area to be avoided and to encompass the Tortugas region.

Alternative 4, the only difference there is the proposal to include Pulley Ridge as a distinct unit and sanctuary-wide regulations would apply, and I failed to note this earlier, but the only additional regulation that we have in the proposal is no anchoring of all vessels, to protect the benthic habitat there.

Sanctuary-wide regulations, again, these apply throughout the sanctuary, and the first one is limit discharge from cruise ships and sanctuaries, and we have an existing exemption that allows cruise ships to discharge certain materials, and the proposal is to eliminate that, that they would not be able to discharge within the sanctuary waters.
Increasing the number of days allowed for an emergency regulation, this is an existing sanctuary-wide regulation that we can implement an emergency regulation for sixty days with one sixty-day extension. We have used this on two separate occasions, for a coral disease event and for a coral restoration activity, and the proposal is to extend that to 180 days, with one 180-day extension, to give a little bit more flexibility and response time for the agency and partners.

**MS. KRUEGER:** Could you go back one slide? The Pulley Ridge area, just to clarify, that’s already a habitat area of particular concern through the Gulf Council, and the only change would be that this would prohibit anchoring by like freighters and things like that?

**MS. DIEVENEY:** Yes.

**MS. KRUEGER:** Okay.

**MS. DIEVENEY:** Specific to our maritime cultural resources, the proposal that we permit activities to survey and inventory research and transfer maritime cultural resources. The proposal here is really just to align our regulations with how our state partners regulate historical resource permitting, and so there would be one permit category for archeological research across all waters of the sanctuary, state, and federal.

A proposed new regulation gives sanctuary the ability to address impact from derelict or deserted vessels. Currently, the only way we can regulate this is through if a discharge has occurred or if impact to sanctuary resources, and so just giving us a little bit more authority to address this threat and impact to sanctuary resources.

Prohibit fish feeding, I have already noted, and mooring buoy restrictions, and so we provide mooring buoys throughout the sanctuary, both in areas that are closed to fishing and areas open to fishing, and our proposal here is to provide large vessel mooring buoys. There are several large vessels that operate in the Florida Keys and transit through the Florida Keys, and trying to protect both the hardware of these mooring buoys as well as the benthic habitat, where that hardware is implemented, creating large vessel mooring buoys that those large vessels would have to use.

I noted already Alternative 4, requiring Florida Keys National Marine Sanctuary authorization for live rock aquaculture, and,
finally, a proposed update to an existing sanctuary-wide regulation that prohibits -- It limits boat speed within 100 yards of residential shorelines to idle speed no wake, and the proposal is expand this to all shorelines and make it slow speed, which aligns the regulations with a state regulation.

Marine zone boundaries, I have already given you the background on the marine zones that we have in the sanctuary, and I am just going to highlight some of the preferred alternative of each of the marine zone types.

Sanctuary preservation area, it’s an existing marine zone type, and it manages uses and separates conflicting uses, and we also provide mooring buoys in these zones, to provide additional protections for the benthic habitat. Existing regulations are prohibit discharge, fishing, touching or anchoring on coral.

The existing regulations are on the left side, and the proposals, which I have already touched on, is to eliminate the two exceptions, eliminate the bait fishing exception. In sanctuary preservation areas, we issue permits to allow bait fish collection in these areas, and, in four of these areas, we allow catch and release trolling fishing, and so the proposal is to eliminate those exceptions and to have consistent regulations in all of these marine zones. The proposal is also to add idle speed no wake, as well as no anchor, to provide additional protections for the benthic habitat.

Starting in the Upper Keys, Turtle Rocks is a new proposed area. It’s proposed to protect patch reef habitats in the Upper Keys, which are not well represented in our current marine zoning scheme.

Carysfort is an existing sanctuary preservation area, and the proposal extends that to offshore slightly, to the ninety-foot contour, to protect additional deep-reef habitat that is not well represented in our current marine zoning scheme. In our preferred alternative, Carysfort is also included, and you note it’s in purple. It’s included as a proposed limited entry area for commercial operators, and they would have to be Blue Star operators. Blue Star operators are those that have voluntarily taken courses and are committed to educating their public, their clients, about the resources and better reef etiquette when in the water.

The other areas to highlight in this area are Key Largo Dry Rocks, Grecian Rocks, and North Rocks. There are two existing sanctuary preservation areas in that area, and the proposal is
to connect those and expand it slightly to protect additional reef habitat and ESA-listed reef species.

Pickles Reef there is an inset, and that’s a proposed new marine zone, and it’s proposed to facilitate coral ecosystem restoration, and that’s an existing coral nursery habitat area, and so facilitating coral restoration through protection of this area.

In the Middle Keys, the proposals include a new proposed zone, Long Key-Tennessee Reef, and that is a proposal for a new area from Long Key State Park to the deep reef. One of the Sanctuary Advisory Council goals was to protect large, contiguous habitats in each region of the Florida Keys, and this marine zone is proposed to meet that goal.

Turtle Shoals is another new marine zone in the Middle Keys proposed to protect patch reef habitats, again an under-represented habitat type in the current marine zoning scheme. The other two insets there are new marine zones, small other areas that are existing coral nursery sites proposed to facilitate coral restoration.

In the Lower Keys, only minor changes to existing marine zones. Looe Key is proposed to be expanded to protect additional habitat in this zone type, and Western Sambo, an existing marine zone, is proposed to be extended to the deep reef ninety-foot contour, to protect deep reef and area known to support part of the lobster life cycle.

In the Marquesas region, only a minor change here to the existing marine zones. Sand Key Sanctuary Preservation Area is another area proposed as that limited-use area for commercial operators, and, to the west, Key West Coral Demonstration Project, that’s another coral nursery habitat site proposed to be protected to facilitate restoration, and we have already talked about the Tortugas region.

This is just a summary for your reference as you look at this whole plan. It shows, for this zone type, across the alternatives, the total number of sanctuary preservation areas, total square miles, and the regulations existing and the proposed changes.

The next zone type is conservation areas, and, as I noted, this is the most protective type. It takes two existing zones, ecological reserves and special use areas, and it makes them one conservation area. They are the most protective, transit only
without a valid sanctuary permit.

There are many fewer of these marine zones in our preferred alternative. Existing, that exist currently, are Conch Reef, Tennessee Reef, Looe Key, and Eastern Sambo. The only proposed change there is that Tennessee Reef is proposed to be extended, to capture a little bit of deep-reef habitat to protect habitat that is under-represented in our current marine zoning scheme.

Tortugas North, there is no change from existing. Tortugas South, that proposed one-mile westward extension, and then, in the Backcountry, Channel Key and Red Bay Bank, and those are proposed new conservation areas, and those areas have a combination of hard bottom, seagrass, bank reef habitats, and that’s a habitat type that is not currently protected through our marine zoning scheme, and these are areas that have had a lot of monitoring activity as well as restoration activity, and so including these relatively small areas as conservation areas, transit only without a valid permit, and so that’s the conservation area zone type in our preferred alternative.

This is a summary across, again, of total zones across each of the alternatives. Alternative 4 is our most protective, and we do include more areas as this most protective zone type, and the regulations applied do not change across the alternatives.

Wildlife management areas, as I noted, are generally small, nearshore, shallow water. They protect wildlife and the habitats that they need. The regulations are distinct to each zone for those, the purpose and goals of that zone, but the list there is what could be applied, and here is just one example of a wildlife management area in 1998, and this was prior to establishment, and, in 2014, after this area had been managed as a no-motor zone for that time, just to show how this zone type is intended to be used, and it could facilitate habitat restoration, and so this is an existing, Tavernier Key, no-motor zone.

In the Middle Keys, the proposed marine zones in Alternative 3 -- I will draw your attention to Alligator Reef. This is a proposed new wildlife management area, and it actually overlaps with an existing fishery management plan no-lobster-trap area, and the working group really looked at all of those fishery management plan no-lobster-trap areas and identified this as the largest area. They proposed this as no anchoring, and so to provide additional habitat protections for the coral species that are present there.
1 The other areas in the Backcountry, Moser Channel and Gulfside
2 Banks, those were discussed at length with the community working
3 group, and there are heavy impacts by vessels, and these are
4 shallow areas near the intercoastal waterway, and how can we
5 protect the habitats there, and the proposal is idle speed no
6 wake.
7
8 In the Marquesas region, the Marquesas turtle zone, we’ve
9 already talked about, and idle speed no wake in our preferred
10 alternative, and then, in the Boca Grande & Woman Key area,
11 minor expansions to existing marine zones, and these are areas
12 known to support turtle nesting and other bird habitat, and so
13 minor changes to those existing zones, and also some no-anchor
14 areas proposed in that area.
15
16 Western Dry Rocks is the area that Scott noted earlier, and this
17 is a proposed new zone, and it’s within state waters. It is a
18 known multi-fish spawning aggregation, and the proposal in our
19 preferred is to create a zone there and make it trolling only,
20 intending to protect the habitats and the fish spawning
21 activity.
22
23 This is a summary across this zone type. This is the largest
24 number of marine zones in our existing plan and in the
25 alternatives, is this zone type, and the regulations that apply,
26 or could be applied, in these areas are highlighted there at the
27 bottom.
28
29 The final marine zone type, just to highlight, is we have marine
30 zones that are called existing management areas, and these are
31 zones that were already in place when the sanctuary was
32 designated in 1990, and so this is Key Largo -- It was Key Largo
33 National Marine Sanctuary and Looe Key National Marine
34 Sanctuary, and those were encompassed into the Florida Keys
35 National Marine Sanctuary as the Key Largo and Looe Key existing
36 management areas, and, as well, the four National Wildlife
37 Refuges that overlap with our jurisdiction.
38
39 The proposal for Looe Key is the area in Looe Key has three
40 different zone types in its existing management. The large box
41 around is the existing management area, and the yellow box is
42 sanctuary preservation area, and the green is a special use
43 research-only area, and so there is a myriad of different
44 regulations that apply in this area, and our attempt to try and
45 simplify -- Provide additional protections and simplify this
46 area and the regulations applied, and you see Alternative 2 and
47 3. The entire area is proposed as no-anchor, and we extend the
48 Looe Key Sanctuary Preservation Area, and, in Alternative 4, we
have a three-panel existing management area, sanctuary preservation area, and conservation area. Across that three-panel, the regulations become more protective.

This is Key Largo management area, and there is no spatial change being proposed in this area. The only proposed change is to make this area no anchor, to provide additional protections for the habitat. This is the summary table across this zone type, and included in here is the National Wildlife Refuge and regulations that apply there.

I just wanted to highlight a few marine zones, highlight across the alternatives, just to show how the differences across Alternative 1, no action, to Alternative 4, the most protective, show up in the document.

In the Upper Keys, Carysfort is an existing sanctuary preservation area. In Alternative 2, it extends to protect deep-reef habitat. In Alternative 3, it’s proposed as a limited-entry area for commercial operators, to be Blue Star only, and, in Alternative 4, this is proposed as one of those large, contiguous habitat areas that the advisory council requested we analyze in each of the regions. In all of these, it maintains sanctuary preservation area, separating conflicting uses, and it is a no-take area.

This is the Long Key-Tennessee Reef area in the Middle Keys, and so, existing, there is Tennessee Reef Special Use Area, and it’s a research-only area. In Alternative 2, that area is a proposed conservation area, extending to protect deep-reef habitat, and so just a small extension to the ninety-foot contour. In Alternative 3, it is proposed to be expanded from the shoreline at the state park to the deep reef, as a sanctuary preservation area, and, in Alternative 4, the most protective, the conservation area, transit only.

Revisiting Tortugas, we’ve already touched on this a few times, but this is just showing how the protection changes, or is proposed to change, across the alternatives.

Western Dry Rocks, again, we have talked about this, the proposed. In current, the no action, there is no marine zone there. In Alternatives 2 and 3, it’s proposed as a wildlife management area to protect the species that occur there and the habitats there, trolling only, and, in Alternative 4, a conservation area, and so transit only in that area.

We have already talked about the Marquesas, and then, just
lastly, in the proposals, we do use anchoring as a management tool to provide additional habitat protection, and so, in the proposals, all of the sanctuary preservation areas, existing and proposed new, include a proposed no-anchor restriction, to provide additional protections to habitat. We do provide mooring buoys in these areas for access.

In the existing management areas, Looe Key and Key Largo, those are also proposed as no-anchor areas, and I highlight the Tortugas no-anchor zone, and that does not change, and, in Pulley Ridge, Alternative 4, if that were to be included, the proposal is that that area be no anchor.

CHAIRMAN KILGOUR: I want to highlight one thing, since we hit Pulley Ridge one more time. There is an exemption for bottom longliners in the expansion of Pulley Ridge, and so I just want to make that clear, that adding this as a sanctuary would remove that exemption, is my understanding, and is that correct?

MS. DIEVENEY: No. Do you want to touch on that, Steve?

MR. STEVE WERNDLI: The regulation proposed in that area would be our sanctuary-wide general regulations, which would not prohibit longlining. The prohibition that may impact them would be the no anchoring, and so, if they need to anchor while they were out there, there would not be able to anchor.

MS. DIEVENEY: We have existing sanctuary-wide regulations that allow traditional fishing activity. Just a real quick summary, no action, our existing sanctuary boundary, in red. That’s overlaid with all of the marine zones that exist, and so that’s why it looks a little bit busy, including the area to be avoided, which is in black, and the sanctuary-wide regulations would remain the same as they were implemented in 1997, and there are a total of fifty-seven marine zones currently, and the management plan that was updated in 2007 would apply and would not change.

Alternative 2 is a step up from that, really looking at how we can manage this area and also what regulations apply to target reducing conflicting and concentrated uses. The sanctuary boundary has a proposed expansion to 4,541 square miles, the area to be avoided, Tortugas, sanctuary-wide regulations. The proposal is to update three existing sanctuary-wide and proposes four new marine zones, for a total of ninety-six proposed, and there would be a revised management plan.

Alternative 3, which is our preferred, has the same proposed
sanctuary boundary expansion as in Alternative 2, and the same
proposed sanctuary-wide regulations as in Alternative 2, and the
total marine zones are ninety-eight, and the same revised
management plan.

Alternative 4, really the intent here is to move towards the
advisory council’s goal of protecting large, contiguous
habitats, and you see that I have circled them in white in the
Upper Keys, Middle Keys, Lower Keys, and then in the Tortugas
region. We do update five existing sanctuary-wide regulations,
proposed four new total marine zones, ninety-eight, and a
revised management plan.

This is just a high-level summary of the preferred. This is
where you can access the document, floridakeys.noaa.gov/blueprint, and, on that page, you can find
static maps of every single marine zone that is proposed, either
modified or new, and there is a static map that shows the
differences between no action and the three action alternatives,
and then there is also an interactive map tool on that page that
you can go in and actually turn on and off and zoom in and out
for areas that you are most interested in looking at.

Finally, we are going to, as part of our public comment period,
in addition to all the consultation we’re doing with the various
agencies, we are hosting several public information sessions in
the Florida Keys, Lower Keys, Middle Keys, Upper Keys, and then
in Miami and Coral Gables and Fort Myers. We will do
information sessions as well at those two meetings, and we will
take oral public comment, and then, at our upcoming Sanctuary
Advisory Council meetings, October 15 in Key West and December
10 in Key Largo, we will be engaging our advisory council in
discussion, but also allow sufficient time, hopefully sufficient
time, for public comment, for oral public comment.

At any of these sessions, we’ll be taking written public
comment, but oral public comment really focused at our advisory
council meetings, so our advisory council members can hear from
the public as well, and, just in case you have constituents,
friends, or colleagues down there, those meetings will be
shifted from 1:00 to 9:00, so that we can accommodate people
during the day and after the workday, and I think that’s it.

CHAIRMAN KILGOUR: Thank you, Beth. I have a running list of
questions, as I’m sure most of us do, and so why don’t we take
until 12:30 to go grab some lunch and come back, and we’ll just
work through lunch, and that way you can take a bit of a
breather before you’re in the hot seat again. Does that work
DR. MENDEZ-FERRER: In case you want to take a look at the maps overlaying some of these polygons with the shrimping effort, you can go onto our website, and, on our meeting page, there is a link under Agenda Item VIII(a), and it says “shrimping effort in the lower Florida Keys region”. You can open that, and you will see four maps, which is each one of the alternatives, showing the shrimping efforts in the area, and we can go over that during the discussion.

(Whereupon, the meeting recessed for lunch on September 16, 2019.)

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September 16, 2019

MONDAY AFTERNOON SESSION

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The Joint Special Coral Scientific and Statistical Committee and Coral and Shrimp Advisory Panels of the Gulf of Mexico Fishery Management Council reconvened at the Gulf Council Office on Monday afternoon, September 16, 2019, and was called to order by Chairman Morgan Kilgour.

CHAIRMAN KILGOUR: Before lunch, I know there were questions, but I don’t have a running list of who is first, and so -- Natasha wanted to go over something really quickly.

DR. MENDEZ-FERRER: In a moment, I will be showing you the overlay of the maps with the shrimping effort, and I kind of wanted to go over them with you, to kind of explain what we did, and maybe we can use them to better guide the discussions and see which areas will be closed for shrimping and what’s going on and so on.

CHAIRMAN KILGOUR: Do you think we should do that before we ask questions?

DR. MENDEZ-FERRER: Yes.

CHAIRMAN KILGOUR: Okay. Camilla, do you think you could --

MR. PERRET: Can we ask questions?
CHAIRMAN KILGOUR: Sure. In the meantime, go ahead.

MR. PERRET: Beth, are you guys ready for a few questions or comments? I am reading your executive summary, and I quote, the south Florida ecosystem has been extensively altered through development of drainage canals completed to facilitate coastal development, agriculture, flood control, on and on and on and on.

In one of the earlier slides, you showed the things that have impacted Florida, south Florida, from 2011 on, bleach and red tide and all these good things, bad things, I guess, and, as brief as you can be, how will expanding the area with Preferred Alternative 3 to some 4,541 square miles, improve what I see as the degradation that’s been taking place due to development, et cetera, et cetera, et cetera.

MS. DIEVENEY: I will start and let my colleague respond for anything that I miss or mischaracterize, but those activities are included in our proposed updated management plan, and so a lot of those, what you’re referring to, the water quality issues out of south Florida, impacts from the partnership with the South Florida Ecosystem Restoration Task Force, a lot of those are outside of our existing authority or jurisdiction, and so, in the management plan, there are activities to strengthen and facilitate that partnership and bring our issues more to the fore with South Florida Ecosystem Restoration Task Force, strengthen -- We have an existing water quality protection program that was established as part of the Florida Keys National Marine Sanctuary Protection Act, and it’s administered by Florida DEP and U.S. EPA, and so strengthening how that body works and what they do, and so those activities are identified in our management plan actions.

MR. PERRET: By making the area larger, you’re just going to have a -- Let’s face it. People are moving to Florida. That slide you showed with all the boats, it’s going to get worse. Probably one of the biggest industries in Florida is development. I fly into south Florida, different parts of Florida, and we had a President, years ago, that we’re going to have no more loss of wetlands or something, and I see it still happening every day, any time I get in an airplane all over the country.

We’ve got to face it. We’re going to have people that want to live on the water, and I live on the water, and I’m part of the problem, and, granted, we want to do what we can to maintain as
best what we have.

Like, in Louisiana, there is major plans for plumbing changes, diversions, and that’s going to, in some cases, impact fisheries tremendously, but yet the powers-to-be seems to think that’s the thing to do to save coastal Louisiana, just like your proposal for this with south Florida, but it just seems to me that, unless you address the real issue, making an area larger is not going to solve your problem, but thank you.

MR. WERNDLI: To add on to what Beth was saying, part of the intent with the zoning and the expansion is to increase protections of those habitats in those areas, so that they can become more resilient, so that we can focus on protecting areas where we’re working on restoration of coral reefs and seagrass areas, so that we can offer protection to the small part of the gigantic ocean that we actually have jurisdictional control over and that we can actually make an impact to in helping make those resources more resilient to the things that we don’t necessarily have control over, like the water quality problems and things that are outside of the jurisdiction that impact inside.

CHAIRMAN KILGOUR: Just to note that Natasha did want to go through the four different alternatives with the shrimping effort overlaid on the background, and so, once we get through Paul and Scott, then I’m going to have her go through those four alternatives, and then we can return.

MR. SAMMARCO: I had four points or questions or comments or whatever they are that I wanted to go through with you. You have named multiple stressors that you have on those reefs there, and they are formidable, and you’re addressing them in your management plan, which is great. There is one that the data have come in over the years, and I would say over the past twenty years, on and off, and I was just wondering whether the sanctuary has the authority to address them, and that’s subterranean nutrient enrichment on the reefs, through well injection of sewage.

It’s been brought up by several investigators that a lot of the sewage nutrients are going down through the Pleistocene reef under the lagoon and coming out on the reefs, which is not too good for the animals and plants. Well, the plants probably love it, but not for the animals. Do you know what -- I see sewage plants being built, and I think there’s less of it now, but how is that figuring into your plan, or can you address it?

MS. DIEVENEY: Again, similar to the previous question, this is
within the Florida Keys, and so the Water Quality Protection Program, as I noted, was established as part of the act that established the sanctuary, and that’s one of the main elements that that committee had worked on since its inception, was sewering the Florida Keys and looking at the canal water quality and addressing that, and I do know, and Shelley actually, I think, sits on that Water Quality Protection Program, and so I don’t track it in the details, but I do know that those issues of deep and shallow well injections have come up before that committee, and, as I noted, our management plan activities have -- Identifying the Water Quality Protection Program as a partner moving forward, and they are a partner, and strengthening that, and strengthening how that council works, going forward, and so not explicitly, but, yes, through that avenue.

MR. SAMMARCO: That’s very encouraging to know. One of the other things was you were talking about Pulley Ridge on and off, and I think that -- Pulley Ridge always seems to be a poor sister in the program, for some reason or other, and in sort of your program, and I think every program, but John Reed and our esteemed Sandra Brooke has done a lot of work and have a heap of data on this, and I think they’ve shown it’s a pretty rich area as well. Is there some reason or other that it hasn’t been included in your main group, or it has tended to be just put in Alternative 4, but it has not been included in your main group?

MS. DIEVENEY: The decision there is really in light of the protections that are proposed through Gulf of Mexico Fishery Management Council. It’s an existing habitat area of particular concern, and the proposal to expand that already exists, and so, in our most protective alternative, that’s where we propose to include additional protections in that area, and so it is included in the suite of proposals, but it is in only Alternative 4, the most protective.

MR. SAMMARCO: The only other thing I wanted to do is commend you on your recommendation for sanctuary expansion. Good luck.

MS. DIEVENEY: Thank you.

MR. HICKMAN: Thanks, Beth. In fact, going through the DEIS briefly over the last week or so, and then getting to hear the presentation, it really clarifies a lot of things, and you did a good job with that. Knowing that, basically, this whole region that is going through this expansion’s business is that of a healthy marine ecosystem, and you can go back to somebody like Corky that was back around when they put salt in the water, and you can now look at this and realize that it probably even come
close to doing enough with this expansion and the challenges that you face.

In 1997, my wife and I took the kids to Looe Key National Marine Sanctuary, and we were just blown away by the beauty of the place and the amount of marine life, and we had a Gulf Council meeting in Key West a couple of years ago, and I stayed in the bars most of the time, and the council meeting, and my wife took the kids down to Looe Key, and she came back in tears with the state of what has become with that reef and the lack of marine life and everything else, and so things are happening fast, going bad fast, and that is your eco-engine, your environmental and economic engine there, and it needs to be taken care of, and I don’t think you all have gone far enough.

If you could squeeze more in there, it would probably be good, because I hate to say that this actually looks like a band-aid right now with how the water quality issues, issues like SCTLD coral disease and some of the other things that are going on, but good job, and the presentation was very good, and I appreciate it.

MS. DIEVENEY: Thank you.

CHAIRMAN KILGOUR: Okay. Let’s turn it over to Natasha, so she can walk us through this with some fishing effort on the background, and then we’ll do some more questions.

DR. MENDEZ-FERRER: If you have seen the documents that I emailed you during the lunchbreak, which can also be downloaded from our council website, the document has four pages, and each one has its own map for each one of the alternatives, Alternatives 1 through 4, that Beth just went through.

In this, the thing that’s consistent at least in all four maps is that the green, like the lime green color that we will see in the map, is the Gulf Council jurisdiction, and the dashed-gray lines, that’s the state-water boundaries, and, if I can scroll down here, this has been summarized in a little table under each one of the maps.

If you look at this blotch that is right here, these are the shrimp data, and these are data that were aggregated based on the ELBs. To kind of give you an idea of the data, the darker colors suggest that those are areas that are seeing more active shrimping, and so more shrimping is going on in these really dark brown areas, versus suggested lower shrimping in the areas that are kind of like the lighter yellow.
In this first map, as you can see, the blue line around here, that is the current sanctuary boundary, and the green ones in Alternative 1 -- These are ecological reserves for the Tortugas, and, like Beth mentioned earlier, these would be now called conservation areas for Alternatives 2, 3, and 4.

Each one of these polygons has its own little regulations, which have been summarized in a small table under the map, and I do have to mention that Map Number 4, which I will scroll to, there is an error on the fishing regulations for the Pulley Ridge area.

In this map, we separated the polygons. If you remember from the presentation, this was all a gray area, and so the salmon color right here is the Pulley Ridge HAPC, which already has some fishing regulations, and, basically, the summary is no bottom-tending gear. Then, for Coral 9, which would be this little square over here, what we would need to change, and this will be modified for the next council meeting and the next Reef Fish AP discussions, is that longline is allowed, if I’m correct. Okay. Bottom longline is allowed.

Hopefully these maps can help you kind of see where shrimping is happening and how this changes with each one of the alternatives and it can help guide the discussions this afternoon.

These shrimp data are from 2004 to 2013, and they are the same data that were used when creating the Coral 9 polygon, and we plan on updating these maps to aggregate all the data from 2004 to 2017, and those can be presented at a later time.

I also have an open ArcMap, if we wanted to, later on, do some on and off with the polygons, and so however we think this discussion will be more fruitful for you, and let me know, and we can figure it out with the available technology.

CHAIRMAN KILGOUR: Okay. I just have one comment on these maps. For me, it would be really, really helpful to have a static boundary of existing areas in the Florida Keys National Marine Sanctuary and then a different boundary for the new areas, because, right now, there is so much going on, and especially with like the south Tortugas area. You don’t see that it’s actually being pushed out by about a mile in this map, and that’s something that I think would be really relevant for people, seeing what the differences are, and so that would be one comment.
Then another comment is the shrimp fishing effort, if I recall, and I might be wrong on this, but, if you were to decrease the scale just a little bit, you will filter out -- One to fifty-one isn’t very informative to me, because, if there’s fifty-one points in a particular spot, that means there is shrimping there, but if you make it just the first box a little bit smaller, like one to ten, then that’s generally an indication that they’re not shrimping there, and so that would be my -- That’s me giving some suggestions, just based on the fact that I look at this and I can’t really tell what’s new, because I don’t know what is existing and the differences there, and so now I’m done, and I’m off my soapbox, and does anybody -- Leann, did you have your hand up?

MS. BOSARGE: Thanks, and I was going to highlight a couple of those things, and you can just stop on whatever map you want to stop on. Where is the rest of the shrimp effort? I already know the answer to this, but there’s people on the webinar that haven’t had this conversation yet, and people in the room that haven’t, and so that’s only part of our shrimp effort, and so that’s question number one, is where is the shrimp effort, the rest of it? It pertains to what we’re talking about, which is the sanctuary expansion, because that’s not the only place that we shrimp around the sanctuary.

Then number two, and this has always puzzled me, and I think I’m getting closer to understanding it, but, even if you say one to ten and make some of those boxes a different color, that does not jive with what we have just on our handful of boats on our historical trawl data, and so it always has frustrated me that we put these numbers, and we say that’s not heavily shrimped and this is heavily shrimped, because we don’t have a census of the entire fleet with these ELBs on them.

We only have a small subset, maybe a third of the fleet. Of that small subset, some of those boats may be boats from Texas that never go to the Keys to shrimp, right? You don’t know how many -- I call this the pink shrimp fishery. You don’t know how many boats you have, and we’re from Mississippi, and so you don’t have to be from Florida to shrimp in this fishery.

You have a lot of Alabama and Mississippi boats that travel there every year and shrimp, and we have no idea how to actually extrapolate that and say what’s heavily fished and what’s not, because you don’t know how many pink shrimp boats you actually have this recorder on. If you’ve got it on one or two, then this is not an accurate representation, to say, oh, there was only one to fifty-one tows.
The other thing is, even if it’s on one or two, I cannot figure why it looks that way, why it’s not shown as more heavily fished, because, when we brought our tracks, and you can pull it up, and you can see that same area, and you can see where we’ve been over it a million times, and so why is it only showing that? What does that point represent? Is it the entire tow or just one ping or all the pings throughout the tow, so you can see the whole track? What do those points represent?

I know I am putting Natasha on the spot with that, and so I know that we also have Dr. Benny Gallaway in the audience, and so whoever wants to answer it, whoever you think would be best.

CHAIRMAN KILGOUR: I will take a first stab at it, since I do know that this information is supposed to represent every ten minutes of a tow, of an active fishing tow. It’s come to my understanding that we got — I requested new data before I left here, and it didn’t jive with the numbers here, and so this is the summation of the twenty-two-million points in the entire Gulf of Mexico, which, to me, sounds about right, maybe.

When we got the new data though, it went down by at least a factor of ten, and I couldn’t figure it out, and so it’s my understanding that perhaps the new information, which is, I’m guessing, why you didn’t include it here, is the first point of every tow and not the entire tow, and so that means that this probably needs to be re-investigated, to make sure that this is every ten minutes of an active tow, but it was my understanding, when I got this data, because it had gone through the algorithm of active fishing, that this should represent actual fishing points of the — So the entire tow.

MS. BOSARGE: So another way — If you get all the points, that will address part of it, but it still won’t address the fact that nothing is extrapolated to the entire fleet, and it would be my suggestion that, as we continue to look at these, it should just be shrimp effort in general, and I don’t know that you need to say this is heavily shrimped or not heavily shrimped, because I really don’t think there’s been an extrapolation done to truly give us that answer.

MR. HICKMAN: I would like to hear from Dr. Gallaway. I mean, how do they choose which boats get the ELBs, and some don’t, and is there a percentage of people that do the pink shrimping versus — I would just like to hear Benny’s idea on that, all of this that’s going down.
DR. GALLAWAY: The way vessels are selected is the landings are stratified by port, and then they’re stratified random within -- The stratification being the landings by port, and so the largest ports that have the largest landings will have a higher proportion of the fleet, and so it’s not directed at answering a specific question for a generalized area. It’s made for extrapolating overall, based on what I just defined, and so that’s how they’re selected, stratified random, based on landings.

Then, within port, it’s landings within ports is how the vessels get picked, and so you want a proportion of the shrimpers that have high landings down to proportional to ones that have few landings. It would be very good for extrapolating total effort, which is what the program was designed to do. It’s for evaluating shrimping intensity in a given area, and you need to take the data that you have for that area and do all the points, the way Morgan did originally.

AP MEMBER: Benny, one question. The boats that come down from North Carolina and South Carolina and Georgia to fish the Keys, any ELBs on those?

DR. GALLAWAY: No. It’s a Gulf of Mexico program, and a lot of our Gulf -- Well, a lot of our Gulf, but some of our Gulf fishermen, some of our boats, fish this area, as you guys do, and I don’t know whether you all have an ELB or not.

AP MEMBER: We do.

DR. GALLAWAY: Then other vessels fish up the east coast, but we don’t have a reciprocal program in the east coast, where they come down here.

AP MEMBER: So that effort would be missing.

DR. GALLAWAY: That effort would be missing. That is correct.

CHAIRMAN KILGOUR: As a follow-up, those shrimping vessels that are in the South Atlantic, do they have VMS on them?

DR. GALLAWAY: I don’t know.

CHAIRMAN KILGOUR: This data has been cut so that only Gulf of Mexico -- If they have an ELB, the data, I’m sure we have, but we just -- Because it was so large, I cut it to just the Gulf of Mexico jurisdiction, but we have that data, I’m sure, that can go -- But, as Benny just said, that’s in the South Atlantic’s
jurisdiction, and so it would only be Gulf vessels that went that way, and it wouldn’t include anything coming down from the South Atlantic side that never entered the Gulf. Harris.

MR. LASSEIGNE: Could you define the ELB or also transponders, and, also, how many transponders are electronic equipment is used in this compared to the number of licensed vessels in the Gulf? Could you make a comparison? Would that give you an idea of how many are involved and how many are left out?

DR. GALLAWAY: I don’t know if I really understand the question, but I will speak to it. These data were based on what we call an electronic logbook, which had a memory chip, which a device was placed on the vessel, and it recorded the position. It had a GPS, and it recorded its position every ten minutes.

The program after -- I think 2013 may have been a transition year, when some of the -- When both units were going. When NMFS took over the program, they elected to do what’s called a CELB, a cellular ELB, where you didn’t have to have port agents, where the device, when it went by a tower, could download its information, which is great. It saves a lot of money on port agents, but then you have multiple downloads in a single trip, and so it takes a lot more effort to reconcile that you’re not getting duplicate records and that sort of thing.

That proportion that are operating with the new ELBs is still, fractionally, fairly large, and I think it’s 30 to 40 percent of the fleet. It used to be, and I assume it still is. What proportion -- Those data were all electronic logbooks, as I have defined. The new data include a mixture of both, and, in recent years, it’s all the cellular electronic logbooks, which actually still have a memory chip, and so, if you wanted to compare one-to-one, you can go get the memory chips and compare it to the downloads, but anyway. I’m always fishing for new work.

AP MEMBER: 40 to 50 percent of the fleet?

DR. GALLAWAY: 30 to 40 percent of the Gulf fleet. It’s based on vessels representing 30 to 40 percent of the fleet stratified by the highest landing ports, which may or may not have fished this area. Some do and some don’t, and I would have to look. You would have to have confidential information to be able to sort who was who.

MR. HICKMAN: The only thing I know about shrimping is just from what I watch at the boat dock or what Benny Gallaway has told me when we’ve been fishing, and so this kind of makes sense, but,
in the Florida Keys, you’ve got -- The guys fish on both sides. They are right there in the middle. They’ve got Gulf permits, and then they’ve got South Atlantic permits, and so charter boats fish on both sides.

I would imagine these guys that come down from the South Atlantic are not going to say, okay, we’re just going to stop right here. They probably have dual-permitted boats too that don’t have -- Because their ports are on the southeast, and so they’re not going to be required to be in this program, and so they probably fish on the Gulf side and the South Atlantic side, and is there quite a few dual-permitted shrimping boats, like there is charter boats?

**DR. GALLAWAY:** I am not qualified to answer that. I’m sure some of these folks could, but that’s not my area.

**MS. BOSARGE:** All of ours are dually-permitted, yes, but the problem is, like you said, is that, if it’s ported, if it’s a boat that’s typically ported in the South Atlantic, you’re not going to see their effort on here, and so you miss -- There is just multiple layers of effort that is missed on here, and there is no extrapolation, and that’s why I suggested that don’t color-code these points anymore and just put them on there. That’s shrimp effort, and that’s the best that we have to go by, and that tells you where we’re at.

**MR. BOSARGE:** Morgan, I would ask -- I don’t know the young lady’s name here, but if she could possibly pull up one of the graphs that we had at our last meeting, and can you put that up? It gives a little better picture of some of our concerns, that is the shrimp industry’s concerns, and most of our concerns with this expansion are on what we call the south side, on the Atlantic side, and it shows the -- It’s on page 5.

If you look at this effort compared to what we’re looking at with what you presented, this has got that south side effort in it, where we don’t have any effort. In other words, that’s where our concerns are at, mostly on that south side.

**CHAIRMAN KILGOUR:** I hear all of these concerns, and I can guarantee you that the staff here have these data, and so perhaps there could be some type of thing, like a motion, that would ask staff to include this information when this is presented to the council. That might be the best way of making sure that this information is included when the sanctuary is discussed at the next council meeting, because I know that these data are here in-house, having made these maps.
MR BOSARGE: Well, and just -- What you see presented to us today, if you didn’t know any better, you would think there was no effort at all on that south side, and so some of these areas that you’re proposing closing have traditional fishing effort in those areas.

DR. GALLAWAY: I believe some of the newer data also show some of that effort that you’re pointing out on that south side as well, but the newer data don’t include all of the points, and so, with that caveat, I will --

MR. BOSARGE: So it’s just the start point of the tow?

DR. GALLAWAY: That is correct.

CHAIRMAN KILGOUR: Steve, did I hear a motion to ask staff to include both sides of the sanctuary? Is that what I heard?

MR. BOSARGE: Yes, ma’am. So moved.

MR. PERRET: The Shrimp AP, I think all the members have concerns about the amount of effort that is not being included in this, and, echoing what Steve’s motion is, yes, I totally concur, but ask the Gulf Council to have staff prepare graphs with all accessible shrimp effort data that is available.

CHAIRMAN KILGOUR: Just so -- I am trying to divest myself of the fact that I was knee-deep in this not too long ago, but this is a different map, in that it only shows the points. Would the Shrimp AP be more comfortable with just having the points data shown and not the summarized, basically, heat map that was in the other map, because they can extend that heat map to the South Atlantic side as well, and that data do exist. I just cut it to the Gulf side for purposes of Coral Amendment 9. We have it, but I just made it so that it was more feasible.

MR. BOSARGE: I guess I don’t understand the reasoning for wanting the heat map, like you say. In other words, could you give me an example of why you would want to see --

CHAIRMAN KILGOUR: The reason why I did it that way is because some of these points only -- Like, first of all, we had to concatenate things into boxes, so that we could manage the data. Right now, you’re talking about twenty-two-million points that take -- It takes like ten or fifteen minutes, sometimes, for this to load on your computer, because it’s so intense in the number of points, and so that was a way to make it manageable,
but another thing is, in some of those boxes, there might only be one point from 2004 to 2013, and that indicated to me that that possibly wasn’t a box that was really shrimped.

I mean, we saw it in Coral Amendment 9. In really deep waters, we would have one point show up, because the vessel was going the perfect speed for the algorithm to spit it out as a shrimping point, when, obviously, you weren’t out in 3,000 feet of water shrimping. Well, you could be, but not one point. You would have a couple. That was a way to make the data more manageable and to kind of filter out false positives, if that makes sense.

MR. PERRET: I second Mr. Bosarge’s motion, by the way.

MR. BOSARGE: Thank you, Mr. Perret. I agree with you, in that I think that it would be better just to show points, and, getting back to some of what Benny was talking about and the distribution of ELBs across the fleet, if you look at the larger ports with the larger landings, that’s going to be that Matagorda, Victoria, Palacios, and am I correct, Benny? Brownsville. I think those are some of the larger ports for landings. I guess the point I’m trying to make is there’s not a lot of that fleet that does pink shrimping, and so do you see what I’m saying?

DR. GALLAWAY: Yes, and I don’t know if those are the largest. Those are large ports, but I don’t know where the largest landings are, and I haven’t looked at it recently, but your premise is correct that the way the vessels were chosen would not necessarily provide a good reflection of the vessels that targeted pink shrimp.

AP MEMBER: I think, John, you’ve got some photos here of the points, shrimping points?

MR. WILLIAMS: No, they’re the entire Gulf.

AP MEMBER: Well, it’s an example of these dot points, and maybe we could pass that around, so that people see what this looks like, because we’re talking about it, and some of us know what it looks like from the last meeting, but some people haven’t seen it at all.

DR. GALLAWAY: I would like to comment on that. I mean, that sounds like a good idea. Keep in mind that those maps reflect the start of a tow, and what Morgan is talking about is those points are supplemented by ten to twenty more points associated
with that tow, which will show a much higher density, but those are good maps for what they are, but they don’t show all the effort.

MR. HICKMAN: I’ve got a question for Beth. When you all used the NCOS process, I believe you said when you were evaluating lines and areas, which shrimp boat data did they input into the model for NCOS on the shrimp effort?

MS. DIEVENEY: I can’t 100 percent certain say, but I believe it’s this data that is on the maps that Natasha made.

AP MEMBER: Someone mentioned that the Gulf of Mexico was a large body of water, but, through the years, I have seen it start to shrink. You have the 200-mile limit, and so you limit the American vessels where they can go fishing, and you also have the fifty-fathom curve, and, inside the fifty-fathom curve is where you have a lot of the activity, I would say maybe 80 or 90 percent, or maybe even higher.

Every time a boat sinks, that’s another hang, where you can’t fish or you’ve got to kind of move around the hang. Pipelines, there is tons and miles and miles of pipeline in the Gulf of Mexico, and you also have manmade reefs. Every time they put down a manmade reef, there you go. You’re losing a little bit of territory.

Now you’re talking about closed areas to shrimping, where they normally shrimp and historically shrimp, and then you’re closing the areas, and so a lot of the Gulf of Mexico, where we could shrimp, is shrinking. They’re even talking about putting out windmills out in the Gulf of Mexico, and that hasn’t materialized, but they are talking about it. Why are the shrimpers concerned? Because, to us, the Gulf is shrinking, as far as the area where we can fish.

CHAIRMAN KILGOUR: As the Chair, I’m not supposed to make motions, but I sent Camilla a strawman for you guys to -- If this is the motion that you wanted to make to include all of the information, so that we could at least discuss it and move on to the next item. Steve, did you have something to say?

MR. BOSARGE: No, I’m with you, and we have a motion, and we have a second, and do we want to -- I made your motion, basically.

MR. HICKMAN: This kind of makes sense, because, all of your landings and your trip tickets, you’ve got to put the area that
you’re in, and so you would be -- Your pink shrimp landings in
the Keys, you could extrapolate that, and you would have to
reach out to the Science Center, but they should have shrimp,
pink shrimp, landings just for the Keys area, and you could
cross-reference that with the ELB data, with the boats, and that
would probably get you somewhere. I don’t know how easy or hard
that would be, but --

DR. MENDEZ-FERRER: That all sounds like it makes sense. I am
very sure that I will -- We will take a look at the data, and we
will talk to the appropriate people and ask all the right
questions, so that the council can make the recommendations.

CHAIRMAN KILGOUR: I would venture to guess that perhaps any of
the VMS information that we have, that the council staff have,
should also be included for the council’s consideration at the
next meeting, and I’m not going to make a formal motion, but I
am going to just put that plug out there.

We have a motion on the board, and is there any more discussion
on this motion? Does this motion say what you want it to say,
Steve? Benny.

DR. GALLAWAY: I wanted to say, before I leave, that the maps go
up to 2017 now, and they include the new data, and I would like
to express special appreciation to the NMFS Galveston staff, who
took time out of their workweek to provide those data to us.
Generating these maps is not part of their job and is not
necessary for estimating effort. These are special products
that -- They went way out of their way to give us the data, and
they should be thanked for that.

Also, I would like to thank the American Shrimp Processors
Association, which provided the funding to enable us to acquire
and map the data, and these things that seem like simple
requests, with the database now being two-thirds or three-times
larger than it was when we stopped doing this, it is a big job,
and so make sure you thank them, and I thank them for sure,
because they have been great people to work with, and so thank
you.

MR. BOSARGE: I am good with the motion.

CHAIRMAN KILGOUR: All right. Is the seconder good with the
motion, Corky?

MR. PERRET: Absolutely.
CHAIRMAN KILGOUR: Okay. Is there any more discussion on this motion? Does the Coral AP or the Coral SSC want to be part of this motion, or is this a Shrimp AP motion specifically? Coral SSC, is this motion okay with you, or do you want this to be from the Shrimp AP?

MR. SAMMARCO: A rewording.

CHAIRMAN KILGOUR: A rewording?

MR. SAMMARCO: Yes, and I think it should say to request that staff include all relevant information regarding shrimp effort data for the -- Including all points in the GMFMC -- In other words, it doesn’t say point data, and that’s what we’ve been talking about, is point data.

CHAIRMAN KILGOUR: I want to -- Should it say all shrimp effort point data for the Florida Keys National Marine Sanctuary and not just that in the GMFMC jurisdiction?

MR. SAMMARCO: Yes.

CHAIRMAN KILGOUR: So shrimp effort point data. Is that better?

MR. SAMMARCO: I think the phrase has to make in there, or it doesn’t make any sense.

CHAIRMAN KILGOUR: Okay. So it will say “not just data in the GMFMC jurisdiction”, because they want it on either side of the sanctuary. Okay. All right. Any more discussion on the motion? Is this okay? Okay. All right. Does the Coral AP want to be -- Is this a Shrimp AP motion, or is this a group motion? Is there any opposition to being part of this motion, Coral AP or Coral SSC? All right. Any opposition to the motion? The motion passes.

MR. DELANEY: Morgan, can I ask a question about these shrimp effort slides?

CHAIRMAN KILGOUR: Absolutely.

MR. DELANEY: If it’s possible, could we go to the slide that shows Preferred Alternative 3, when you get a chance?

DR. MENDEZ-FERRER: Glenn, do you need me to zoom-out from this?

MR. DELANEY: Actually, right there is fine, and my question relates -- I was trying my best, and I think I can relate to I
think it was Morgan’s point, or someone made the point, that it’s difficult to compare these proposed alternatives to the status quo, but, in doing my best, comparing Alternative 3 to Alternative 1, one of the more significant changes, perhaps the most significant change, is the addition of that sort of blue box up in the northwest corner.

That blue line is new, and my first question about that is if you could just clarify what activities are allowed and which are prohibited within that new blue box, if that was adopted as the preferred -- If that becomes the new regulation.

MS. DIEIVENEY: My colleague, Steve, is going to take this.

MR. WERNDLI: I am going to summarize straight from our regulations that would apply in that area, and that would be our general sanctuary-wide regulations, and they can be found on our website. There is a link on the left side that says “regulations”, and that will take you to a page with another link to the actual CFR language, so you can read the exact language that’s in the regulations, but the general regulations that would apply in that area would prohibit mineral and hydrocarbon exploration, removal of or injury to coral and live rock, alteration of or construction on the seabed, discharge or deposit of materials or other matter.

MR. DELANEY: I guess what I’m getting at is what about shrimp fishing?

MR. WERNDLI: You would be allowed to shrimp fish in that area. There would be no prohibitions on fishing in that area.

MR. DELANEY: So then the second question I have is, since, obviously, there’s been a significant amount of shrimp effort, even with the data that you have shown here, and there is a fair amount of shrimp effort in that blue box, and, obviously, that’s not coral habitat, because I can assure you that our guys don’t want to trawl over coral habitat, and so what habitat is it? What is it that would cause you to expand the sanctuary boundary to an area that’s obviously not coral habitat? What is the significance of that area?

MR. WERNDLI: In that area specifically, the expansion of the boundary was to make it line up with the western boundary of the Tortugas South Ecological Reserve and so that we can move away from the many-sided polygons, if you will, of the status quo, the existing boundary, and to make that basically an administratively easier enforceable boundary line that would be
consistent with the western boundary edge of the Tortugas Ecological Reserve South.

**MS. DIEVENEY:** Just to add on to that, it was referenced earlier that John Reed and his team, who has done a lot of work out in Pulley Ridge, part of the project with the Pulley Ridge was looking at connectivity with the Florida Keys, looking at genetic connectivity between certain fish species, coral species, and the like, and they did that research and did some work in the Tortugas Ecological Reserve North and South and outside, and so there is some data of some important benthic habitats in that area, but our proposal is to include it as sanctuary-wide regulations only.

**MR. DELANEY:** Okay, and so it does have regulatory implications, such as making the box less of a polygon, but, with respect to shrimp fishing, you’re saying it would not affect that current amount of shrimp fishing effort occurring in that area in any way?

**MR. WERNDLI:** That is correct.

**MR. DELANEY:** Are there any other expansions of those either green or blue boxes that I may not have picked up on between Alternative 3 as compared to status quo, Alternative 1? To me, that was the most significant, and it also looked like the green box in the southwest corner, if you will, has sort of moved more to the west, and is that correct?

**MR. WERNDLI:** Yes, sir. That box that is in the lower-left-hand corner that’s green, the Tortugas Ecological Reserve South would be -- The existing zone would be expanded one mile to the west.

**MR. DELANEY:** Okay, and that looks like it would, as a result of that, include at least some shrimp effort in that very lower-left corner.

**MR. WERNDLI:** Yes, sir, and the only other thing that I just thought about that would potentially affect not just the shrimp fishery, but any other vessel operations in the area of the blue box that we were talking about in that sort of northwestern corner would be the general sanctuary regulation prohibiting discharge would apply in that area, and so you would not be able to discharge -- If you are currently, you would not be able to discharge any kind of MSD device or any other fluids out of your vessel into the water in that area.

**MR. DELANEY:** Okay, and then just one more point of
clarification. Within that blue box up above, shrimp fishing could continue, but, in the green, slightly-expanded box below it, to the lower left, that would be a no-fishing area?

MR. WERNDLI: Yes, sir.

MR. DELANEY: Thank you.

CHAIRMAN KILGOUR: Just one more point of clarification for my own mind. Didn’t the southern boundary of the Florida Keys get pushed down slightly, to line up with some of those -- What are they called, the areas to be avoided, or is that not the case?

MS. DIEVENEY: That is the case, and so you can’t really see it on that map, but it’s the area to be avoided that is to the south and east of the existing sanctuary, and, in that area, it would be proposed sanctuary-wide regulations, and so the same that we’re talking about with the northern portion of the Tortugas region, sanctuary-wide regulations.

MR. DELANEY: Just to be clear, would that include fishing or no fishing?

MR. WERNDLI: It would allow fishing.

MR. DELANEY: Thank you.

MS. BOSARGE: Okay, and so I’m looking at a map, and now this is something I printed online, but it’s a map of NOAA’s Florida Keys National Marine Sanctuary. That box in what’s called the northeast, that green box, it has that listed as Florida Keys National Marine Sanctuary Ecological Reserve.

In your presentation, the ecological reserves/conservation areas are the most protective zone type, and it says the regulations are transit only, and am I confused? I mean, that would tell me that I can’t shrimp there. All I can do is transit through there.

MR. WERNDLI: That is correct. In the ecological reserves, they are no-take, transit-only zones.

MS. BOSARGE: But that is an ecological reserve, you just said, and you just told us that we could shrimp there. I am confused.

MR. WERNDLI: The area to the west, where he was asking the question, if you will scroll back to the Alternative 3 map, please, Natasha.
DR. MENDEZ-FERRER: Leann, we’re looking at Map 1 right now, right?

MS. BOSARGE: Yes.

DR. MENDEZ-FERRER: This green polygon over here is the current ecological reserve.

MS. BOSARGE: We can’t shrimp there.

DR. MENDEZ-FERRER: You can’t shrimp there, and, as you can see, there aren’t that many points in that area. Where you can shrimp is in this area over here, and so I’m going to scroll to Map 3, which is the preferred alternative, and I am keeping my mouse in the same spot.

Over here is a dark blue, and so this is the area right here, and so this right here would now -- They are proposing that this green polygon over here would be called a conservation area, and it’s currently called an ecological reserve, and so the Keys expansion, boundary expansion, would be to this blue polygon, and it’s a little difficult to see, but, right here, what applies is the general sanctuary regulations, which he was talking about the no discharge, but yes for shrimping.

MS. DIEVENEY: The existing Tortugas North Ecological Reserve does not change in its size or area throughout all of the alternatives. What you’re seeing there, expanding to the west, is the overall sanctuary boundary, where general sanctuary-wide regulations would apply, and so no change to the Tortugas Ecological Reserve North, other than the name.

MR. LASSEIGNE: You’ve got a lot of boxes up there. Could you use the cursor to definitely show where shrimping activity is prohibited? Is it inside the blue or the black or the red or the green or the purple or whatever?

DR. MENDEZ-FERRER: Let me try a different format. I am going to open ArcMap and see if that can help us kind of turn layers on and off and boxes on and off. Would that be okay?

CHAIRMAN KILGOUR: In the meantime, Scott, did you have a question?

MR. HICKMAN: More of a statement, but just to clarify -- Once again, I don’t know a lot about pink shrimping, but, in the western Gulf, our shrimp boats, right outside of our boundary
and everywhere else in the western Gulf, the majority of them
shrimp at night, and they sleep during the day. When they
sleep, they put their anchors out.

The areas that they have traditionally shrimped, I’m sure that
they’re anchoring in those areas during the day, and probably
like they do in the western Gulf, and then they shrimp at night.
If it’s inside the sanctuary boundary, no anchoring, and you
can’t do that, and so you’re going to have to steam back out and
anchor somewhere else, or drift. I don’t know if anybody has
thought about that.

MS. DIEVENEY: To clarify, there are only certain areas within
the sanctuary, now or proposed, that would be no anchoring.
It’s not the entire sanctuary, but some areas are proposed as no
anchoring, but not the entire sanctuary.

MS. BUI: I guess my question is what type of education are you
all going to provide to fishermen, because, looking at this,
we’ve gone back and forth with it, even though we’ve looked at
it for the last hour or two hours, and we’re still not clear
about it, and so I’m not sure how fishermen will interpret it,
once it comes down to them.

MS. DIEVENEY: Two things with that. As this restoration
blueprint is open for public comment, we are working really hard
to meet with various groups throughout the Florida Keys, and we
will have informational sessions, public comment, in Miami and
Fort Myers, but, as requests come in to go meet with particular
groups, organizations, community groups, et cetera, we are going
and making targeted presentations to help them understand and to
be able to provide public comment.

As part of whatever eventually were to go forward and to be
implemented, education is one of our -- Education and outreach
stewardship is one of our main goals in the management plan, and
it’s one of our main activities now, and so, going forward, we
would identify who are the audiences, new and different
audiences, that we need to reach out to. In the management
plan, it’s also identified to look at diverse audiences,
translating materials into other languages, and so that’s a plan
going forward, if that helps in any way.

MS. BUI: I am not too familiar with the Florida Keys, as far as
like season-wise, but I know, like in my area, the time that you
guys are proposing for public comments are usually during shrimp
season, and so I feel like you’re going to miss a lot of the
fishermen that are actually out fishing, but I’m not too sure
how you all’s fisheries are, and so if you can let me know that.

MS. DIEVENEY: Yes, and that has been a concern throughout this process of when various meetings and various milestones and points in this review process, the development of recommendations, and now public comment.

In the Florida Keys, there seems to always be some fishing constituency happening and going on, and so that’s, in part, why we have identified a five-month public comment period, to try and give plenty of time for both local community members, and we also have a high number of snowbirds who come down, starting in the fall, and so identifying those individuals.

This is a National Marine Sanctuary, and so opportunity for anyone in the United States or internationally to provide comment, but we did -- We have received feedback on that, and we’re trying to expand our public comment as much as possible to meet all the different needs.

MR. PERRET: So you’re bringing more pressure on your sanctuary, but I guess that’s inevitable. Morgan, didn’t you participate in their meetings, and you would attend and advise the council? I am just wondering if the council has a representative on your advisory panel that attends the meetings?

MS. DIEVENEY: The council does not explicitly have a representative on our management council. As I noted, we have twenty voting members, and they each have an alternate, and then we have ten agency representatives, and a few of those are from National Marine Fisheries Service. The Director at the Office of Law Enforcement and General Counsel are non-voting members, but, no, we do not explicitly have a Gulf of Mexico Fishery Management Council member.

MR. PERRET: We have one council member here, and we have staff, and I just think it would be a good idea if staff would attend as many of your meetings as possible, to keep the council informed of the activities, and so I will just throw that out for review and consideration.

MS. DIEVENEY: To facilitate that, we do, when we started through this process, livestream our meetings, and then the recording is posted after, because one of the pieces of feedback we got is we hold our meetings from about 9:00 to 5:00, and a lot of people are working and out on the water, and they can’t participate, and so, in order to facilitate that participation and information exchange as much as possible, one of our
advisory council members helps us to livestream, and then we have our own YouTube channel that the meetings are posted after.

MR. BOSARGE: In looking at the -- Now we can see the map, the chart, and that area that’s in that northwest corner, is that -- In other words, it’s outlined in green, and so is this a conservation area, where there will be no trawling?

MR. WERNDLI: That currently is a -- This is not allowed.

MR. BOSARGE: It’s nothing new?

MR. WERNDLI: It’s been there since 2001.

MR. BOSARGE: Okay, and that was the expansion you did the last time?

MR. WERNDLI: Yes, sir.

MR. BOSARGE: Okay. I recall now, and the second question is, with that one-mile expansion to the west, mainly for the reason of straightening the lines out, I mean, would there be a guarantee that, somewhere in the future -- In other words, because you have incorporated it into the sanctuary, and because, as you can see, there is a lot of trawl effort there, who is to say that, a year from now, we don’t all of a sudden have regulations of, well, it’s part of the sanctuary, and so, to streamline things, we’re just going to say no trawling here?

MR. WERNDLI: Just to clarify, the one-mile expansion was only in the Tortugas Ecological Reserve South.

MR. BOSARGE: Correct, but, if you look at the green, it’s going to be bordering it on both sides.

MR. WERNDLI: Right, and then the boundary has been extended, and there is -- We considered expanding the area of Tortugas North to the west, based on some of the data that was provided by John Reed and their groups, and we decided that we did not need to shift the boundary of the area that is closed to fishing. Can we 100 percent say that, at some point down the road, there won’t be additional places designated as no-fishing areas? No.

MR. BOSARGE: But you see my point.

MR. WERNDLI: Yes, sir, I do.
MR. BOSARGE: Okay.

MS. DIEVENEY: Also, just one more. The one-mile western expansion of the Tortugas Ecological Reserve South, the proposal for that is to protect additional habitat area and area known to support fish spawning aggregations in the Riley’s Hump area.

MR. BOSARGE: I have to echo Corky’s sentiments, in that you see the trawling that goes on in that area, and you don’t have much of anything there, other than some nice, smooth shrimp bottom.

MR. DELANEY: That’s what I was asking about earlier. Can you put the blue box on this slide that you’re showing right now, so that people understand what the expansion is, up on the northwest side?

DR. MENDEZ-FERRER: Are you referring to Alternative 3?

MR. DELANEY: Correct.

DR. MENDEZ-FERRER: Give me one second. Bear with me.

MR. RUZICKA: One of the luxuries that we have for the Florida Keys that we don’t necessarily have so much for the Gulf of Mexico is a lot of this area has been mapped, and I was wondering if you guys actually applied some of the bottom mapping -- If it has run all the way to the west here of the Dry Tortugas, so we can actually get a pretty good idea of what hard bottom is there and what soft bottoms are there. Most of it -- I know that there has been some additional mapping efforts since we’ve last met and discussed this.

The main gap that we have for bottom mapping in the Keys is in the Marquesas area, but I know that there has been some additional efforts around there by John Reed and others, and so I was just wondering if you could comment on that.

MS. DIEVENEY: The unified coral reef map was used throughout this process by the advisory council, its community working groups, and the sanctuary. You are correct in that the data is limited in the Marquesas region and large portions of the Tortugas region. In the interactive map that is online, one of the layers, when you use -- I can demonstrate this later if you want, but one of the layers that you can select to turn on, and it’s at the very bottom of the list, but is the unified coral reef map, so that you can overlay these proposals with what, at present, we have known data for the benthic habitat map. Does that answer your question, Rob?
MR. RUZICKA: Yes, to some extent. I think it would be very valuable, in this exercise, to be able to see where some of those points lie in relation to the boundaries being proposed and where the current shrimping effort has either traditionally taken place or more recently has taken place.

MS. DIEVENEY: Yes.

MR. DELANEY: Morgan, can I get back to the blue box?

CHAIRMAN KILGOUR: Sure. I think Natasha is working on that right now.

MR. DELANEY: I see it on my screen.

DR. MENDEZ-FERRER: This new blue box is the Alternative 3 proposal for the sanctuary expansion. Let me know if you need me to zoom in. This is the blue box, this area right here.

MR. DELANEY: Right. That’s the blue box, and I think that’s what Steve Bosarge was just referring to, is we’ve got a lot of shrimp effort in there, and, as I said before, by definition, there’s not going to be coral habitat, and I was asking before what is the significance, ecological significance, of that area, and the answer seemed to be more that it wasn’t so much ecological significance and it was smoothing out the borders of the polygon.

I tend to share Steve’s concern that, while shrimp effort would not be restricted in that blue box, as per this rulemaking expansion, now we’re inside a box -- You know, we’ve taken a whole bunch of shrimp effort in a productive shrimp area and put it inside the boundaries of the sanctuary, and it only takes changing that blue line to a green line to prohibit us from accessing some productive bottom, and so, if the majority of the reason for expanding that area inside the blue box is just to make the lines neater and the polygon less contorted, that may not be enough for the shrimp industry to feel comfortable with that, because we’re potentially moving in the direction of taking fishing away from us in that area. I just wanted to express that concern, and I don’t know if others in the shrimp industry share that, but that was the direction that I was trying to head with that.

MS. DIEVENEY: Also, in response to Rob’s question, we can provide the unified habitat, coral reef habitat, map, which most of the region mapped in the Tortugas region is within the
Tortugas National Park. However, as I referenced, John Reed and their team has some research and data done to the west of the park that we can also provide.

MR. DELANEY: Hopefully my point is clear, that we’re finding ourselves inside the box, and, while fishing is allowed now, it sort of sets things up for the future, and, if there isn’t significant ecological significance there, and it’s only a matter of drawing prettier lines, then I don’t think we’re going to be comfortable with that.

MR. SAMMARCO: I think this would become clearer, this issue would get cleared up, once those dot points are made available to you and you can see where indeed the shrimp trawling has been going on and where the fishing has been going on. It might be -- The area might be deficit of shrimping entirely, or it might be a really heavy area, and you just don’t know until you have those data. I think that will really help you out. It will help everybody out.

MR. DELANEY: The heat map shows a fair amount of effort there.

CHAIRMAN KILGOUR: Right, and so I would say that this does show effort, but perhaps the Shrimp AP would like to make a recommendation to modify this, because we’re talking about one vertex, right? Moving it out to the side like that makes it one nice long -- But you’re talking about adding one additional point, and so, if that’s something that the Shrimp AP would like to recommend, then I would suggest that a motion be made. Sandra, go for it.

DR. BROOKE: To that question then, I will ask why was that area added? What is the ecological rationale for adding that northwestern box?

MS. DIEVENEY: As I noted, in part, it’s to protect additional habitat that was identified through the research that John Reed and his team did and to make an administrative connection of the Ecological Reserve South with the entire sanctuary, to make one contiguous sanctuary.

DR. BROOKE: The data that John got, it wasn’t clear that that was the rationale, and so okay. Thank you.

MS. DIEVENEY: Yes.

MR. BOSARGE: I guess, Morgan, the shrimp industry -- That’s a good piece of bottom. It’s a piece of rock shrimp bottom that
we like to work, and there’s not much of that bottom around, and
so I guess I want to make a motion that the Shrimp AP opposes
expanding -- What did you call it? What did you name that?

MS. DIEVENEY: That area is only the -- It doesn’t have a
distinct name, but it is the sanctuary-wide proposed expansion
in the Tortugas region.

MR. BOSARGE: The one-mile westward expansion?

MS. DIEVENEY: The one-mile westward expansion is specific to
the Tortugas Ecological Reserve South.

MR. DELANEY: Steve, I think you want to focus on the blue box,
and that’s an expansion of the sanctuary boundaries.

MR. BOSARGE: Correct.

MR. WERNDLI: If you wanted to clarify it, Steve, you would say
the boundary expansion west of the Tortugas Ecological Reserve
North.

MR. BOSARGE: There you go.

MS. DIEVENEY: Thank you.

CHAIRMAN KILGOUR: I think he wants to say to modify the Florida
Keys National Marine Sanctuary boundary in the area above --
Where did you say?

MR. WERNDLI: To the west of Tortugas Ecological Reserve North.

CHAIRMAN KILGOUR: To alight with the current Tortugas South --
Well, just to basically cut off that box, right, that rectangle?

MR. BOSARGE: That’s right.

MR. PERRET: It’s proposed right now, and it’s not in, right?

AP MEMBER: I will second it.

MR. BOSARGE: The ecological boundary west or south, and is that
what you said? Tortugas South? Okay. All right.

MR. HICKMAN: In the area you’re talking about the study, do
they have ROV data on it that there’s a bunch of habitat in
there? You said that it was partially from that, and there was
some habitat in there too, and you said something about
administrative, that it’s easier to draw straight lines than polygons. If there was gear in there, and they do have ROV or multibeam-type data on it, when they went into that area, did they find gear in some of that bottom? Were there shrimp nets or anything like that?

MS. DIEVENEY: I would have to look at the reports and the data, and so, no, I don’t have that at my fingertips.

MR. HICKMAN: Okay.

MR. PERRET: Mr. Bosarge, I don’t like the wording of this motion. Your motion started out being against the western expansion. The way this is written is the AP is supportive of whatever is being proposed with a modification, and I think the motion should read something to the effect that the AP is against that one-mile western expansion of the Tortugas whatever it’s called. That is my opinion.

MR. DELANEY: Just to be clear, Corky, it’s not the one-mile that we’re talking about. We’re talking about the blue box, which is much more than one mile. I agree with you that it’s to oppose the proposed expansion of the boundary, the sanctuary boundary, to the west in that whole blue box, is what we’re discussing.

MR. PERRET: Correct, but I thought it was a mile.

MR. DELANEY: The description of that is --

MR. PERRET: Okay. Thank you.

MR. BOSARGE: We’re getting there, Corky, but you’re right that it was to oppose the expansion, proposed expansion.

MR. DELANEY: Westward expansion would be a good way to describe it.

MR. WERNDLI: You want no westward expansion beyond the western side of the Tortugas Ecological Reserve.

MR. PERRET: A figure showing that would be most helpful to the council when they evaluate our motion. It would be one simple figure showing what we’re against.

CHAIRMAN KILGOUR: I think, Corky, for the record, would like there to be a figure to highlight this, but he doesn’t necessarily want to put that in a motion.
MR. DELANEY: That’s better.

CHAIRMAN KILGOUR: You would have to ask the motion maker, but, Steve, would it be okay to just say to oppose the proposed western expansion of the Florida Keys National Marine Sanctuary?

MR. PERRET: He agrees.

CHAIRMAN KILGOUR: All right, and this is a Shrimp AP motion only. Sandra.

DR. BROOKE: If you say that, it includes the one-mile expansion of the southern TER, which is -- We want to keep that.

CHAIRMAN KILGOUR: The Coral SSC wants to keep that. Does the Shrimp AP want to keep that?

MR. BOSARGE: Yes, ma’am. There is no effort there. There’s a very little on the very bottom corner, and we’re all right with that.

CHAIRMAN KILGOUR: Do you need to add the northwestern expansion for that to be clear, and perhaps Natasha can provide a figure to go with this.

DR. BROOKE: Then delete everything after “boundary”, maybe.

MR. BOSARGE: This gets really complicated, Morgan, when you’re not sure on what the names of all these places are.

CHAIRMAN KILGOUR: I am with you, but I think Natasha is very clear on what you’re talking about, and so just that rectangle up in the northwestern portion. It’s been seconded, and I have heard from Coral AP members that we don’t have enough information on the benthic layer to weigh-in on this, and does the Coral SSC want to weigh-in on this, or is this a Shrimp AP only motion?

MR. SCHMAHL: I would be hesitant, from my perspective on the SSC, to include this as a motion. I’m not sure that -- I have heard a couple of things. I heard one is that this is just flat area and just good shrimping ground, but I also heard that John Reed has identified some potential coral areas within that zone, and so I am not comfortable opposing that area without further information about those specific areas.

CHAIRMAN KILGOUR: Sandra.
DR. BROOKE: I would agree with that, and something pricked up my ears, and you said rock shrimp and not pink shrimp, and rock shrimp are usually found near hard substrate.

MR. BOSARGE: Rock shrimp and pink shrimp. Large pinks and smaller rocks.

DR. BROOKE: But, again, the rock shrimp presence indicates hard substrate.

MR. BOSARGE: Correct.

CHAIRMAN KILGOUR: I am hearing from Coral AP members and Coral SSC members that we’re all fine with the current boundary and that this is a Shrimp AP motion, because we don’t have the information to weigh-in on this. If we had more benthic information, perhaps we would join in. Anyway, this is just a Shrimp AP motion. Is there any more discussion on this motion? Scott.

MR. HICKMAN: I just think, if you get back into it, it’s great, and I’m all for protecting corals, and more habitat equals more fish, but, anytime you make a decision based because you’ve got a few areas of habitat, which do need to be protected, but our historic fishermen, whether they be shrimpers or longline or bandit fishermen, they know where these areas are.

A guy that’s been fishing an area for twenty, thirty, forty years, and the people that come up behind him are taught where these areas are and not to go to them to hang up their shrimp nets. Nobody wants to lose $10,000 worth of gear off their boat because they hung a bunch of bottom, but they know how to work the areas around the bottom to catch these shrimp that we all want to eat in the restaurants.

Take that into consideration on any of this kind of stuff, because we want to protect habitat, but let’s not put people out of business and give America’s seafood-consuming public access to those products, and so you’ve got to be smart about it.

That’s why I made the question about do you have ROV footage of this area, and I would like to know if there’s any shrimp nets on it, because chances are there is no shrimp nets on it. The guys that shrimp in there know what they’re doing, and they’re not going to hang up their nets, and, if an area is pristine, there is no reason to go in and put people out of business. That’s my thoughts.
MR. SAMMARCO: Just to reiterate, I think that it will be easier to deal with this issue once we all have the best data that we can get, which area the point data for shrimping in that area. It will give you the historical stuff, but recent historical stuff, 2017 or so.

DR. BROOKE: Just to speak to Scott’s comment, I agree with you that the guys usually know where things are, but you talk to any fisherman and they will tell you about the hang points, and so it’s not a perfect system, even with our sonar these days, and the Oculina Banks is a prime example of how a system has been damaged, and so we’re just applying the precautionary principle, I think.

AP MEMBER: I am going to stir some stuff here, I guess. Again, I’m not sure why you’re expanding the entire western boundary. Why did you expand the green box a mile and then draw the blue box to match it? I guess my point is why did you expand it for a mile? Wouldn’t it be easier, on a motion, to take the entire western boundary and leave it like it is, but not expanding that extra mile? That’s just more bottom being lost, unless there is coral or something in there, which I’m not sure of, and I haven’t heard.

MS. DIEVENEY: Again, the proposal to expand the existing Tortugas Ecological Reserve South by one mile west is to protect additional habitat type and area known to support fish spawning aggregation activity that currently use Riley’s Hump, which is protected in the ecological reserve, and so it’s an expansion to provide additional protections for habitat and fish spawning activity.

AP MEMBER: Riley’s Hump is right there around that place?

MS. DIEVENEY: Yes, and so to the west by one mile to protect additional area where it’s been shown that fish spawning activity takes place.

AP MEMBER: Okay. Thank you.

AP MEMBER: In the end, it all goes back to closing the areas to shrimping that don’t need to be closed if they aren’t causing a problem, and they’re not in the coral reef area, and, like the gentleman said, it’s all about economics, and it’s our livelihood, and you all can continue to cut, cut, cut, and, before you know it, you’re not going to have a shrimping industry in the United States. You’re going to have foreign
shrimp coming across, and so you don’t know how it’s treated or handled.

MS. BOSARGE: Can you pull up that alternative with the map again? Is there some shrimp effort in that one mile to the west? You know how I feel about minimal in the heat map at this point.

MR. DELANEY: There’s a little bit in there, Leann, in the lower-left corridor.

MS. BOSARGE: So at the lower end and at the upper end of that box, that one-mile expansion to the west.

MR. DELANEY: Look at the very lower-left corner, the green box. They moved it to the left one mile, and there’s a little bit of shrimp effort right there.

MR. BOSARGE: That’s royal red effort.

MS. BOSARGE: Well, if it’s royal red effort, it’s going to be a small number, but that doesn’t mean that it’s not heavily shrimped, and it’s a fishery that has very few participants, and so it’s going to be a small number, but they have very few grounds. They don’t have the kind of grounds that we have. I will also mention that we don’t have a royal red shrimper on the Shrimp AP, and so they don’t have a representative here to speak for themselves.

CHAIRMAN KILGOUR: Leann, do you think that this would be one of those areas like we had in the Pinnacles, on Viosca Knoll, where they’re actually pulling up their nets, but they’re still transiting? There might be language there that you can also adopt, but should we make a vote on that motion? Is everyone content with that motion? Do we need to discuss it any further? Are you comfortable with voting on the motion that was on the board? Okay.

Is there any opposition? The motion for the Shrimp AP is to oppose the proposed northwestern expansion of the Florida Keys National Marine Sanctuary boundary. Is there any opposition to the motion? The motion passes with no opposition. Do you one to go back to that one particular box, Leann, or -- Okay. Harris.

MR. LASSEIGNE: It was, I guess, about twenty minutes ago that I asked to put the cursor inside the black, blue, purple boxes and identify if they’re not fishing areas for shrimpers, but that
wasn’t done.

DR. MENDEZ-FERRER: Does this map work better for you, or do you want me to go back to the PDF? Just guide me.

MR. LASSEIGNE: That would be fine. Just show me the areas where you cannot shrimp inside the blue, green, purple.

DR. MENDEZ-FERRER: This one right here -- This is the green, but this is on the preferred alternative. Right here, this is the green. You can’t shrimp there. I am going to zoom in. Can you see the green over here? This portion, this rectangle right here, is green. That is the conservation area that’s being proposed in Alternative 3, which currently is an ecological reserve, and that will be expanded one mile westward.

MS. BOSARGE: That isn’t the big one-mile rectangle?

DR. MENDEZ-FERRER: That is included in the one mile right there, and so there is no fishing here. It’s transit only. The other conservation area, the other green box, it’s this one up here going east and coming back down, and then this polygon right here is the Dry Tortugas National Park, if I’m correct, and so there’s no fishing.

This little rectangle right here is what we just discussed in the motion to oppose that kind of expansion, but, in the preferred alternative right now, in that area, you can still shrimp.

MR. PERRET: From the green line eastward, what happens there?

DR. MENDEZ-FERRER: Right here? This is general sanctuary regulations, right?

MS. DIEVENEY: That currently exists. That is the current boundary of the National Marine Sanctuary.

DR. MENDEZ-FERRER: You are allowed to shrimp, yes.

MR. SCHMAHL: I think it’s important to point out that that area -- The blue line is the National Marine Sanctuary boundary, and it’s been the boundary since 1997, and there is a lot of shrimping activity in there, and there has been.

It’s been over twenty years, and there has been no further restriction on shrimping in that area, and I totally understand that concern, that you make it a National Marine Sanctuary and
sometime in the future then more regulations may come into effect, but I do want to point out that it’s been over twenty years and there has been no further restriction of shrimping in that area, and the shrimping is not being proposed to be restricted in this area that you’re talking about opposing either.

MR. LASSEIGNE: Would it be okay to go ahead and look at the couple of other areas of concern we have? Right to the east of that -- I am trying to figure out which one -- The no-take box is the conservation area, the Riley’s Hump, and is that what you said? The boundary expansion down at the bottom, the blue line at the bottom, where it connects to the bottom of the Riley’s Hump box, there was a triangle in there that the only restrictions was no anchoring for large vessels.

DR. MENDEZ-FERRER: I will turn that layer on. I have it off right now.

MR. LASSEIGNE: I’m pretty sure I know the answer to the question. You’re going to say that it’s not --

DR. MENDEZ-FERRER: You’re talking about this black polygon right here?

MR. LASSEIGNE: No, ma’am. Up there where it looks like the referee, the stripes, it goes from that point down to where -- I wish I could work your cursor. There is a no-anchor spot there, or it was before, and you have proposed taking that into the sanctuary boundary.

MR. WERNDLI: Where her cursor is right now on that red polygon is the Tortugas Bank no-anchor zone, which prohibits the anchoring of vessels over fifty meters.

MR. LASSEIGNE: This area right in here.

MR. WERNDLI: And the hashed area, which is, I believe, what you’re talking about just below the red box.

DR. MENDEZ-FERRER: The area that he is referring to is this area right here with the current National Marine Sanctuary boundaries. That line goes from -- I believe, if I’m correct, it’s from here, and so he’s talking about this triangle that kind of connects the no-anchor west of the Tortugas down to the South Ecological Reserve.

MR. LASSEIGNE: Can you back up to your original Alternative 1
in your original --

DR. MENDEZ-FERRER: Right here?

MR. LASSEIGNE: You see how the boundary, the blue line, at the very bottom, the south end, see how it turns and it goes up to the northwest? In the Alternative 3, it doesn’t. It comes all the way over to the Riley’s Hump box, and so the boundary is changing, correct?

DR. MENDEZ-FERRER: Correct.

MR. LASSEIGNE: We have effort in that area, and I believe, if I’m correct, just by changing the boundary, it won’t stop us from working there, correct?

DR. MENDEZ-FERRER: Correct.

MR. LASSEIGNE: Okay. That was one of my concerns. The other one would be, as you move on -- Maybe it would be easier if we show you some of these tracks that we have and then -- She’s got it where we can put it on the screen.

This is the tracks off of one boat’s computer, and so it’s just a very small snapshot of what’s going on, but, as you can see, that was my concern. You see the effort that is within that triangle that we were talking about, and so that won’t be a problem. Then, as you move on to the east -- My question is, with you moving your boundary further to the south, is it going to stop us from working on what we call the south side? You see the effort, and I think you can see that green line, I believe, is your boundary as it is now, if I’m not mistaken.

MR. WERNDLI: This blue line is the boundary as it is now. This green line is the area to be avoided boundary, where the proposed boundary of the sanctuary is proposed to extend to that, and that would not -- You would still be able to shrimp there.

The area that you’re referring to on the south side, on that map, that shows the shrimp effort along what is the existing boundary of the sanctuary, the green line on that chart shows the area to be avoided boundary, which the proposal is to expand the sanctuary boundary to the south to match the ATBA boundary, and that would not prohibit you from -- You would still be allowed to shrimp there.

MS. BOSARGE: I’m glad that you pulled this up. Now imagine
you’re a shrimper out there on the water, and the green boundary line on the top is the northern or eastern boundary line of the sanctuary. At the bottom, instead of putting the actual sanctuary boundary line in green, for some unapparent reason, it’s in blue, and, well, anybody with any commonsense looking at this map is going to think the sanctuary boundary is in green, and I’m sorry, but, when we think about sanctuaries as shrimpers, we think, wow, no, shrimpers don’t go in sanctuaries and we get big tickets, big fines, and so this gets so confusing to shrimpers on the water as to where they can go and where they can’t go.

When you start expanding sanctuary boundaries and expanding and expanding, and now we’re shrimping inside the sanctuary, and it’s okay in some places, but it’s not in other, and that’s all I -- You can ask Heather in the back, and I’ve had this beef with her before.

Number one, that blue line ought to be green, but I won’t get on that soap box today, and I will try and take that up at another point, and that’s been, I guess, our biggest concern about you expanding the sanctuary boundaries where our historical shrimp grounds are, and then we’re shrimping more and more inside a sanctuary, and it just opens us up so much. There’s so much risk there. It’s so hard for us to even make it out, and can you imagine what it’s like for law enforcement?

The fines are not penny-ante fines for us. The minimum fine for just a warning, and not a citation, but a warning is $1,000 to $2,000. The maximum fine is $96,000, and so it is a big deal when you expand these boundaries and take in our shrimp grounds, even though you tell us that we can shrimp there. It just makes everything so confusing.

If we’re shrimping right there, we’re not in the coral. There is not coral there, and it’s the Florida Keys. It’s a coral reef sanctuary, and I just hope that you will take that into account when you think that expanding these boundaries is just a trivial thing. It’s not. It makes things very confusing to us, and it puts us at risk for violations.

MR. BOSARGE: I guess we as a group, as an AP, do we have any problems with expanding that southern boundary?

AP MEMBER: May I make a recommendation, which is that the Florida Keys National Marine Sanctuary make up maps which are explicit for shrimping and different activities, so that there is no confusion? I don’t know whether your different regions
are the same for the different activities or if they’re
different. If they are different, you should have different
maps, and that might clarify things a little bit.

MS. DIEVENEY: For sanctuary-wide regulations, they’re the same
throughout the sanctuary, regardless of region. It’s the
individual marine-zone-specific regulations where you’re going
to have additional regulations on top of sanctuary-wide.

Steve just noted, if it might be helpful, and I think it’s got
to be a staff member, to pull up the interactive map, and, while
this interactive map is limited on the data that it has, and it
has the unified habitat coral reef map, and so it’s not going to
have all the shrimp data, but to just show you this mapping tool
for where you can go and look and zoom in and see the difference
in marine zones and the difference across alternatives and look
at it that way.

DR. MENDEZ-FERRER: If it would be easier, you can make me a
presenter, or I can go over there to your computer and go to the
browser.

MR. DELANEY: Can I ask a question, while you’re working on
that?

CHAIRMAN KILGOUR: Go ahead, Glenn.

MR. DELANEY: Thanks. Well, to Steve’s question, which is, if
you compare Alternative 1 to Alternative 3, the very
southwestern border of the sanctuary has — Instead of heading
to the northwest, it heads to the southwest to meet the corner
of that ecological zone, reserve, and, again, that’s an even
larger area that wasn’t previously included within the sanctuary
boundaries.

We can only see some of the shrimp effort that was there,
because you don’t have the South Atlantic jurisdiction covered
there, and so there’s a big chunk of water that we don’t know
what the effort was, but, really, the question I have is, just
like that northwestern box, blue box, that is proposed to be
added to the sanctuary, this southwestern area — What was the
ecological significance of that, or is this, yet again, mostly
for the purposes of smoothing out the polygons?

MS. DIEVENEY: The proposal is primarily to align an area that
we have regulated since 1990 to protect the habitats from large
vessel damage, groundings and the like, aligning that with our
geographic boundary.
MR. DELANEY: So you’re saying that getting at large vessel traffic was the main reason for that?

MR. WERNDLI: Yes, and I think you’re talking about the area that we looked at that was in that expanded area between the existing sanctuary boundary and the Tortugas Ecological Reserve South.

MR. DELANEY: Correct. That’s a fairly large area.

MR. WERNDLI: Right, and so, as Beth mentioned, part of that was expanding the existing sanctuary boundary along the southern and eastern boundary to expand out to be consistent with the area to be avoided boundary, which, Miss Leann, that would get to your point about having two different color lines, and it would just be one color now on a chart, and so along the southeastern portion of the sanctuary, and then, in that area, where you’re speaking about the triangle that is east of the Tortugas Ecological Reserve South, it would be primarily to make the clean lines for the administrative boundary of the sanctuary.

Then it would also offer protection, from the general regulations, in that large area that would be part of the sanctuary, and so no discharge would apply, and the other general regulations would apply.

MS. DIEVENEY: In addition, in the Tortugas region, really looking at protecting interconnected habitats. The data coming from the research in Pulley Ridge and the Florida Keys and looking at how species and the importance of connecting habitats and providing that protection, and so a little bit of that larger goal as well.

MR. DELANEY: It’s difficult to assess how much shrimp effort actually occurs in that area, because we don’t have that data.

CHAIRMAN KILGOUR: Right. I would make a recommendation that, when this is provided to the council, that there be clearly fishing, no fishing, and go area-by-area. It’s going to make your presentation a little bit longer, but it will make things a lot clearer, and I would also recommend that maybe working with staff to also put that fishing information in the background, when you go area-by-area.

That might alleviate some of the concerns, or at least some of the questions on where is fishing happening and how is this going to affect me, and I think it really does highlight, very
nicely, that you currently have shrimping effort in the sanctuary boundary, and so that’s really great, but there’s three different types of conservation areas, or three different types of areas, and you look at the map, and there’s seven different colors, and I know that you’re conveying a lot of information, but, really, people, I think, here want to know can I fish there or not and what can I do, can I anchor there or not, and I think that that might be helpful when you’re communicating this information at the council.

I don’t know if I’m speaking out of turn or if other people agree, but I think it would be really helpful to just have it be very clear for the council that you can fish here, you can’t fish here, and, also, this is -- Have, in the background, this is where the Florida Keys National Marine Sanctuary boundary is now, and don’t differentiate between the Tortugas and -- Just where are the lines now and how are these getting bigger. I think that’s another helpful thing.

Is there any more discussion on this? I thought I had heard that Captain Hickman had something that he wanted to discuss. No? I really think that a lot of these questions are very valid, but they could be really easily answered if things were a little bit more clear, and I would really, really urge staff to include all of the effort, the fishing effort, they have, and not just that in the Gulf Council jurisdiction also. Rob.

MR. RUZICKA: Beth and Steve, another question for you, and this is to follow-up your point, Morgan. Right now, before any of these alternatives go into effect, how much coral reef habitat is actually protected as non-extractive activities in the Florida Keys? How much of the Florida Keys National Marine Sanctuary is actually open to extractive activities right now? I think providing some of those statistics or summaries, when you make these other modifications, would help kind of crystallize what we’re talking about across the entire sanctuary.

I saw some numbers in your alternatives, but I’m not very good at math, and so it was hard for me to figure out what the percentages are, and so maybe if you could elucidate a little bit on that and then consider it for the future proposals, and that would be good.

MR. WERNDLI: As of today, the existing sanctuary is 3,803 square miles in size. Of that area, 5.3 percent, or a total of 200 square miles, plus or minus, is zoned as no fishing. In Alternative 2, it would be just over 6 percent. Alternative 3
is just over 6 percent, at 6.3, and Alternative 4, as proposed, is just over 7 percent.

**MS. DIEVENEY:** Noting that, in each of those alternatives, 2, 3, and 4, the overall area boundary is also expanded.

**MR. WERNDLI:** So you can't directly compare the existing boundary to those other percentages, because the overall boundary area expands as well.

**DR. BROOKE:** Not to beat this dead horse, but how much of the sanctuary is actually classified as coral reef?

**MR. WERNDLI:** I would have to get back to you on that one. I don’t have that one at my fingertips.

**MR. BOSARGE:** Morgan, I just want to thank you for keeping it simple. From an organization standpoint, and we represent the shrimp industry, the main thing our folks want to know, whether they’re members or not, is where can I work and where can I not work, and it’s as simple as that. Show me where I can work, and I will work there. Show me where I can’t work, and I will stay out of there. That’s the main thing that they need, just to keep in simple and show us where we can work, and we’ll do that. Thank you for that.

**CHAIRMAN KILGOUR:** All right. Are there any more comments for Beth on the expansion? Okay. Do we need a ten-minute break? Let’s take a ten-minute break, and then I think Rob is going to walk through coral disease with us. Let’s take a ten-minute break.

(Whereupon, a brief recess was taken.)

**CHAIRMAN KILGOUR:** The next presentation is on stony coral tissue loss disease. Mr. Bosarge.

**MR. BOSARGE:** Morgan, if we could -- We’re meeting here as multiple groups, and there’s not a lot of discussion that we get to have, but if we could back up just for a minute and make one more motion, as far as with the reserve boundaries.

Just to clarify for the council, we’re not opposed to -- We are opposed to the one boundary expansion that we talked about. The other boundary expansions, we’re not opposed to, but we’re not in favor of. Do you see what I’m saying? Just to try to clarify that. I know that may sound like a double-negative there, but if we could put that maybe in the form of a motion,
just to let the council know that we’re not opposed to the --
How would I say that, because we were opposed to the one
boundary expansion.

CHAIRMAN KILGOUR: I have a follow-up to that, because I can see
that you’re kind of concerned about making a motion in that
form, but is the Shrimp AP Chair going to be invited to the
October council meeting? Do you guys still send the AP chairs
to the council meetings? Not this time? Okay.

I was just going to say that perhaps that could be something
that Natasha needs to highlight in her report to the council,
but, if you wanted to make a motion, I am not going to dissuade
you from that, but it’s also something that you could ask
Natasha to highlight in her report.

MR. BOSARGE: I would like to put it in the form of a motion,
that the Shrimp AP is not opposed to the southern expansions of
the boundary, but we are not in favor of them.

CHAIRMAN KILGOUR: Is there a second to that motion?

MR. BOSARGE: Let’s just say we’re not in favor, and we’ll take
out the opposed. So we are not in favor of the southern
expansions. The southern boundary expansions of the Tortugas
shrimp -- Well, it’s not the Tortugas, and so --

CHAIRMAN KILGOUR: The motion is that the Shrimp Advisory Panel
is not in favor of the Florida Keys National Marine Sanctuary
expansion.

MR. BOSARGE: Yes, and I’ve been informed to put the continuous
expansion of --

CHAIRMAN KILGOUR: Is there a second to the motion?

AP MEMBER: I will second it.

MS. CAMILLA SHIREMAN: I’ve got a screen that just went out.
Can you repeat the motion, please?

MR. BOSARGE: Do I have to?

CHAIRMAN KILGOUR: That the Shrimp Advisory Panel is not in
favor of the Florida Keys National Marine Sanctuary expansion.
Not in favor of the boundary expansion. Is southern boundary
expansion what you would like?
MR. BOSARGE: Yes.

CHAIRMAN KILGOUR: I am not trying to recreate this motion. I’m trying to remember what you said.

MR. BOSARGE: You’re doing good.

CHAIRMAN KILGOUR: The motion has been seconded. Scott.

MR. HICKMAN: This is just a Shrimp AP only motion, but I would like to know -- You know, I understand the first motion, and I got that. I mean, because you really -- The second one, it really doesn’t affect your industry, and, from a habitat and ecological -- I would just like to know the rationale.

MR. BOSARGE: Well, if you look at what we did with all the habitat areas of particular concern, we tried to minimize as much on the shrimp industry as we could, and we did a really good job, and, with what we’re doing now, even though it’s not going to affect us at this moment, but, by moving that boundary -- All they’ve got to do is change a couple of rules, and now it does affect us, and so how could you be in favor of that? Do you see what I mean? Right now, there are areas that are outside of the boundary that we typically fish, and there are no restrictions.

By moving that boundary line and then, maybe a year from now, they say, well, we’re not going to allow any more shrimping inside the boundaries of the sanctuary, and we just kind of stabbed ourselves in the back.

MR. DELANEY: Morgan, may I make a comment to that?

CHAIRMAN KILGOUR: Sure, and after you is Sandra and then Leann.

MR. DELANEY: Thank you. The thing that I was concerned about, and I think we’re talking about that southwestern triangle, which is fairly sizable, and we don’t see the shrimp effort on there, but, in answer to my question, as I understood it, the principle reason for that modification and expansion of the sanctuary boundary was administrative, again, to sort of smooth out the borders of the sanctuary and make it contiguous with other pieces of the sanctuary.

I didn’t hear anything about substantial or significant ecological or habitat significance at all, and it was about, again, drawing lines, and, to Steve’s point, in the history of the shrimp fishery, or any fishery in the United States, when
people start drawing boxes in the ocean, they usually don’t turn out well for us, and so it’s not just paranoia. I mean, we’ve got a long history of boxes turning into no-fishing zones, and they’re forever forgotten and never opened up again, because there’s no way to do any research inside them, and that’s the litany of fishing by area management in the United States.

I understand where Steve is coming from, and unless -- Maybe the motion can express concern about the absence of an ecological basis for that part of the expansion, because I didn’t hear any.

MR. BOSARGE: To kind of echo Glenn’s concerns, and I’ve seen it on the state side more than anywhere else, this group may be perfectly fine with shrimping within the sanctuary, but, ten years from now, when this group is no longer here and it’s another group, they may have a different idea, and so, by us saying it’s okay to move those boundaries and it’s okay to take that in, that group -- Do you see my point? In other words, this could come back to haunt you.

CHAIRMAN KILGOUR: Sandra.

DR. BROOKE: I do see your point, Steve. We do, and you put a line around something, and, the next thing you know, there is management there. It seems that this area that you’re talking about though, specifically, not as a general rule, but just this area specifically, it didn’t seem like there was any fishing in there, and Leann’s point is well taken that it’s not all represented, but you guys generally sort of fish in the same general areas, and so, if there’s nothing down there, maybe it’s not a good shrimping area, but, if it is, then we need the data to figure that out.

Expanding the boundary makes it more simple, and you mentioned that there was a green line and a blue line, and this would simplify that, and, to your point about just one day just deciding to ban shrimping, it seems like the areas to the north, by the North TER, is where you’re more heavily fishing, if you believe those heat maps, and so that should be an area of more concern than this little strip at the bottom, and we can’t just flip a switch and ban shrimping. You guys would be involved in all of those conversations, and so I wonder if this really is a concern.

MS. BOSARGE: I would like to chime in just for a minute, and think of this from a bigger-picture philosophical perspective. This is our second time to go through this, right? The first time was with the Flower Gardens, and, G.P., I’ve got to give
you credit. I mean, you kept working with the fishermen, and you never gave up, and I think you really have come to a place where everything is efficient and effective, and you have minimized any user conflicts as much as possible, but still protected what you wanted to protect.

He did that by having his sanctuary boundaries mirror that bottom contour, that coral that he wanted to protect, as much as possible. He managed to reduce his footprint of closed area from 383 square miles down to 160. This expansion and this sanctuary does just the opposite. G.P. has a lot of -- I say G.P. as if it’s your baby, but the Flower Gardens has a lot of boxes out there, and they could have used that same rationale, that there is connectivity between the boxes, and I’m sure that there is, and they believe that there is, but, when you connect all those boxes and take in all this area where you have fishing activity, whether it be shrimping or bottom longlining or whatever, that activity has been going on there for a century or more.

That area is still pristine. If it’s not pristine, it’s not because of us. It really isn’t, and, when you overlay these types of regulations and take that in, the regulations actually become burdensome for the fishermen, because now the onus is us to figure out where we can go and where we can’t go. Right now, with that bottom triangle not included in the sanctuary, it’s very clear to us that, yes, we can shrimp there, heck yes, and it’s not in the sanctuary.

If I had my way, I would take that northern boundary of the sanctuary and dip it in and get those shrimp tracks that are in there out of the sanctuary, and then it would be very clear to us that, oh, we can shrimp there, and that’s not in the sanctuary.

When you take in bottom that is historical shrimp grounds, you make it even more burdensome on the fishermen, and so, if you actually have it mirrored more to the bottom contour, then it makes everybody’s life easier, and maybe it’s not what you want, but that’s the way we see it, and there is shrimping effort on that south side.

We didn’t get to get into it too much, but that was the point that I was making, that, by moving that boundary out -- Right now, we shrimp in between that area to avoid for the big ships and the actual sanctuary boundary, and we’re shrimping in there, and it’s confusing as heck on that map, and that’s why I get mad that the bottom boundary of the sanctuary is not green and it’s
blue, and it makes it very confusing for us, where we can be and can’t be, and so there is historical shrimping effort in that area, and I think that, philosophically, is the base of this motion.

CHAIRMAN KILGOUR: Corky, you said that you wanted to say something, and then Scott, and then I think we need to vote on this motion. We are starting to get behind.

MR. PERRET: The easiest thing in the world is for a bunch of bureaucrats to sit in an office and look at a map and draw lines north, south, east, and west. It’s easy to draw a box and let somebody worry about staying in or out of it, hopefully out, and for law enforcement to enforce it.

Unless there is a specific reason for a particular measure, we don’t need to add burden to our law enforcement people, to the fishermen that utilize the area, or maybe utilize an area, or may have been utilizing the area, and, with that, I call the question.

MR. HICKMAN: Steve, I appreciate the rationale behind it, and that’s what I was looking for. I just read a big article in Sportfishing Magazine from a well-known scientist talking about the shrimp fleet, and it was 90 percent false, and I know why you all are sensitive, and, just like the commercial and charter fishermen, and we’ve been picked on a lot, and I get it, and I understand it, and I appreciate your rationale.

CHAIRMAN KILGOUR: Okay, and so Corky called the question. This is a Shrimp AP motion. Any opposed to this motion? The motion carries.

Is everyone comfortable now with moving on to the stony coral tissue loss disease presentation? Steve.

MR. BOSARGE: I just wanted to say thank you for letting me go back, and, Beth, you guys have done a good job, and we appreciate what you do, and there’s a lot of work that goes on there, and you’ve got a big task ahead of you. There are definitely problems down there, and I don’t think my industry is much of your problem, but you’ve got a lot to work on, and I don’t envy you your job and your position, but thank you for what you do.

PRESENTATION ON STONY CORAL TISSUE LOSS DISEASE

MR. RUZICKA: My name is Rob Ruzicka, and I’m a scientist at the
Fish and Wildlife Research Institute, and I think this is more of a less controversial presentation here. I feel like it’s more informational, and maybe some of you all have gotten reports of this, or have heard about this, or have just discussed it, those that are in the shrimping industry that are also active divers.

There is a bit of a concern, as you will see in the presentation, about how this disease is actually spreading throughout the broader Caribbean and things that we’re concerned with about it potentially getting up into the northern Gulf of Mexico as well, too.

I have been with the coral program for ten years, over ten years, and certainly, in my time, in terms of studying coral reefs, we have seen nothing like this. I can kind of keep this informal, and, if you all have questions and want to ask questions along the way, so you can get clarification generally, and I speak to a variety of different audiences, and I will have a tendency to maybe gloss over some of the things that I take for granted about a coral disease, and so feel free to ask any questions along the way.

We refer to this disease as stony coral tissue loss disease, and where the epicenter of this started, for those that are unfamiliar with it, was off of Miami-Dade County, and that’s what that red arrow is indicating, and this started back in 2014.

There are several theories that go around with this about what actually started this disease event. In 2014 and 2015, we were undergoing a mass coral bleaching event, and there was a lot of thermal stress, and that was a primary El Nino year, in 2014 and 2015, and it was actually a global event, and so there was a lot of bleaching happening globally, but also along the Florida reef tract.

There was also, at this time, major dredging operations that were going on at Government Cut, and Government Cut is really close to where that red arrow is, and they were doing deepwater dredging there to allow Panamax vessels to start coming in to the Port of Miami at that time, and so there could have been a confluence of events that were going on there that might have jumpstarted this disease event.

These are some of the lesions, and these are very common corals that you find on the Florida reef tract. It’s just a variety of corals here, and, actually, what you see in these images are the
areas in the center, where the coral looks kind of grainy, that’s where the mortality is occurring. As the coral dies, its appearance and its skeleton turns white, and that’s what you’re seeing when the tissue is removed, and so we first began to know in 2014 that, well, this doesn’t look quite like coral bleaching.

All corals turn white, a lot of times, when they die and their skeleton turns white, but getting these odd lesions in the center of the coral and the fact that it was actually moving systematically across the coral in just a few weeks, we knew that we were beginning to deal with something else.

If you want to try to play that video, and you’ve probably heard a lot about coral diseases just in the past, and they are an issue, but, when we actually refer to an outbreak, this is how you can actually visualize it, and so hopefully this video will play, and this is from a very popular dive location in the Florida Keys, and this is a site called Hens and Chickens.

This is a video that we shot, and you can see all these white corals in here, and this is just a small little coral outcropping that is probably like the size of this desk area, and so you begin to see these brain corals here with the lesions that are just starting, and you can see there is a different type of lesion on that coral there in the lower-right-hand side, where the coral is dying, and there’s another lesion, and so all these corals that are in direct, immediate contact with one another are passing this disease onto it, if their actual skeletons are touching.

Then, when you look at the top part of this, you can see all these corals that are white here, and they all either have recently died, or they’re in the process of dying, and this is this whole reef structure here that you’re actually looking at, and, when you see an outbreak, and you see this many corals at one time, it really is quite shocking to the eyes to see this many corals dying all at one time with these strange-appearing lesions.

The other thing that you will notice here is a lot of these corals are really large, and these are your framework builders. Some of these corals that I just showed you in that picture, they are 200 or 300 years old, and they’re dying in a matter of weeks or months. Now we can go back just to the presentation.

That is what is so scary about this, is that we’re going to lose that framework, because these large corals are actually dying in
this event, and so, in Florida, we’re going into the sixth year of this. As I mentioned, it started in 2014, and we’re getting close to 2020, and this is just a time series as --

AP MEMBER: Where in the Keys was that video that you just showed?

MR. RUZICKA: That was from Hens and Chickens, and so that’s in the Upper Keys, and it’s probably one of the most popular dive sites throughout all the Keys, and it would rival Looe Key, and it’s -- Historically, we have very, very good data on it, about the coral formations there, and it has really high coral cover, 20 or 25 percent, on average, and most of the corals that contribute to that cover are now gone, or just skeletons.

MR. HICKMAN: Are most of the dive operators in that area now requiring that everybody bleach water their dive equipment?

MR. RUZICKA: It’s been recommended and advised. Many of the dive operators are sensitive to the issue, and so they won’t take their dive groups to different sites, and they worry about the spread of it, and so they’ll dive at the same site, maybe just a different part, part of the reef, but where we’re at now, in terms of -- Let’s see if this is working again.

It’s pretty much throughout the entire Florida reef tract now, and that’s where I was going to go with the slide that was previous to this, is it started in Miami-Dade in 2014, and the most recent reports, from the surveillance and the reconnaissance that we’ve done, is it’s down off of Western Dry Rocks now.

MR. HICKMAN: Has your commission even had the discussion of making it a mandatory deal that they dip their equipment? I mean, in Texas, we’ve got a requirement now that you have to treat your trailers when you go from lake to lake, because of the invasive species. I mean, if you’re going to destroy this many coral reefs in --

DR. BROOKE: But you’ve also got to stop people touching it. People go down there and they thrash about, and they’ve got their hands all over everything, and so bleaching is one thing, but keeping people off the reef is another.

MR. RUZICKA: The biggest concern that we had was it being transported from one reef to another, but I think, at the same time, we know that it’s waterborne, and, with some of the studies and the research that has been done, we know that it can
be carried in the water, and so there’s a natural spread that’s going on there.

I think the major concern was it leapfrogging from like one country to another or from one region, say Miami-Dade County, all the way down to the Dry Tortugas with divers, and so that’s where the disinfection would come into play, is if you’re going to like multiple reefs that are separated by broad geographic regions. Then people should be doing that.

There is an informational campaign that’s been put together by DEP that has those recommendations in it, that if you’re traveling across different locations that you should be disinfecting your equipment, but I guess, as a statutory authority, no, that’s not in place as of yet.

**DR. BROOKE:** But isn’t it going against the prevailing current?

**MR. RUZICKA:** Yes. If we can hopefully get back, or at least -- To answer your question, it started in Miami-Dade, and then it rapidly spread through Broward County and West Palm Beach, and it traveled with the prevailing currents, but, over the course of the last five years -- It first showed up in the Florida Keys in 2016, and we documented it -- Our group at FWC documented it in 2016, and it has slowly worked its way through the Florida reef track down towards Key West over the last three years, and, yes, that is against the prevailing currents.

If anything that we’ve learned is where the locations of the gyres are and the countercurrent eddies that take place in the Florida Keys, and, with that waterborne transmission, it seems to be able to go against the prevailing currents, and then Hurricane Irma in 2017 threw a pretty large curveball, because we had been tracking it as it had moved westward through the Florida Keys, up until 2017. Then, when Irma came, it disrupted the entire system and basically sprinkled it like a blizzard throughout parts of the Florida reef tract that we couldn’t catch up to where it was.

**AP MEMBER:** What if bleaching does occur, and how do you solve it?

**MR. RUZICKA:** How much longer do we have here? Coral bleaching -- Generally, the primary reason why coral bleaches is because it has undergone some type of thermal stress, generally being too hot, and that’s been our major concern, and so, when the water temperatures get too hot, the symbiotic organism that lives with the coral, a little algae, is expelled, and that
algae that’s in there gives the coral its color, and it gives
the coral a lot of nutrition, and it basically helps the coral
survive and live on the reef, but they don’t like it when it
gets too hot.

Corals, even though they’re tropical, they have a pretty narrow
range of water temperatures that they actually prefer, and so,
when they get too hot, they expel that algae, and, when that
algae gets expelled, all you’re left to see is the coral
skeleton, and it turns white, and hence the word “bleaching”, as
the coral turns white.

Going back to the coral bleaching, the thing that we’re
concerned about with -- We know, and we have plenty of evidence,
scientific evidence, that sea-level temperatures are rising, and
we also know that these periodic El Nino events, like in 1997
and 1998 and then also in 2014 and 2015, the one that I was
discussing, these frequencies of intense bleaching are happening
more frequently, and so I don’t -- There are ways to stop it, or
at least actions that we can take to try to prevent global
warming and climate change, and you hear that discussion a lot,
that we know that the waters can’t continue to warm, because
it’s going to lead to more and more coral bleaching.

DR. BROOKE: But bleaching is different from this.

MR. RUZICKA: Bleaching is absolutely different from this. This
should not be confused with coral bleaching, even though the end
result is similar and that the corals -- It’s going to show the
coral skeleton turning white, and that’s the end result of this,
but this is not related to warming sea temperatures, in that
case. This is a pathogen that is consuming the coral and
actually killing the coral, just like any type of infectious
agent that a human could get and it would kill us.

AP MEMBER: Is bleaching a stressor that can exacerbate the
impact of stony coral tissue loss disease, or do warming
temperatures impact or exacerbate the impact of stony coral
tissue loss disease?

MR. RUZICKA: Well, we have -- Generally, when you have coral
diseases in the past, they coincide with warmer temperatures,
and so warming temperatures will exacerbate the prevalence of
coral diseases. We generally see, when we do our surveys and
work on the Florida reef tract, we see the highest prevalence of
coral diseases in the late summer.

What is surprising about stony coral tissue loss is it’s
persistent throughout the course of the year. There is never really any ebbs and flows with it, and it’s persistent. It seems to have a food source in the environment with the corals, and we have not seen it necessarily kind of scale back during the wintertime, during the cooler months, when bacteria and other things in the water column are not as prevalent as they are in the summer.

DR. BROOKE: Do you know what the pathogen is?

MR. RUZICKA: We don’t, and so there is plenty of -- There is research teams working on it, and so one of the things that we have been successful in trying to -- If we can hopefully get back to the presentation, but did I just totally ruin you all’s computers by that PowerPoint?

One of the things that we do know, Sandra, is that some of the corals and the responses that are taking place to it, they are treating them with antibiotics down in the Keys, and so what they do is they actually mix up like clay or an epoxy, and they actually infuse that with antibiotics, and then they will actually apply that directly to the coral, and that has had some success at times, but the problem is it’s not -- Well, it’s certainly not scalable, but we don’t know if we’re treating a secondary infection, and so, once the coral begins to die, then you’re preventing that other bacteria from killing it by applying that antibiotic paste or if it’s the primary pathogen. That is still uncertain.

DR. BROOKE: Have you see any recovery in any of the corals?

MR. RUZICKA: Very little.

AP MEMBER: I have another question about stressors, but I will hold my question.

MS. BOSARGE: I was looking at the map of your confirmed reports with the little pins on it, and I may have missed this, and you all were all over the board in this discussion, but it almost looks like -- I mean, if you look at the prevailing currents, they are coming from South America up through the Yucatan Current, which goes up between Mexico and our islands out there, and it comes into the Gulf and makes a big loop and swings around the Florida Keys and goes up.

If you look at your reports, they kind of follow that track, and so are you doing any research down off of South America, to talk to these people about what is going on down there and what
they’re seeing? Then I guess the following question would be you mentioned that we had some warmer waters down there, and could this be a bacteria that came from there, where there are some warmer waters?

It normally dies before it gets here, because it can’t live in the temperatures that we have here, but now it can, and, eventually, I’m going to ask you about the fish, but I will save that for a minute.

MR. RUZICKA: For the most part, this stony coral tissue loss disease event has been a Florida event. We had good eyes on the epicenter, and this picture up here -- This is through 2009, and so everything -- I am going to answer your question in a long format here.

Everything in red means that we have observed corals with these lesions or that area is -- This was actually a time series animation here, where you could actually see the red part of the Florida reef tract actually spread, and so, in the Upper Keys -- It reached the Upper Keys in 2017. In the Middle Keys, it actually reached the Middle Keys in late 2017, thanks to Hurricane Irma, and then, in 2018, it reached the Lower Keys, and it’s a little bit west of Key West right now, in 2019, and so there’s been that slow prevail moving against the Gulf Stream.

Now, in terms of this image right here, and so all those little red balloons are where it’s been confirmed, and I think there should be one more image here, and then the orange balloons are where we have received reports of it, and we kind of have a team that actually looks at these reports, to actually try to confirm if it’s the stony coral tissue loss event, but, if you look at Number 3, where it’s there in Mexico, that arrived in 2017, and it also arrived in Jamaica in 2017 as well too, and so Jamaica was actually the second report that we found.

One of the concerns has been that shipping traffic off the east coast of Florida has actually served as a vehicle to be able to transport this to some of the other locations. Up until 2017, this was primarily just a Florida event, and then, in 2017, it began to spread to other places in the Caribbean, and one of the reports that we really know is, if you look out at Number 5 there, that’s the United States Virgin Islands there.

Where it was first documented and confirmed there in the Caribbean was next to the major anchorage that takes place to service a lot of the cargo and container ships that were
anchoring there, and sometimes these large container ships and vessels will anchor there for several days, or maybe weeks at a time, and we also know the same thing up off of Government Cut and off of Port Everglades and Fort Lauderdale.

When those large container ships are coming into port, they can sit there for four or five days, until their number is called, and then they will offload their cargo, and then they will go back out.

**DR. BROOKE:** Looking at that map, it’s a cruise ship route, too. A lot of ships go out of Lauderdale and down to Cancun.

**MR. RUZICKA:** That’s right, and so it was very interesting, and we were very concerned, and there is a team that tries to work on ballast water messaging and then also working with the container and cruise ships. One of the things that we did find interesting, that is interesting, is cruise ships go into Key West all the time, and it followed the same pattern in Key West that it did just through the slow progression in the western movement, and so those cruise ships coming out of Fort Lauderdale or out of Miami didn’t leapfrog it down to Key West, but what happens is now we’re seeing this leapfrogging around the Caribbean.

When we’ve seen other infectious disease agents spread through the Caribbean, they generally start in the southern part of the Caribbean, and then they work their way northward, like what you’re saying, Leann, that it follows the prevailing currents and then makes its way around the Caribbean.

In this case, it’s showing up kind of randomly in these different places, and likely some of the container traffic could be an issue, and, also, the other thing to mention is, with the container ships and those large cargo freighters, their ballast water systems are not nearly as up-to-date as the cruise ship industry. The cruise ship industry, because of some of the regulations that they have to face, and because of the age of the ships -- They are much more recent, in terms of their age, and they are equipped with more modern ballast systems than some of the old container ships that are around.

**MS. BOSARGE:** Believe it or not, I am concerned about this, and I do want to see it solved. I know that we’re not usually on the same page, but I guess I’m just trying to use my commonsense. You’re not seeing it in G.P.’s world, from what I can tell. You’re seeing bleaching, but you’re not seeing this. If you look at the loop current, there is eddies that come off
the loop current that get over into G.P.’s world, but the loop
current itself does not get in the Flower Gardens area, but
guess what does? Tons of shipping.

Have you ever been off of Galveston or off of Southwest Pass or
any of those passes down there? I mean, they’re lined up, and
so I guess that’s -- I am just trying to think outside of the
box, and I know shipping is an easy one to think that that’s
probably it, but, if that was it, why don’t you see it in G.P.’s
world? They are transiting over there and going in and out of
there, too.

**MR. RUZICKA:** Well, and I think this was part of the reason why
Natasha invited me to give this presentation, was for the
informational aspects about how this is actually spreading
across the Caribbean.

Our most recent knowledgebase on this, because it is a really
grave concern, that somehow this does get up into the Flower
Garden Banks. Because of all the problems with the
presentation, I haven’t talked about the corals that are
extremely vulnerable to this event, but many of those coral
species actually do occur and reside at the Flower Garden Banks,
and so, if this was to get at the Flower Garden Banks, it would
be catastrophic, because of the size of the corals that are
there.

I don’t know when -- My ears perked up, G.P., when you were
talking about where your anchorage is, and you’ve had a couple
of small anchorages, but I don’t know how close that is actually
to the Pinnacles there and to the Flower Garden Banks, but it’s
certainly fortunate so far, and, now that it is just downstream
of where it is in Mexico, and, also, those other points below, I
should just mention that’s Belize, and so it’s doing the same
thing off of the Mesoamerica coast, where it’s working its way
against the prevailing currents.

The currents, the headwaters, of the Gulf Stream start down
there, and then it turns up, like you said, in the loop current,
and it’s been working its way in reverse down -- It started in
Mexico, and it’s now going into Belize, in a similar fashion as
what it did along the Florida reef tract, starting up in the
northern part of the Florida reef tract and then slowly working
its way westward towards Key West and towards the Dry Tortugas.
We don’t have this in the Dry Tortugas.

That whole area that we just looked at for the shrimping
questions, we have also been very concerned about, but there’s
no major ship traffic that goes out to the Dry Tortugas, but, now that it is in Key West Harbor, and a lot of the vessel traffic that goes back and forth between Key West Harbor and the Dry Tortugas -- Now we’re concerned that it could be more of a scare, because it’s only been in Key West now for about six months.

MR. HICKMAN: It’s kind of striking, looking at that map, and so Houston-Galveston is the second-busiest port in the United States by tonnage, and the shipping lanes go right by the Flower Garden Banks and the other banks that are part of our expansion. We don’t have it yet, thank God, but, if you look at that map, it looks like a map of a dive tourism guide. That’s all the top places where people go diving.

I just think it’s weird that we’ve got all this shipping traffic, like the most in the Northern Hemisphere, going right next to our sanctuary every day and we don’t have it, and then all of that looks like a dive map of where to go diving, and so, if it was me, I would kind of start leaning toward maybe that’s how it’s being transmitted.

MR. PERRET: What kind of temperature changes are you talking about? You said elevated water temperatures, and just what’s the change been, and what are the temperatures out at the Flower Garden Banks versus what you’ve got in Florida?

MR. RUZICKA: A couple of comments here. First, for your comment, I mean, again, that is a concern, that potentially scuba divers could be spreading it throughout the Caribbean. One thing that I should mention on this is that, for the most part, all of these dots on the maps that you see, these are shallow-water reef locations.

The only report that we have it coming now so far, and this is new, is from the Virgin Islands, where they do have mesophotic reefs, and so mesophotic -- When I say “mesophotic reefs”, I am generally referring to reefs that are probably beyond and deeper than 100 feet, more or less than 130 feet, or maybe deeper than that.

They have confirmed it in the Virgin Islands. One of the unique things though about the Virgin Islands and their mesophotic reefs are they are actually not that far away from their shallow-water reefs, and so the proximity to them is very, very close, and so one of the things that might help the Flower Garden Banks is the fact that it’s a mesophotic reef that is not surrounded by any shallow-water reefs, and so that could help as
well, too.

Now, for your water temperature, are you talking about the changes in water temperature that would lead to a bleaching event?

MR. PERRET: You said one of the theories is the increase of water temperature, and so what has the increase been?

MR. RUZICKA: Well, what happens during a bleaching event is you will get the seasonal increases in water temperature, and so corals maybe -- In the summer in the Florida Keys, it might get to eighty-five or eighty-six degrees, and I’ll just put this in Fahrenheit, so we can all be on the same page here. At an extreme end, maybe eighty-seven.

During that time, during 2014 and 2015, they were also seeing, in the summer -- We would get reports of like ninety-degree water temperatures, and we’ve actually seen water coming out of the backside of the Gulf, passing through the bridges and stuff in the Florida Keys, and then seeing it at about ninety or ninety-one degrees. If some of you remember, we had earlier temperatures like that at Alligator Reef, and that was one of the areas that was proposed as a type of modification, and so we’re getting temperatures at about ninety degrees, and that’s absurdly hot for a coral.

That’s about four or five degrees where they would like it, and it -- The problem is that you can have a ninety-degree temperature, but, when it’s sustained over several weeks, or even a couple of months, that we begin to really have problems, and so we had those sustained hot temperatures of eighty-nine or ninety degrees back in 2014, and then we also had this dredging event that was going on, and so it could be the combination of those two factors that helped jumpstart this event.

AP MEMBER: (The comment is not audible on the recording.)

MR. RUZICKA: It depends on where you’re actually referring to in the Gulf of Mexico. We have -- I mean, G.P. could answer for the Flower Gardens. Out here, on the West Florida Shelf, and out at the Florida Middle Grounds, you will get temperatures that range throughout the year from some our loggers, and we’ll see fifty-five degrees during the winter, and then sometimes as hot as eighty-eight or eighty-nine degrees during the peak of the summer.

There is quite a wide range, but it’s more -- Even if you get
those eighty-eight or eighty-nine-degree bursts out here in the Gulf of Mexico, you don’t have the problems from sunlight and shallow water, and it’s generally modified much more quickly. What we’ve seen out in the Florida Keys is a blanket of hotter water like that can persist for several weeks in those shallow-water areas.

**MR. SCHMAHL:** I will just mention that I’m looking -- Unfortunately, I don’t have the actual data on my computer here, but we have seen a statistically-significant increase in average water temperature over the time that we’ve had temperature sensors in the water, and that’s since 1989.

Unfortunately, I can’t give you the exact number, but I can get it to you, and we’re talking in the range of about one-degree Centigrade over that period, and it is true that sort of the bleaching threshold that’s been sort of established, in general, is about that eighty-six-degree Fahrenheit, or thirty-degree Centigrade, level.

**MR. PERRET:** Do your waters at that depth get that warm?

**MR. SCHMAHL:** Yes. Absolutely. Luckily, for shorter periods of time, though. It happens later in the season, and then it starts cooling off earlier in the winter season, and so, for us, that’s been a good thing. In the Florida Keys and shallower reefs, like Rob is talking about, it persists for longer periods of time, and you get more mortality.

**AP MEMBER:** Just a commonsense kind of question from a fisherman, but what’s the relationship between the fish and the coral? I mean, the fish are there, and they provide nutrients of some sort, I’m sure, and is there a relationship between fish and coral, and is the fish missing part of the problem with the coral not wanting to survive? Is there a relationship there?

**MR. RUZICKA:** I mean, there certainly is a relationship in the bigger picture. In some cases, you don’t have a lot of your fish if you don’t have your corals. We certainly know that from -- There is plenty of evidence of that from the lobster fishery, that, once you start to have dead and dying reefs, and you don’t have the living coral, those lobsters have a tendency to move away from dead corals, because the lobsters are coming in, and they use it as habitat, but, also, the things that they like to forage on and consume are actually growing within the corals, like smaller barnacles and other associated organisms, and so the lobsters come in there, and they actually consume on that when they’re using that as reef habitat.
You get this displacement, and there are certain fish that come in in the same way. They’re attracted to the smaller fish, the bait fish and stuff, that are coming in and consuming things that are actually on the coral reefs, and, if those are lost as well too, then you will see that displacement of fish, where the fish are going to try to find their foraging areas and other places.

I was going to follow-up. Unfortunately, I haven’t been able to kind of go systematically through the presentation, but one of the things that we have noticed is that, actually, fish may help foster the spread of this disease, because they love necrotic and dying tissue on the coral. The smaller fishes, they come, and we have several videos of them coming in and actually feeding on the dead and decaying tissue, and they want to consume it up. It’s a nice little snack for them, and then they will go bite a healthy coral, and you can just watch them follow along.

Now, whether that bite and that injury to a healthy coral actually begins an infection, we’re not sure, because we haven’t studied that coral over time, but we commonly observe it, and we know that they like to eat the dying tissues, and then they will go bite healthy corals after that, and so I just wanted to answer your question, in case that’s what you’re asking in relation to the spread of the disease.

MS. BOSARGE: My question kind of follow on that, and so you’re trying to figure the relationship between the coral and the fish, to see how the fish is damaging the coral, by possibly spreading the disease. I know you’ve harvested some of this coral, and you have tried different antibiotics on it in a lab, and you have shown that, in the lab, it can be transferred via sterile seawater.

In the lab, have you put those bait fish in with the coral, in that test-tube-type environment, and see if the fish die, or see if the fish get sick? I am asking it because I’m a fisheries manager, and I know what kind of problems we’re having with bigger fish down there, and we really haven’t been able to pinpoint what is the problem with some of the grouper species, and I would like to know if the fish get sick from the coral disease. Can it be spread from the coral to the fish?

MR. RUZICKA: It’s an interesting question, and I don’t know the answer to that, because those trials have not been done. As far as we know, we know of no other organisms that have been
affected by this pathogen besides the corals. I’m talking about soft corals or talking about sponges or other invertebrates, worms and those things, and we don’t have any conclusive evidence of that, and we’ve seen the disease now march through about 80 percent of the Florida reef tract, but no one has actually followed a fish that has consumed that dead and dying tissue and seen what its end result is.

MR. WILLIAMS: Can you just say how many coral species are impacted versus how many species there are out there?

MR. RUZICKA: Yes. Florida, plus or minus a few corals, depending on how you want to lump your species together, we roughly have like fifty coral species that are well documented and make up the Florida reef tract, some of those being very rare species.

What we have confirmed is lesions on twenty coral species, and, going back to this picture, here is five representative ones. Several of these are your large framework-building ones. They can get to the size of this TV, and so we have twenty confirmed species with lesions, and I will skip ahead, just to get to the list.

This is the list, and I apologize that this is all scientific names, for the most part, and there are some common names there, and these intermediately-susceptible and these highly-susceptible -- Many on those lists are the foundational species that actually build the reefs in the Florida Keys or build the reefs in the Flower Garden Banks or actually build the reefs out at Pulley Ridge.

These highly-susceptible species, the ones that are on this list, when you see highly-susceptible, what this means is, if they get an infection, a large proportion of their population get an infection and they will die completely. There is no -- There is very, very little survivors. The only survivors that we have for those corals are ones that actually don’t get it, and that’s a very small percentage of the population, and I will show some data on that.

These intermediately-susceptible species on here, in some cases, they can get an infection, but then they can actually survive, and so it will only wind up with the coral having partial mortality, and so it will lose a leg and it will lose an arm, but the heart will still be beating, and the other half of it can go on and try to survive.
I will just go through this a little bit more, just to show you why we’re so concerned and the disease is so devastating. I am not going to bore you with too many statistics at this point, but we’re lucky, here in Florida, that we have some excellent programs that have been able to track this disease and understand the consequences of this disease, and what this graph is just showing you is a time series, with the years on the bottom, and, as you move across, you can see that big purple spike that jumps out at you, where the disease was hot and heavy, and this comes from southeast Florida, and so this is off of Broward, this is off of Miami-Dade, and you can see the alarming spike and the disease prevalence that was there. Go ahead, Sandra.

**DR. BROOKE:** Going back to that previous graph, a lot of diseases do this, right, and they spike, and then they decline, and then things go on. Is that what we’re seeing here, or are those numbers influenced by the fact that you’ve got less coral?

**MR. RUZICKA:** That’s exactly right. One of the things that we understand about this disease is, for those highly-vulnerable species that I just listed, they get the infection first, and then they’re killed completely. Then those intermittently-susceptible species, the lesions last much longer, and so this is the problem with this disease event.

Like Acropora, when it got white diseases in the past, it would kill the colony relatively quickly. What happens is, with some of these larger framework-building corals that are the size of a small car, and they take several months to die, they are just shedding disease particles throughout the water environment and then infecting other corals, but the main reason why that number drops from 2016 to 2017 is because now, at this point, all those highly-vulnerable corals are all dead, and so they can no longer be infected.

I will show some numbers, because this one is easier to digest, and so this is from our program at FWC. The corals that are listed up there on the top, we use these four-letter acronyms of CNAT, DLAB, DSTO, and, again, these are many of your large framework-building corals, and so we have this dataset, and, if you go from the last five years, going from 2014 down to 2018, you will see the devastating effects to some of these species.

You take that first one on the left, the CNAT, and, again, this coral can get very, very big, and we had fifteen, and this is just our data from the Upper Keys, and so this is just a smaller case study here. You can see, by the time the 2018 comes
rolling around, we have none of them left, and so they’re actually going through local extinction up there, and you can see that.

Also, for the MMEA, and it’s in the middle of the table, we had ten or eleven, and, by 2018, for the Upper Keys, we’re at zero. Some of these other ones have been reduced in half, and so you can see the losses of these corals, and this is why it’s so devastating, and we’ve never seen anything like this, except for like on Acropora, which I mentioned, and those are your staghorn and your elkhorn corals, but we’re talking two species. Instead, here, we’re actually talking twenty species, with about eight or nine of them are going locally extinct on the Florida reef tract.

This is just another number, and some of these mass bleaching events -- You can see how -- This is just to put in perspective this recent event and how devastating it is. The black circles on the bottom is southeast Florida, and so those are sites that are in Miami-Dade, Broward County, West Palm Beach, and you can see, actually, even though the coral cover is kind of low, and this is taken from still images, you can see that the coral cover is kind of low, and they were doing just fine all the way up until 2015, until this disease event took place.

The red upside-down triangles, basically what that data shows, just in a nutshell, is just that this event is going to be as devastating as any of the other mass bleaching events that we’ve had that have taken place in the Florida Keys.

We know it’s waterborne, and I think it can be distributed a number of ways. Irma was a case study for that, where we had been tracking where the boundary was, for intervention purposes, in the Keys. Then Irma came along, and then it was just popping up in random places all over the reef tract, and we wouldn’t have any idea. We would just get a report from someone that, yes, we’re seeing lesions, and it could be fifteen or twenty miles away from the last reef that we saw it on.

This has been proven, Leann, like you said, through waterborne treatments in the laboratory. We know that the pathogen can be carried in the water column. The persistence is a problem, like I was mentioning, those large colonies that take several months to die. They can re-infect other colonies that are there, and it just provides fuel for the forest fire, and a reef can really be under siege for several months at a time, if it has lots of those larger colonies.
Your question, John, it impacts over 50 percent of the stony coral species, and many of these that can be found at the Flower Gardens and on Pulley Ridge, and the other part that’s problematic here is that you can see that most of these colonies that are highly vulnerable -- It winds up in complete tissue loss, and so you can see this pillar coral here, and you can see the time series over the course of about a year-and-a-half, where this coral gets infected in May of 2014, and then, in 2015, it’s half dead, and, by the time that 2016 rolls around, it’s completely dead.

I am sure that many of you are wondering have we identified what this disease is, and the answer is not at this time. We have an idea that either that secondary infection could be caused by bacteria. Some of the corals both in the field and the lab have responded very well to antibiotic treatments, but we don’t know if that’s the punitive pathogen or if it’s just a secondary infection, once the coral begins to die.

There is a lot of work that’s going on in trying to identify what the pathogen is, but the problem with many marine pathogens is there is going to be a consortium of a variety of different viruses, bacteria, fungus, and it can make it very, very difficult to try to find what the actual primary causative agent is.

We do know that it’s a variety of different bacteria that, through different analysis and testing about the microbiome, and so we’ve seen this footprint. As the corals move throughout the Florida reef tract, we have seen this reliable footprint that suggests that there is a variety of consistent bacteria that are attached with the lesions, or associated with the lesions, when you find that.

I know this is relatively depressing to hear all of this, and many of you might be wondering what actually is being done, and so there has been a response structure that has been imposed in Florida, and these are -- I won’t go through all of these individually, but there are many different response teams that are working on different aspects of stony coral tissue loss disease, and there has been a lot of support given to the State of Florida and to DEP and different research groups to try to combat and respond to this disease event.

Here are four of them, and there are still active research teams that are looking at the epidemiology. You do have teams in the Florida Keys that are using reconnaissance and intervention, and, in some of these pictures, you can see that they’re
actually treating the individual lesions on the corals and then applying this antibiotic paste.

We are working with the Caribbean, to try to educate them and show them the warning signs on what to look for, and then a project that I’m a part of is Coral Rescue, which you might have seen in different news media pieces, and, in short, what we’re doing for Coral Rescue is we’re trying to preserve some of the genetic diversity of these most vulnerable corals and putting them in safeguarded facilities, and I forget, but we have an aquarium in Galveston, Moody Aquarium.

Those of you that are from Texas, they have about seventy-five of our corals from this project, in which we’ve taken them from the Florida reef tract, and they are currently being held at Moody Gardens, and they’re going to hold them for the next couple of years, and then we’re going to try to use them for spawning stock and for restoration purposes.

That is kind of the idea of the Coral Rescue Team, is that we will remove about 4,500 corals out of the environment, and we’re working with a large, large network of aquariums and zoos around the United States that have volunteered to be able to keep these corals and care for them, really at no cost, and then, as we move them around to different facilities that are being built, and I will show one here, just real quickly, and that’s the boat that we collect the corals on.

This is what the corals look like when they’re actually in captivity, and that’s at Jenkinson Aquarium up in New Jersey, and they have corals there, and they are giving tours of them. Here is one at the Florida Aquarium, and we’re building four of these greenhouses at the Florida Aquarium, which are going to be large restoration facilities, and some of this money has come from the State of Florida to be able to build these greenhouses, and that blueprint and that diagram is where the restoration center will take place.

They just had a successful press release, in the last couple of months, where they had one of these species of corals that are highly vulnerable to this spawn in captivity, and so then those get settled out, and then those will get transplanted back out to the reef, and so we’re hoping to do this for those twenty or so really vulnerable corals, and it’s unleashing and opening an entirely new world of science, things that we’re learning about corals that we never knew or that we could learn through their field observations, and we’re now learning about them through this captive breeding process and what we’re trying to do.
I guess, with this part, it’s actually quite exciting, because maybe these are programs that we should have started years ago, when we knew that the coral reef crisis was getting as bad as it was, but this disease, and the response to this disease event, is really taking us to the next level, in terms of trying to do restoration work to help rebuild the Florida reef tract, and, again, really, one of the important things, I think as we sit around in this room, is places like the Flower Garden Banks and Pulley Ridge are really special.

I know that sometimes we feel like -- Maybe you feel like we’re always pushing for these preservation areas, but, with at least what I’ve seen with the Florida reef tract over the last ten to fifteen years, and now dealing with this event, and knowing that some of these corals are at places at Pulley and at places at the Flower Garden Banks, and they are special and they are unaffected by this disease event, that’s why we’re trying -- That is basically becoming our bank account for corals right now, or our safety net, because they have shown resistance and resilience to many of these stressors that have really wreaked a lot of havoc on the Florida reef tract, and so I will just leave it with that, because I know we’ve got other business to do.

MR. HICKMAN: I just want to say one thing too about we’re losing all these corals, and we have this horrible disease that is spreading, and we were talking about the natural gas and oil platforms in the Gulf of Mexico earlier being 3,000, and now we’re down to like 1,800, but those platforms are covered in corals.

Every time they remove one of those platforms, they kill those corals, and so that’s something to think about, moving forward. From a shrimp industry standpoint, I know you all don’t like platforms, or you don’t like the cutoff rigs, which we fishermen love, and corals will grow on those things, especially in the top of the water column.

As we remove them, maybe we want to keep a few of them, because you can transplant corals off of them, and G.P. will tell you that invasive species get on them too, and that is true, but, also, you can use them to grow corals, if you want to transplant corals to them, and so it’s just a thought.

MR. RUZICKA: I will just circle back. If you guys do want to learn more about all the different responses that are taking place, you can go to this page on this presentation right here, which gives you a lot of information about the disease and where
it’s currently located. That AGRRA website will give you up-to-
date information on reports that are happening across the
Caribbean, and I should not gloss over this fact about coral
rescue.

Doing something like coral rescue would have been unheard of
three or four years ago. The fact that we’ve actually reached
this point, and that we’re pulling corals out of the water, it
goes to show you the concern that we have, and so there’s a
website here, where you can stay up-to-date with the progress of
that.

We have almost 1,500 colonies in care across the United States,
at these different facilities, and there’s corals in Iowa, and
corals in Texas, corals in New Jersey, and you can use this
website, and this is free, publicly-available website, to
understand which corals have been pulled out of the water and
where they are located, and so this is a pretty monumental
project that’s going on here, because it’s not easy to get
permission to pull corals out of the water, and we all know
that.

DR. BROOKE: This is probably a stupid question, but you’re
taking these out of a diseased area, and you’re putting them in
these aquaria, and they are recirculating and not flow-through,
aren’t they? I mean, the last thing you want to do is to
accidentally infect a huge area by putting a diseased coral in a
flow-through system.

MR. RUZICKA: That’s right. It’s a combination of both, and so
most of the AZA facilities, and so the Association of Zoos and
Aquariums facilities, they are recirculating, but there’s a
large process, and I won’t go over all the details of coral
rescue, but, when we pull a -- I will just go bring up one
picture for this.

We’re doing all of our collections out in the Dry Tortugas and
the Marquesas right now. We’re doing them all ahead of where
the disease boundary is, because, like I said, the last report
is near Western Dry Rocks.

We go out and we do these coral collection cruises on the Makai,
and this is the Makai, and then we bring them into the
University of Miami or Nova Southeastern University, and the
coral is being held on the boat, and then every single coral is
genotyped.

We are developing getting the genetic information, and all of
them are mounted, because they are much happier and much better
when they are mounted on these tiles, and they’re all tagged and
labeled, so we can understand. We’re trying to get 200
genotypes of each coral for restoration purposes, and so we take
them to Nova, and we take them to the University of Miami, and,
there, you can see that’s one of the tanks on the left at the
University of Miami, with those tubs of egg crates, and they go
through a quarantine period.

After they pass the quarantine period, then we ship them to a
facility like Moody in Texas or Adventure Aquarium or Omaha
River, and so they’re getting corals that have gone through
quarantine, which we should know should not have any stony coral
tissue loss disease, and so we’re putting those protocols and
procedures into place, because we can’t -- Occasionally, we have
a coral that will die in quarantine, not necessarily because of
stony coral tissue loss, but we don’t know the life history of
the coral that we collect.

Some of these corals that are vulnerable, we don’t know how long
it has lived for, and we could be collecting it towards the end
of its life, and then it dies under the stress of that, but all
the corals that are around these different facilities in the
United States have fared fairly well, and I think we’ve only
lost two so far, out of the 1,500, which is pretty remarkable,
but the idea will be when they -- We’ve already had some
spawning success in captivity, which is really good, and we know
that we’re just going to have to put them back out on the reef
and take our chances.

We’re not going to be able to genetically engineer them or
modify them to be able to survive stony coral tissue loss
disease. We’re just going to have to hope that there is some
genotypes that are naturally resilient to it.

CHAIRMAN KILGOUR: Thank you very, very much. I think we’re
going to have to move ahead to Other Business and hope that we
can circle back to the CRCP grant, and so Corky came prepared
with a couple of things to add under Other Business, and so
let’s get to them.

OTHER BUSINESS

DISCUSSION OF DECLINE OF NESTING OF THE KEMP’S RIDLEY SEA TURTLE

MR. PERRET: Thank you, Morgan. I appreciate you giving us the
time. There has been some documentation and papers presented
and so on and so forth about the decline in the number of Kemp’s
nesting at Rancho Nuevo and the beaches down in Mexico, and
there’s been different hypotheses as to what’s going on. One is
the BP spill, and my former major professor recently came out
with a peer-reviewed scientific paper relative to carrying
capacity of the Gulf relative to Kemp’s and so on and so forth.

We really need a good stock assessment on the Kemp’s. Now, we
had some handouts, and do all of the members have the handouts?
I guess where I was going, or we were going, is some of the
shrimp committee members have been discussing this, and now I’ve
lost my motion.

We are extremely concerned about this decline in nesting of the
Kemp’s, and there is definitely a need for a good stock
assessment on Kemp’s ridley sea turtles, and, with that in mind,
I would like to offer a motion on behalf of the Shrimp Advisory
Panel that would go to the Gulf Council.

My motion is that, given the unexpected substantial declines in
nesting activity in Mexico in recent years, there is a critical
need for a stock assessment update for Kemp’s ridley sea turtles
that should be performed by competent sea turtle experts. This
assessment should address, among other things, if, how, and to
what degree density dependence and the 2010 Deepwater Horizon
spill may have contributed to this decline. That’s my motion.

CHAIRMAN KILGOUR: Is there a second to the motion?

AP MEMBER: I will second it.

CHAIRMAN KILGOUR: All right. Is there discussion on the
motion?

MR. PERRET: Well, again, the shrimp industry has made great
sacrifices, with TEDs in the nets, and that certainly has helped
to contribute to the reduction in take of the Kemp’s, as well as
other sea turtles, and now, with this recent decline in the last
few years, we’re extremely concerned about this, and we’re
trying to find out if this may be the reasons, and also the need
for a stock assessment at this time, especially since this
species seems to be -- The nesting seems to be declining.

AP MEMBER: I certainly agree with Corky. With this decline --
Contrary to popular belief, the shrimp industry is very
interested in sea turtles. We do everything we can to protect
them, but, with this decline, the problem is we don’t know, and
nobody knows, why these turtles are declining, the nesting, and
we need to find out.

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We need to find out not only for our industry, but for everybody’s industry. There could be a hundred different things causing this, or an aggregate of a hundred things causing it, but we need to find out, and we need to fix it, if it’s something to do certainly with the shrimp industry.

We will do what we can to fix it, and I heard last night that it could be water temperature, or it could be anything. It could be stress that is preventing the turtles to nest every two years, like they normally do, and, instead, they’re extending it out to three to four years, and so we just don’t know, but a stock assessment will certainly, I think, help provide answers to that, and, maybe by the time we get something, we’ll know more about it, or the natural occurrence of it, and so I certainly support what Corky was saying. Thank you.

MR. HICKMAN: I agree, and I would support that. I will say this is something that I’ve seen in the last ten years of spending a hundred days in the Gulf of Mexico. We fish a lot of Sargasso weed, or weed lines, and the amount of plastics -- The amount of marine debris in our weed lines has increased by hundreds of percent.

We went through a big period of drought, and now, all of a sudden, we’re going through a period of major flooding across the whole North American continent. Our group, the Galveston Professional Boatmen’s Association, started a deal this year. Part of our fishing rodeo is we’re doing a balloon rodeo. The top captains get rewarded by picking up the most balloons. You’ve got to document it and take pictures of the balloons. I picked up thirty-three balloons in one day. These balloons are from graduations and weddings and deaths, however people celebrate whatever they do, and they let these balloons go.

They all end up in the Gulf of Mexico, and a turtle is not a smart animal. A turtle will eat anything. We see these juvenile turtles on these weed lines, and they are chewing on plastic. Plastic gets in their intestines, and it absolutely kills them.

The amount of marine debris has exploded in all of our oceans, and the turtles are eating it, and there needs to be more research done on how many of these turtles are dying from this stuff, and so our deal is, at the end of the year, Ocean Conservancy, and some other folks that have helped us sponsor this balloon rodeo, the top captains get cash prizes for picking up the most balloons. They love balloons, for whatever reason.
We have got videos of untangling the balloon strings from their little flippers and all this stuff, and it’s a huge impact, and we really need to look at the marine debris connection to this decline in turtles. It’s a big deal.

MR. BROOKER: Scott mentioned Ocean Conservancy, who I represent, and we’ve had the international coastal cleanup going for more than thirty years, and it happens every third Saturday in September, and so it’s coming up next weekend, and so you can go sign up for a cleanup, if you would like, but turtles go after balloons because they look like jellyfish, which is a predominant food of theirs.

Just to the point of marine debris and plastics, I wanted to give you a statistic, and that is that, every year, nine-million metric tons of plastic goes into the oceans, and that’s an amount that would be equal to one dump truck filled with garbage every second of every minute of every hour year-round, and so it’s a staggering amount of debris that, obviously, we need to be doing something about for turtles, and for all of us, really.

MR. DELANEY: If I could just add something to it, I had sent a couple of slides that I think I saw up there briefly, and it’s just to give everybody a picture of just how severe the decline has been, and I got this data from Jamie Pena, who has been running the Rancho Nuevo project for many, many years, with a lot of people helping him, of course, but I don’t know if those slides can be put up again, but this is the latest update on the 2019 season.

I guess the second slide probably shows it graphically, and it’s the easiest to see what’s been going on. We went through a whole period of time of exponential increase in the population, and then we had some major disruptions, perhaps coincidentally, post-2010 Deepwater Horizon, and we’ve had some major fluctuations in the last two years, just a massive decline in the nesting, and so we need to get to the bottom of this.

The shrimp industry is held responsible for sea turtle bycatch, and the status of the population is an important factor in the consideration of what measures are applied to the shrimp industry, and so we’re very interested in getting to the bottom of this, and so I appreciate the motion.

MR. PERRET: Any time I had someone come before me or a group or a council or commission that I was on with a proposal for any type of study, probably one of my first questions was how much will it cost, and my best guesstimate, talking to people that
have done this type of thing, and are involved with this type of thing, was somewhere in the neighborhood of $250,000 to $300,000, and so that’s a ballpark figure.

With the amount of money that we’ve spent on a lot of other things, I think it’s a relatively small amount for something that is so important and that needs to be done, and so thank you.

**AP MEMBER:** When was the last time that stock assessment was performed? Do we know the answer to that?

**CHAIRMAN KILGOUR:** Benny.

**DR. GALLAWAY:** The last stock assessment was conducted in 2013, and it was published in 2016, along with an update, which supplemented -- It was a special issue of Gulf of Mexico Science, and so the data go through 2013, and the stock assessment was 2016, and it ended on the fact that it could be density dependence and it could be other things, but there was a path forward as to how you might resolve that.

**CHAIRMAN KILGOUR:** All right. Any more discussion, or are we ready to vote on the motion? Did the Coral SSC or Coral AP want to join this motion, or is this okay with it being a shrimp -- The Coral AP wants to join this motion, too. Coral SSC, do you have any thoughts?

**MR. SCHMAHL:** I have no objection.

**CHAIRMAN KILGOUR:** Okay, and so it will be a motion from the whole group. All right. **Given the unexpected substantial declines in nesting activity in Mexico in 2018 and 2019, there is a critical need for a stock assessment update for Kemp’s ridley sea turtles performed by competent sea turtle experts. The stock assessment should address, among other things, if, how, and to what degree density dependence and the 2010 Deepwater Horizon spill may be contributing to this decline.** J.P.

**MR. BROOKER:** Is it worth mentioning, somewhere in here, the relevance as to why this is coming from the Shrimp AP and the Coral AP? Something about tying it back to the fishery somehow I think might be valuable to the council.

**CHAIRMAN KILGOUR:** Okay. Corky.

**MR. PERRET:** I just suggest that we add, after what we heard
from these guys on this end of the room about plastic and other things -- What degree density dependence and the 2010 Deepwater Horizon spill and other factors, to take other things, and so I made the motion, and I would like to have --

MR. DELANEY: It already says that. It says “among other things”.

CHAIRMAN KILGOUR: So are you wanting specifically marine debris?

MR. PERRET: It’s in there. That’s fine. Thank you.

CHAIRMAN KILGOUR: Corky, I overhear from the Coral AP that marine debris particularly.

MR. HICKMAN: Marine debris would be good in there.

CHAIRMAN KILGOUR: It would be nice to address specifically.

MR. PERRET: I will go with that. That’s a specific thing and go ahead.

CHAIRMAN KILGOUR: Okay. Could you add “and marine debris” after “spill”? Okay. Is everyone comfortable with this? Could you change it to “density dependence, the 2010 Deepwater Horizon spill, and marine debris”? Thank you. Is there any opposition to this motion? Seeing none, the motion passes. Was there something else under Other Business? Were there two things?

DISCUSSION OF BEGINNING CORAL AMENDMENT 10

MR. HICKMAN: Western Dry Rocks, but we already kind of discussed that. I would like to make a motion for the council, for the Gulf Council, to start working on Coral Amendment 10.

MR. PERRET: Was that on the agenda?

MR. HICKMAN: I put it in Other Business, and that can be a Coral AP motion.

CHAIRMAN KILGOUR: Okay.

MS. KRUEGER: I will second it.

MR. PERRET: Just give me some rationale of why.

MR. HICKMAN: I was going to say this earlier, because you all
were talking about how corals were connected to fish, and it’s real simple. More coral equals more fish. Less coral equals less fish, and we need to be protecting some of these sensitive coral areas in the Gulf, and some of these are deepwater corals, areas that aren’t shrimped, but they can be affected in the future, and it would be good to protect these areas as we -- Like, currently, we’ve got the largest harvest of deepwater grouper that we’ve ever had, because we’ve had a lot of effort shift from the red grouper fishery. These are areas that are essential fish habitat, and we need to make sure that we protect these corals.

CHAIRMAN KILGOUR: That’s a Coral AP and Coral SSC motion. Corky.

MR. PERRET: Scott, I agree with that, and I agree with what you said earlier, because I’m very familiar with offshore oil and gas platforms, and the removal of these platforms is removing fish habitat, and now, hopefully, most of them are going into designated artificial reef zones, and so I know that’s not always the case, but, if they are -- Well, I would assume, if indeed this goes forward and the council pursues this, that the use of oil and gas structures certainly should enhance the growth of coral, and so that will be, I’m sure, in Amendment 10.

MR. HICKMAN: We just finished a two-year -- Well, it’s got one more year of work with Benny Gallaway on a BOEM project that studies fisheries tied to oil and gas platforms, and we’re hoping, in the next twelve months, that we’ll be able to come to the Gulf Council and give a presentation on that, but there’s already been some really useful information come off of that for amberjacks and some of the other things that the council is dealing with, but Coral Amendment 10 can definitely look into some of the corals on the natural gas platforms, oil and gas platforms.

MS. BOSARGE: Scott, for people that aren’t as familiar with what you mean by Coral Amendment 10, these two groups came together, these two APs and the SSC, and we had a whole suite of coral sites that the coral experts wanted to look at closing, and we came together, and we prioritized things, and we said, you know, we can come up with a compromise, and here is our -- I think it was fifteen high-priority areas, and we walked out of that meeting thinking, okay, we feel good about that, and we hadn’t closed the bulk of the hard bottom in the Gulf of Mexico to certain gear types.

We don’t want to get it in as shrimpers, and I will grant you
that, but there’s more fishermen than just shrimpers, and so what you’re proposing is bring all the rest of those sites back onto the table and look at closing those?

MR. HICKMAN: As we get more multibeam information from a lot of these new surveys and a lot of this new stuff that we’re doing in the Gulf right now, and a lot of it is deepwater stuff, and it’s not where you all are shrimping. It’s deepwater habitat, and those sites need to be looked at as well.

MS. BOSARGE: But you and I both know there’s fishermen that fish those deepwater sites. Generally speaking, your longline guys fish deeper than your other reef fish fishermen, and then you’ve got people that fish even deeper than that. You’ve got deep-droppers, and you’ve got people like that, and so I know we want to protect everything by drawing a circle around it, but you’ve got to think about the fishermen too, and I really felt like the fishermen and the coral people came together and came up with a compromise, which was that fifteen sites, and to come back just a couple of years later and put everything back on the table -- That just, to me, breeds ill will.

MR. HICKMAN: There is a lot of new stuff that they’re finding, and the fishermen, the longline fishermen that I’ve talked to, are not dropping their gear over the top of the corals anyway, and, as we all talked about earlier, how we did it with the Flower Garden Banks is we weren’t making big boxes. We drew smaller things where people could still fish around them. They don’t want to fish up in that sticky bottom. They want to fish on the edges.

MS. BOSARGE: But you and I both know that the bottom longliners are right now having some issues with the Flower Gardens people, because they thought they would still have historical access to those crowns, to those tops of those corals, where they have historically fished down there, over there, without doing huge, significant damage to them.

We just cut off that area to those fishermen, or we will when it goes through, and so what you’re proposing is now we go and get all the rest of these sites and cut those off to them too, because that is what will happen, Scott, and we have to leave them -- If you could show me that 90 percent of this coral was devastated due to bottom longlines, I could go with you, but you and I both know that that’s what we’re talking about doing.

MR. HICKMAN: Well, I don’t believe that to be the case, but I think that it’s reevaluate some of these other sites that
they’ve found and some of the new data.

DR. BROOKE: Those fifteen sites came from somewhere, and there was an arbitrary number, as far as I can tell, and so the number of sites was cut down to fifteen, and we used those in evaluation, and a lot of these sites -- When we talk about deep, we mean 400 meters and deeper, and I don’t know anybody, apart from the royal red shrimpers, that are fishing that deep. For what?

MS. BOSARGE: For reef fish. They’re fishing out there, and we’ve got charter boat guys that fish out there, and you’ve got commercial guys that fish out there.

DR. BROOKE: They are going after the blackbelly rosefish at 800 feet, and is that what you’re talking about?

MS. BOSARGE: No, the reef fish that we normally target.

DR. BROOKE: They’re not as deep as some of these. The shelf edge areas are fished by the bottom longliners, but we’re talking about reefs that are a thousand meters and deeper, and so a lot of the areas are not currently fished, and some are, but, you know, there’s a ton of hardbottom habitat in the Gulf of Mexico, and we’re just looking at identifying areas that we think are particularly ecologically valuable and drawing tiny little boxes around them, and this was an amendment that was proposed by Tom Frazer back when we did Coral Amendment 9, to start with Coral Amendment 10, to at least consider some of those areas that were cut out of our original list.

MR. HICKMAN: Some these areas of this habitat, this deepwater stuff like that, I don’t know anybody that is fishing that deep, but these reefs are a thousand years old. I mean, these things grow super, super slow, and I see the value in protecting them, and so that’s why I made the motion.

MR. DELANEY: I am just curious, and I don’t see any graphics, and so I don’t know what depths we’re talking about, but does this have any effect, and maybe, Leann or Steve, you could answer this, but will this cause us, the shrimp industry, to engage on what impacts this might have on the royal red shrimp fishery, which fishes very deep?

MR. BOSARGE: Not that I know of, Glenn. They are not quite that deep, when she’s talking about a thousand meters and more. That is deep.
MR. DELANEY: A thousand meters. Okay. Thanks. They fish as much as a thousand feet, I think.

MR. BOSARGE: Yes, correct.

AP MEMBER: I do have a question, Scott and Sandra. If we’re not fishing, or longlines are not fishing on them, what are we protecting them from? If it’s too deep for any fishing, what are protecting them from?

DR. BROOKE: Well, it’s not too deep for some emerging fisheries, like the blackbelly rosefish for example, and, just to clarify, there are some of the sites that we’re looking at that are less than a thousand meters, and so they do come within your royal red fishing zones.

We dealt with that last time, and there was an exemption for the royal red fishermen that were engaged in one of our target areas, and so we have worked with the industry to try and compromise, and they are still allowed to work in that area, and so the idea is that, because these areas are so vulnerable, it’s really easy to destroy them, and they take a very, very long time to come back, if they do, and the biggest impact to deep-sea corals globally is fishing.

Now, we don’t have those kinds of fishing industries in the Gulf of Mexico, and so our sort of philosophy is that, if it’s not going to impact fisheries, and if we can protect some of these highly-important ecological areas, and we’re not asking for every stick of coral in the Gulf of Mexico, then now is a good time to do it, before industry is invested in a new fishery that might pop up, and so I don’t know if that makes sense.

MR. HICKMAN: The Gulf Council is doing a current EFP process for the golden crab fishery to come into the Gulf, and their traps, if they are done right, are 2,000-pound traps. If you could just say there was no current in the Gulf, and you could guarantee that that trap wouldn’t go down on top of a thousand-year-old coral -- You know, there are threats currently, things being worked through, and so, if we could go in and the council would look at some of these spots, and it’s okay to want to protect this and this and this and these big areas of these deeper-water reefs, and we don’t want to drop golden crab traps on top of these things.

There are emerging fisheries that are coming up that could be a threat in the future, and you’ve got to think of it like the giant sequoias in California. The guys that first started
cutting those things down were like, well, whatever. You look at them like giant sequoias, and they’re a thousand years old, and so why not protect them from future threats? Why shouldn’t we protect a sequoia forest from future threats? That’s how a lot of people look at these reefs.

AP MEMBER: I am certainly not against protecting anything, but we’re still reluctant to take something away that’s not happening. Maybe the threat gets closer or there’s an example or something, but I’m just not fond of trying to take something away that is not being impacted yet.

MR. HICKMAN: As you see, I was very pro in doing the right thing for the shrimp industry on this current expansion and making it work, and I like the shrimp industry. I like eating shrimp, and I want to see those people keep working. This is something that is not going to affect the shrimp industry, but it may be affected by something else later, and so that’s why I made the motion, and I think that we should look at protecting some of these deepwater habitats.

AP MEMBER: A question for Sandra or Scott. Is there preliminary ROV data on these things, and, secondly, are these lophelia reefs, primarily, that we’re talking about?

DR. BROOKE: All of the areas that we proposed, all forty-two or forty-seven of the areas that we proposed as candidates back during Coral Amendment 9, the stipulation was that we had to have visual evidence that there are corals there. There is a lot more areas that we know are predicted to have corals, but those were not included in those sites, and so, of that suite, yes, we do have actual data that they’re there, and it depends on the depths. Anything from about 400 to 700 meters could be lophelia.

We also included mesophotic depths under the deep-sea coral, because of NOAA’s designation, and so there were some of the pinnacle sites that were fifteen meters to 150 meters, I think, somewhere in that range, and then there were the ultra-deep sites, the madrepora and the very long-lived octocorals, that were included, and they were deeper than a thousand meters, and so the whole range.

MS. KRUEGER: Granted, the Gulf Council can only regulate fisheries, but there is the potential for deep-sea mining of rare earth metals, and so this would then kind of create a consultation process, and then it could also cause those sorts of explorations to avoid those areas, to avoid that
consultation, and so that’s another possible thing.

CHAIRMAN KILGOUR: I am going to cut in front of you real quick, but so there were forty-seven areas, and it was divided into -- It ended up being fifteen areas with regulations, with an additional eight that did not have regulations, but I would like to highlight that a lot of the areas that are remaining on the table for consideration in Coral 10 are currently being considered for the Flower Garden Banks expansion, and so there’s a lot of overlap there.

This also doesn’t preclude changing some of the boundaries from some of the existing HAPCs, which are under consideration in Coral Amendment 10 to more closely mimic the coral outline, and so I want to put that out there, and, lastly, the Gulf Council made a motion, at the August 2018 meeting, that when Coral Amendment 10 began work again that they wanted it to -- The council wanted it to be like Coral 9 and have a meeting of the Shrimp and the Coral APs and SSC come together to discuss those boundaries, so that everybody is on the same page on what is being proposed and what the rationale is, and so I am hoping that the council will continue to do that for Coral Amendment 10, but I just wanted to let everyone know that that motion was made, and it is existing. When Coral 10 starts, there should, hopefully, be another joint meeting to kind of look at those boundaries together. Leann.

MS. BOSARGE: Just a few statistics, because Scott was talking about protecting this area. The Gulf of Mexico federal waters, and that’s what we regulate, right, is 243,926 square miles. Hard bottom, of that almost 250,000 square miles, hard bottom is 12,131 square miles, and so less 5 percent of that entire federal waters is what -- I am sorry, Shrimp AP, but I’m going to talk about the reef fish fishermen, the commercial reef fish fishermen, are working.

If you look at the square miles of the Florida Keys Sanctuary, and G.P.’s sanctuary, the Flower Gardens Sanctuary, and then the HAPCs that the council has in addition to those, we already have 50 percent of that that is off limits to a whole host of commercial gear.

We have shoved the commercial fishermen out of there with their traditional gears, and it’s really not efficient to go out there with traditional hook-and-line and try to commercial fish. There’s a reason that we don’t use traditional hook-and-line to commercial fish.
Now, yes, we can go down this road, but I think, at some point, we need to learn lessons from the South Atlantic. That guy you talked about that was over here in the Gulf, that was doing that EFP -- in the South Atlantic, they have closed so much area, coral area, that they have pushed those fishermen into very small spots. That guy that golden crabs, he’s got just a handful of sites that he can fish.

That is not healthy for the ecosystem. When you do that, you put all the fishing pressure on a couple of little spots, and what happens? You fish them down. You fish them out, because you can’t spread your effort out and pick a little here and a little here.

It would be like if I had three basil plants at home that I picked leaves off of, and I said, well, I can’t pick them off of those two anymore, but I’m going to cook with basil just as much, and I’m going to have no leaves left on that third basil plant, because I had to pick them all, and do you see what I’m saying?

We need to be cognizant of that. That’s why those guys are over here trying to find a new fishery in the Gulf and fish for golden crabs over here, but it’s not healthy for our Gulf ecosystem either when we keep compressing that effort into just a handful of spots, and you think it’s a huge area, but, when you’ve already got half of it closed down, it’s getting smaller and smaller, and so I have concerns.

MR. HICKMAN: I concur with you, Leann, on a lot of those points, but I will say that I work with corals as well as fisheries, and, as a fisherman, and I travel all over the world fishing, our coral reef systems are going away so rapidly that it’s scary, and I have two young children, and I don’t want my kids to live in a world with no coral reefs.

If we could be proactive on some of these areas, especially some of these old coral habitats, it’s the right thing to do, and it’s always a compromise. Everything is a compromise, and I think Coral Amendment 10 will be that same compromise, and so I at least want to see them start working on it and have discussions on it, some of this deepwater stuff. I see the value in it.

CHAIRMAN KILGOUR: I would like to just -- I like your basil analogy, I do, but I would like you to think about what if it took a thousand years to grow that one basil plant and you just threw a crab trap on it and it’s gone now. That is, I think,
where a lot of the coral biologists are coming from, is that it
takes a thousand years to grow that small little basil plant,
and one crab trap can wipe it out, and so it’s really important
that, if there are these areas that need protection, that they
get the protection they need, and so I think it’s a discussion
worth having. Sandra.

DR. BROOKE: Just a comment on the South Atlantic Fishery
Management Council areas. The council worked with the golden
crab fishermen, and they got all of their historical fishing
areas opened to them, just to make that comment. They did.

MS. BOSARGE: They are trying to open some of the areas back up
to them.

DR. BROOKE: I know, but those are new areas. They are not
historical areas, and they want to go into areas that they don’t
know what is there, and that’s why there is a question about it,
and they are coming into the Gulf not because that option has
been closed in the South Atlantic, because it hasn’t. It’s
still open for discussion, and it’s pending.

I don’t know when it’s going to stop being pending, but it is
pending, and so they’re coming over here because the demand for
the fishery has increased, and there used to be a historical
golden crab fishery in the Gulf, and they used to fish up by the
lophelia banks, by Many Mounds, and now they want to come over
and do experimental fishing, which is fine, but it’s not like
they have been -- It’s not because they have fished out their
areas and they’ve got nowhere else to go. I think it’s a bit
more complicated than that.

MR. SCHMAHL: I just wanted to kind of reinforce the -- Back
when we originally identified those areas of concern, in I think
it was 2014 or so, and we had the coral group, and we put
together that -- It ended up being forty-seven sites around
that, and we had a lot of discussion about that, and, actually,
we were trying to be reasonable, at that time.

There were actually a lot more than that that could have been
identified, and, with the modeling that shows that you have
suitable habitat, it could be extremely large areas, and so,
when we came forward with that proposal of forty-seven, we had
 pared that down quite a bit, and so, when the Gulf Council cut
that back to fifteen, it seemed to me to be -- It was a
compromise, but I felt that that was not really based on
science.
If you want to base it on science, I would still argue that those forty-seven sites are still extremely, extremely important, and the ones that were left out need to be looked at again.

MR. PERRET: When you propose things, you’re not giving anything up. You are gaining something at the loss of another group, and that is just what has happened with fishery resources. You are going to gain coral areas, and I am all for it. If indeed the coral is there, we want to protect the coral too, and so you’re not giving anything up, yet the shrimp industry is losing area. Now, the shrimp industry doesn’t want to trawl on coral, but the coral areas need buffers and so on and so forth. We have seen that. Don’t think that you’re giving. You are gaining, is what you’re doing.

MR. SCHMAHL: I work for the government, and I work for the people of the United States of America, and I think that the people of the United States of America are giving something up if we lose these coral resources that are so significantly important.

MR. SAMMARCO: I have a question. This is a technical question for the fishery people. How accurate are the guys that work in deep water, when they drop their gear? I mean, they must have, obviously, deep sounding information, but do they know where they are dropping their stuff? I don’t know. Is it accurate within 5 percent or 10 percent, either trawling gear or traps or whatever?

MS. BOSARGE: I won’t speak to traps, because that’s not my industry, but, yes, the royal red guys, which are the deepwater shrimpers, they are very accurate. They have to be, because their life depends on it. The amount of gear that they have out and the amount of cable that they have out, if they were to hang up in that coral -- First off, you’re way offshore, and so it’s rough. It’s not like being next to the beach.

When you hang up, what happens is that boat starts to turn, and one side of it starts to go down, and so you start to list. If you are in any kind of sea and you hang up like that, just like that, you can roll that boat over, and you have cost you and your crew your life, and so do they know where they’re putting that gear out? Yes, they better, or it will cost them dearly.

MR. BOSARGE: Just to clarify that, when they spool their cable on their winch, you have to stick it through a hole in the drum to start spooling, and you normally put a clamp on that cable.
Those royal red guys take the clamp off. That way, if they get in that trouble, they can let it go, because, otherwise, it’s going to take them down.

MR. HICKMAN: Speaking about deepwater fisherman, and I’m not a deepwater fisherman, and I’m not a longliner, but my best friend lands over 40 percent of the deepwater IFQ quota in the whole Gulf of Mexico, and he has multiple longline boats.

Do they fish around some sticky areas from time to time? Yes, but they don’t get their gear back if they do, or, if they do, they damage the bottom. Do they fish the flats and in the mud and all this other stuff? Sure, and they lay down ridges, and, at different times of year -- These fish do move around. They’re on the flats, and they’re up next to the sticky bottom, and they do all kinds of stuff, but it’s the captains that know what they’re doing to not lay that line in that bottom.

Does it happen? Do we have ROV data with longline in some of these areas? Yes, we do. Not a tremendous amount, but we do have some of that data. Would it be good to keep them out of that? Would Buddy be happy with me if I was saying we want to protect more -- They want to make a living, and I get it, but do we need to protect -- There is a compromise. There is a give-and-take in all of this.

You do have to have habitat long-term to be able to have these fisheries, to be able to catch them. If you’ve got more fish on that bottom, you’re going to have more fish around it on the flats, and it’s just -- It’s a spillover effect, and it works.

DR. BROOKE: Just to your question, Paul, about the traps, we have talked to the golden crabbers about this, how well they know where they are putting their lines, and, of course, they try and avoid the corals, but you’re talking about a long line of traps in a very high current, and they admit that -- They have some control over where the traps go, but not 100 percent.

AP MEMBER: In the Atlantic, I’m sure, in the Gulf Stream.

CHAIRMAN KILGOUR: All right. I think we’ve had a lot of great discussion on this. It’s a Coral AP and Coral SSC motion.

UNIDENTIFIED: One quick comment. I live around here, and I see a whole bunch of fish, and I come here and I thank NOAA and National Marine Fisheries -- There is no shrimp, and we’ve been saying this for four or five years, and you think, when you remodeled and moved from the other office, you could have found
a NOAA/National Marine Fisheries poster, which I had in my office, which was beautiful, of shrimp. That’s all I have to say.

CHAIRMAN KILGOUR: Let’s vote on this motion. Any opposed to the motion? The motion carries with no opposition. Basher, can you do it in five minutes?

DR. BASHER: I can do it in five minutes.

CHAIRMAN KILGOUR: I am just going to make a note that I have to leave at 5:30, and so, if I leave, forgive me.

DR. BASHER: It’s ten minutes. It won’t take long.

MR. SCHMAHL: Morgan, I apologize, but I’m going to have to leave like right at five, just to catch a flight.

CORAL REEF CONSERVATION PROGRAM UPDATE

DR. BASHER: Thank you, everyone. I will be very brief, just because I know that everyone is tired, and so I am working as a Coral Reef Biologist with the Gulf Council since last year, and so I will give you a brief update on the Coral Reef Conservation Grant that we have.

The grant, in the current cycle, is focused on -- It’s like a three-year proposal, and it’s focused on endangered coral species, which are addressing threats to the coral reef in terms of climate change and fisheries and also how these things are affecting the coral reef ecosystem and associated fisheries in the Gulf of Mexico.

The way we address these threats is by using decision-support tools, defined tools, engaging stakeholders throughout that process, and, also, doing some comprehensive scientific review, and also producing some learning tools or materials which can be used by everyone.

Just to start, I know that everyone in this room knows that NOAA, in 2014, published a Federal Register notice that listed seven coral species as threatened under the Endangered Species Act, and so we developed several storyboards and tools which were developed as outreach materials to increase awareness about them for the general public.

One of the goals of the proposal was to identify the baseline abundance of the distribution of the coral species in the Gulf
region and generate extensive Story Maps with a literature search for the current distribution, their life history information, and potential threats to the Gulf, through climate change or other means, and, also, create metadata and maintain those information in the portal, so that everyone can access it.

I will just go through some of the outreach materials that we developed as part of this proposal, and so you can go to those links listed in this presentation, and you can do that later on, but I will just go briefly.

There is a storyboard about life history and climate change impacts on the ESA-listed species, and there is a storyboard on the causes and consequences of the coral reef declines across the Gulf, and there is also individual threats to the corals listed in another storyboard.

We also developed pamphlets as outreach materials for the ESA-listed species, and these can be downloaded from the website. We haven’t made it public yet, because we plan to do -- Also, we’re going to generate a booklet which can be used by divers, like a dive guide, and you can just flip it and see which corals are endangered and which coral is not endangered, and so we are planning to include some of the more common corals in this list, in a dive pamphlet, and that will be available very soon, and we are almost done finalizing the layouts.

One of the outreach materials is we coordinated with federal and state agencies to host the ESA coral observation database, and this database was previously hosted by NOAA, and then they asked us to host it on our website, so everyone could access the information, because it was pretty much restricted before that.

I will give a brief demo of what that database interface looks like. Once you open that link, it will show up, and this is the interface, and it gives the information of how to navigate the interface and use different functions. On the right, you can turn on and off different coral species, which ones you want to see and which ones you don’t want to see, and, below here, it shows the numbers, and so, if you zoom in a particular -- Once you zoom into particular areas, it will show the number of observations in the particular visualization.

You can also pick the individual points and see what type of coral it is and the data sources collected from where and also the depth ratio, and you can even search -- You can filter by year, like if you wanted to see boulder coral which is found from -- Like the range is 1993 to 2018, and so we are updating
the database like every year, and we get data from NOAA and other partners. You can filter data based on the year, also.

Also, the recent HAPC areas, everything is shown in the map, and so it will be helpful for anyone who wants to explore to see what areas where the ESA corals are found and whether they are next to HAPC areas or close to areas. All of this information, we are planning to make it available, and you can download it from the server, and I will go into that detail a little bit later in the presentation.

The next task of the proposal is documenting climate change affecting the health of the corals and the information -- We plan to do it by compiling different environmental and climate information that we have across the Gulf and put it into like a platform which could be used by users and managers and the public and also develop some spatially-explicit models incorporating climate change and information, and it should be published through different white papers and learning modules, to give the information on what we find out from these analyses.

I think what we discussed earlier, like Morgan mentioned, that Coral 9 will be with NOAA in the next few weeks, and it will be published, and so it will be part of the report for the project, and another project we developed is the HAPC explorer, and you can go to the link and check that out. It’s to explore defined HAPC areas and also download the Shapefiles for you to use, and we started doing some predictive models for the coral species, like particularly ESA species across the Gulf, and this is some of the areas which are predicted to be higher in presence, and we are validating the data with the current observation data from different sources, and this can be done for all seven coral species, ESA species.

One of the things that I think has come up at this meeting is we need to update the information for the Coral 10, to know exactly which areas -- What is proposed is to identify the areas which are currently protected through defined regulations and whether that protection is working or not, and so we plan to do like a short study based on a literature search and data to find out hotspots of different areas, some managed area and non-managed areas, and compare the areas, like how the areas and the fish have different species distribution varied across the sites.

For that, we plan to do -- Like use some data from Flower Garden Banks and like Steamboat Lumps and Madison-Swanson and the Edges, and these are like control sites of managed areas, and we also have some data from the South Texas Banks, and I will be
open to anyone, if any of you have any data for our non-managed sites which we could use, and it will be useful for us to do the comparison later on.

As a part of the proposal, we also developed some deep-sea coral species storyboards, and we are -- When I started, I found that there is not much information that you can get from the NOAA website about deep-sea corals, and there is very brief information there, and so we plan to develop like a very detailed storyboard about what kind of information we know about each individual species.

So far, we have done like four, and there is a few more on the way, and so this is all available online, and you can go and browse and see. If anyone wants to know more about some of these species, you could just browse them and see the information there.

Also, as part of this project, after I joined, we created a new geospatial site to have the data from the council products, and that can be accessed from -- It’s the same as NOAA, and so it’s gmfmc.maps.arcgis.com, and we will make available different geospatial products through this website, so anyone can get access it for free. We also have our internal server, which could be used to distribute the data, if you want to do any like extensive analysis, and we could give you log-ins to do the analysis on there.

Finally, the coral portal is getting a new face and update, and this is like a long-time -- This is a new look for the coral, and I don’t know whether you will like it. I will just go briefly through the website. This is the new coral portal website, and there is some different storyboards and tools and products that we have developed.

These is also this, and, whenever we post something, it will come up here. It will also show what are the popular posts that people are reading through to look at our website, and you can also -- There is a new -- We are trying to create like a new resources page, where you can download different Shapefiles, which we have, and you can download those or you can link to our geospatial server. There is a link to that here, and so it can be a resource for you if you want to use it.

As outreach materials, we have the pamphlets, which we could use to educate people about the ESA corals, and there are the new dive booklets, which we could also use, and the new coral portal, and I urge everyone to visit it and give me feedback, if
you have any, because we plan to make it publicly available after the next council meeting, and so, before that, if you have any feedback, just send that to me. Also, our geospatial server, which it could be used for important different layers into your maps.

Some of the tasks we plan to do in the future are like continue developing explicit models with the climate change areas and climate change information also and include information about hurricanes, and, as I mentioned, compare the effectiveness of MPA and non-MPA sites based on the available data. By MPA, I mean managed sites, and there will be a few more storyboards and white papers coming out as part of this proposal. Thank you. Eight minutes.

CHAIRMAN KILGOUR: Basher, you’re my hero. Are there any questions for Basher? Leann.

MS. BOSARGE: No, but I’ve got to clarify one thing at some point.

CHAIRMAN KILGOUR: All right. If there are no questions for Basher, have at it.

MS. BOSARGE: We had a discussion earlier, and I had to refresh my memory on that closure in the South Atlantic, and so I’m going to read to you verbatim from their amendment. This is about golden crabbers in closed areas. When the Stetson-Miami Terrace CHAPC was created, it restricted access for the golden crab fishermen in the Northern Zone. Golden crab fishermen requested that their historic access to the fishery be reestablished in the Northern Zone at an advisory panel meeting in January of 2013. There was some concern that the new closed areas had limited fishable areas for the fishery.

Specifically, fishermen wanted historic information from some different places, and it talks about what they wanted analyzed and things like that, and the South Atlantic Council is -- They held up to their end of the bargain, because there was also some areas for rock shrimpers over there that were historical grounds that were closed, and they said, when they finally passed that amendment that closed a bunch of that area, they said, because I was about this far pregnant, and I remember it distinctly when I was there, but they said, look, you know -- Because most of what they closed is based on modeling and not actual -- Here, in the Gulf -- Yes, they used modeling to close areas in the South Atlantic, and it says it in here.
In the Gulf, we actually used documented eyes on the coral, ROV or whatever, to close areas, and they said, all right, shrimpers and golden crabbers, we’re going to close it, but we promise you that we’ll go back and look at it after a certain number of years, when we have some more research that we can look at and documentation.

That is in fact what they are going to do now, and we hope that some of the rock shrimp grounds and some of those historical golden crab grounds will be opened back up, where we weren’t damaging coral and we weren’t trawling on coral, and so just for the record.

CHAIRMAN KILGOUR: Thank you for the clarification. Is there a motion to adjourn?

MR. HICKMAN: I will make the motion to adjourn, or I will second your motion.

CHAIRMAN KILGOUR: I can’t make it, but if there is one.

MR. HICKMAN: Motion to adjourn.

AP MEMBER: Second.

CHAIRMAN KILGOUR: Any opposed? All right. Thank you, everybody.

(Whereupon, the meeting adjourned on September 16, 2019.)