

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

JOINT ECOSYSTEM-BASED MANAGEMENT AND HABITAT & ENVIRONMENTAL PROTECTION COMMITTEES

**Sawgrass Marriott
Ponte Vedra Beach, Florida**

June 9, 2014

SUMMARY MINUTES

Ecosystem-Based Management Committee Members:

Doug Haymans, Chair
Chris Conklin
Dr. Wilson Laney
Charlie Philips

Anna Beckwith
Dr. Michelle Duval
Jessica McCawley
Robert Beal

Habitat & Environmental Protection Committee

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Doug Haymans
Charlie Phillips

Anna Beckwith
John Jolley
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Mike Collins
Dr. Kari MacLauchlin
Amber Von Harten
John Carmichael
Dr. Brian Chevront

Observers/Participants:

Monica Smit-Brunello
Dr. Bonnie Ponwith
Phil Steele
Russ Dunn
Peter Ortner

Dr. Jack McGovern
Sam Rauch
Pat Geer
Ken Brennan
Jennifer Lee

Additional Attendees Attached

The Joint Habitat and Environmental Protection and Ecosystem-Based Management Committees of the South Atlantic Fishery Management Council convened in the Sawgrass Marriott, Ponte Vedra, Florida, June 9, 2014, and was called to order at 1:55 o'clock p.m. by Chairmen Wilson Laney and Doug Haymans.

DR. LANEY: Okay, ladies and gentlemen, if we could get started here; Doug Haymans and I are convening the joint meeting of the Ecosystem-Based Management and Habitat and Environmental Protection Committees. Doug and I are going to do split duty again. I'm going to take Items 1 through 5, and Doug will take 6 through 11; then I think we jointly do 12 or something like that.

Without further ado, the first item is to approve the December 3, 2014, minutes of the meeting. I just need to ask if there are any changes. Seeing no hands; then I assume that the minutes are approved without objection. I should have asked at the beginning if anybody had anything else to add to the agenda.

Actually I do have one very brief item under other business that I will add just as an FYI and heads up to the committee; and that regards a request for a water quality classification on the Lower Cape Fear River Estuary in North Carolina, which I wanted to bring to the joint committee's attention.

Can I ask if anybody else has any other items to add to the agenda? Seeing none; the agenda is approved without objection then. Now we'll move to Item 3, which is the Habitat AP meeting report; and we have Chairman Pat Geer here from the great state of Georgia to give that report to us. Pat.

MR. GEER: The Habitat AP met from the afternoon of April 1 through the morning of April 3. We spent most of our time talking about the EFH Policy Statements, trying to bring a lot of the comments that folks had and editorial comments and work on them that way. The marine aquaculture policy statement; Lisa Gregg from Florida Wildlife Commission provided a lot of very thorough comments and editorial review of the document, which was very helpful.

We had a very lively discussion, lengthy discussion about the terms native versus naturalized species and genetically modified organisms that is in the document. The Submerged Aquatic Vegetation Policy Statement went through a pretty easy review. We incorporated the changes and comments that folks wanted.

The In-Stream Flow Policy was headed by Alice Lawrence. There was an inclusion of revisions that included hydrological alterations and how they may impact some of the various habitats. The Invasive Species Statements; we decided because of redundancy to combine the estuarine and marine statements into one and create one policy statement instead of two, which made it a little bit easier.

These four policy statements hopefully we're going to put forth a recommendation today and hopefully you will accept them. We also talked about the Beach Dredge-and-Fill Statement that we're still working on. Then we moved on to redrafting of some of our other policy statements; the Energy Policy Statement which we're still working on.

We then had a series of presentations from some of the states, North Carolina, South Carolina, Georgia. Florida was going to give a presentation at our St. Pete meeting in November on the artificial reefs; and it was quite evident as we went through these presentations that a lot of the states are doing things in a similar manner.

We're moving forward with a policy statement on that and we're creating a team to do that. After that, we broke into our state subpanels to breakout groups to look at folks that we can get to participate in the upcoming Fisheries Ecosystem Plan. We noticed that when we went through that list a lot of people had moved on, they have new positions, they probably can't participate.

A lot of people have retired. We went through that list and tried to make recommendations and take the people off we knew wouldn't be able to participate. Roger gave an overview of the East Coast Climate and Governance Workshop, which was held in March, 19 through 21, in D.C. There were participants from all three councils on the Atlantic Coast.

It was pretty much run by NOAA and the Mid-Atlantic Council. The information from that workshop and the presentations are on the Mid-Atlantic Council's Website at this point. One of the things they have seen from this was John Hare who works in the northeast has been looking at this; and they are seeing what they call translocation of species.

The biomass center of a lot of the species they are seeing are being shifted to the north and into deeper waters. The Atlantic States Marine Fisheries Commission, their Management and Science Committee is looking at it as well to maybe look at changes in how state allocations are made because of those shifts.

George Sedberry from the NOAA Sanctuary Program provided a very brief update on the NOAA Habitat Blueprint. They want to look at this on a watershed scale; and they are going to have a focus area selection team that is going to look at a series of criteria and try to come up with what watersheds they are going to be looking at.

Roger then provided an overview of the Oculina Experimental Closed Area, the evaluation process. That process will include education and outreach, law enforcement, and research evaluations. Then finally Roger also gave an update on the South Atlantic Landscape Conservation Cooperative Blueprint and how they fit into council's habitat issues and the Habitat AP, as well as SARP, which is Southeast Aquatic Research Partnership, and how we work with them as well. That is about all I have, Mr. Chairman.

DR. LANEY: Do we have questions for Mr. Geer about the Habitat AP Report? I see none; no hands raised, thank you, Pat. We'll move on to the next item, which is a discussion of the four policy statements. I believe Roger is going to lead us in that discussion.

MR. PUGLIESE: Attachments 2 through 5 are the four policy statements that were worked on by the Habitat Advisory Panel and refined. A lot of good work from their beginning to where we are now, especially addressing many of the issues that came up at the last council meeting; a request for complete reviews and finalizations.

With the Policy Statement on Marine Aquaculture, what I am going to do is just touch on the major sections and then really go directly to the recommendations and then we will put it on the table for committee review and finalization for approval. The policy statement again has been evolving for a period of time.

The structure is very similar to many of the other ones with the introduction setting the stage for its connection to council's mandates; the overview of the aquaculture and interactions, discussing everything from escapement, disease in aquaculture, use of drugs in the systems, water quality impacts, benthic sediment and community impacts.

Then it addresses the specific potential interactions with EFH both from offshore, nearshore, and discusses live rock aquaculture. This brings us into the actual recommendations in Policy for Marine Aquaculture in Federal Waters. After all the details and the background that was built for the development of this policy, the statement addresses these specific points.

The first one is the marine aquaculture activities in federal waters of the South Atlantic require thorough public review and effective regulation under Magnuson and other applicable federal statutes. The aquaculture permits should be for at least ten-year duration or maximum allowed applicable law or regulation sets a maximum of less than ten years.

With annual reporting requirements, permits of ten years or more should undergo five-year comprehensive operational review with the option for revocation at any time in the event there is no prolonged activity or documented adverse effects that poses substantial threat to marine resources.

Only drugs, biologics, and other chemicals approved for aquaculture by the FDA, EPA, or USDA should be used in compliance with the applicable laws and regulations. In the appendix it does have a current list of the approved components. Only native population species should be used for aquaculture in federal waters of the South Atlantic.

Genetically modified organisms should only be used for aquaculture in federal waters of the South Atlantic pending FDA or federal approval following a rigorous and documented biological assessment which concludes there is not reasonable possibility for genetic exchange with natural organisms or other irreversible form of ecological impact.

Further, the aquaculture genetically modified organism should be prohibited in federal waters of the South Atlantic when there exists a reasonable opportunity for escapement and dispersal into waters of any state, which the culture or commerce are prohibited by state rule or policy. Given the critical nature of proper siting, the permitting agency requires the applicant to provide all information necessary to thoroughly evaluate the suitability for potential aquaculture sites.

If sufficient information is not provided in the time allotted by existing application review process, the permitting agent should either deny the permit or hold the permit in abeyance until required information is available. Seventh was the environmental monitoring plans for projects authorized under MSA should develop by the applicant and permit holder and approved by NOAA Fisheries with input from the council. Fishery management plans for aquaculture should require permittees to have adequate funds, for example, an insurance bond committed to ensure

removal of organisms or decommissioning of the facilities that are abandoned, obsolete, or storm damaged or have had their permit revoked.

Plans should also require the amount of these funds to be determined by NOAA Fisheries with input from the council and that the funds be held in trust. When issuing permits for aquaculture in federal waters, NOAA Fisheries should specify conditions of use and outline the process to repeal permits in order to prevent negative impacts to EFH; and NOAA should take the appropriate steps to modify or revoke permits using its authority if permit conditions are not being met. Those are the policy recommendations that are included in the Aquaculture Policy.

DR. LANEY: Roger, I assume in the interest of efficiency we can take these one at a time. Are there comments or questions for Roger on the Marine Aquaculture Policy?

MR. JOLLEY: What is your feeling on the drugs? I just went through the list. I don't know much about the chemistry here; but what is your personal feeling on these drugs that have been listed?

MR. PUGLIESE: There is a lot of discussion about the issue of use of chemicals, drugs, et cetera, in the systems. I think to a great degree it was relying a lot on – especially the state of Florida has really been working with these issues for a long time. To that degree, I think the advisory panel members were deferring somewhat to the ongoing and very close monitoring of the use of any of these types of conditions. I think there was an attempt to try to be a little more conservative maybe in this policy than some of the other places.

DR. LANEY: Jessica, did you want to follow up on that?

MS. McCAWLEY: My comment is not specifically to the drugs. I was just going to say I appreciate you going back and looking at these particular policies and allowing our staff member to come and give comments. I would say we're good to go with the policy at this point.

DR. LANEY: Okay, thank you; and, John, I know that if a drug is approved for use, it has been put through a pretty rigorous suite of testing and preapproval kind of process as required. I think generally thinking if it has been approved, we should be fairly comfortable with it. Of course, there is always the possibility that things come up later. Hopefully, we'll stay on top of the literature well enough to know that if some unknown side effect or impact of a given drug comes out later, we can certainly take action in that case if we're informed about it.

MR. BELL: I just had a question; I know Number 9 discusses conditions of permits. I guess if you have issues with violations or conditions, there would be the ability to repeal or revoke, I guess. From an enforcement standpoint, who would we envision would be kind of monitoring things to determine whether or not there is compliance with the conditions of the permit? Would that be a combination of or primarily National Marine Fisheries Service Law Enforcement? Who would do that, I guess?

MR. PUGLIESE: One of the issues is the fact that there is not a system set up right now for offshore aquaculture facilities. Most of what we're working with or trying to draw on are state activities and state processes. That is kind where we're deferring on the legal side; so until you

actually have something in place that actually is providing this – we have discussed this a number of times before.

The Gulf of Mexico actually has a plan and does have the connections so that enforcement would fall back to NOAA Fisheries, in terms of the ability to do it; and I guess enforcement would have the ability to enforce that permit, because there is an existing FMP that is connected to.

MR. BELL: Right; and that is just something to think about. If something did really kind of kick in and grow, you would have to be able to cover those functions somehow.

DR. LANEY: Roy or Monica, did you want to add anything to that from a NOAA perspective relative to enforcement? Jack, I believe I saw your hand next.

MR. COX: Mel answered half the question I was going to ask; but the other half, how many permits are out there right now for the offshore aquaculture?

MR. PUGLIESE: There are none. That was kind of my point is right now there are none. In the Atlantic side there are no federal permits for offshore aquaculture. This whole thing was really trying to get ahead of the whole process of the development of this and in lieu of the – The Gulf of Mexico, as I mentioned, created a whole FMP that connects into managed fisheries and the opportunity to aquaculture.

The South Atlantic really didn't see the need to go that far yet in this condition. This doesn't preclude it, but what it does is it really was getting to the nuts and bolts of if you are moving forward this, these are the types of things you need to do regardless of where the process is. The bottom line and the long answer to a short question, there are none in South Atlantic federal waters at this time.

MR. COX: How about in the Gulf; how many would there be there, any idea?

MR. PUGLIESE: I'm not sure if they have actually permitted yet. The plan is in place, and it is just getting to that stage of consideration.

DR. LANEY: Leann, did you want to speak to that? Do you know off the top of your head how many operations there are permitted in the Gulf already, or Roy, either one?

DR. CRABTREE: Some time back the Gulf Council approved an Aquaculture FMP, but the regulations have not been implemented yet. I expect that a proposed rule to put in place the regulatory structure for this will come out maybe some time over the course of the summer, but I'm not sure when. Then we would have to go through a public comment period on that and then get to a final rule. Then at that point we would have the authority to issue permits; but there are none at this time. I expect that we'll get through this regulatory process probably sometime next year.

DR. LANEY: Are there other questions or comments for Roger? Okay; seeing none; then I guess the next step is to see if we have a motion to accept the policy as revised. Dr. Duval.

DR. DUVAL: Mr. Chairman, I move that we accept the Revised Aquaculture Policy.

DR. LANEY: Anna seconds. We have a motion and a second. Any additional comments? Yes, I presume to the maker of the motion that the staff would have editorial discretion for any other typos or things like that?

DR. DUVAL: Sure, absolutely!

DR. LANEY: Okay; any other comments? **Then all in favor please raise your right hand; any opposed? Seeing none; motion passes.** Okay, Roger, do you want to move on to the next one? I'm sorry, yes Ben.

MR. HARTIG: Are you guys voting on both committees operating at the same time?

DR. LANEY: Yes.

MR. HARTIG: Just checking.

DR. LANEY: Just for everybody's recognizance, including my own, just to read real quickly; the members of the Ecosystem Management Committee are Doug, Anna, Chris, Michelle, myself, Jessica, Charlie, and Bob. Then for Habitat and Environmental Protection; that is me, Anna, Chris, Lieutenant Morgan Fowler, Doug Haymans, John Jolley, Charlie Phillips and Bob Beal. Many of us are on both of them.

MR. PHILLIPS: Just for a point of clarification; if somebody wanted aquaculture in state waters, they would just go through the state; but I'm assuming the state would probably want pretty much these same protocols?

DR. LANEY: I will defer to Ms. McCawley on that. I think the answer is yes, but then I think also the states have the authority to be more specific or more conservative than this policy if they wish to do so. Is that not correct, Jessica?

MS. McCAWLEY: Our agency doesn't manage that in the state of Florida. That is the Department of Agriculture and Consumer Services. When we sent our staffer to make comments on the policy, she was also somewhat representing them. She had their best management practices in mind; but, yes, if you want to go aquaculture in state waters, then you abide by the state agency's policy, which is very similar to this.

DR. LANEY: Okay, Roger, then we can move on I think to the Statement on Submerged Aquatic Vegetation, which is Attachment 3 in your briefing book.

MR. PUGLIESE: The policy, as I indicated, is tracking essentially the same structure, so it gets into – in this case it is very specifically a habitat type. It is a little different in that aspect. You go through and describe the structure function, the threatened status, and the general components of the policy that look into research, planning, management; and you also look into and provide information on education and enforcement for the entire system.

Let me step back to the actual policy component. The way this is structured, it is tracking the original statement. It lays out recommendations specific on, first, monitoring and research and

talks about the need for periodic mapping. It supports a number of different efforts that follow the mapping components.

To a great degree it connects directly into our actions and activities with SEAMAP and to information on evaluating water quality; cause and effects of SAV losses; the need to minimize the SAV losses in the systems; encourage states to develop criteria; to again reduce those impacts is also addressed very specifically; impacts from docks and piers and reducing the impacts from those; and investigating the effects of restoration techniques and the ecological function and cost benefits and research potential effects of climate change on SAV habitats.

On planning it is recommending the council support watershed planning, incorporating SAV as an integral part of the healthy ecosystems system that utilize change in SAV distribution as an indicator of the system. The regulatory definition of SAV used in this condition would be the shallow water habitat with appropriate sediment light, light penetration, wave energy; including areas within the existing SAV.

It is trying to look at a broader view of the habitat – physical and other components of that habitat; also the comprehensive planning initiatives as well as interagency coordination and partnership planning to protect SAV habitat and increase awareness; the establishment of standardized SAV protocols for review of coastal development permit applications. The action also includes survey windows, survey methodology In-Water Work and Windows.

The Habitat AP members are encouraged to actively seek to involve the council in review of projects which impact directly or indirectly SAV habitat resources. Under management; the South Atlantic Council would support review and modification of state and federal rules to ensure protection of SAV from impacts such as dredging, propeller scarring, marina and pier construction, bottom-disturbing fishing activity; a review of state water quality standards and rules to determine if changes are needed to protect and enhance SAV; development of SAV restoration guidelines for both high/low salinity SAV to accelerate successful, cost-effective SAV restoration.

Under education and enforcement, the council support the design of education programs to heighten the public's awareness of the importance of SAV. An informed public will provide a firm foundation of support for protection and restoration efforts. A review of existing regulations and enforcement to determine their effectiveness; coordination with state resources and regulatory agencies to ensure that the existing regulations are being enforced; and development of economic analysis on economic benefits of protecting and enhancing SAV habitat.

Those are the context of the actual recommendations for the SAV policy. The rest of the policy connects in the discussions that are addressing ecosystem services. They get into really some of the details of the connectivity and the value of the conservation efforts; the status of SAV in our region, so it is addressing both the distributions in North Carolina and Florida and their conditions as they relate to available information and some of the specific projects or programs that highlight those and any of the past conservation efforts relative to SAVs.

One of the more comprehensive additions was a summary of guidelines for SAV production used in federal regulatory commenting agencies as well as other state agencies. It covers North

Carolina and includes information from Maryland and Virginia. You've got North Carolina, Florida, Maryland, Virginia, the Corps, U.S. EPA, Fish and Wildlife Agency, National Marine Fisheries Service; and that is provided and updated for and integrated into this policy statement.

The last appendix cites the distributional information which we have integrated. It cites the original appendix within the habitat plan or in actually the Fishery Ecosystem Plan now. I think what we'll do is in the final version actually cite and connect directly to the Atlas in the most recent distributions that are presented connected to state efforts and mapping and detailed information. That is the context of the SAV Policy Statement and recommendations included in it.

DR. LANEY: I'll just note for the record that in North Carolina we have a very active Submerged Aquatic Vegetation Partnership that is a great partnership between the Albemarle/Pamlico National Estuary Partnership and the Fish and Wildlife Service, NOAA; especially the Beaufort Lab.

Dr. Jud Kenworthy is still working with us even though he is retired now officially. We've also forged a very good partnership with the North Carolina Department of Transportation, who has all the aerial photo interpretation staff who are very capable of helping us to delineate the SAV at much less cost than it would require for us to go out to commercial vendors. That partnership is working out very well as well.

MR. PHILLIPS: While they were looking at the submerged aquatic vegetation, have they looked at the crassal area, the non-indigenous crassal area; and is it affecting the grass beds or have they just looked to see what it is doing and what it is not doing to the habitat?

MR. GEER: Charlie, I believe that is mentioned in the Invasive Species Policy Statement.

DR. LANEY: Does that answer your question, Charlie? We think we've covered it under that other policy statement. Are there any other questions or comments on the Revised SAV Policy, with that very good Table 1 addition? I think it makes it a much more useful document.

DR. DUVAL: I was just prepared to offer a motion if there weren't any other questions or comments.

DR. LANEY: I see no other hands, so go for it.

DR. DUVAL: I move that we approve the Revised SAV policy.

DR. LANEY: Charlie seconded the motion. Charlie Phillips seconded the motion. Is there any objection to the motion? Seeing none; the motion is approved. Okay moving on, Roger, the next one is the Revised Policy Statement on Instream Flow. It is Attachment 4 in your briefing book.

MR. PUGLIESE: Moving into the Instream Flow Policy, the policy as presented is set up so it provides the policy context of the instream flow as it relates to essential fish habitat and council-managed species. It directly goes into identification of the essential fish habitat that may be at risk relative to the EFH and flow activities, which is a lot in our region. It gets into threats to

riverine, marine, and estuarine resources from hydrologically altered activities and addresses water withdrawals and methods of specific instream flow protection.

It highlights the existing state policies relative to instream flow and water and then provides the council recommended policies for flow-altering projects. These are identified as general policies for the council related to projects resulting in hydrologic alterations. The first is that projects should avoid, minimize, and where possible offset damage to the essential fish habitat and EFH-HAPCs; diadromous fish state and federally listed species, and federal critical habitat in state critical habitat areas.

Projects should provide detailed analysis of possible impacts to EFH and EFH-HAPCs diadromous fish state and federally listed species, federal critical habitat and CHAs. This should include careful and detailed analysis of possible impacts, including short-term and long term population and ecosystem scale effects.

Agencies with oversight authority should require expanded EFH consultation. Projects should provide a full range of alternatives along with assessments of relative impacts of each type of EFH and EFH-HAPC, diadromous fish state/federally listed species, federal critical habitat and CHAs. Projects should avoid impacts to the same suite of species I've identified about four times.

They are shown to be avoidable through alternative analysis and minimum impacts that are not. Projects should also include assessment of potential unavoidable damage to EFH and other marine resources. Projects should be conditioned on the avoidance of impacts and the minimization of unavoidable impacts.

Compensatory mitigation should be required for all unavoidable impacts to EFH-HAPCs, EFH diadromous fishes state/federally listed species, federal critical habitat and CHAs. Taking into account uncertainty about these effects, mitigation should be local, up front, and in kind and should be adequately monitored.

Projects should include baseline and project-related monitoring adequate to document pre-project conditions and impacts of projects on EFH, EFH-HAPCs, diadromous fish state and federally listed species, federal critical habitat and CHAs. All assessments should be based on the best available science.

All assessments should take in account the cumulative impacts associated with other projects in the same southeast watershed; and projects should meet state and federal water quality standards. For instance, operational or structural modifications may be employed if necessary to improve downstream dissolved oxygen and/or water temperature.

To the extent that it is reasonable and practicable, construction activities should not be scheduled to coincide with the spawning migrations or early development of sensitive species that are present in the proposed project areas. Impingement and entrainment of sensitive species at water intake should be avoided. Water intake should not be placed in areas that would negatively impact EFH, EFH-HAPCs, CHAs, federally critical habitat, diadromous fish state and federally listed species. When developing the intake design, intake screens in rivers and streams should be constructed away from the banks and within flowing stream.

If on the bank, the face should be continuous with the adjacent bank line to ensure smooth transition to prevent eddies around the screen and a fish bypass system that returns fish to main channel should be incorporated. Screens should be oriented so that the angle between the face of the screen and approaching flow is not more than 45 degrees off parallel.

Anticipated sweeping and approach velocities of proposed projects should be compared to known swimming speeds of sensitive species in the project area. Egg size of sensitive species should be considered when deciding on mesh size and the vertical distribution of sensitive species should be considered when deciding the elevation of the intake.

Approach velocities must be set lower than the sustainable swimming speed of sensitive species. Sweeping velocities should be greater than the approaching velocities. Using a non-withdrawal period or installing removal screens with reduced mesh during the spawning and early development periods may also be an option to avoid impingement and entrainment.

Where possible locate intakes where sufficient sweeping velocity exists to minimize sediment accumulation, facilitate debris removal, and encourage fish movement away from the screen faces. An ongoing maintenance and repair program is necessary to ensure water intake facilities are kept free from debris and that the screen mesh and other components are functionally correct.

Adequate facilities are needed to place for handling, floating and submerged debris large enough to damage screen. Multiple years of post-construction monitoring should be used to study impingement and entrainment, rates of sensitive species and if bypass system is included for monitoring mortality through the bypass.

Monitoring results need to confirm that the design criteria were met and that unexpected high mortality rates are not occurring. Monitoring results can then be used to improve the water intake structure if needed. Components of the natural flow regime should be altered as little as possible.

Although achieving a natural hydrograph in its entirety may not be possible; restoration of some of the natural flow regime components can restore ecosystem elements that would be lost or reduced as a consequence of flow regulation. For hydropower peaking projects, consider the implementation of ramping rate restrictions before and after the peaking operations in non-peaking window during the critical reproductive and rearing periods of sensitive species.

That was long, but a lot of thought and consideration went into those recommendations. The discussions we've had at the council level on flow and flow issues I think are well represented by the detailed review that the AP has made in compiling those recommendations to the council. That constitutes the recommendations as provided in the Instream Flow Policy.

DR. LANEY: I will say those are in some cases very technically detailed recommendations. The reason they were designed that way is so our regulatory review folks in a lot of cases; the states that are using the council's policy can just pick those up directly and plug them directly in as permit conditions, which I think is a very good service for us to provide. Do we have comments on this policy?

MR. CONKLIN: I want to make a motion that the committee adopt the policies for the protection and restoration of EFH from alterations to riverine estuarine and nearshore flows.

DR. LANEY: All right, Chris, thank you for that. Do we have a second to the motion; Dr. Duval. Is there any discussion on the motion? I see no hands. Are there any objections to the motion? I see no hands again; so the motion is approved. Okay, Roger, if you would then go on to the fourth statement, which is the Statement on Marine and Estuarine Invasive Species; Attachment 5 in your briefing book.

MR. PUGLIESE: While I'm getting to the next policy, one point I would like to make is that with regard to this very specifically is that hopefully we can elaborate further in the Fishery Ecosystem Plan Information on Instream Flow. There has been so much work that has been ongoing with our partners; with the Southeast Aquatic Resource Partnership and the South Atlantic Landscape Conservation Cooperative and really bringing the efforts to bear; opportunities to really link what some of those impacts may be for our region and some of how it connects directly into the estuarine and into the marine systems. I think the timeliness of this is very good.

DR. LANEY: Yes, I agree 100 percent; and lest I forget, too, I wanted to be sure and publically and on the record thank all of the agency staff folks who assisted us with these policy statements and with the revisions that were requested by the council. In particular I know Alice Lawrence of the U.S. Fish and Wildlife Service worked a great deal on this Instream Flow Policy.

I know that some of the Florida staff worked a lot; Lisa Gregg worked an awful lot on the aquaculture policy, I think it was, and Roger and Pat. If I were looking at the other folks that spent a lot of time on these, we really appreciate the hard work of the Habitat and Environmental Protection Advisory Panel folks who worked on these, especially Past Chair Pace Wilber as well, because Pace spent a lot of time reviewing these and helping us out with them. Roger, continue.

MR. PUGLIESE: Yes; and I think a key point, too, is that going into this latest iteration of redrafts, I think the idea was to make them as useable as possible. I think that was one of the real goals that Pace was pushing. I think everybody, as Wilson said, the better opportunity to be able to pick up and use this directly is going to be of value to any reviewers or our state partners. I think that is what the intent was, and I think that is where these policies have gotten.

That moves me directly into the last policy for consideration. It is a consolidation. Originally the council had considered and discussed looking at both an Estuarine Invasive Policy and a Marine Policy because of some of the differences and really the separation. In reality once the advisory panel really did get a chance to look closer at it, there was a lot of redundancy in it.

Plus the fact I think that one of the driving factors that some of the species like lionfish are now being found all the way into the systems; and it just made sense to consolidate these and provide the recommendations in context on invasive species for both marine and estuarine systems. The policy context is laid out and discussed some of the background and understanding of invasives, both marine and estuarine in our system. It addresses specifically some of the threats from both marine and estuarine systems and the habitats that they may impact, the EFH and EFH-HAPCs.

It looks at threats from both systems from marine and estuarine organisms; and in identifying those threats, getting into some more of the specifics of the individual species that have been identified both in inshore and offshore systems; and brings us to the actual policies. Now this is the consolidated policies addressing both marine and estuarine evasive species.

In instances where an invasive species belongs to a group of organisms included in a fishery management unit, the species would need to be excluded from the fishery management unit via plan amendment or an existing framework before a control or eradication strategy could be implemented. This draws on the action the council took before specifically on orange cup coral.

The council encourages NOAA Fisheries Habitat Conservation to consider recommending removal of invasive species as a compensatory mitigation measure. When removal of an invasive species is proposed in designated EFH, EFH-HAPCs or Coral HAPCs, the council and Habitat Conservation Division would work together to evaluate the proposal, to remove techniques, to ensure the method selected will avoid or minimize environmental damage.

Regarding compensatory mitigation projects or restoration activities that have a planting component, a requirement that the plant materials must be obtained through local nurseries within a certain radius around the estuary should be considered. The studies have shown the different growth patterns of *Spartina* reared from nurseries located on the east coast of Florida versus the west coast of Florida.

The council supports the availability of grant funding to promote research targeting invasive species, including prevention of introductions, evaluation of impacts, expansion control and removal through existing partnerships such as South Atlantic Resource Partnership, and in cooperation with state and federal agencies, including NOAA Invasive Species Program, National Invasive Species Council, and the Gulf and South Atlantic Regional Panel and National Aquatic Nuisance Species Task Force.

The council supports the availability of grant funding to promote education and outreach efforts targeting invasive species. The council will recommend the National Aquatic Nuisance Species Task Force as appropriate and the management plans be developed for potentially invasive species in the South Atlantic waters. This does not imply plans developed by the council.

The council encourages development of novel gears other than those prohibited by the council, such as fish traps, that effectively remove invasive species but do not compromise the integrity of South Atlantic habitats and ecosystems. The council encourages consulting with appropriate law enforcement agencies to ensure compliance with existing regulations and address possible enforcement challenges.

The council strongly supports integrating monitoring of evasive species into existing fishery-independent and dependent programs. The council strongly suggests the permits for offshore placement of infrastructure of energy generation; for example, oil platforms or windmills, include provisions for monitoring the settlement and dispersal of non-indigenous species on and among such structures and in potentially affected natural habitats.

The council strongly suggests inspection and thorough cleaning of surfaces prior to placement of fish-attractant devices, or FADs. The potential risk of inadvertently expanding the range of non-

native species through transport or establishment of new habitats should be carefully considered. The council supports programs to control invasive species population in areas of high ecological or economic importance.

The council supports harvest, eradication and/or removal strategies that do not impact populations of managed species or their habitats. The council discourages the use of non-indigenous species in aquaculture programs in the South Atlantic Region; and the council supports its regional partners in their endeavor to promulgate regulations for ballast water in their efforts toward research and development to advance treatment technologies for ballast water. Those are the policies as presented in both marine and estuarine invasive policy – consolidated policy statement.

DR. LANEY: Do we have questions or comments on this one? I see several hands; John Jolley.

MR. JOLLEY: This is a small item; you might want to number the pages.

DR. LANEY: Did you get that Roger?

MR. PUGLIESE: Yes.

MR. BELL: I'm not on either committee; I was just curious. We go through 13 and it talks about ballast water. Was there discussion somewhere in here of the aquarium trade and importation? Things can come in ballast water, but things can also come in legally. That scares me to death in terms of some of the things that can just all of a sudden appear through importation from the aquarium trade. I don't know if you discussed that.

MR. PUGLIESE: Yes; I know we had pretty extensive discussions, especially when we were talking about lionfish. It is assumed their origin was probably from aquarium fish that were released or came out during a hurricane. The acknowledgement of that being an avenue for release I think was pretty clear in the discussions. We were just looking – I was looking at Pat, because I know we discussed it extensively; and I want to think we do have it somewhere within here. It definitely is on the record as being potentially probably the most likely origin of some of these invasives.

DR. LANEY: While they are looking for that; Monica.

MS. SMIT-BRUENELLO: Yes, just food for thought I guess. Number 7 says the council encourages the development of novel gears other than those prohibited by the council such as fish traps at effectively removing basic species, but don't compromise the integrity of the habitats or ecosystem.

We've had occasion – I just talked with Jack – that I'm aware of a couple of times people have asked the regional folks like Jack whether they can use certain kinds of gears to test whether those catch lionfish, and those sorts of things. Frequently they have come under the fish trap kind of gear. When it says other than those prohibited by the council such as fish traps; it may be that a fish trap kind of gear is the best one to remove lionfish. I don't know, but I can see that coming up at some point and may be brought before you.

MR. PUGLIESE: I think it is specifically here to do exactly what you are already doing in terms of addressing it not impacting the existing rules. I know that we had discussed this before, because there had been designs forwarded as experimental gears or novel gears recently with the region in review right now.

Those were raised and identified at a number of meetings that I've been at. At least my understanding was that if it is new, it doesn't necessarily fall under that category of "as fish traps"; and that is a determination that I think NOAA General Counsel would ultimately be responsible to make. All this is trying to do is to make sure it didn't basically just start throwing out the same type of gear that would have bycatch and impacts and everything else that would compromise the rules that are in place now.

DR. LANEY: Is that good enough, Monica, or do we need any further clarification in the document itself?

MS. SMIT-BRUNELLO: I could read this sentence in a number of ways. I could read it that the gears that you – if you pass this policy; the gears you would not want to see are those that would compromise the integrity of habitats and ecosystems. I think that is where you are getting at with this. It wasn't necessarily to the actual fish trap, whether that is good or bad in the use of catching whatever species, but it was more to avoiding gear that compromised the integrity of South Atlantic habitats and ecosystems.

DR. LANEY: Let me jump in here and just say that from my perspective if we say do not compromise the integrity of South Atlantic habitats and ecosystems; that would include any sort of a novel gear that would capture and/or cause mortality for non-target organisms in addition to whatever invasive species it is we're trying to target with the gear. Is that your interpretation, Roger?

MR. PUGLIESE: I think it was trying to actually address the intent of the gears that are prohibited. Habitat impacts as well as ecosystem impacts or bycatch, et cetera, would be considered, so, yes.

DR. LANEY: Is that good enough on the record, Monica? I think the intent would be – well, what we are trying to say here is develop novel gears that would effectively remove invasive species but don't affect anything else. Obviously, for lionfish; we all have a novel gear, but if you go down there and you spear lionfish and that is all you're spearing, that is a pretty a effective localized removal tool.

MS. SMIT-BRUNELLO: The idea is that you still would not want fish traps to be used?

DR. LANEY: That is my understanding.

MR. HARTIG: To Monica's point; I know that there is some research being done on developing a trap to catch lionfish; and if that is successful, I certainly wouldn't want to exclude that gear from being able to catch lionfish. Yes, they do go into lobster traps, but there is some other research going that may be a better trap to catch them without catching a lot of other South Atlantic species. For me the fish trap prohibition is a little bit much given that it may be the best way to capture lionfish in the South Atlantic.

MR. PUGLIESE: Well, maybe the easiest way is just to drop that little specific point in saying such as fish traps; because I think the idea is that if there is the opportunity to develop experimental gear that does exactly what we said, does not have bycatch issues, does not impact the habitats; then it would ultimately be approved in there.

If maybe we just dropped this “such as fish traps” because all that was trying to do was to try to specifically identify gears. It was an example of gears the council has prohibited for both habitat and ecosystem considerations. If we do that, then it wouldn’t have as much focus, but it would still accomplish the intent.

DR. LANEY: Would that make it clearer, Monica and resolve some of the concern about referencing fish traps? We’ve still got that sense in there that says the council encourages consulting with appropriate law enforcement agencies. Certainly, NMFS is one of those and NOAA General Counsel is involved in enforcing the law and crafting the law. I would think maybe that would do it.

MS. SMIT-BRUNELLO: I think Roger’s suggestion is a good one. Regardless of whether that stays in or it is out; the fact is “fish trap” as it is defined in the regulations is prohibited gear right now. I’m just bringing to your attention that we’ve had a number of people come forward and wanted to build a better trap or a better way of catching lionfish.

Those seem to follow in the fish trap kind of thing; so I wouldn’t be surprised if at some point maybe that is brought forward to you in the form of an exempted fishing permit request or something like that; and then you can address it at that time. I think that is fine the way Roger wants – his suggested approach.

DR. LANEY: Okay, fine, so we’ll go ahead and make that edit. Are we going to leave in the first part of the phrase though, Roger, just close the parentheses off at the end of the word “council” there so it would read “other than those prohibited by the council”. We’ll just eliminate the “such as fish traps” from the text. Other questions, comments, suggestions?

MR. PHILLIPS: Mr. Chairman was there any discussion about – it seems like I remember at one of the advisory panel meetings Don DeMaria was talking about the possibility of non-indigenous species, jelly fish and things, that might come in from live rock that was harvested in the Pacific. Was there any discussion about things like that?

MR. PUGLIESE: Yes; that would come under the aquarium trade and rules associated with the aquarium trade.

DR. LANEY: You guys did, I think, want to go back and address that earlier question about the aquarium trade, right; note where in here we do mention aquariums as a source of release.

MR. PUGLIESE: Actually, that is where I was going before. This, for the record, will be removed; but if you look under the original – I think it is Subsection 7, threats, right here; it specifically talks about impacts on commercial recreation fisheries, the aquarium trade; so it is included under potential threats and invasives. Specifically this one had to do with highlighting it as related to lionfish.

DR. LANEY: Yes; it is in there in several places. Well, I'll just leave it at that. The aquarium issue is one that has been brought to the attention of the aquarium industry. There are a number of programs out there to make the public aware of the undesirability of releasing non-indigenous species.

People's inclination is when something gets too big in their aquarium and starts eating their other fish; the impulse is to not dispatch the organism, but go out and turn it loose somewhere. That has been problematic in the past. I know the aquarium industry has tried to be self-policing in that regard. It is a very large industry and they have a very effective lobby. We've raised it as a threat, and I think that is probably about all the council is able to do here.

MR. PHILLIPS: Well, I wasn't thinking so much as lionfish. You are looking at those; but I think Don was concerned about things that you couldn't see that came in. If you have already addressed it with the aquarium trade in their cautionary approach, then I guess that is probably all we can do.

DR. LANEY: If you have other suggestions, why feel free to share them; but I think we've raised it as a threat. Like you said, it is very difficult. If you have basically what amount to pieces of the substrate or live rock, even if it is cultured live rock that is coming in from other parts of the planet; it is difficult sometimes to anticipate what sort of problems might arise if something highly invasive comes in on a piece of rock like that and it subsequently gets tossed in the Atlantic somewhere. Okay, any other comments or questions? Seeing no other hands; then could we have a motion relative to this particular policy?

DR. DUVAL: I move that we approve the; what is the official name?

DR. LANEY: This one is the Statement on Marine and Estuarine Invasive Species.

DR. DUVAL: I would move that we approve the Policy on Marine and Estuarine Invasive Species as modified here today.

DR. LANEY: I see a second; Mr. Phillips, thank you sir. We have a motion; we have a second. Is there any further discussion on the motion? Seeing none; is there any objection to the motion? Seeing none; the motion passes. Okay, Chair Haymans has reminded me that we do have additional policy statements that are currently under development. I believe he has a comment to make on one of those.

MR. HAYMANS: Or two of them. As the Artificial Reef Policy Statement is developed – we've heard that the public is interested in artificial reefs as MPAs – I would just like to make sure we address as much as possible the feasibility of artificial reefs as MPAs within the policy statement. I'm sure we're going to do that.

The other thing really is the Beach Dredge-and Fill Policy. I know there is a history behind where the name came from, particularly in lieu of the committee that develops it, but the rest of the world knows that as beach renourishment. When I went through the policy, there is only one place in the entire policy where the word "renourishment" is used, and that is in the bibliography under one of the other author's papers.

I just think in the modern era of searching on the computer and other things for documents; if we want this policy to be read by community leaders and whatnot in other parts of the country who are looking for advice on beach renourishment; that we need to call this policy a Beach Renourishment Policy and not a Dredge-and-Fill Policy. But that is just my two cents; and maybe the AP could discuss that as it is continuing to develop this policy or update the policy.

DR. LANEY: Roger, do you want to respond to that?

MR. PUGLIESE: Just quickly; we had these very specific discussions at the last AP meeting. That is one reason why we didn't finalize some of the activities. I think what you're saying is that there is somewhat of a conservative nature in the group in terms of calling kind of a spade a spade; it is dredge and fill.

They were staying on the more kind of conservative side by using that terminology; but in the same context the managers and whatever in the forum and the people again; that idea of trying to make these more useful and useable and recognizable; really exactly what you're saying is that when it comes to those specific activities people know these as beach renourishment issues.

Where in the policy or even the title of the policy; consideration of renaming the policy or making sure that within it, it highlights beach renourishment adequately, that people would use this in the appropriate – especially if they are pulling on the policy recommendations. Yes, we had a fairly extensive discussion on this before.

DR. LANEY: I guess we could have more discussion on it, Doug. I'll confess that I'm one of those conservatives that Roger tactfully referred to along with Dr. Wilber and I think Mike Street as well, who have long objected to the use of the term "borrow", because they never return it, for one thing.

But also nourishment; maybe renourishment is an appropriate terminology, because in my experience, most of the time once you begin to "nourish" a beach, it is going to be renourishment because you are going to have to do it after every major storm. I think there was a desire on the part of the advisory panel to try and inject some reality and avoid some of the politically correct more benign sounding terms; and apply terminology that really reflects the kind of environmental impact that occurs from those projects.

Although I will say that certainly that alternative for trying to address erosion issues on beaches is certainly much more desirable than slapping a seawall in place, which has a big adverse impact on the natural ecosystem functions of any beach. Are there anymore comments on any of the other policies under development? I know the Energy Policy is still under development. Roger, do you want to remind us what the rest of them are other than the ones we've already mentioned?

MR. PUGLIESE: Yes, we have the Beach Renourishment/Dredge-and-Fill Policy; we have the Energy Policy, and the Artificial Reef Policy are the three that are in review and development. The lion's share of those is going to be done in advance of the November Habitat Advisory Panel meeting.

At that, specifically we are going to have Florida's Artificial Reef Program Review, and potentially also the opportunity for the group, especially since we're going to have the major players maybe to come together, also potentially in advance of that in review of the FEP Section on artificial reef, so we can get to some of the issues.

Not only in the policy statement but also in the body of the FEP we're finding – at least setting the stage, we're refining that highlight extensive research that is done, use across the board for different tools such as MPAs, et cetera, and so adequately cover it. That is kind of the timing in the three that are in work.

The Energy Policy, I will state that there is so much on alternative energy that we need to integrate newer things such as the issue of fish and sound that really has not been highlighted in the past that I think is really coming to bear. At a national level it is being acknowledged as an issue that needs to be addressed. We have the opportunity within that statement to really make sure that we do that; again, though, possibly drawing on that for subsections of the Fishery Ecosystem Plan and maybe more comprehensive view.

DR. LANEY: Okay, thank you; and I know one other thing that is going on is I believe the Joint Gulf States Marine Fisheries Commission and the Atlantic States Marine Fisheries Commission Artificial Reef Committees are working on an updated manual for artificial reef construction, if I remember that correctly.

That document should be coming along as well and be of use to us in revising that Artificial Reef Policy Statement. Okay, I think that completes Item 5, Mr. Chairman, and do you want to roll us on to Item 6?

MR. HAYMANS: Thank you Mr. Chairman. If you will look in your meeting documents, you have the Coral AP meeting, all 121 pages of the minutes. I know that you've all had plenty of time to review each and every single page of that. Unfortunately, Dr. Steven Blair is not here to go over it with us, but if there are any questions or comments on those AP minutes. If not, I don't think there are any actions that come from those. In the essence of time, then we'll move on to Coral Amendment 8, and I think that is Jack. Are you going to give us an update on Coral Amendment 8? Ben.

MR. HARTIG: I tried to read some of those minutes; and I breezed through most of them. Roger, the gist of that meeting was to try and get the oculina – I mean, if you could just put that on the record, I think it would help.

MR. PUGLIESE: I was going to make that – just in the terms of time, because you are going to see this again. The primary function of that meeting and the primary focus was to review what was moving forward on the evaluation plan and provide – the two aspects that I think was significant was providing refinement of what some of the status of some of those research efforts were, as well as the opportunity and prioritization into the future of what should be raised at different levels.

In the evaluation plan review that is going to be discussed during snapper grouper, Gregg has compiled some of those recommended highlights, the connection to the material you have here. Those types of comments or whatever are connected into and will be provided. I think

ultimately those are going to provide – as the council finalizes that document at this meeting, it will provide the context to refine them as the staff finalizes that document. It was important to get that on record; and a lot of good work and a lot of good effort to get it done.

MR. HAYMANS: Are there any additional questions on that? Jack, Coral Amendment 8, please.

DR. McGOVERN: Coral Amendment 8; this is the amendment that would extend protection for deepwater coral ecosystems by extending the boundaries of the Oculina Bank Habitat Area of Particular Concern, the Stetson-Miami Terrace Coral HAPC and the Cape Lookout Coral HAPC. Coral Amendment 8 also proposes a transit provision through the Oculina Bank HAPC for fishing vessels with rock shrimp aboard. The proposed rule for this amendment published on June 3, and the comment period ends on July 3. The Notice of Availability for the amendment published on May 22, and the comment period for the NOA ends on July 22.

MR. HAYMANS: Any questions for Jack? Okay, ecosystem activities and updates for Roger; we've got a list of them there with particular interest in FEP 2; so I want to give Roger as much time.

MR. PUGLIESE: I think what we have is a combination of both the FEP updates – a request from the last council meeting was to have a discussion and review of the Landscape Conservation Cooperative Blueprint status. We also have the request on water flow implications for habitat and fisheries.

We expanded that to actually include a quick summary of the Pulley Ridge Connectivity Study. The person that is going to do our presentation on the Everglades Water Management is Peter Ortner, the Director of the Cooperative Research Institute with RSMAS; and he is primary lead on the connectivity study, which has some very relevant ecological ecosystem issues relevant to the South Atlantic and opportunities that maybe we can see some of that same type of activity.

In response to Wilson's request, let me touch on the FEP update first so that we can do it. Peter is going to be remotely joining us, so he knew it was about the same timeframe to get done. Let me highlight some of the updates with regard to FEP II, where we are, where we are going and do that.

DR. LANEY: Yes, and I'll just add we've had some discussions offline but relative to the South Atlantic Landscape Conservation Cooperative Blueprint, which Roger is going to address, we've also extended an invitation to Coordinator Ken McDermond and/or Science Coordinator Rua Mordecai to come and brief the council more in depth at the September meeting, I think. At least that is under discussion, so we may have them joining us for one of our meetings later this year.

MR. PUGLIESE: Yes, and I'll follow up and touch on that. The presentation I have, I worked with Rua and Ken; essentially put kind of a combination; but we can follow up to make sure that happens in the future. Let me jump in quickly on FEP II, development timeline just real quickly; and then maybe highlight some of the other specific aspects on the ecosystem plan.

The completion of the ecosystem plan is from 2014 through 2016. The timeline here is really kind of connected to a backend timeline, which is the five-year review of EFH, because we are

trying to accomplish all this at the same time; the mandated EFH review. We are looking at completion of the EFH Policy Statement, made a good move forward and have the rest slated into this year.

We're looking at a combination of webinars and potentially workshops, probably mostly webinars just because we are in a review versus a full drafting session of some of the sections of the FEP, to facilitate the development of FEP II components. One definite component we are going to try to have happen between now and into 2015 is a modeling workshop.

I'll get into more details on that later on. Completion of the new FEP section and appendices to address – and this is where we may have some more direct interaction; fisheries oceanography, South Atlantic food web condition, climate variability, instream flow, connectivity and regional mapping strategy; and those all have some connections primarily to our partners in the region that are already working on some of the activities.

This connects to ultimately the bigger picture of the EFH revisions and updates supported by the EFH five-year review. I had presented this earlier on. This gives a couple little more timeframes. The connection to this really is the first stages where the Habitat Advisory Panel, having the opportunity to sit down with a list of preparers of primary sections of the FEP.

It really didn't get to every single one of those. It got to the primary components, which were the habitat descriptions, the species information, some of the secondary components such as the fisheries oceanography, et cetera, were all included in the lists that were reviewed and discussed at the last Habitat Advisory Panel meeting in subpanel breakout sessions.

All the individual states and then our other partners, at-large members sat in their individual components and provided inputs. I have received those or in the process of consolidating, figuring out exactly where we are with the different subsections of the FEP. The next stages are to further fill out, verify the potential participation, and then begin to look at scheduling webinars primarily to accomplish this.

I'll just use this first one as an example; the bottom habitat component, we had review of both live bottom areas, coral, deepwater coral; looked at membership and provided the inputs; each one of the groups provided those. Now we're looking at potentially expanding that; refining that and getting confirmation with possibly webinars in the fall or even into the spring of 2015.

And that is the same – the artificial reef is a little different because we are going to be connecting some of the activities with the upcoming November advisory panel meeting, as well as activities that I think have been highlighted on some of the work ASMFC is working on, on the guidance document for artificial reef materials in the region.

This follows along with the different habitats and different components of this effort, both pelagic habitat and fisheries oceanography. The fisheries oceanography gets a little different; because again I've been trying to tap in and connect to a lot of activities that are going elsewhere that we can really draw on this.

In this case we had the last SECOORA; Southeast Coastal Ocean Observing Association meeting, board meeting, stakeholders and principal investigators meeting all at one time in May.

What came out of that was we did have a session specifically on fisheries in the meeting. We had presentations from Jerry Alt, from Bonnie Ponwith, from Mitch Roffer on fisheries aspects of everything from the work being done to try to integrate into stock assessment, to other areas that fisheries oceanography information especially in the Gulf.

Bonnie focused on activities in the Gulf of Mexico and how that was being used and highlighted in their region. What it did was beg the question of opportunities for the South Atlantic. Jerry Alt really did get into a more comprehensive effort of a modeling effort that integrates both ecological information and oceanographic information.

That connects into discussions I had on a possible model workshop later on. The bottom line is that a core group of a fisheries team has been pulled together to – for that meeting was to look at specifically short-term tools that could be developed for fish habitat and fishery operations in the short term.

What I'm going to do is take advantage of that opportunity to also be the core and serve as the next generation of what we address on fisheries, oceanography, or the state of the South Atlantic oceanographic condition for the Fishery Ecosystem Plan. I don't need to go through every one of these at this time, but they have that somewhat similar – some variation depending on connection to other activities, wetlands, and SAV, mangroves reviews; again following into the spring with webinar series.

There is an opportunity with any of these, especially estuarine systems, of maybe connecting into deliberations with our partners with Governors Alliance meetings or the IATT. Some of these groups are having so much overlap now that the opportunity to basically have the same people coming together to be able to address multiple issues – you've got to take advantage of that opportunity where possible -- or at least having the ability that their technical experts could provide the information directly.

One of the other ones in here is this ecosystem modeling and forage fish that is really getting to the section specifically on the food web analysis in our region. One of the components was the opportunity to look at it getting connected directly into a model workshop, which I'll touch later on, because it has been expanded some to connect not only ecosystem modeling, habitat modeling, and oceanographic modeling to try to get as a core for what we know or set the stage for potential new activities in the region.

Again, the wetland marsh; we may be able to draw on some of the activities with some of our other partners, especially with the state partners in addressing this. Impacts on habitat; one of the things I think is going to be a real opportunity and it does provide kind of a focus is connecting a discussion and review in conjunction with our November Habitat AP meeting.

I think that is a good context, a broader complex; one that would really accomplish a lot at that meeting. Research and monitoring section; one aspect to build on the available information we have in there, in the existing FEP is there is a five-year plan for SEAMAP, which covers all fishery-independent survey information, the opportunity to address a subsection of our upcoming committee meeting to begin to look at what is in there projected into the future on needs; and maybe refine that and provide that as a foundation from which to expand that section of the FEP.

Mapping and characterization, again under the SEAMAP umbrella; we already set the stage with a January meeting. I need to schedule potentially a follow-up meeting of that group and really look at one of the key things here would be looking at a mapping strategy and then very specifically looking at some of the characterization that is going for species connected to habitat that I think is going to be really important.

The spatial representation of essential fish habitat and EFH is going to be ongoing with our review of both the spatial information that we have available, how it connects to other groups that are compiling that information at this time, such as the Governors Alliance, getting into finer resolution of estuarine habitats, partnerships with SALCC where we may be getting further refinements of some of the regionally distributed benthic habitats or even some of the other estuarine habitats.

It is connected to a number of different other activities, also. This moves us also into one of the areas that I think is going to be really an opportunity to connect and expand on is a connectivity section. It may get actually umbrellaed or connected directly into the food web discussions; but with the work that is going on with our Landscape Conservation Cooperative partners and with SARP and with a number of other things, I think there is some real opportunity to build that; especially if you also look at potentially maybe the modeling kind of weaving these together.

A section that really does talk about this – and I've already got commitment from Rua Mordecai to be involved in how we advance this effort on our connectivity discussions, because that is one of the big directives already. Touching again back on specifically the food web; we have been provided some specific recommendations on Dr. Pinsky and Dr. Grubich with Rutgers – and I've got to go back and look directly from our partners at Pew – to sit in on and contribute in this subsection. We have a number of recommendations.

We're also again going to be looking at some of our partners that are involved directly in ecosystem activities to fill out and shore up what that group is going to ultimately work on, and how that is going to connect into and draw from the existing information or expand the sections we have.

We're looking at again that same kind of a timeframe of a fall and into spring of 2015. Then the water issues really do highlight and expand from where we already discussed the instream flow discussions. Again, there is so much work being done with our partners; we are heavily relying on them to maybe shore up and expand this effort and maybe expand some of the research work that already is being done, especially that collaboration between SARP and LCC I think we will be able to constitute that subsection of this document and expand it.

These are two other of the activities. I already mentioned some of the activities under the Habitat Advisory Panel in the review. We're going to be looking at the policy statements, the energy policy redraft, artificial reef, and should also be the beach policy, the nourishment policy. FEP II sessions, we're going to have discussions on the impacts of fishing habitat; and I would like to bring forward also that discussion that comes from the SEAMAP discussions.

Maybe that can be the beginning to expand that beyond just the fishery-independent surveys into other needs for research and monitoring; those broader sessions during the November meeting.

One workshop that has been developing and that has been on the slate for a while for this, because of connections of some of our other activities, is a modeling workshop.

Originally, I think the idea was going to be primarily focused on the new Ecopath Model only. I think especially after the last SECOORA meeting, it became obvious that if we do move forward on this, what we really need to do is look at a comprehensive view; look at both ecosystem modeling as well as other things such as when we look at ecosystem modeling, I think the forage ecopath model that is the latest that has been developed is going to be a highlight.

We want to also look at some of the things that were highlighted this last meeting and integrated models that connect both ecosystem and oceanographic information, the one such as Jerry Alt had proposed. as well as what the oceanographic models that feed those are. One of the other aspects that is under the umbrella right now, but actually may be a separate one is the modeling for stock assessment.

That is already ongoing with our partnership under SECOORA; but with Barb Muhling and with Mitch Roffer, Marcel Reichert, and the fishery-independent information systems. That opportunity I think either it is going to move forward fairly quickly in the summer or push into next year. We want to make sure that is as comprehensive as possible.

Two things I think are really important is set the stage for even more comprehensive Ecopath, but also a comprehensive oceanographic connected ecosystem model that we were reviewing at the last SECOORA meeting. The timeline essentially right now is we're looking at the June council meeting with the upcoming EFH policies that have been reviewed.

The September meeting; the primary focus I think of that meeting is really going to be looking where we are in terms of the timeline of participation, update for how we kind of restructured and got our ducks in a row in terms of where it is going. At December I think we'll have the policy statements provided by the advisory panel for review, and we will be further along in terms of some of the specific activities under the development of that.

I think that may be also the probably more appropriate place for Rua and some of those direct – we'll at least have a little more discussion on Version 2 of the blueprint down the road so we can really have I think more significant input at that point. March and June will be updates on how the different subsections are moving forward or different inputs; with September having the complete draft and then final approval.

This does push a couple months with the final approval, but it is still in advance of the March 2016 deadline. I think the big key here is to really take advantage of all the collaboration and cooperation we have with these other partners to tap in on as many of those types of experts into this process and make it even more of an effective operational ecosystem plan.

I think some of the differences – at least I would like to see this absolutely connected to our information systems. You could be able to go into the spatial information and be able to look at a location, a species; have its connection to fisheries operating in the area, what the essential habitats are, what species are available, what the forage bases are.

There is a real opportunity to make this happen with all the players that we have at the table with our partners right now. That is the schedule right now as it stands. I do have, as I mentioned, in consolidating the lists of participants for the existing subsections and beginning the new subsections of the fishery ecosystem plan; I think what would be the most expeditious thing is to work directly after the council meeting in providing some of these and getting requests.

I think we're going to really heavily rely on especially the agency members, ASMFC, and our Fish and Wildlife partners with the technical expertise to provide finishing up and filling up those groups. Now I do have those; plus I've got the original structure of the FEP highlighted as a new structure of FEP II. That is where we stand. I do have those in the background; but given time, I think we can follow up and get those completed.

MR. HAYMANS: Roger, let me just stop you there for just a quick second and make sure the council or the committee and any non-committee members are okay. This isn't quite as hot as whether or not it is a 57/43 split or not; but it is extremely important to everything that we do with regards to our fisheries management, because it is the backbone of our plans from a habitat standpoint. Everybody is good with where we are right now? I see a hand from Michelle.

DR. DUVAL: Roger, just a quick follow-up on the new EFH policy statements that are going to be coming forward. I know I had mentioned specifically I think climate change and food web dynamics last time. Most of the policy statements that we have right now sort of line up with the different chapters of the FEP. I guess that is your vision for how this would move forward. Some of them are overlapping, like South Atlantic food web, connectivity, ecosystem modeling; those all kind of revolve around what I would see as being a policy on food web dynamics maybe.

MR. PUGLIESE: Yes; and I think I didn't push it a whole lot further on this, because I think those can kind of come together. I agree; ultimately I think the converging – and probably it should be one that focuses and provides the input from connectivity, from the modeling, and from the dynamics of food web.

Then it really will focus on how there can be some recommendations that really align with what those are. Yes, I think that is the natural evolution. I'm just trying to get the ducks in a row with the right players to make sure we get the connectivity information, we get the more comprehensive modeling discussion, and that the food webs are done in a more comprehensive way.

I think with the groups and with some of the tools – I mean, even the tools in the background; I've highlighted it before like the ecospecies, individual species. Sometimes it looks like just what may be the focus mechanism that brings the species and information systems together. Yes, I think that is where ultimately this is going to go.

DR. DUVAL: Just a quick follow-up; you have lots of ducks to get in a row, Roger, with all of this. It is incredibly impressive and I could not agree more with Doug that this is an incredibly important effort, especially right now. There are so many of these types of efforts going on and this really have the potential to inform and change the way we manage here in the South Atlantic. Some folks may be aware that the Lenfest Ocean Program has developed a task force specifically looking at fishery ecosystem plans.

I guess that was announced a few weeks ago. The only reason I know is because I got an e-mail asking me if I would serve on the advisory panel for the task force. Of course, I said yes, because I think it is a great opportunity to sort of sing the praises of what we've done here at the council level. I imagine I will be talking to Roger a lot more before that meets.

MR. HAYMANS: Anyone else? Okay seeing no other comments, Roger, we have a couple more bullets as well as a remote speaker and we are already at time. You tell me where we are.

MR. PUGLIESE: I think what I will do is I think we need to go to our speaker to not hold him too long. Just before that, quickly I want to make a note that on the original agenda it did show Deepwater Shrimp AP Report. That report actually is going to occur during the oculina and similar to the coral. Their discussions input had to do with primarily the oculina evaluation and issues on that.

That will be done; the minutes are included in your package, though, under this session, but the actual discussion will occur during the other session. What I would like to do is in response to the council's discussions at the last meeting on water flow and a broader comprehensive review of what is going on with water and the impacts on fish habitat in our region from the Everglades Water Management and the issues that were raised; Peter Ortner has agreed – Peter is the Cooperative Research Institute Director, and he is housed in RSMAS.

If we can get this to go, I think we're going to do a tag team. I'll move it a long and he is going to be presenting remotely. He is just literally coming off of a cruise; and since I did have Peter involved in this session, I did want to get him to have the opportunity to provide you a quick summary on the connectivity project, which is a very exciting project, the Pulley Ridge efforts in translation of some of the capability techniques to our region, but also some of the direct connection to some of our actions; especially in the south Florida areas and into our region. Peter, if you can go ahead and introduce yourself, do a little better job than I did in terms of some details. You are on for the water management section.

DR. ORTNER: Just a little caveat; to be fair about it, I wasn't on a cruise, I've been lost for 11 days with meditation, silent meditation treatment. I hope that doesn't result ultimately in being overly verbose now. There are really two topics Roger asked me to touch on. The first topic was the water management topic.

To put this in a little bit of context – inaudible – fishing group over at NOAA, Chris Keble, and it kind of flows out of all of our long-term involvement in the Everglades Restoration Effort. Some of us like me were involved from day one when it was just looking at the reef study. This has flowed on; but before I forget I wanted to comment and tell people to look at.

It links to a big project that just ended that involved major universities throughout Florida, about 40 PIs and different federal and state agencies, called Project MARES that is coming out in a day or two with a special issue of ecological indicators. The reason I point to it is water management parts in terms of affecting these coastal ecosystems is a major theme in every one of the sub-regional discussions. It is a whole issue about how you deal with this.

It is really intended to develop a framework and set a decision tool, specifically an ecosystem-based modeling and NOAA's effort to integrate the ecosystem assessment. I'll keep Roger in the

loop and he can forward the connections to that. As he said, I'm the Director of the Cooperative Institute based at Miami, but it includes all the major research universities of Florida and the U.S. Caribbean; nine universities.

The first of these topics then is Everglades Water Management Impacts. This picture that is up there now is the classic one we always show; and Those of us who have been doing that business a long time focus on the water area there EPB. The Everglades water ratio is supposed to get quality, quantity, timing and distribution right.

It is supposed to make the current flow, which is the middle panel, look a little more like pre-drainage flow given everything we've done, which is a huge amount to the system. Now to put this in a big picture for those of us who have been watching and either slighted or disappointed over a long period of time; we're currently kind of in a very static position, because there had been a commitment to move forward with what is called the Essential Everglades part of the plan and get that through Congress and approved federally and off and running; establish the core of what would have affected Everglades National Park.

For those of us whose big focus has been part of the Bay, that wasn't really sufficient emphasis; but in any case that has come to a bit of a grinding halt. After my honest analysis on this effort a period of time with the first attempt to – inaudible – then the state took up the ball and it was moving forward quite a bit. It is back to the feds a little and now we're kind of neither moving forward real fast in my opinion.

Nonetheless, there is a lot of relevant upstream water management that is already affecting the system regardless of the slow pace of free plumbing. Well, this is kind of a big picture summary that Chris gave me of the areas that we worry about the most; that is most immediately affected. Obviously, the – inaudible -- where they are, the more immediately protected they are.

You look at the estuaries, all of these ones are essentially estuarine or removal type system. We're looking at the Caloosahatchee on the one side, the St, Lucie on the other. Obviously, in the management of the lake, which is not, as everyone knows, being done for Everglades restoration purposes, but – inaudible – dominated by being done for safety purposes in large part.

Because of the condition of the dike and the relative – now relative height of the water, you have certain mandated releases. When they do run these mandated releases – I just drove back my retreat and passed you guys yesterday. I drove from Jessup, Georgia, down 95. It looked to me like – I noticed that they were harvesting – inaudible – Canal. I went look there is rushing water coming through there in these gates.

When there is a water release, it variably is too much too fast – inaudible -- which would be shut down in effect. You can imagine if it is clear observation in the data and we have monitoring programs looking at all of this stuff; but there are a lot of oyster reefs that are being damaged or they are not recovering. Overall yield is much less and potential oyster habitat and seagrass beds are affected.

Of course, anything that depends on those as sort of the structural habitat – inaudible -- potential food sources are affected; and in both cases, east and west, there are different but related issues

essentially about nutrients. Primarily locally, at least on the west coast side, some argument because of more offshore effect; I don't think the data is that clear.

With respect to Biscayne Bay, they have already supposedly have done a few projects that are affecting that going to the -- not far from my house actually is the -- inaudible --, but the truth of the matter is too little flow and too channelized compared to the historical bay. It is quite a different situation historically in Biscayne Bay.

Then in terms of Florida Bay, which is my initial connection with the whole problem is to developing the Florida Bay Program for NOAA; there is no question that the seagrass manipulated first into a very vulnerable state by a restricted flow situation and then the canal and then by various oscillations afterward; the strategy changing back and forth.

Chris actually has been working for me and he has spent over a number of years with NMFS on a spotted seatrout habitat project in there and actually monitoring spotted seatrout. They looked at -- this is just an example; but when they looked in 2009, this is their observation of what would have been good in August as quality of habitat.

You'll notice that the best you get is -- inaudible -- ground with that picture. You get some clearly -- when you're nearer shore where the water was coming out there with non-suitable habitat and poor habitat in a couple of places with circulations restricted. On the other hand; I noticed the words you put in the slide.

What that really means is that the prediction -- if the flow had not been altered, our prediction is trying to get preservation from natural flow to calculate what the natural flow would have been and then what the habitat would have looked like; that is what could have been happening August 2009 from the rainfall of the preceding months had we not been -- inaudible -- in Florida. From our debate perspective, that is what we would like restoration to get back to.

One thing we know is where most of that happened. Then he also put in an example for us of the Lt. Lucie Bight. There is a lot of coral reef down to about -- like I said, it is the one I drove over getting back here yesterday from Georgia. In fact, you can see middle dam would be essentially a reasonably good habitat. At least it is a viable and healthy estuary for oyster reefs and you will notice actual data about oscillating -- in audible -- but it is primarily there. I don't know why it is doing that echo. Is that happening on your end or mine?

MR. PUGLIESE: I'm hearing something over there.

DR. ORTNER: It wasn't happening a minute ago was it?

MR. PUGLIESE: That is better now. But we're hearing; it is a slight echo in the background.

DR. ORTNER: Okay, I'm hearing a large echo, but it doesn't matter if I hear it if it is only slight for you.

MR. PUGLIESE: No, it is actually coming out a lot better right now.

DR. ORTNER: Okay, good. Let me just switch to the other topic, because I know time is really pressing and you wanted me to talk a little bit about the Pulley Ridge Program. We are in a very exciting phase now. Actually the overall PI and Coordinator was a PI then at RSMAS, Bob Cowen, who is now at OSU heading up their marine lab; but we still cooperate.

He is still basically the PI on this although it seems like more and more it has evolved to me. He is doing other things. It is a very remarkable project for NOAA to fund. A little bit of background for those who don't know about Pulley Ridge; it is sort of upstream from most oceanographer's perspective of the Dry Tortugas and Florida Keys, with the loop current, Florida currents swing by Pulley Ridge and further north and then come around and go through the Dry Tortugas or adjacent to them in the Florida Keys; making them potentially physically connected, raising this whole topic.

It is a Mesophotic coral reef system. It is a little too deep for being totally reliant or primarily reliant upon light. It is not clear there either actually, with a pretty large diversity. It just donated a protected habitat back in 2005 by the Gulf Council. The types of fishing you can do on it are quite restricted.

The important thing to NOAA was that there is major discussion now of extending the Florida Keys Sanctuary protection to that area as well. From our perspective as oceanographers, there is a logical physical and biological connection between that area, parts even further north Mesophotic reefs, and the deep reefs and potentially in the Dry Tortugas and Florida Keys, then up to the shallow reefs. The system is substantially potentially continuous.

This is what you were hearing about from Roger just a minute ago about connectivity. When we talk connectivity, we are looking at it with this slide in mind, especially with all kinds of management issues and understanding and thinking about ecologically relevant boundaries. Just like traditional fisheries worry about what really is the population of interest; they are not managing the population but just a fraction of it; but how are we going to control things in any way?

Well, the same idea applies here, but it was looked at from the perspective of the bottom pretty much; and it was looking at ecologically relevant boundaries that take into account all of the phases of life of benthic organisms and pelagic ones as well. We have currently three types of connectivity to be concerned about; genetic connectivity, how genetically related is the group over here to the group over there? How ecologically connected are they?

Is the second area or the areas interdependent ecologically maybe as a food web source, maybe for other more complex reasons? Are they oceanographically connected and to what sense is that a predicate either of the other two or water actually connected to it? The project, as I said, is unique and you can read more about it and actually get live feeds from ships and cruises through CIMAS and CIRE, at our website; the cruise of Discovery and stuff for NOAA, our cruises. When the cruises are out there, there are live feeds and blogs. There is a lot of material up on the website at all times.

As I said, it is supposed to be linked to the regional resource managers. We're concerned about this connectivity and provide to everyone a sense of the community organization of the biological communities. It is funded by NOAA very heavily, by NCOS, part of NOS, by only

our headquarters most recently and by OER itself, which is the Ocean Exploration and Research, which is in OAR, but it is really separate.

There are two of the big cooperative entities involved, CIMAS, mine; and Shirley Pomones CIOERT, Cooperative Institute for Ocean Exploration Research and Technology. We are partners in this. The project period has been expanded from five to six years. NOAA investment is well over \$6 million, including the ship time. Even without the ship time it is close to five and a half. I am also the Chair of UNO.

It is a very unique project. There are more than 35 principal investigators, 11 universities, 3 federal and state agencies, and we've done stakeholder advisory board, which includes you. Roger is our representative from the South Atlantic Fishery Management Council; but the Gulf Council is also represented.

It is a project essentially on the connection between them; and we get NMFS managers, we get Sanctuary folks from Sanctuary officers; we have BOEHM; we have Florida Fish and Wildlife. We have got all of the relevant managers or as many as we could find. In Florida and federal ones and some of the larger ones we're concerned with the process, because we want to make sure what we're doing is not just the pure science but it is relevant.

What we expect and what we're starting to produce from this is basically maps of larval dispersive pathways under different oceanographic scenarios. I should comment that we are running some of the most sophisticated ocean models available and putting out oceanographic instrumentation; so we really know the reality of the different areas.

We're collecting the material, we're analyzing the genetics. There are people in every discipline you can think of amongst those 35 or 40 principal investigators and their workgroups. We will know the actual population connectivity for a number of the focal species we focused on. We've picked species across the gamut from organisms that have a long pelagic stage in the larvae to a short one, benthic organisms to truly pelagic ones; different life histories, because you can imagine the oceanographic connection will be different depending on the life history.

We will know a lot about the community structure in abundance. We even have a socio-economic group analyzing and trying to get a dollar value and social impact value of different alternative management areas. It is already feeding into the management plan process sanctuary system. We've been asked to speak to them a number of times.

We hope it does with you guys as well as the Gulf Council. I should comment, by the way, that we've spoken about at MARES – specifically we briefed the Gulf Management Council on MARES because of its relationship. We would be happy to do that to you guys as well because of its relationship to integrate the ecosystem assessment and ecosystem-based management.

To be honest, I was one of the four-person team that wrote for NOAA, when I was a NOAA person, the ecosystem approach to management; the white paper. We've already completed two field seasons and we're starting the third one. The first field season, we got a little truncated due to the hurricane and we only got to Pulley Ridge. I didn't get out to Dry Tortugas; but in the Dry Tortugas and Pulley Ridge we got to in '13. We do OV surveys; we've got divers collecting stuff that is analyzed genetically.

We have people doing the same thing with fish traps; doing it the same way. We have characterization of both the plankton, larval, fish, and invertebrates all happening out there. At the same time, the modelers are running their models back here, collecting their data, including their mud-sensing data. I will just end with something about the third field season.

It is just starting the cruise later this month; the first of three cruises this summer. We're getting into major technology data. We've got a plus-up of half a million dollars trying to set up essentially – we're beginning a bi-tech test center for the southeast, specifically to test these kinds of things and their applicability to help us.

This is one of the things we'll be using in testing, which is now one of the few remaining hybrid AUVs around. Now that they read in the paper Woods Hole lost the Century Vehicle, it is awesome – excuse me, the Nereus, it already lost the Century before. The Nereus was a hybrid AUV, so this is one of the few ones around.

If you know what the ROV and an AUV is, it is something you can drive around connected to the ship; and then it disconnects itself, sends it to go do its mission and then comes back to reconnect and come back; so it tethers and untethers itself. That is why it is called the hybrid system, and it allows you to be much more flexible.

You can imagine using an ROV sometimes feels like fishing and trying to get your hook right on top of something. It is really not so good when the boat is moving and it is trickier business. Decoupling is a really good thing. This will be a real advance. The next one is the same type of one. Some of the things during our mission is an amazing bathymetry and multibeam survey.

It is particularly good because of the decoupling in strong current sites. If you were listening earlier, the problem working in these places is the Gulf Stream and loop current are going by, so it is pretty easy to get in three knots or more of current. That is not an ideal environment for an AUV or an ROV, real tough; but you do a lot better if you have this option of coupling and decoupling.

We are also using the true AUV, and this is one that the back is very similar to the one that you were reading about in the paper. I don't know if they lost it or not. All of it is gone; does anybody even know if they found that plane? This is what they were looking for, the missing Malaysian jet.

We're going to be having one out between Pulley Ridge and the Dry Tortugas. We're also using specially developed advanced ROV. The Mohawk ROV, which is a ready an advanced new ROV to the region, it is the thing on the left. It was actually constructed for this project with this plus-up of money we got from OAR Headquarters. There is a sled underneath it.

I don't have time to go into explaining all the parts, but it will essentially be able to sample. We are trying to see the degree to which we're totally dependent on tech divers to get to the depths they have to get to here and be down long enough, or we can do some of the actual sampling from the ROV.

This is, first of all, to allow us to actually do some physical samples of all these environments remotely without actually having our divers do it. It is a lot of interest to NOAA that this will all

pan out and have the implication on how they and other people do business in other related hard bottom and other environments. Do they have the same challenges? That is about it. I hope I didn't run too, too over. That is the ultimate for not having talked for 11 days.

MR. PUGLIESE: Thank you, Peter. Were there any questions for Peter either on the water management or the Pulley Ridge activities? I really appreciate your input.

MR. JOLLEY: In looking at a summary of the problem that was first presented about water flow and that sort of thing; I noticed there was no mention of the Lake Worth Lagoon and Loxahatchee in the Palm Beach County. I know that is not the big picture; but we're spending millions and millions of dollars to work on Lake Worth Lagoon, 25 miles long; and are you guys talking to the Palm Beach County Environmental Resources Management in all of this process, as well as these others?

DR. ORTNER: They were involved actually. Our domain for the project in – Project MARES I was talking about it; the counties were represented. We were talking to all the local ones, but we were mostly trying to work out from where the restoration people had talked. Since basically NOAA was paying for it; and they said the restoration meeting was really primarily the Interior, Corps and other people had paid for; then we were pushing outwards from those.

But the AOML Lab up there has been running a study for a long time in Palm Beach County about the flow in and out of the lagoons; my old lab, I should say. I was the director at AOML next door there before I moved across the street. They are still involved with it heavily. I can put you in contact with who would know all about that if you want; but I would suggest you work through Chris Keble. Roger can give you his information.

MR. HAYMANS: Are there any other questions? Roger, do you have anything else?

MR. PUGLIESE: Yes; I would like to thank Peter for both the presentations. One thing I would like to highlight about the Pulley Ridge; we really have the opportunity with this to draw on the activities. When we're talking about the systems plan for our MPAs in our region, they are using some of the exact types of technologies, the types of activities; the things that we would like to see in our region.

Actually some of the models and some of the capabilities are extending up in the South Atlantic. We're both going to draw on the opportunity of advancing the understanding of the research capabilities associated with monitoring and understanding the characterization of the areas, understanding the connectivity of the system; but then also that transferability of it into our region and maybe setting the foundation for a similar type of project for the South Atlantic connection between all of our MPAs, the deepwater coral areas and other places.

I think it is a real opportunity. There was some question about being involved in that. I think that is the value of the South Atlantic's involvement is that transferability and opportunity and potentially engaging in a similar effort into our region.

MR. HAYMANS: See if you can get us some of the \$6 million.

DR. ORTNER: There are a number of people involved in this project who have also been working up the coast of Florida heading north to all of the deeper coral habitats as well. We already are making a foray or connection well into your domain.

MR. HAYMANS: Thank you, Dr. Ortner. I believe Wilson had something else under other business.

DR. LANEY: I'll be very brief on this. I think some of you have seen this already; but I will send out to the joint committees a letter plus attachments that is dated March 5, 2014. This letter came to the North Carolina Division of Water Resources from a group called the Lower Cape Fear River Program, which is housed at the University of North Carolina-Wilmington, but it is not exactly part of the university; at least that is my understanding.

They have requested the Division of Water Resources to reclassify the water classification in the Lower Cape Fear River Estuary from Class SC to a swamp water classification. I am just going to bring it to the joint committees' attention. I'm also bringing it to the attention of the Atlantic States Marine Fisheries Commission Habitat Committee.

The request for reclassification I understand is a very lengthy, multiyear process; but this one seems to be moving along. Some of us in the natural resource management community have some concerns about the proposed reclassification, because it could result in basically removing any sort of floor from oxygen concentration in the lower estuary.

It is of concern to us from the standpoint of threatened and endangered species, specifically both of the sturgeon species that use the lower Cape Fear Estuary as nursery habitat and as a migratory pathway upriver. But also from the standpoint of the Cape Fear's status, I don't think it is an exaggeration, Michelle, to say that the Cape Fear Estuary would be viewed as an estuarine nursery area of regional importance.

I'm sure that the production that comes out of the Cape Fear certainly goes into the South Atlantic, especially the shrimp production that comes out of the lower Cape Fear. I did my Masters and my Doctorate working on the Lower Cape Fear River Estuary, so it is near and dear to my heart as well.

I think also from an ecological perspective this particular request may be of some concern to us. I just wanted to bring it to your attention and give everybody a heads-up. At some future date if we decide it is warranted, we might be coming back to the committee and asking for some sort of a letter to go from the council to the North Carolina Division of Water Resources as part of that process. Thank you, Mr. Chairman.

MR. HAYMANS: Roger was just telling me that particularly with the South Atlantic Landscape Cooperative; that if it would please the committee, some time after this council meeting is over this week; that he would be willing to forego the update now and do a webinar that we could tune into to get those updates, if that would be all right in the interest of time, because they are just updates.

MR. PUGLIESE: Yes, because I can work directly with Rua and Ken and provide that and then we can have the engagement that Wilson had talked about directly to start the process. That

would be probably an easier forum for additional questions given the time we have now. I hate to short change that. There are some real opportunities with that effort to go forward. The update; I think you have been provided both the presentation on the update and that so you have them in hand.

The ecosystem update has some aspects of that, but it does touch on some other things that I'll follow up. But very specifically with the LCC I think is going to be the Blueprint Version 1 and 2. Activities are so connected in what we're working on and have benefits for our FEP and for long term; that it would be worthwhile. If members would like that, we can go ahead and I will work with them to get that set up.

MR. HAYMANS: Any opposition to that?

DR. LANEY: Just one follow-up comment. If you haven't visited the South Atlantic LCC Website, it would probably be advantageous to go ahead and do so and take a look at what they developed in that Conservation Blueprint Version 1, especially the marine component of that.

MR. HAYMANS: Is there any other business before these committees? Seeing none; Mr. Chairman, that concludes the business of this committee.

(Whereupon, the meeting was adjourned at 4:03 o'clock p.m., June, 9, 2014.)

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South Atlantic Fishery Management Council

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Jessica McCawley
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(Continued)

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PLEASE SIGN IN

In order to have a record of your attendance at each meeting and your name included in the minutes, we ask that you sign this sheet for the meeting shown below.

South Atlantic Fishery Management Council Meeting
Joint Habitat and Ecosystem-Based Mgmt. Committee:
Monday, June 9, 2014

NAME & SECTOR/ORGANIZATION: AREA CODE & PHONE NUMBER: EMAIL ADDRESS: MAILING ADDRESS:

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MON JUNE 9, 2014

80	Johnson, Alison	alison.johnson@myfwc.com	23372251 min
70	Harrison, Robert	tunaprowler1@embarqmail.c...	1 min
69	colby, barrett	bcolby3@cfl.rr.com	138 min
64	McCoy, Sherrie	susannemazza@yahoo.com	0 min
62	klostermann, joe	grkjfk@comcast.net	453 min
49	harrison, vicki	hhsfd@gmail.com	75 min
42	Hamer, Caitlin	caitlin.hamer@duke.edu	221 min
39	Hudson, Rusty	dsf2009@aol.com	480 min
39	., fisherynation.c...	bhfisherynation@gmail.com...	3 min
34	Stewart, David	dstewa11@uwyo.edu	469 min
32	Records, David	david.records@noaa.gov	433 min
31	holiman, stephen	stephen.holiman@noaa.gov	343 min
30	Mehta, Nikhil	nikhil.mehta@noaa.gov	456 min
29	grubbs, david	cappedoffcharters@gmail.c...	433 min
29	steele, ian	isteel@tampabaytimesforu...	1 min
27	Young, Erik	eyoung77@uw.edu	62 min
26	gore, karla	karla.gore@noaa.gov	521 min
26	Michie, Kate	kate.michie@noaa.gov	485 min
26	Eich, Anne	annemarie.eich@noaa.gov	509 min
25	Bademan, Martha	martha.bademan@myfwc.com	303 min
25	McCoy, Sherylanne	sherrim@wildoceanmarket.c...	542 min
25	Takade-Heumacher, ...	htakade@edf.org	379 min
24	blough, heather	heather.blough@noaa.gov	498 min
24	Dale, David	david.dale@noaa.gov	163 min
24	cox, jack	dayboat1965@gmail.com	216 min
23	Vara, Mary	mary.vara@noaa.gov	583 min
23	DeVictor, Rick	rick.devictor@noaa.gov	526 min
23	Baker, Scott	bakers@uncw.edu	368 min

22	Bresnen, Anthony	anthony.bresnen@myfwc.com ...	489 min
22	Sedberry, George	george.sedberry@noaa.gov	113 min
21	sandorf, scott	scott.sandorf@noaa.gov	347 min
21	Clemens, Anik	anik.clemens@noaa.gov	331 min
21	Latanich, Katie	cal7@duke.edu	203 min
21	ortner, peter	portner@rsmas.miami.edu	252 min
21	Raine, Karen	karen.raine@noaa.gov	422 min
21	Byrd, Julia	julia.byrd@safmc.net	534 min
20	Amick, Steve	steveamicks@aol.com	0 min
20	L, I	captaindrifter@bellsouth.com	584 min