SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

HABITAT PROTECTION & ECOSYSTEM-BASED MANAGEMENT COMMITTEE

Town & Country Inn
Charleston, SC

September 26, 2017

SUMMARY MINUTES

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Chester Brewer
Tim Griner
Jessica McCawley

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Other Observers and Participants attached.

The Habitat Protection & Ecosystem-Based Management Committee of the South Atlantic Fishery Management Council convened at the Town & Country Inn, Charleston, South Carolina, Tuesday morning, September 26, 2017, and was called to order by Chairman Doug Haymans.

MR. HAYMANS: I will call to order the Habitat Protection and Ecosystem-Based Management Committee. As a reminder, the members of the committee are Wilson Laney, Mel Bell, Chester Brewer, Tim Griner, Jessica McCawley, Lieutenant Commander Jeremy Montes, and Bob Beal. I apologize for the late start, Madam Chair. I was still looking at my agenda that I printed when they first came out that said 10:00 a.m. I thought we were waiting until 10:00 a.m., and my apologies.

The first order of business is Approval of the Agenda. Does anybody have any additions to the agenda? I hope my agenda is correct, because, again, I am looking at my old agenda. Seeing none, next is Approval of the Committee Minutes from June 2017. Any additions or corrections? Seeing none, we will accept those as presented and, from here on out, it's the Roger show. We will start with the EFH Policy Statement on Artificial Reefs.

MR. PUGLIESE: Attachment 1 is the latest draft of the policy statement, policy consideration, for development of artificial reefs in the South Atlantic Region. The statement has been developed in cooperation with the Habitat Advisory Panel. Initially tasked were the state artificial reef coordinators, and follow-up with advisory panel members, as well as then the effort spearheaded by Lisa Havel with Atlantic States Marine Fisheries Commission and the desire to integrate and connect into the Artificial Reef Committee through ASMFC to refine and expand this statement.

That was advanced and brought back to the advisory panel, the Habitat and Ecosystem Advisory Panel, who provided additional input and actually deferred sending the last draft at the council meeting, because they wanted to add some additional fine-tuning to it, and so this is the draft, after all the iteration input, that has been provided for council consideration and approval, the last of the statements that are integrated into the Fishery Ecosystem Plan and a follow-up on that policy statement development.

The statement provides an overall general introduction to artificial reefs in the South Atlantic Region. What I was going to do is jump straight to the recommendations, and then we can go back and have input from the council on adjustments, revisions, or refinement of this. There is a statement on the overall policy considerations that then leads to the discussion on threats to EFH.

One of the things that this does do is the policy statements have, in the latest iterations and revisions, is it goes back and connects any of the detailed description and discussion on habitats back to the EFH user guide, which the council provided input on, and we refined in the latest iteration, the August version, that this has the link directly to, and it's provided in the dashboard that we'll see later on. It provides some of the direct linkages back to the designations that are held and described and any clarifications that are presented in the user guide.

That brings us directly to the core of the statement, which is presenting the general policies to the council, and, the way they structured the policies were separated into areas, including first uses and the use statements identify -- I think what I'm going to do, just for the record, is read at least these recommendations into the record, and then we can adjust as needed.

The Artificial reefs can serve a variety of purposes beyond recreational and commercial activities. These potential purposes include areas for spawning, breeding, feeding, and refuge for growth to maturity of numerous marine organisms, including council-managed species. The council supports state requests to designate specific artificial reefs as special management zones for research and production, in an effort to prevent overexploitation of specific artificial reef sites. Artificial reefs can be used to support fisheries management by providing a more standardized comparison for scientific investigations.

That moves us to Siting. Artificial reef managers should consult with all stakeholders prior to siting, in order to reduce user conflict and maximize the value of artificial reefs as EFH. Artificial reefs should be sited in a manner that connects the various life history stages of the target species or enhances a bottlenecked life history stage. Properly-sited artificial reefs are EFH and are not detrimental to migratory species, such as right whales or Atlantic sturgeon. Properly-sited artificial reefs are not hazards to navigation. They are charted and deployed with navigation as part of the design.

That moves us to Construction. The South Atlantic Council requires the use of environmentally-safe, long-lasting materials for reef construction which are stable in their location and avoid any potential danger to other species and habitats. Managers should use proper design and placement to target specific life stages and species. The impacts of decommissioning structures, such as oil or gas platforms, offshore wind foundations, tactical aircrew combat training system towers, or navigational aids should be considered on a case-by-case basis.

Mitigation, there should be mitigation measures specified if the function of an artificial reef is lost. Artificial reefs can be used to mitigate for damage to natural reefs and for damage to artificial reefs. However, natural, and to the extent artificial, reef habitat is not perfectly replaceable, and so caution should be taken to reduce damage to natural and artificial reefs, when possible. The last is investigation on the potential of artificial reef construction to compensate fishers as a buyback for any future expansion of those SMZ areas designated as no harvest should be conducted.

The following them goes directly into research, but I think what I would do is, after walking through those, bring it back to the beginning and open the discussion on if there are any recommendations in the body of the document or in the specific policies.

MR. HAYMANS: Any comments or questions?

DR. CRABTREE: I am not on your committee, but I have spent a great deal of time looking at artificial reefs and thinking about their impact on fisheries, more oriented to the Gulf, and I really think -- I think that we look too positively at artificial reefs, and it seems to me that they have a significant downside that isn't recognized very widely.

You know, we put a lot of effort in doing things to try and keep recreational fisheries open year-round, and most of them involve ways to reduce the catch rates, bag limits and size limits and a host of things to reduce catch rates. Artificial reefs do exactly the opposite. If there is one thing that artificial reefs are, it's that they're fish-attracting devices. They may make some contribution to productivity, but the densities of red snapper, for example, on artificial habitat in the Gulf of Mexico is ten to twenty times higher than natural bottom, even though only a small fraction of the

population of the spawning stock biomass is actually on artificial reefs, but the catch rates are ten to twenty times higher.

I have become convinced, in the Gulf of Mexico, that a lot of our problem with red snapper is caused by overuse of artificial reefs. We've got a season that is too short, and no one wants to limit effort, and so you've got to reduce the catch rates, but the impact of the artificial reefs has been to astronomically increase the catch rates, and so we need to think about sometimes what we're doing. We're tugging in two different directions. We want to have long fisheries and year-round fisheries, and so we do things to reduce the catch rates, yet we put these fish aggregating devices out there which increase the catch rates.

I think, at least in the northern Gulf of Mexico, we have made it way too easy to catch a lot of these fish, and it has resulted in extremely short seasons for things, and so I throw that out there as something to think about, but it's quite possible that -- I am not opposed to artificial reefs, but I think they have been overused, in many cases, and I think you have to recognize that, in many cases, the impact of artificial reefs can be completely counter to the objectives and the things that you're trying to accomplish as a council. It's not always good to make it easier to catch these fish if what you're trying to achieve is a year-round fishery.

DR. LANEY: I certainly agree with what Roy said in concept, and I guess the one big question that I would ask Roy is do you think that the situation in the Gulf is substantially different from the situation in the South Atlantic, where you have such a tremendous density of oil platforms that are de facto artificial reefs, whether they're so designated or not, and I am wondering whether or not the provisions that we put in there relative to siting, especially with regard to conversations with stakeholders, which would include, presumably, those folks who are certainly advocates for maintaining natural habitats in as optimal condition as we can, would help to allay some of your concerns, specifically with regard to the South Atlantic.

DR. CRABTREE: I do think it's much more of an issue in the Gulf of Mexico, because they've gone much further in all of this, and there is the whole oil rig issue, but, particularly in the northern Gulf of Mexico, the extent of artificial reef deployment is far greater than anything, that I'm aware of at least, in the South Atlantic.

My caution to you is be careful about this path and recognize that you can very easily go too far. I mean, these things are very popular among recreational fishermen, and I have raised this topic at recreational fishing groups and almost had my head bitten off any number of times, but I think it's really important, when people start complaining about access, lack of access, and short seasons, that they realize that a lot of things, like all of the electronics that are now available to recreational fishermen -- I mean, a well-equipped recreational fishing boat now probably has electronics on it that would have been state-of-the-art on a research vessel five years ago.

The fishing power of the fleet is huge compared to what it used to be, and then when you throw into that mix artificial reefs, you can see why you're having so many problems with access, and so I think, Wilson, there is a big difference in what has happened in the South Atlantic and the Gulf, but I just raise this because I think people need to understand that there are multiple facets to this and be careful and thoughtful about how you proceed, because I think, in the Gulf, it has spun away from us, and it's very difficult to rein it back in.

MR. HARTIG: That was my point, Roy. I see the differences between the two regions, and, also, red snapper may not be the best example, because the catchability of red snapper is so much greater than other species that reach that size, and so the catchability is probably the greatest biological concern, and our management concerns as well, because they're almost impossible to manage, because of due to the catchability.

The other thing I will say about artificial reefs in my area, and it's a lot different in south Florida, because we have so many goliath groupers, but every artificial reef in less than 200 feet of water is unfishable now. You cannot fish them for reef fish species. They have become de facto MPAs. You cannot catch any reef fish species. You might catch one, but you cannot catch any number of reef fish species off of any of the artificial reefs, every one of them, because of the amount of goliath groupers, and so they have become de facto MPAs.

The other thing that I would just say is ancillary to that is the entire shelf edge off of Jupiter is a 110 to 150-foot drop, which I used to fish a lot for reef fish. For the last ten years, that's been impossible to fish commercially for reef fish. That's become a de facto MPA, because of goliath and as well as sharks, and so some of these things work in concert.

In the amberjack situation, where we have a number of amberjacks that move to south Florida to spawn, a number of these artificial reefs were placed inshore, and, yes, they are very, very attractive to amberjacks. That is one of the amazing things about jacks. If you put a piece of metal in the water, they leave the natural habitat immediately and go to that, but one of the things that management has been able to do is the state has a three-month closure, and so those animals get protected during that state closure, and, between the one month in the federal closure and the three months in the state closure, with the number of amberjacks that are protected in the state waters from Palm Beach south, it has worked.

Each of our species has different attractiveness and different catchabilities to look at with artificial reefs, and I think it's not just a simple equation to say that they're bad or they're good. I mean, there are good things that happen because of artificial reefs and there are some negative as well.

DR. CRABTREE: I think those are all fair points, and it's a really interesting issue. I would point out to you that the three species that we have the biggest problem with in the Gulf of Mexico, in terms of recreational access, are red snapper, greater amberjack, and gray triggerfish. The majority of the catches of all of them are coming in that northern Gulf area.

MR. BELL: Roy and I have talked about this before, and Roy is right. Artificial reefs are not a panacea. They never have been, and they never should have been thought of as that, but they are extremely useful, and, going back to the late 1970s and the early 1980s and all, it was a way of providing opportunity for recreational fishermen, in our case primarily, to be able to catch fish at all.

We have very limited natural hard-bottom areas, which some of them aren't particularly big, and they are certainly extremely exploitable to heavy fishing pressure, as well with the technology that you have described, with GPS and -- Well, back then, it was LORAN, and then that got better and better, and so it's extremely easy to go out and heavily fish any piece of bottom, and so what we have done with our program is we have tried to specifically fill in gaps, if you will, and provide additional hard-bottom opportunities for folks, and so we have always seen it as enhancing what

we have out there, but you can certainly fish very heavily on a natural marl outcropping as well as you can on an artificial reef.

One thing to keep in mind is that, at least in our case, the majority of our permitted artificial reefs are in federal waters, and so that kind of brings us into this discussion, from a council perspective, but each state has some version of an artificial reef program that has some version of a plan. We have had an artificial reef management plan in place now since 1990, for sure. In that, we talk about all the things that Roy has talked about, and we're very careful about how we build reefs and how we design reefs.

The idea we have tried to really get more over towards is mimicking natural bottom by shifting as much as we can, and we can afford it, to low-profile, concrete substrate, which gives you more of a kind of natural reef, sort of mimicking natural geology, but he is absolutely right in that they're not -- It's not magic. It's simply a tool that we employ in fisheries for some benefit. I think, since ACLs have come along, or some means of restricting harvest -- Regardless of where you fish, you are subject to that.

There is always a natural stopping point, but do keep in mind that they are primarily state-run efforts, state-run programs, state-financed programs. The piece that we come into, from our perspective, which I am really excited about, is we now have the ability to use those tools in a different way, which is to build the reef for the sole purpose of stock enhancement, habitat stock enhancement, and that's where we were very excited about our efforts with the two reefs that we have now designated, that the council has designated, as special management zones for spawning activity. There is one in seventy feet of water, and one in ninety, and then we have a deeper one out in 400, which is actually an MPA, but it serves the same purpose.

You can use these tools in a way that is designed specifically to benefit the stocks and to benefit stock recovery and growth, and so we've just got to be smart in how we -- When I say "we", it's we the council, but we the individual states, the state programs, how we employ these things as tools, and, again, our piece that you will see, and it will come out a little bit when Roger goes through kind of some of the things we want to move forward with, is that's where the council can come in and help with the establishment, if the states choose to do this, like we have in South Carolina, to provide that protection, that legal protection, regulatory protection, for sites, if we choose to go that route.

Having a fairly long track record of working with artificial reefs, I will tell you that they're not magic. Even the fishermen have become a little more sophisticated in their understanding of how this works, and so, at one time, maybe they thought they were magic, but they're not, and so we've just got to be smart in how we employ this tool.

Our piece, as the council, is coming in in the federal jurisdictional area to help the states employ this tool, and I think that's the value in this, is employing the tool in a new way, and that's what we're kind of starting to do with a couple of sites, and, if states are interested in moving in that direction, we can certainly help them accomplish that, and that's where I see part of our role in this, but certainly not magic, and I get that, and you can abuse or overfish or you can heavily fish on any spot, whether it's a natural hard-bottom outcropping or a manmade site. Sorry that I'm just preaching a little.

MR. HAYMANS: Thank you for that, Mel. Wilson, to that point, before I go to the rest of the list.

DR. LANEY: Thank you, Mr. Chairman. To Mel's point, and to Roy's points then, I guess I would ask if there are measures or provisions that you all see that could be added to the policy to address these concerns. From a science perspective, the thing that comes to mind is Roy made the point that, in the northern Gulf of Mexico, that there is a pretty high density of artificial reefs, and maybe it's too high, and so has anybody looked at whether or not there are any criteria that could be applied for density of artificial reefs per unit area or something like that that the council could consider adding to the policy, or maybe -- Don't throw anything at me, Roger, but bounce it back to the Habitat AP and say, hey, guys, these were the concerns that were raised during our discussion at the council meeting and are there measures that we can add in there to address these concerns and preclude what happened in the Gulf of Mexico from happening on the South Atlantic, and that's just a question.

DR. CRABTREE: My suggestion is to make sure what you're doing with artificial reef fits into the objectives of your fishery management plan. If one of your objectives is to increase catch rates, then I think artificial reefs are a great way to do that, but, if your objective is to maintain year-round fisheries and things that might mean that you need to reduce catch rates, then it seems to me that artificial reefs work against you there, and they cost money, and so, in that sense, you may say, well, they don't fit in with our management objectives, but, in my experience, and I'm getting pretty old now and have been around a long time, we hardly ever think about them in that way, but I think that's the proper way to think about them.

I mean, they might fit your needs, but they might be working against the things that you're trying to accomplish, and so my only thing is to think it through and be strategic about what you're doing and what's going to get you to your ultimate objectives of the fishery.

MR. HAYMANS: From the Chair's perspective at least, the plan does address, to some degree, both questions. From a state perspective, or at least Georgia's perspective, it provides opportunity. The permitting process is fairly thorough, and has been getting more complicated as time goes on, and I would be reluctant for this council to add any more difficulty to the re-permitting process that's already out there that the states have worked through over the years.

MR. BROWN: I will try to be brief, but you know that I grew up in Florida, and most of the artificial reefs down there were developed by a lot of fishing organizations, and they gathered the money together and built. Then I moved to South Carolina, and a lot of the things were developed by the state, and it's a little bit different, but, for the east coast, for the perspective I have of it, we have quite a bit of bottom over here, and the artificial reefs were pretty much developed for the private recreational fishing people or the organizations, and, even though some of the charter guys do use some of it, they also expand a lot further out.

In the Gulf, from my understanding, especially the northern part, like Roy was mentioning, I think that there was a lack of bottom, and, in order for them to stay in business and to continue operating in the most efficient manner, they had to build some artificial reefs, and it kind of got to a point to where I think it may have gotten out of hand, because there was just so many people doing it, and there is some areas over there that are really exploited pretty heavily with artificial reefs or artificial habitat.

Like I said, that was more of a directed effort by the for-hire fishermen too, rather than the recreational fishermen, but, when I got involved with the MPA stuff back in the early 2000s, one of my suggestions was that I thought that we needed to build some artificial reefs and make them MPAs, and I was really glad to see that South Carolina put that one in the deep water, because I really feel confident that's going to be a very good benefit to a lot of our area.

MR. BREWER: I don't have as much experience with artificial reefs as Mel, but I do have some, and, to me, and I hate to complicate this, but I understand what Roy is saying. At least to me, there is three kinds of artificial reefs. There is a bait reef, there is a fishing reef, and then there is a spawning reef, and, at least at the West Palm Beach Fishing Club lately, we have been concentrating more on spawning reefs, which I think can be tremendously beneficial.

Now, we have the advantage that we are very close to the Gulf Stream, and we are sinking, or have been sinking, ships in 270 to 400 foot of water, and you can't fish them. You don't have to put an MPA designation on those things, because you can't fish them, and they are really too deep to dive as well, because, if you try to set up so that somebody can get down to that kind of depth, which only crazy people would do, and then you're going to be taken with the stream, and you're going to pop up goodness only knows where.

Like I said, we have put boats down in 270 to 400 foot of water, and they have been, from what I have seen of the videos of the people that have done down there to inspect them, they have been very successful, and that kind of reef, I think, can contribute to what Roy was talking about, which is helping to have year-round seasons of an abundance of fish, because, if the fish are spawning on that, at least in our area, the fry are going to be moving up the water column with the Gulf Stream, and so maybe in this paper the emphasis is a little bit strong on providing access and providing fisheries opportunities, and maybe we need to speak more to the benefits of at least what we call spawning reefs.

MR. HARTIG: I'm not on the committee, and thank you for entertaining my comments, but I spent a number of years on the Palm Beach County Artificial Reef Committee. In Florida, it's a county deal. The county places the reefs. The one thing that I brought up there, when I say the attractiveness of amberjacks, in particular, to these reefs is that, down the line sometime, you might think about a one-for-one placement. You place one in the open area for fishing and you place one in a closed area where you don't fish.

You could have some kind of mitigation, and I didn't get very far with that, because the money is lacking just to put the reefs in the water themselves, but that speaks to Wilson's question of are there things that you can do try and mitigate some of these extra catches of fish that occur on artificial reefs, and so that is one thing that you could do.

MR. HAYMANS: I will just speak to that. The difficulty is providing funding for the closed reefs. Fishermen -- Where most of the money is generated is we get license revenue, be it SFR or be it donations, and they're going to provide money to fish and not money to close them. That's the difficulty. Roger, did you have something that you wanted to add to that?

MR. PUGLIESE: I think all the points that everybody has made, I think to a great degree, are actually identified within here. There is a lot of discussion by the AP and concern that Roy had

raised, to make sure that's clarified, and there is some specific wording in here talking about the differences in those areas and the carefulness in management and the management implications of placement of these, and so I think the AP was very cognizant in providing input on that to address those.

The other aspect that Ben just mentioned about the opportunity for a tradeoff I think is one of the actual measures that was identified as a policy to consider, and I think a lot of these -- I mean, this entire system has evolved so much further than it was in the past and the uses. As Mel talked about for spawning and for the SMZ, I think that one is -- When we really look at some of those areas that are either MPAs or spawning special management zones, they have so much area that can be added to into the future, beyond anything that we have right now, without changing footprints, and that's an amazing thing, I think, that gets highlighted. That really could provide, without even going further than we have, and using this tool.

The other aspect, I think, that was going to get to a point that Roy made, was that the South Atlantic is very different than the Gulf of Mexico, because of the way that it's been approached, artificial reefs from the beginning as habitat, and also the fact that you have them as designated SMZs, and they become essential fish habitat habitat areas of particular concern, and so you're having gear restrictions, and then, more recently, you have even had bag restrictions off of South Carolina for some species, and so I think the council is doing far more in federal waters on really working on how artificial reefs proceed and using them as a tool that can address many different things, and I think that was the attempt of this policy, to try to address all of those and enhance and advance, very eyes open, the process in the South Atlantic.

MR. GRINER: I just wanted to also say that the key component in using these reefs to fill in the gaps and enhance habitat is for stock enhancement and not for easy exploitation of the resource, and so I think it's important that we do keep that in mind, that really and truly the tool that you have here is really for stock enhancement, and I am not sure how far Mel and them have gone with determining how well it is working for stock enhancement and how the monitoring and the research that needs to go along with that, to figure out is it really working for stock enhancement, but I do think that's what we need to keep in mind. If we're going to use this tool to fill in gaps in habitat and enhance habitat, the goal here should be for stock enhancement.

MR. BELL: I had my original point, but then you mentioned funding. Funding, keep in mind the reef programs are state-managed, typically, programs, or there is a state level of oversight, and funding is an issue, and the concept of building a reef and not being able to fish it, per se, is not necessarily one that is real popular.

However, what we ran into here with the Charleston Deep Artificial Reef MPA was that was funded by fishermen, to the tune of in excess of $400,000, because it's a Type II MPA, and so you can fish it for pelagic species, and particularly, in this case, billfish and all, and so we've had tremendous support. It's a matter of getting the right mix of folks and the right approach, but we've been very successful with the Charleston Deep Reef and the Memorial Reef folks in generating money to do that, and so it can be done, but it's just that you've got to have the right mix of conditions and folks interested in that sort of concept and believing in it.

The other point that I was going to make is regarding density of reefs, and so the density of reef sites off of a given state can be dictated by a state's plan, if they have a plan to do that, and so,

when we adopted our plan back in 1990, we designated fifty locations, rough locations, along the coast corresponding to our major inlets, and that's what we shot for. We have tried to steer all of our reef construction into those fifty sites, and, when you spread it out along our entire coast, they are not really dense, necessarily, but they're geared towards accessibility from the major inlets, and so that's a way -- The states have the ability to kind of control their plan or whatever, or control how they want to approach their development, and so, also about density, and so there has never been sort of any pressure to pay attention to density until recently, with issues we've gotten into related to protected resources.

There was discussion about density of reefs, or new reefs, related to worrying about North Atlantic right whales, but that's the first time that I have heard kind of a discussion of, okay, don't exceed a certain density or something, and so density is being discussed, but, oddly enough, from a different direction.

It has to do with concern over protected resources and things, but the states individually have their efforts designated in a plan or how they want to do it, and so, in our case, we established these fifty locales. That's why Area 51 and 53 are Area 51 and 53. They were outside the original fifty designated permitted areas that we had envisioned. We have the ability to deal with things like density, if that's an issue, but, again, these are state programs that have to kind of come onboard with this and adopt those practices and all, and so that was it.

MR. HAYMANS: Thank you, Mel. We've had a pretty good -- Was there anybody else?

MR. PUGLIESE: Just real quick, a very simple point, and it amazes me that we haven't said it, is that, when we're talking about footprints for the area -- I had done an analysis a while back, when we were discussing, I think, initiating the development of the policy. The percentage is you were talking about less than a percent off of each individual state of bottom areas, and so they're very small footprints relative to the overall area in our region, and that was, I think, a significant enough point to make sure that's on the record.

MR. HAYMANS: Yes, and that's in there. You have laid that out in the document, and so that's a good discussion on artificial reefs, and all points duly noted. As Roger suggested a few moments ago, all of these points are touched on, perhaps not as thoroughly as you would like, but they're all touched on in the plan. It's been through the AP several times, and the Artificial Reef Policy Statement is here now for you guys to approve, to forward to Full Council for approval, and so, if there is no more discussion, is there a motion to move this plan forward?

DR. LANEY: **I would move that we move the plan forward to the council for approval.**

MR. HAYMANS: Thank you. **I guess I would change the word "plan" to "policy statement".** We have a second by Chester. **That motion is to move the policy statement to the council for approval.** Is there any additional discussion? **Seeing none, is there any opposition to the motion? Seeing none, that motion is approved.**

Next, we will move to the FEP II Implementation Plan and Roger.

MR. PUGLIESE: That is Attachment 3, and, leaving the last council meeting, we started with basically a one-pager identifying the process that created the team and identifying a process and

tasking the group to create an implementation plan that drew from existing policy statements and provided the foundation for translation of those policy statements to actions, workable actions, under each of the areas.

As a follow-up to those discussions, the team was charged. The different sections were tasked, and our team membership included council members, and it included the sub-panel chairs of our APs and then key chairs of our core sections for climate and food webs. Given those directives, we advanced and provided Excel tables that laid out and attempted to create the policy components or the policy recommendations from those documents and a structure from which they could identify actions and identify the different strategies to move forward.

What this document does do is it lays out some background on development of the implementation plan and now the chapters and policies are laid out, and so, essentially, the charge was to take this from the general policies and break it up into components within those policies and identify actions and priorities for those actions and organizations, agencies, or activities that could accomplish those and then really ballpark some start and completion dates.

This document also identifies how it was an appropriate development, using that process, because habitat conservation has been the foundation of the evolution toward ecosystem-based management, and so this is a natural progression from where we were to where we were going with development of this document. It identifies some of the preliminary base goals and then moves really into the chapters that draw on the specific policy statements.

The way it's laid out is it gives you a very quick summary of the policy statement, and it provides a link directly to the detailed online policy, and this was essentially how we evolved this. These types of things were provided to our team members, and then it led to the actual development of the table, which lays out the specific policy, the component, and then the actions supporting the policy, priority, program, organization, and start completion.

For example, starting with Table 1, it's working with the food web and connectivity. Under this, you're looking at forage fisheries in the first component, and it draws on the policy statement, where we had preliminary lists of forage fish identified in the appendix. The intent was to advance and refine that.

The actions were advancing to include things such as identifying species for diet that are lacking and need future research, identifying that as high, and state, council, and NOAA as being primary to start and complete at least the identification, and so this was the process that this was attempting to try to do, is translate policy components or priority research components, because it was kind of a combination of both of those, and so it was a task to do it. These were probably some of the more straightforward, food webs and climate. When we got into some of the other ones, the team had to be more creative on how you translated some of those directly to actions.

That is generally what we have, what the group has provided, and it is provided for every one of our policy statements and advances this into the future, and so, with that, I would open that up for discussion and how you want to advance it.

Just a timing consideration, in order to get as much additional work done on this, this draft was already sent back to the team, with a request to them to provide any additional refinement they

have by October 20, and so what we're trying to do is time this so that we can advance and refine and have a more complete document going to our Habitat & Ecosystem Advisory Panel in November, so that, ultimately, we have a fairly complete document that comes back to the council at the December council meeting, and so the draft advancing to there is probably going to be a lot more refined as we go even into that AP and then comments. We're right during the briefing book week, and so that's going to be a tight fit to get everything accomplished to advance to the council, but that's the plan, and that's where we are.

MR. HAYMANS: So, just to reiterate, trying to finish up and approve FEP II at December, and realizing that it's a living, breathing document that will continually grow and change and morph, but finalize in December. Any comments on what Roger as presented, as far as the implementation draft that we've got?

DR. DUVAL: I am not on the committee, and so I definitely -- I really appreciate the way it's organized into an Excel-like spreadsheet and connecting the specific actions to the different policy statements, and I think this obviously is very comprehensive. I had some specific comments on specific sections, and I think this is comprehensive and sort of long-range, and so I think this takes the FEP and tries to operationalize it throughout the lifetime, over the next many years, because I see dates in here that go out to 2025, and so that's like eight years in the future.

What I think is going to be most useful for the council is a condensed version of this that's just a couple of years out, where there is just maybe three pages or something of a couple of items under each one of these major components of the FEP that the council might be able to focus on over the next couple of years, because it's pretty clear to me that we're not going to be able to do all of these items, and there is a lot of things in here that are marked as high priority right now.

I mean, even just taking all of the high-priority stuff, I don't think we could get that done in five years, and so I think, at some point, it needs to be -- I guess maybe that's one request for discussion by the Habitat AP, is I think identifying what could conceivably be done or be worked on over the upcoming two-year timeframe, when they're looking at these different actions. I think that's one thing, because, when I think of an implementation plan, I am thinking of something that is smaller than what this is, and so this is the overall implementation plan for the FEP, as opposed to like a two-year work plan that the council can focus on.

The other thing is I want the public to be able to look at this and use this and say this is what we're going to be working on, the council is going to be working on, to advance and move towards ecosystem-based fishery management over the next couple of years, and I think this is sort of almost like the background document for like a two-year workplan that we move forward, and those are just some of my initial broad-scale thoughts. I have more specific thoughts on maybe the priority of some of the actions that are contained within different sections of it, but I can provide those later.

MR. HAYMANS: Do you want to provide those to Roger to take back to the AP then? Is that what you're --

DR. DUVAL: I can provide Roger like my copy that's been marked-up and stuff, and I'm interested in hearing what other committee members and other council members have to say about,

I guess, sort of the broad approach and the organization and then reaction to some of my comments about having something shorter and smaller for like the immediate two-year future sort of thing.

MS. MCCAWLEY: Just to get into the overall comments, I also like the way that it's organized in this table format. I do have specific comments in specific parts of the document that I would like to come back to, but I agree with Michelle. Maybe something that is clearly outlining here is what the South Atlantic Council is going to do, because I feel like the document is covering multiple agencies. It's covering state agencies, and it's covering NOAA, and this is kind of the implementation plan for everything that everybody is going to do.

I guess I wanted to be clear, in the beginning part of the document, that this is incorporating suggestions that we have for these other agencies, just to make it clear. It sounds a little odd that we're going to direct state agencies to go do X, Y, and Z, and so just maybe indicating overall that this is how we see all these different groups fitting into this plan and have suggestions in here for who would do what, but, like Michelle, I have specific comments throughout, when we get ready to do that.

MR. PUGLIESE: To both points, I think one of the things we want to do, and I understand exactly -- We kind of had to go the full gamut to kind of come back in the other direction, and I think this provides the -- I am pleased that it does that, because it does provide the longer scope, and that's probably a good opportunity for the AP to focus on how do you look at, like you said, a short workplan and keep this.

The other aspect is that we're going to make this -- This is also going to go online, and so there may be a way to make it interactive. The thing that I think that is going to be really important is to, instead of being directed at things, identify where people could highlight or find those priorities and say, well, this can be accomplished through what's going on and actually be able to have kind of a back-and-forth on we can accomplish some of those, or we are accomplishing some of those, through some of the activities.

How we get creative on translating this bigger thing on something that's an online capability is something that I think is going to be useful, but I think, to this specific point, this will provide, instead of getting lost in the entire thing, which we could do at the AP level, very focused on this is the broader, and we've refined it, because what I would like to do is get as much of the detail and the bigger picture refined to the point where that could be very specifically the discussion, is what are the core components under each one of these that are going to be accomplished in year and year two.

Then that could be something that gets -- It will be a tight turnaround to get it to the council, and you all can determine exactly -- Because, literally, we're during the briefing book week, and so, if there's some leeway in terms of how we wrap that up, within a week after or something like that, I'm sure that the AP could probably handle that a little more effectively than getting so buried in the overall activity.

MR. BREWER: Jessica already covered what I was going to say, but, since I am on the committee, Roger, I just wanted to say thank you for what is a monumental amount of work that's been done on this, and it's really appreciated.

MR. BELL: Good job, Roger. I mean, this is a lot, and I had the same reaction, is that this is sort of the big picture of where we would like to go and what are those -- In that first year, what are those first initial steps? If there's three things that we want to focus on or something, amongst the high priorities or whatever it is, what are they, and how do we start walking through this, and so that's basically what folks where saying, I think, is to just kind of bring it down to those first couple of steps that we want to take, because I think what this does a nice job of is it covers the big picture of the journey many years down the road, but how do we get that started?

It's obvious, and you will notice, from where it talks about program organization, agency, state program, state program, state program, and they were -- That's where this came from, and so somehow -- Whatever those first steps are, we've got to engage those state programs in agreement on how we start moving forward relative to the first year, second year, third year, or whatever it is.

I think what our role kind of is, it's in facilitation, particularly as it relates to federal jurisdiction in the waters, which just happen to be real popular for artificial reefs, and so what can the council do to kind of facilitate these -- What are the first steps, and then how do we facilitate that? That's the action plan, I think, that Michelle is getting at, is how do we get this train moving?

MR. PUGLIESE: I think it's evolving too, because of some of the very specific things that you may want to have relative to the one section under food webs that talk about modeling, and it's developing as we speak. The SSC is going to be looking at the first iteration in October, to get a scope and the practical application of how these can be used into the future, and so there are some of those that you take those line-item actions, and hopefully we can expand that with more definition on even within the short period of time they can result in.

DR. LANEY: What they said. I mean, I am in full agreement that we need like an action plan or an implementation plan or something that covers that initial two-year period, and I was glad to hear you talk about the fact that the modeling effort is moving along and the SSC is going to be taking a look at that.

Ever since I've been associated with the council, I have been excited about the prospect of having a model that, while it may not be sophisticated enough or specific enough to yield actual management advice, it will at least be able to give us management insight, and so I would like to be able to hand Mr. Hartig something here that he can put on his computer and play what-if games with all day long. If you want to increase amberjack biomass by a factor of ten or twenty, what does that do to all the other components of the ecosystem, and I think we're at that stage, probably, where we can generate those sorts of insights. Maybe not answers yet, but certainly insights.

I think, as fishery-independent programs continue and we get more and more sophisticated in our data management and acquisition, then those models are going to get more and more sophisticated, and hopefully, at some point, they will be sufficiently useable for management advice.

MR. PUGLIESE: Another follow-up to that. I think the other aspect we have going on is there is a convergence of activities too, because I think Ben provided some specific recommendations that I am looking at translating into some actions that get to the issue of the opportunities that we have under say the Citizen Science Program and different things that can accomplish some of these specific actions we're identifying.

Those converging activities, I think, will also enhance and provide areas forward on this, and so I think that's a key aspect of it, and a lot of the tools and capabilities that we're developing in the background hopefully will make that happen. The more we can work with the online capabilities, I think that's also going to advance this.

MR. HAYMANS: Okay. If there is no other broad comment, I think, Michelle and Jessica, maybe if you all want to hit a few of your top-priority edits, we'll do that.

DR. DUVAL: Thank you, Mr. Chairman. Again, I'm not on your committee, and I think the ones that I will probably focus on more are the food webs and connectivity and then the climate change. I think some of the priority stuff with regard to -- I am specifically looking at the very first chunk of the spreadsheet, where it discusses to define the list of forage fish species, and then the Actions A and B are identify species for which diet data are lacking and define the major forage groups and composition. Then the next policy component is including that forage information in other fishery management tools and processes that lead into and incorporate ecosystem considerations and tradeoffs.

I think a couple of these actions, like the -- I was kind of surprised to see, under B, define environmental relationships for forage fish as like a low priority, because, to me, that seems like that's really fundamental to Action A above that, which is explore the costs and benefits of developing an amendment to protect forage fish in the South Atlantic to maximize recreational fishing and current commercial fishing opportunities, and it seems like you need that background information before you can do an assessment of what the costs and benefits of developing an amendment are, because my cost-benefit analysis right now would be that the cost is going to be tremendous, because we don't have -- It's going to take a lot of staff time and effort, and we don't have all of the background information and some of the other species distribution components that are discussed in additional items further down in this spreadsheet.

I was kind of surprised to see that as low, given that I think that's sort of fundamental to the background, and it seems like -- Then, under other policy components, like moving to the next page, where it says collect more science and monitoring information and improve our understanding of the role of forage fish in the ecosystem, and I see define environmental relationships has a medium priority.

I think that's something that the committee, that the AP, might need to address and refine, and so those are just examples of a couple of specific edits and concerns that I would have on this particular policy with regard to food webs and food web dynamics, because most of these are listed with regard to forage fish, distribution of major prey and forage groups, and most of those are listed as high priority.

MR. PUGLIESE: Just specific to that point, I think part of it has to do with separating the refining the information on the characterization and collecting the data. That's why the collecting the data to do that was a high priority until it's collected, and that's why it was qualified as low, I think, but I think it can be clarified that that drives the other, but I think that's what the point was, is that you need to collect the information to come up with those characteristics.

Without the information, it's going to be limited use, because you really don't have that information, and so you need to collect that, and that needs to be a priority, to collect the information so that you can really get those parameters identified, so you're not drawing from other regions or whatever, and I think that is the only reason. It was kind of a balancing act between those two points, but I think you could just as easily identify them both as high and they really draw on each other, or medium and they draw on each other, but that is, I think, the rationale. It's at least trying to identify that you need to collect the information.

MS. MCCAWLEY: On this same forage section, on page 11, in the third column, where it talks about A and B, where it's, under A, develop an ecosystem indicator that includes forage fish status, based on monitoring, and then a threshold which triggers management action. I guess that threshold that triggers management action concerned me a little bit, because I felt like we, as a group, decided that we weren't going to manage forage fish separately, and so this concerned me a little bit, as did the same one, the same type of thing, under B below that, to develop these reference points for managing forage fish.

MR. PUGLIESE: It's up to the council if you want to integrate those in here or not. I mean, this was the follow-up after section development, et cetera. This is a totally different iteration or review, and so, if they need to be removed from here, now is the time to go ahead and make that recommendation, or, if you see these being more generic or whatever, I am not sure how to make that --

DR. DUVAL: I think this hearkens back to some of the discussions that I think we've had at Executive Finance in terms of management of forage species in general. When you get right down to it, everything is forage for something else, and so I think you need to define what you're talking about when you talk about forage.

I think you will see, when we get to Executive Finance, that we have some position statements on some topics for the council, and one of those does deal with forage fish, and we specifically mention that we are looking to manage forage through our Fishery Ecosystem Plan as opposed to, I think, pulling it out separately.

Now, the Mid-Atlantic Council has gone and moved forward with a separate forage fish amendment that includes a number of different species, and they have set catch limits associated with that. I think that final rule just published. I think it's effective now, and it published like at the end of August, and so I think, if we're developing specific ecological reference points for managing forage fish, that's a whole other category of effort that I would have a little bit of concern about.

I mean, I think my sense, or my hope, was that some of the modeling work that's going on, some of the ecosystem modeling work that's going on, is how we would incorporate management of those relationships, and I am pretty simplistic, and so I go back to sort of my analogy of the bubble. When you push in in one place, where does it pop out in another place, and so I think understanding the implications of some of our management measures on different parts of the food web is important.

I mean, when I read "develop ecological reference points for managing forage fish", I feel like somebody just dropped a ton of bricks on my back, because that's a huge effort. We're undergoing

that at the Atlantic States Marine Fisheries Commission right now, and it's been like a ten-year process.

MR. HAYMANS: I feel the same way with trying to add climate variability into fishery management plans. I mean, it's a ton of bricks there.

DR. LANEY: I agree, Madam Chairman, but I would encourage us all to look at the start and completion dates for that particular one. For example, the start date is 2022. It's way down the road, and I hearken back to some of our discussions during our visioning exercise, when we said, okay, we're going to start with the snapper grouper complex, because that's the biggest one and the most complicated one, and possibly the most controversial one too as well, but we will consider, later on, whether or not we need to address some other aspects of the suite of species and ecosystems that the council manages.

That is the context that I guess I'm looking at it in, is, yes, we know that one is going to take a lot of work, and it's not a non-controversial issue, as shown by Atlantic menhaden discussions at ASMFC, but I think it's something that is important for us at least to keep in there as a possibility, given the fact that it's way down the road.

MR. PUGLIESE: I think what may be simple enough is to eliminate, under A, eliminate "and threshold with triggers", because I think the point you're making -- If you look at the action to develop food web indicators, if you keep it more generic -- The intent is to do exactly what you're saying. It's to do the modeling, so that you have all the species that we can get as much information and advance research into everything down the food chain, so that that be the mechanism to do that.

Then the other one would be to develop ecological reference points, just generically to understand that, and that would come out of looking at all the different species and the suite of the modeling effort, and I think that would eliminate maybe some of this very focused -- Because, as you said, when we're looking at prey-predator interactions, something is eating something always, and so maybe that would be the simplest way to keep it more generic, but get to the point of ultimately being able to create indicators based on things such as these modeling efforts and other tools that can be developed into the future.

MS. MCCAWLEY: I still have concerns. I spoke out against this when we were bringing up the policy statement, and it just sounds like, especially with B, that we are definitely heading down a path to pull out forage fish and manage it, and so I don't want to go there. I feel like we made a conscious decision not to, and that's all I will say about that.

MR. PUGLIESE: "Develop ecological indicators for managed species" maybe, and I meant to go back and do exactly what you were talking about, and that pulls that --

DR. PONWITH: I think this is a really important discussion, and I think it's also a pragmatic discussion. We're understanding what our information and understanding of the system is and the implications of overstepping our grasp and the data that we have in hand, but another way to look at this might be, when it comes to these trophic interactions and the importance of forage fish, is a really crucial step is understanding those food web dynamics by having a gut shop by the federal

and the state scientists collaborating on gut content analysis and having those data analyzed and in hand.

An indicator might be something just as simple as knowing what trophic level these fisheries are operating at and monitoring if there is a change in that trophic level over time and setting up some sort of yellow flags if you see changes in that over time, and so I can understand, because of the way we use the term "reference points" in stock assessments, that it's concerning, and I think it's rightfully so that it's concerning, but, if you define what you're talking about and define what happens if you cross one of those lines in a way that is manageable with the type of information that we think is within our grasp, in the timeframe that is on this table, it becomes a more tractable problem.

DR. DUVAL: Roger, I realize that some of this might sound like contradictory feedback, because we said, hey, we would like a specific set of -- Let's have the teams develop some specific actions and indicators, and I think this is just part of the process of coming to a final version of what those actions look like, and so, I mean, I share Jessica's concerns about a threshold that triggers management action, and I understand what Dr. Ponwith has said, and I think we were looking at this a little bit more holistically. I think it's one thing to develop ecosystem indicators. I mean, forage species and forage relationships are part of that ecosystem, and so I think pulling it out for specific management action is what is giving us a little bit of pause, and so that's all I will say about that.

MR. PUGLIESE: Okay.

MR. HAYMANS: Any other specific points that you guys would like to bring out?

DR. DUVAL: Then I think just moving on to -- This would be like PDF page 16, and this is the climate variability in fisheries actions. I think the first three actions supporting the policy component of coordination with state agencies, A is forming a small working group to track species that are likely to shift or expand and develop an MOU, is Action B, amongst ASMFC, Gulf, Mid-Atlantic, and the Caribbean to adaptively manage species.

We're actually going to get into that discussion in Snapper Grouper tomorrow, in terms of reaching out to our fellow council in the Mid-Atlantic with regard to snapper grouper species, and so I -- Like Roger was saying previously, there may be things included in here that we can point to and say that we're already trying to move forward on this so we can sort of check a box, so to speak. I see us as taking the steps right now for Actions A and B. I understand, Mr. Chairman, your concern about trying to include like climate variability in fishery management plans, but it's a reality, and it's something that we need to tackle.

MR. HAYMANS: Climate change may be a reality, but I don't know that we have enough information to tell us that Change A is causing Change B in certain fisheries. I mean, it's just trying to adjust an ACL for climate change, to me, is beyond our reach right now, and it's a high priority in here, in this document, and that's where my concerns were there.

MS. MCCAWLEY: I don't have any on that climate one. My next one, I believe, is under SAV, and so just let me know when you're ready to move to another section.

MR. HAYMANS: We're ready to move.

MS. MCCAWLEY: Okay. I am on page 34 of the table, and I'm sorry that I don't know what the PDF page is, but it's 34 under the table. In the second column, the policy component, it specifically states "modification of state rules", and, if you look at program organization, it says "FWC". It's an interesting directive, and I was wondering if maybe we could reword it so that it was a suggestion or looking for ways in which state rules can more effectively dovetail with these federal rules, and I'm not sure, but I'm just a little concerned about this direction to FWC to modify their rules, and this is not a simple process, and I would argue that some of these rules are not necessarily FWC rules, but possibly maybe even DEP, which is not even the correct agency's rules here.

MR. HAYMANS: What would be your suggested fix there? Is it to remove the wording for state rules or remove the FWC?

MS. MCCAWLEY: Maybe something more general about consider state rules and how they fit with federal rules to accomplish the goals or something like that. It's not specific to FWC. It's not specific that -- We have already predetermined that Florida's rules need to be modified, state rules need to be modified. The same language is in 1 and 2.

MR. PUGLIESE: So just make it generic?

MS. MCCAWLEY: Yes.

MR. HAYMANS: I will reiterate for you guys to provide something in writing, whether it's your table with your notes, back to Michelle.

DR. DUVAL: Yes, and I think the issue that's causing a little bit of heartburn is modification of state rules, because the way it's phrased just presupposes that that's actually going to take place, as opposed to review state rules to determine consistency with the intent of protecting these types of habitats, and then we can take it from there. Then I guess the other thing, in terms of the agencies listed, I noticed that it's only Florida and North Carolina, and so I am wondering why two states were picked on.

MR. PUGLIESE: Only two states have SAV.

MR. HAYMANS: Part of that is Georgia doesn't have any SAV.

MR. PUGLIESE: Or South Carolina.

DR. LANEY: I was going to say that, Mr. Chairman. The consistent refrain that we hear from our South Carolina and Georgia Habitat AP members is that those two states are not blessed with any SAV, in large measure due to the turbidity in the tidal range and the habitat conditions in those two states, although I will note, just for the record, Mel, that there was rupia growing off of Prescott Brownell's dock adjacent to Charleston Harbor there, and so, at least in some years under some conditions, there may be a little bit here and there.

The one other thing that I wanted to note, and I think Michelle is well aware of this, but some of the rest of you may not be, but the ASMFC's SAV policy is twenty years old this year, and the

Habitat Committee is in the process of reviewing it and revising it and updating it, and so, Jessica, that might be one place for you and Erika to take a look and see if there are things in there that could possibly be modified or incorporated or enhanced.

Hopefully Kent has done a great job, and I'm sure he has, because he always does, of going over that with a finetooth comb and looking to see how it might need to be updated from a Florida perspective, and then I'm sure Michelle and others, Jimmy, has looked at it very closely from a North Carolina perspective, and the rest of the states are all looking at it as well, and so that opportunity is there. We're going to be, at a minimum, updating the literature section of it, to try and bring that up to speed, since we haven't done a fresh lit review in twenty years, and so that's one thing that we'll be doing, but hopefully that revised policy will be coming out in the not-too-distant future.

MR. PUGLIESE: I should go ahead and add, I would assume, add ASMFC to that, if they're going to be specifically reviewing this. That, again, is one of those check-off points.

MS. MCCAWLEY: Are you ready to keep moving on?

MR. HAYMANS: Yes.

MS. MCCAWLEY: The next comments that we have are kind of on Chapters 5 and 6 overall, and I think I'm going to let Erika explain this.

MS. BURGESS: Thank you. As FWC was reviewing this, we had some suggestions for the committee and the council. These policy statements, some of them, like Wilson had mentioned, were developed a long time ago, and I am not sure of the dates on when these were -- Beach dredging and renourishment was pretty recent, but the recommendations in those policies don't cleanly fit into this FEP plan like some of the other chapters do, where it's clear that this is something the council can move forward on and such.

We were thinking that it might be an idea for the committee to discuss or direct, possibly, the Habitat AP to think about this in a different approach. If we're looking at Table 5, the first item there, for each project, a comprehensive environmental document should be prepared based on the best available information and should include, and this is a recommendation from the council to people who are doing beach renourishment projects.

When you're doing a beach renourishment project, these are the steps you should follow, and so maybe a better approach for the council's FEP II plan, if there is interest to do this, would be how can the council help other organizations implement these recommendations and policies? How can the council facilitate this? Then that would be the FEP implementation actions at the council level.

DR. DUVAL: Just to make sure that I'm understanding what Erika is saying, like instead of including, particularly for this, and I'm looking at Table 5, these are things that applicants pretty much already have to do when they are putting together an EIS or an EA for one of these types of projects, and so consider refocusing this from inclusion of items that they already have to do that are required by other agencies to bringing it up to a higher level that would help us to -- I guess

maybe that would facilitate getting the council's concerns with regards to habitats that our managed species use addressed, maybe.

MS. MCCAWLEY: Yes, and I think it just needs to -- I think it's exactly what you're saying. It's getting this up to a higher level, since this is just detailing the requirements that someone would go through on a particular project. It's almost like these need to be at a higher, more overarching level in these two chapters. It appears to be set up a little different than the rest of the document is.

MR. PUGLIESE: That's mainly because of the way the policy is, and I talked to Erika about this, and I think that's one of the issues we had here, is that it is drawing very specifically from the policy, and so it was trying to build that, and, in this one specifically, it was very specific guidance on how this went forward, and so it translated to trying to translate to actions for that, and so I think there was a difficulty in doing something beyond here, especially when we gave that frame to begin with.

MR. HAYMANS: Before you jump on that, I was just reminded that -- I am still looking off of my earlier agenda, and we are supposed to end at 11:30. I thought we were supposed to end at noon, and I will let you provide what you want, but I think that you two are the primary opinionators, and so we'll give those to Roger and kind of move forward after this.

MS. MCCAWLEY: That's fine. On that particular topic that we were discussing, is it not possible to ask the Habitat AP, that I believe has an upcoming meeting, to try to articulate something that is at a little higher level that could go in the table for those two particular -- I mean, I see what you're saying, and I feel like they did exactly what they were directed to do, but it just seems that it's at a different level, and I'm wondering if there were some bigger statements maybe that the Habitat AP could help develop here that would fit in this document, and then, like Michelle was suggesting at the beginning, if there was a shorter document with this shorter timeline and these specifics about the council will do X, Y, and Z, it seems like those overarching things would need to come from there.

MR. PUGLIESE: I think that's definitely something that can be done. I think, as you said, this is very specifically a reaction to trying to fit that into what we're doing, and now the opportunity to talk at a higher level, and we do have that. The only issue is the timing for the AP to get this done and everything. That's going to be a challenge.

We're not under a congressional mandate to get this thing wrapped up. I mean, you can always wrap up most of it and then continue to work on the implementation plan in through the next council meeting, if we need to. I think it's more important that we get it right and provide it, because we're going to have the bulk of everything online and operational, and we'll get into that in a minute, or at least highlight that, and I think everybody is really getting to trying to make this as usable and as functional as possible, and so those directives definitely can be worked on and addressed.

The key though, I think, is it's going to be a challenge if you want to really have it all done. We can do what we can, but, if that becomes an issue, then we have to put that kind of in context, about really wrapping up and putting the bow on where this is, but I think definitely that's the right group to do it, and the opportunity -- I am sure they would be more than willing to do both of those,

bigger picture plus also refining the way you're looking at these different things, and so it actually goes beyond where the policy is, and I think that's where they really kind of needed to be, but it's just how you made that happen was kind of a tough thing with this first iteration.

I mean, we've come a long way to get to here, and so you kind of had to go -- Again, you had to go down the whole road, and now we're back to figuring out how do we make it even more functional, and so, as long as everybody understands those limitations or potential extensions of the discussion, and it's a heck of a lost opportunity if we don't use that group to really make this more effective.

MS. MCCAWLEY: If you want Michelle and I to get with Roger about some of our other specifics outside of this committee meeting, that's certainly fine.

MR. HAYMANS: I would think that would be the proper course.

DR. DUVAL: I just want to extend my appreciation to all of the FEP groups for tackling this. I mean, this is tremendously helpful, and it is always so much easier for us to react to something that is put together than to try to wordsmith and come up with these things ourselves, and so I just don't want folks who are out there, who have spent a considerable amount of time on this, to be discouraged by that.

I completely agree that this is everything, and I agree, Roger, with what you said where you sort of had to like walk through all of that to come back to, okay, now what can we focus on just in the short term, and so I just want to extend my appreciation to everybody for all the work that they've done.

MS. MCCAWLEY: I would like to say the same thing. This is a big step just to get to this particular point, and so I think it's exciting to get here. I know a lot of work went into it, and so I'm excited to see this product that we have here already.

MR. DILERNIA: I wasn't able to attend yesterday. We had problems with the computers on our end, but I'm here today, and I will be with you all tomorrow, but I just wanted to -- When Michelle was talking about the forage fish amendment and what we did, I have to agree with her completely. She hit the nail right on the head regarding the reference points and how to manage that fishery, and so I just wanted to back her up on that point, and I know it was a while further back in the discussion, but she was right on the mark with her comments. Thank you.

MR. HAYMANS: Thank you, Tony. I had no idea that you were out there in the netherland. It's good to hear your voice.

MR. DILERNIA: Thanks a lot. It's very interesting to be able to sit here and attend -- It's the first time that I have ever attended a council meeting wearing my furry bunny slippers and a bathrobe.

MR. HAYMANS: I was about to ask what you were wearing.

MR. DILERNIA: Anyway, it's not like being there. I will be with you all tomorrow. Thank you.

MR. HAYMANS: Thank you. In the interest of time, we're going to spend just a few minutes on the dashboard development. Roger has pretty much covered some of the tools and model development, and so we're going to skip over that, but do the dashboard development and try to get us back on the agenda schedule.

MR. PUGLIESE: I think Cameron is going to come on up. At the last meeting, we kind of walked through a wiki presentation of what was going on, and I'm going to let -- I will work back and forth with Cameron. I will let her drive the show here, and then we'll highlight where we are, because, essentially, this is going to be live today, I guess, or within a very short period of time, with the qualifiers that some of the sections and different things like that are going to be added as we finalize the implementation, as we finalize those, but it's pretty exciting to get to the point we are right now.

MS. RHODES: Hi, everyone. We're just going to go through this step-by-step. We'll run through it rather quickly. If you have any questions, feel free to ask. If you have any suggestions for how we should set this up differently, please do share those with us. On our introduction page, this is just a landing page. It will likely be hosted on the Habitat and Ecosystem Site Menu section, and so, if you were to drop down here to Habitat and Ecosystem, you would be able to find a link to this page. We're still in discussion about how we'll go about doing that, and, if you have any thoughts for ways that the FEP II should be introduced on the Habitat and Ecosystem page, we are open.

This right-side menu here, Fishery Ecosystem Plan II, is where you will be able to navigate through all of the different sections of this dashboard, and so let's start with ecosystem. Eventually, you will be able to access the South Atlantic Food Web and Connectivity and the South Atlantic Climate Variability in Fisheries documents. Those are currently not approved yet, and so we're waiting for final approval. Once approved, they will be hosted on the website. You will find that all of these documents are in PDF form as well for policies, and you will be able to access them.

We also have an Ecosystem Health Section, which was initially hosted directly on the Habitat and Ecosystem page, but Roger felt that it would be better suited somewhere in the FEP II section of the website, and so we have links here, which will also serve as tools later on.

MR. PUGLIESE: This is where we're really going to illuminate virtually all of the other material that's on the Habitat and Ecosystem, and it's going to be all collapsed under Habitat and Fishery Ecosystem Plan II, because literally the information, the linkages and the tools and everything, is now embedded under this one area, and so I think -- A lot of it is being integrated as Google Docs in the background, so they can be readily revised and updated and provide links and all types of things as we move this forward, and so I think that's a pretty critical thing, and so we're able to quickly do things such as integrating the State of the South Atlantic from the Landscape Conservation Cooperative under Ecosystem Health and having that available and updatable.

MS. RHODES: All right. Let's go to our Habitat page, and this will just give you a running list of all of the different documents.

MR. PUGLIESE: What we have is a combination of a -- It's kind of a reality check here. It's the core areas. Essentially, the council had provided the core input on the finalization of shallow-water corals and on a number of the different sub-parts that are presented here. What we have are

the most recent information, and say the linkages for say deepwater coral and sargassum are going to be links. Then, where there has not been more work done, there's essentially going to be links back to the original description, such as water column, in FEP I, and so it's going to be a combination of all three of those presented here. The key is those can be readily refined and revised as this living document continues to move forward.

MS. RHODES: All right. Now we get to some of the jazzy stuff, and so we get to our live online documents, which are hosted through Google Docs, and they allow us to have some pretty unique capabilities. This is just a living document. You can click through on all of the table of contents in here, and it will direct you to the section and question, and Roger has been working really diligently on this, in order to get all of these images updated on this document. This will just be a really nice resource for people to access, and it will constantly be open to edits, if ever they are needed.

MR. PUGLIESE: Can you go to black sea bass or gag or ones of the ones that has a link? The other aspect of this, and I think we tried to highlight it, is that it's going to present the nice consolidated information on the individual species, but also have a link directly a live component, a live report. For example, on black sea bass here, that brings you directly to our developing Ecospecies Online Information System.

These queries are based on the entire gamut of information, detailed information, and this is not static. You are literally in the system, in a full query, and so you can back out and look at other species and look at other just very specific information on there, but this has everything from life history to fishery information to status to detailed habitat information. One of the things I think that -- The reason that this was developed in the first place was to be a living system. Instead of static documents in many other regions for habitat information, this has all the detail, down to life history information for individual species as well as really providing a lot of other connectivity of the most detailed information for the system.

The idea with this is we're going to continually evolve this. We're working right now with FWRI to backfill at least the highest priority species within here and then continue to have this as a living, updatable system. The most important opportunity is that, ultimately, we want to have it so that when we go into a data workshop that this can potentially be accessed through the SEDAR process, information that may have the most recent information on natural mortality and different things that have been developing over time or research that has been conducted on parameters for an individual species accessed and used possibly during the review.

Then, as an assessment is completed, actually it gets backfilled with the most updated information on the individual species, and this continues to live and expand and be the most detailed and updated information on the species, and that will also serve the same way with fishery information on what the status is and what the catch rates are.

There are also, eventually, going to be things such as integration of spatial presentations, like species distribution maps, and have links to the actual distribution maps that we already have for EFH in there, and so there is evolutions that are continuing to happen on the Ecospecies, and so the idea is to have the very simple and the very detailed access.

MR. HAYMANS: All of this is live right now, right? Folks can go online and they can explore, and are there other really key features that you want to highlight right now? I don't mean to be short, but in the interest of time.

MR. PUGLIESE: This provides really the opportunity to get to detailed information. The last thing that we're going to touch on is that it does things such as having the links to managed species, or managed areas, and so it has links back to the detailed sections in the site, but it also provides things such as here.

This is a story map that provides access to information that we've been building in the atlas, but for the managed areas, and so you can go in to look at this and look at all the managed areas in one place. It provides the connection to the CFR, and it provides information on the image and, in some cases, video for all these different managed areas, and so that's right on the frontend of this system, and so this really provides a lot of flexibility to look at everything in context. Under Managed Species, it also gets to a lot of this kind of detail, but that was one that I just wanted to -- We're really taking advantage of a lot of capabilities that we've been developing in a lot of other places and folding it all under the umbrella of FEP and habitat conservation.

MR. HAYMANS: It's a one-stop-shop.

MR. PUGLIESE: So look at it. If there are other things that you feel that we can expand or refine or advance this, that's what we're trying to do here, and so we're going to be working on this and reviewing this also at the Habitat AP meeting, to look at additional tweaking that we may be able to do, and we're looking at all the sub-components, such as Ecospecies, the atlas, et cetera, that are also supported under this system.

MR. HAYMANS: Thank you, Roger. Thank you all for the hard work on that. It looks great. Wilson, last word on sturgeon.

DR. LANEY: Part of the briefing package included the NMFS final rule for Atlantic sturgeon critical habitat, and I just wanted to make sure that everybody had seen that. The one other thing I will mention is that I have been contacted by at least one environmental consultant who wanted to know if the Fish and Wildlife Service and National Marine Fisheries Service were going to put their heads together and consider whether or not when Section 7 consultations and critical habitat consultations have to be done that the species managed by the two different agencies, in those cases where there is overlapping critical habitat, could possibly be considered in some more efficient manner than having to deal with NMFS separately for Atlantic sturgeon and Fish and Wildlife Service separately for dwarf wedgemussel and things like that.

I talked briefly to Roy about that earlier, and he did indicate that he thinks there are some conversations along those lines taking place way above our paygrades, in Headquarters somewhere, or maybe between Interior and Commerce, and I don't know. Monica, if you know anything about that, you may want to weigh-in at this point.

MS. SMIT-BRUNELLO: I don't know anything about that, Wilson, but it sounds like a good idea.

DR. LANEY: Yes, it does sound like a logical idea, to me anyway, and the only other thing I will note is that recall that, in the draft final rule, there was a provision for unoccupied critical habitat in certain areas, and that vanished from the final rule, for reasons that I won't get into, but, again, Monica might want to address that point.

MS. SMIT-BRUNELLO: I have no comment.

DR. LANEY: Nor do I.

MR. HAYMANS: From a state perspective, we were appreciative that state comments were taken into account and the areas reduced based on state comment, and so any final words? That concludes the business of the Habitat Protection & Ecosystem-Based Management Committee.

(Whereupon, the meeting adjourned on September 26, 2017.)

Certified By: _____ Date: _____

Transcribed By:
Amanda Thomas
October 23, 2017

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