



**Southeast
Florida
Coral Reef
Initiative**

Acting above to protect what's below.

SEFCRI Bi-Annual Full Team Meeting

October 30, 2017

Anne Kolb Nature Center, 751 Sheridan Street, Hollywood, FL

Attendees:

Staff:

Meghan Balling, David Cox, Kristi Kerrigan, Francisco Pagan, Aubree Zenone, Lindsay Guthrie

SEFCRI Team Members:

Katherine McCoy, Lisa Miceli, Jamie Monty, Nick Morrell, Erik Neugaard, Rod Braun, Butch Olsen, Nikole Ordway, Shana Phelan, April Price, Patrick Quinn, Mara Brown, Frank Schmidt, Scott Sheckman, Mason Smith, Sara Thanner, Ed Tichenor, Don Vacin, Jennifer Baez, Ken Banks, Baret Barry, Jim Bohnsack, Henry Briceno, Thomas Carpenter, Ron Coddington, Chuck Collins, Mitch Comiskey, Michael Dixon, Kelly Egan, Jane Fawcett, Joana Figueiredo, Kathy Fitzpatrick, Dave Gilliam, DD Halpern, Alastair Harbone, Mike Jenkins, Ivana Kenny, Dan Kipnis

SEFCRI Team Alternates:

Participating on behalf of primary: Jackie Crucet, Melissa Sathe, Laura Eldredge, Cristin Krasco, Ana Zangroniz

Public Observers:

Lisa Gregg, Ken Banks, Andrea Graves, Dana Wusinich-Mendez

Introduction/Welcome (*Bree Zenone & Francisco Pagan*)

Bree Zenone provides general welcome comments and invites Francisco to provide a welcome. Francisco Pagan welcomes guests and thanks everyone for accommodating the meeting after it was rescheduled. Today will consist of introductions, work on some activities and then a public comment section.

- General housekeeping:
 - o Silence cell phones, restrooms are out the doors to the left.
 - o Thank you to Anne Kolb Nature Center for hosting us today.
 - o Thank you to Friends of Our Florida Reefs for all your support.

- If you emailed us about lunch, please see Kristi at the registration area to pay.
- For WIFI, go into browser and hit “I Agree.”
- Overview of Today:
 - Help provide managers with ideas to help manage coral reef resources here in Florida.
 - Work on the Local Action Strategies (LAS) that are based on the ideas we’ve been discussing at the past few meetings. All the ideas discussed are going to be seeds for potential projects to be included in the next cooperative agreement. Most of the projects will be taken by the SEFCRI body if you want them to move along.
- Participation:
 - We encourage everyone here to participate in conversations today.
 - SEFCRI Team Members and Alternates are the ones participating at the tables.
 - The public may listen to the meeting from the perimeter chairs and provide comments during the public comment section.

Refresher on March Meeting Results and Explanation of LAS Formatting (*Bree Zenone*)

- Last year we started *prioritizing* new LAS projects.
- Today we will *develop* new LAS projects.
- Historical Review:
 - 1998- USCRTF formed by executive order.
 - 2000- developed a National Action Plan (NAP).
 - 2003- first SEFCRI meeting.
 - Four focus areas: FDOU, AA, LBSP, MICCI
- Goals of SEFCRI:
 - Act on projects, find funding on projects, facilitate continued management of coral reef resources, develop the LAS as necessary (living document that needs to be developed and updated over time).
- Started with 140 LAS projects and 128 are completed (the remainder are still being worked on or are ongoing projects).
- We took recommendations from those projects and developed 40 potential LAS ideas.
 - 5 of those were selected for further review.
 - The Our Florida Reefs (OFR) process generated 9 Recommended Management Actions.
 - Today we are expanding on all those project ideas.
- In March, you selected ideas you wanted to move forward with. We ended up with 11-12 new LAS ideas:
 - Set new turbidity standards and support the improvement of turbidity monitoring methods.
 - Create coral disease response plan.
 - Implement an MPA zoning framework for special areas of interest within the OFR Region.
 - Implement LBSP reduction at pollution hotspots.

- Create a SEFCRI-wide mooring buoy program.
- Regulate fertilizers and pesticides and promote BMPs.
- Define the SEFCRI region (the “Box”).
- Coral toxicity studies of LBSP.
- Encourage closing of outfalls by 2025.
- Reducing LBSP in storm water runoff.
- Coordinate adaptive monitoring strategies.
- We developed those projects and took them to the Technical Advisory Committee (TAC) to determine the best way to move forward to achieve those results outlined in our objectives. *Welcomes Dave Cox to discuss TAC activities.*

TAC Presentation (David Cox)

David works to coordinate biannual TAC meetings. He introduces some of the TAC members in attendance at today’s meeting.

- About the TAC:
 - TAC provides technical assistance to SEFCRI.
 - Initially it was in support of Land Based Sources of Pollution, but now has expanded to meet all the other needs of SEFCRI.
 - It’s a partnership in which ideas are exchanged back and forth.
 - Ideas are generated at both ends of this partnership. Ideas come from SEFCRI and the TAC weighs in on them in more detail.
 - The TAC has been looking at ways to get data in light of the projects that SEFCRI comes up with.
- TAC areas of expertise:
 - Coral biology, coral reef ecology, quantitative ecology, physical oceanography, marine chemistry, microbiology, disease and toxicity, algae, fishery ecology, benthic ecology, water quality, socioeconomics, fisheries management, natural resource management, molecular genetics and microbial symbiosis.
- Membership consists of:
 - NGOs, Governments (State, Federal & Local), Academia, Non-profits.
- Meetings:
 - SEFCRI meets twice a year and the TAC meetings are staggered (next meeting will be at the end of November) to allow time to bring results between the two bodies.
 - Next meeting will discuss the coral disease response workshop, TAC outfall project, and review what is discussed at today’s SEFCRI meeting.
- TAC activities at a glance:
 - 2015- focus was on OFR. Since then, TAC and SEFCRI have been meeting independently.
 - April 2016- focus was on coral disease outbreak and a water quality project.
 - Since then we have been reviewing the SEFCRI LAS and providing feedback.
 - Wastewater outfall project is another project TAC has been working on.

- *David shows past agendas.* If you want to see more agendas/minutes, please contact David.
- The Outfall Project:
 - Identifying exposure to discharge from an ocean outfall.
 - Measuring the zone of influence of the Hollywood Wastewater Treatment Plant.
 - Most likely be working on antibiotic resistant bacteria.

Explanation of LAS Formatting and Activity (*Bree Zenone*)

- We have divided project ideas into five focus areas:
 - Appreciation and Awareness (AA)
 - Fishing, Diving and Other Uses (FDOU)
 - Land Based Sources of Pollution (LBSP)
 - Maritime Industry and Coastal Construction Impacts (MICCI)
 - Reef Resilience (RR) (new focus area!)
- The original SEFCRI LAS Project Booklet lists the issues, goals, objectives and the related project. The projects are what we are developing today. The goal and objectives of each project are listed on the papers provided at each table.
- Review of the LAS Projects up for discussion today:
 - SEFCRI Idea: Create a SEFCRI-wide mooring buoy program.
 - Focus Area: Maritime Industries and Coastal Construction Impacts
 - MICCI Project 30- Evaluate Effectiveness of Current Locations
 - MICCI Project 31- Coordinate County Efforts
 - MICCI Project 32- Mooring Buoy Program Sustainability
 - MICCI Project 33- Adopt-A-Buoy Program
 - SEFCRI Idea: Set new turbidity standards and support the improvement of turbidity monitoring methods.
 - Focus Area: Maritime Industries and Coastal Construction Impacts
 - MICCI Project 28- Turbidity Monitoring Methodology
 - MICCI Project 29- Increased Understanding of Turbidity
 - SEFCRI Idea: Coral toxicity studies of LBSP.
 - Focus Area: Reef Resilience
 - RR Project 1- Eco-Toxicity Literature Review
 - RR Project 2- Toxin Transportation to Reefs
 - RR Project 3- Coral Toxicity Thresholds
 - RR Project 4- Coral Toxicity Awareness
 - SEFCRI Idea: Create coral disease response plan.
 - Focus Area: Reef Resilience
 - RR Project 5- Disease Plan Literature Review
 - RR Project 6- Disease Plan Data Coordination
 - RR Project 7- Coral Disease Plan
 - SEFCRI Idea: Coordinate adaptive monitoring strategies.
 - Focus Area: Fishing, Diving and Other Uses

- FDOU Project 51- Coordinated Management Strategies
 - FDOU Project 52- Fisheries Data Needs
 - FDOU Project 53- Marine Planner Updates
 - FDOU Project 54- Coordinated Information Exchange
- SEFCRI Idea: Implement an MPA zoning framework for special areas of interest within the OFR region.
 - Focus Area: Fishing, Diving and Other Uses
 - FDOU Project 55- Identify Data Gaps Needed to Fulfill 26b Areas of Interest
- SEFCRI Idea: Implement LBSP reduction at pollution hotspots, regulate fertilizers and pesticides and promote BMP's, reducing LBSP in storm water runoff.
 - Focus Area: Land Based Sources of Pollution
 - LBSP Project 33- Identify and Categorize Major Point Sources
- SEFCRI Idea: Promote coral safe sunscreen, encourage closing of outfalls by 2025.
 - Focus Area: Awareness and Appreciation
 - AA Project 39- Outreach on Coral Safe Sunscreen
 - AA Project 40- Educate on the Closing of Outfalls by 2025
 - AA Project 41- Coral Reef Conservation Kits Update
- **Your job today is to review, provide recommendations and discuss project ideas to meet the objectives.**
- The Breakout Activity:
 - Each table will represent one of the focus areas.
 - At the beginning of the round you will be at one table and switch tables after each round. We will have three rounds.
 - On tables are materials (including project printouts).
 - Tables are on first come first serve basis, so if you don't get a seat at the table for the first round you can get there in one of the following rounds.

Francisco Pagan: We get ideas from the stakeholders for future projects and help develop the strategy for how to balance uses of resources. Not all projects developed today will be accepted right away. Please do not feel that these are forcing you into a situation where we have to make all these projects work before we create new ones, we are just trying to come up with something where we can get results within the next 3-5 years. This is where you provide input on what you feel is needed for management of the southeast Florida coral reefs.

Bree explains what each table is focusing on for the activity and mentions there will be a coordinator at each table taking minutes/notes.

Activity- Edit/Create the new LAS Projects- I

Group disbands into tables representing the 5 focus areas: AA, FDOU, RR, and MICCI / LBSP (at the same table).

LUNCH

Break for lunch- 1 hour.

Activity- Edit/Create the new LAS Projects- II

Francisco mentions:

- A few tables still have some ideas they are working on, so the first round will be extended another 45 minutes. If you're at a table that is done, you are more than welcome to move to another table. At 1:45 we will start a fresh round, so if you want to move tables you are welcome to do so.
- Thank you for having such productive conversations.
- Thank you to Bree Zenone for coordinating this meeting and for the staff support working to get this meeting going.

Group disbands into tables representing the 5 focus areas: AA, FDOU, RR, and MICCI / LBSP (at the same table).

BREAK

Francisco reiterates what the LAS's are for SEFCRI, how we got here, how we move forward from here, and how they relate to this particular set of ideas we have today.

- As Bree said earlier today, an original process in 2003 generated 140 LAS projects based on different focus areas where they identify an issue and an objective and came up with a project.
- During the last two SEFCRI meetings, we have been getting ideas we can use to generate a similar process as the 2003 meeting.
- We took ideas to the TAC and they provided some framework of potential projects.
- LAS's are structured around an issue with an objective and a particular project that will provide guidance to the CRCP and SEFCRI members.

Francisco displays the slide that lists of ideas from the March SEFCRI Meeting.

- The ideas are to help come up with potential projects, but projects are not limited to this list.
- We have a framework today that is not permanent. You do not need to connect everything to the previous LAS book. That book has carried us for the last 14-15 years, but if you feel that a new issue has arrived, or we need to update the book since an objective is not phrased in a way that is relevant today, you can make suggestions.
- All coordinators today have an empty format (like what you've been looking at today) where they can fill in gaps according to your suggestions.
- We are creating a smaller, but similar, rule book to move forward with for the next 3-5 years. We will be able to see how everything gets accomplished in the next 3-5 years and see results.

Agenda modified for today. We are going to continue with the activity.

- Show of hands to see who feels comfortable moving forward with some projects.
 - o *Few hands raised (maybe 5-10 total).*

Dana Wusinich-Mendez Comment:

- Many of the projects on the table are the ideas that came from the TAC meeting. The TAC is primarily a research body, so a lot of the ideas are very research oriented. The hope was that the SEFCRI team would complement those ideas with other approaches for achieving those priorities and develop new projects to achieve the priorities developed at the last meeting through approaches other than research.

Jane Fawcett Comment:

- We have four breakout sessions occurring today and I wouldn't feel comfortable voting on everything since I wasn't a part of all the conversations.
 - o *Francisco:* We will vote tomorrow so that everyone has a chance to sit at all the tables. One of those projects (Project 55) related to FDOU special RMA. We will have two different tables on that tomorrow. Please feel free to add ideas for projects if you have any. This is your SEFCRI team and this is the strategy that will follow the southeast Florida region for the next 3-5 years.
- I encourage everyone on the team to sit at every table at least for a few minutes so we can have an informed and effective vote on the projects tomorrow.

Kurtis Gregg Comment:

- The original "ask" when we came up with 140 projects was "what do you need to know to take a management action in the next three years?" It took us 14 years to get the information for that original ask. So, what do we do with all that information? What do we need to do to move forward with a management action in the next 3-5 years? We don't want to develop projects just for the sake of developing projects. We want to find a way to have these projects meet management.

Francisco announces we will have a small break and then come back with the public comment section. We will then continue with another activity session.

Public Comment (*Francisco Pagan*)

If anyone from the public would like to make a comment, please step forward to do so now.

- *No comments.*

If any SEFCRI Member wants to share any SEFCRI, this is your opportunity.

- *No comments.*

One more chance, if anyone from the public would like to make a comment, now is your opportunity.

- *No comments.*

Francisco opens the floor for the continuation of the table activity.

Activity- Edit/Create the new LAS Projects- III

Group disbands into tables representing the 5 focus areas: AA, FDOU, RR, and MICCI / LBSP (at the same table).

Wrap up and Adjourn (*Bree Zenone and Francisco Pagan*)

To reiterate, the projects on the table were ideas from the TAC to get us started in developing these projects. The intent was for you to take those ideas and create or modify them to set up what those projects aim to do. What is on the paper on the tables is to get you started and to be developed by you as the SEFCRI body. These are your projects that you can modify to achieve the ideas outlined by the TAC.

Tomorrow we will have more time to continue working on these projects.

Thank you to everyone who participated.

Any questions before we dismiss for the day?

Scott Sheckman Comment:

- Thank you for donating to FOFR. Will be back tomorrow with more snacks.



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Jamie Monty, Nick Morrell, Erik Neugaard, Butch Olsen, April Price, Patrick Quinn, Mara Brown, Scott Sheckman, Mason Smith, Sara Thanner, Ed Tichenor, Don Vacin, Ken Banks, Baret Barry, Jim Bohnsack, Henry Briceno, Ron Coddington, Chuck Collins, Mitch Comiskey, Michael Dixon, Kelly Egan, Jane Fawcett, Dave Gilliam, Ivana Kenny, Dan Kipnis, Lisa Krinsky, Mike Jenkins

SEFCRI Team Alternates:

- Participating on behalf of primary: Jackie Crucet, Hannah Medd, Cristin Krasco, Laura Eldredge

Public Observers:

Lisa Gregg, Ana Zangroniz

Welcome / Introductions (*Bree Zenone and Francisco Pagan*)

Bree Zenone: Welcome to the new folks here and welcome back to folks that were here yesterday. The agenda for today has been modified. *Introduces Francisco Pagan to discuss the modified agenda.*

Francisco Pagan: Welcome everyone. We have a lot of work to do to come up with all the potential LAS projects. Coordinators at the table will have the format we will use for these ideas, so please feel encouraged to put new ideas on them. For the first round this morning we will continue with four tables so if you want to visit a different table you can do so. Then after that we will have another round for those who have not gotten to sit at the FDOU table, where we will focus on FDOU Project 55. Later in the afternoon we will have our CRCP update for LAS activities that have happened in the past six months. Remember, the break is open so please help yourself to the food and coffee. If anyone has any questions, let me know.

Bree Zenone: As Francisco mentioned, the first item on today's agenda is picking up where we left off yesterday with an additional round of LAS project development. Just as a refresher, the original 140 projects had been developed in the previous SEFCRI LAS. In March, you selected several ideas you wished to achieve. This is the opportunity to achieve those ideas. The projects on the papers you have in front of you came from the TAC. To review, they include:

- SEFCRI Idea: Create a SEFCRI-wide mooring buoy program.
 - o Focus Area: Maritime Industries and Coastal Construction Impacts
 - MICCI Project 30- Evaluate Effectiveness of Current Locations
 - MICCI Project 31- Coordinate County Efforts
 - MICCI Project 32- Mooring Buoy Program Sustainability
 - MICCI Project 33- Adopt-A-Buoy Program
- SEFCRI Idea: Set new turbidity standards and support the improvement of turbidity monitoring methods.
 - o Focus Area: Maritime Industries and Coastal Construction Impacts
 - MICCI Project 28- Turbidity Monitoring Methodology
 - MICCI Project 29- Increased Understanding of Turbidity
- SEFCRI Idea: Coral toxicity studies of LBSP
 - o Focus Area: Reef Resilience
 - RR Project 1- Eco-Toxicity Literature Review
 - RR Project 2- Toxin Transportation to Reefs
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- SEFCRI Idea: Coordinate adaptive monitoring strategies.
 - o Focus Area: Fishing, Diving and Other Uses
 - FDOU Project 51- Coordinated Management Strategies
 - FDOU Project 52- Fisheries Data Needs
 - FDOU Project 53- Marine Planner Updates
 - FDOU Project 54- Coordinated Information Exchange
- SEFCRI Idea: Implement an MPA zoning framework for special areas of interest within the OFR region.
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 - o Focus Area: Land Based Sources of Pollution
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 - AA Project 41- Coral Reef Conservation Kits Update

Bree reviews where each of the tables are in the room and welcomes folks to choose a table. She asks if there are any questions. No questions or comments received.

Bree Zenone: Remember, the idea is to achieve the ideas you previously prioritized and selected, so let's work together to create projects that do just that.

Additional Activity- Edit/Create the new LAS Projects- IV

Group disbands into tables representing the 5 focus areas: AA, FDOU, RR, and MICCI / LBSP (at the same table).

Additional Activity- Edit/Create the new LAS Projects- V

Francisco Pagan: To touch on yesterday, at all the different rounds and tables we did, no one reached a consensus on FDOU Project 55 (based on new recommendations from the spring). We are going to divide into two tables to discuss that project because there are a lot of people and we want to be sure everyone gets a chance to participate. I will have coordinators at each table to take notes. Let's look at this as an example that the TAC is presenting to you; it's not a final project, but as you saw today you are coming up with new project ideas under the ideas/objectives you came up with last spring. Please feel encouraged to come up with new project ideas.

If we need to continue with this project later in the day, we can do that. Afterwards we have a couple of CRCP updates and will hear from FWC on their current efforts.

Let's divide into different tables now to discuss implementing an MPA zoning framework for special areas of interest within the OFR region and how to create a project with that goal in mind.

Group disbands into two tables to discuss FDOU Project 55.

Lunch

Break for lunch- 1 hour.

Public Comment

Scott Sheckman: Discusses some history of Woody Guthrie and his song "This Land is Your Land." Provides his own rendition of the song with lyrics for the SEFCRI Team to sing along with. Performs the song with guitar accompaniment.

New Project Ideas

Francisco Pagan: I want to take this moment for you all to share the new ideas you have come up with at the tables with those who may not have been at the table when you discussed the idea. *Francisco calls Lisa Gregg to come up and discuss a new project idea.*

Lisa Gregg: At the last meeting we made recommendations on our project for fisheries management in the SEFCRI region. The idea went high in the TAC but still wasn't getting to where people wanted it to be. Basically, back in 2009 we worked on a project that was trying to determine the status of fisheries in the SEFCRI region and that project highlighted the difficulties we have regarding taking stock assessments covering four different states and narrowing that down to a smaller area (the SEFCRI region). FWC said, regarding methodologies and data needed, we need to see more SEFCRI region specific data. We then started doing RVCs for fisheries independent data for the SEFCRI region. Through doing this we think we can request that FWC does fisheries specific management for the SEFCRI region. None of our projects identify that since we were building under language constraints. The focus area and issues are the same, but the goal has changed. The goal is to provide FWC with the information that is needed to support marine fisheries management approach specific to the SEFCRI region. Specifically, to do this project, we need to identify what criteria stakeholders want marine fisheries to be managed for within the SEFCRI region, assess the current condition of fisheries resources within the SEFCRI region to support regional management based on the criteria, and request a regional fisheries management approach from FWC. The important thing is to start with the managing criteria, then start analyzing the information that's available. The outputs of this project would be identified stakeholder-driven fisheries management criteria, established current condition of marine fisheries within the SEFCRI region, and a report that includes the stakeholder-identified management criteria, analyses of the applicable data, assessment of current conditions and recommendations for regional management. Success criteria is that FWC considers developing a marine fisheries management approach for the SEFCRI region. Are there any questions?

- Is this a revised Project 52?
 - o Yes.
- I like it in simple terms.

No further comments/questions.

Francisco Pagan: A lot of the new ideas have been hand written on the templates and our team will transcribe them into documents similar to this one (*on screen*) and send them out via email later on. Now all the table coordinators will be sharing some of the new ideas discussed at the tables. If you have any questions during this, please speak up.

Meghan Balling:

New Project Idea 1- This project involves developing metrics for fish assemblages in southeast Florida and information from Projects 51 and 52. Any use of the information needs to be used in collaboration with the agencies and with buy in from stakeholders. Development of metrics will be done with working groups with key stakeholders using examples provided by other entities. Needs to involve a broader assessment than stocks alone. Possibly use metrics to analyze fish

assemblages with a report at the end. The goal is to find measures that are appropriate for the resources we have.

New Project Idea 2- Deals with linkages of reef fish and coral reefs. It involves a three-step process to understand the linkages between coral reef habitat and coral reef fisheries. FWC suggested that they have some of this linkage in their informational materials, but this suggests more of a science-based approach to demonstrate the linkages and communicating that to stakeholders.

New Project Idea 3- Calls for standalone no anchor zones and to extend no anchor zones year-round. There was discussion about funding sources, difference between cost of purchase and cost of maintaining, cross training officers and increasing retention of officers.

- *Question:* How far would the no anchor zone extend out for these festivals? Festival goers will anchor right up to that no anchor boundary.
 - o They are trying to make sure the area that would be most heavily anchored not be where the hard-bottom is.
 - So, it's just for the music festivals?
 - Any event where there would be a lot of people anchored on the reefs.
 - o Law enforcement last year was keeping people out of the no anchor and no swim zones. It's a tough spot because the areas of soft sand are small and in between two hardbottom areas.
 - At music festivals yes, but for the air shows you're always going to have people right up to the boundary line.
 - o The issue with Tortuga is that it is an upland event so there are no water related activities (no safety zone is required). Mollie had to work with partners to ask people to move and use the education route instead of using a safety zone, which is different from the air show where they have water activities and are required to have water regulation. Some of the beach events are not required to have water regulations.
- Might get temporary buoys installed or temporarily marked areas where people cannot anchor.
- Specific details will be worked out by the project team—you are welcome to join the project team for this project.

New Project Idea 4- A spin on Project 55 that involves a three-step process. Step 1- Define the region using information that is already available (this would be a standalone project). Step 2- Create a management plan for that region (the “box”) defined as a plan for that area. Step 3- Establish designations based on the objectives that need to be accomplished in the designated areas. Also, help support legislation to designate the box.

Francisco Pagan: Remember, this will all be written down in a format that will be available to you. I will email all you one of the empty format pages in case you come up with any ideas later,

so you can send it to us and we will send to the vice chairs who can share it with the rest of the team. *Calls up Kristi Kerrigan to discuss new project ideas from RR.*

Kristi Kerrigan:

New Project Idea 1: Stemming off Project 55 but adding two components. First, target all stakeholders involved in this process and communicate the motive for the project framework with clearly stated goals. Also, include information regarding the myth surrounding MPAs. Make sure it's based on actual science. Second, ensure stakeholder management throughout projects 51-53. Promoting more stakeholder ownership of the data and incorporate all data. Use fisheries and land management terminology and put it in terms they can understand. These can be standalone projects or additions to Project 55.

New Project Idea 2: Develop RR indicators that can be connected to heighten resilience and to help management. Literature review of indicators, develop indicators appropriately, establish a monitoring program for those indicators. Outputs would be a literature review, survey protocols, and an online database.

New Project Idea 3: There is a lack of plan to manage for resilience. This project builds a plan to help managers account for resilience. It would involve creating a strategic plan outlined in detail.

New Project Idea 4: Ensures healthy reef status for the foreseeable future. Tied into the social science side. Discover barriers and challenges in public awareness and do our best to implement positive change. Create a focus group that makes a priority list and a timeline that could encourage resolutions surrounding reef resilience.

Francisco Pagan calls up David Cox to discuss new project ideas for LBSP and MICCI.

David Cox: Two new project ideas, both build upon existing projects.

New Project Idea 1: (LBSP 28). Assess and review new technology for measuring turbidity and sedimentation. Looking at drones and optical sensors.

New Project Idea 2: (MICCI 34). Builds off MICCI 30. Assessing options within the exclusion zones for events. This project would install the mooring buoys.

Bree Zenone: Two new project ideas:

New Project Idea 1: Educate businesses on the issues of plastics in the environment specifically targeting the use of straws.

- There are some groups doing that so creating partnerships with those groups would be a good idea (Surf Rider Foundation?).
- How about reintroducing paper straws? They are more natural and decompose.

New Project Idea 2: Coordinate with local curriculums to integrate coral reefs into school curriculum. Review what is being done here in southeast Florida and integrate coral reefs into

school curriculums in a similar manner as they do Everglades education. Look into schools, teachers and students that are doing well in getting the coral reef message out there. Maybe award schools and teachers that are excelling with a FOFR or SEFCRI award.

Please reach out if you have any other suggestions or recommendations.

Francisco Pagan: Now we will be giving an update on the LAS being worked on at the office and things being done in the past six months by the coordinators. Then, we will have a FWC presentation by Mason.

Before we begin, since we have been working with FDOU 55, how many of you would like to continue working on that right now instead of waiting for the transcripts from today to come out for review? Show of hands for those who want to continue working on FDOU 55 right now?

- *No hands.*

Okay then the rest of the day will consist of the CRCP update and FWC presentation.

CRCP Update:

Francisco Pagan: We are hiring a new RIPR Tech next week. Hopefully by the end of the year we will have a full staff again.

Bree Zenone: AA is continuing LAS objectives.

- We've had five outreach events (554 total interactions). Ft. Lauderdale International Boat Show starts tomorrow. We will also have a booth at Fairchild Ramble coming up.
- We currently have all nine education trunks being used. This initiative has been very successful this year. We have more requests than trunks available.
- There is a SEFCRI website redesign in the coming year (mobile accessible and easy to use). We will be looking for input from all of you on that.
- Public Service Announcement videos are running with an online component. These were previously used for the OFR process and they are now online and on TV, radio, social media. RIPR program will also be running PSAs on events to target people in those areas and keep them informed. Still looking for how to measure the successes of these efforts.
- New fact sheets are available on the topics listed on the screen (anchor damage, bleaching and disease, fish kill and disease, harmful algal blooms, invasive species, marine debris, vessel grounding). SEAFAN program put together factsheets for distribution.
- USCRTF's Reef Ambassador Program is in four counties where they have a reef ambassador page on their websites with information, efforts being done, coral disease, etc. Webpages will be going live shortly.

Meghan Balling: For non-LAS projects: First we have the independent baseline assessment, which Kurtis Gregg will share an update on. *Meghan welcomes Kurtis Gregg to speak.*

Kurtis Gregg: We are using the Reef Visual Census from 2012-2016 to create a final report that is analyzing this data and looking at a key target species and where we are. We don't have a

trends assessment, but we do have a status assessment and an overview of the entire reef fish assemblage.

Meghan Balling: The other non-LAS project is SECREMP. It is now in its 15th year of monitoring across the southeast Florida Reef Tract. Another update on the status of the reefs is coming up. It now includes video imaging demographic data. Updated deliverables will now include a SECREMP FAQ document and an annual executive summary which will both appear on the SEFCRI site and newsletter.

LAS Projects:

- FDOU 26- OFR (will touch on this update in a bit).
- CRCP 8- This is involving a coordinated evaluation to understand trends and gaps in existing data and contribute to coral reef management strategies by taking long term data sets on fishers independent and dependent baseline surveys.

David Cox: LBSP Updates.

- TAC meeting is four weeks from today please come.
- Working on a watershed management plan with NOAA. CRCP will be working on a LBSP process within this watershed.
- LAS Project 8 is entering the second phase to assess the zone of influence.
- LAS Project 9- CRCP Water Quality Standards Support. There are efforts to revise the turbidity criteria.
- Non-LAS Projects: Nutrient water quality monitoring on the FRT.

Francisco Pagan (for Mollie Sinnott): RIPR Updates.

- Continuing with MICCI 9 and 25.
- Trying to pursue the Coral Reef Protection Act which involves teams identifying damage to the reef.
- Continue supporting some recommendations from OFR.
- Keep monitoring for events using technology. We see the tracks of different vessels and if they get into an area where they can produce grounding damage, we have boxes where anyone going less than 5 knots for an extended period of time will be flagged.
- Water quality standard support. Funding is being sought to help review turbidity standards. This will provide guidance in setting protective water quality criteria for turbidity during coastal construction operations.

Kristi Kerrigan: Reef Resilience Updates.

- SEAFAN compiled reports from 2017 and we have gotten 55 reports total, coral diseases and no diseases have been the highest reported. SEAFAN came up with a new report form that is mobile friendly. We are trying to develop a one-pager for dive charter boats to make it easier for people to submit reports. They can fill out the report with a dry erase marker, take a picture of it and send it in.

- Bleach Watch is doing outreach in terms of new trainings/classes. We have 105 new members and more reports this year. Partnered with Pura Vida Divers for an in-water training.
- 7th annual southeast Florida reef cleanup had 12 dive operators with over 150 participants and over 200 pounds of debris removed.

Jane Fawcett: OFR Update.

- At the USCRTF meeting we had a meeting with Drew Bartlett where other community working group members gave him an update on the progress of the OFR report. It was productive and positive meeting.
- *Meghan Balling:* There is a staff draft of the report right now, so we are going to have a report with a bibliography and appendices that will be available on the DEP page.
- Keep in mind, it is part of the duties of this group to come to these sorts of meetings [USCRTF Meeting] and find out what is going on, then disseminate that information to your constituents.

Francisco Pagan: Diseases and WQM Updates.

- FY 17- Legislative action:
 - o DEP received \$1 million to work on water quality and disease outbreak (half will be used for water quality monitoring and half for disease outbreak and response).
- EPA awarded a multi-year grant for disease and disease response work.
- We have 115 water quality monitoring sites.
- We are taking multiple analytes that were presented to the TAC and at the end of this first year they can be addressed to see if we are getting what we need. This is a very labor-intensive process.
- Thank you to a lot of people involved in this process and the stakeholders involved in the conversations.

Kristi Kerrigan: Disease Projects Updates.

- Up until now our response activities have been piece meal operations. Thanks to the legislature we can take a more strategic approach now. We've been developing projects based on management questions we want to answer, such as when and where is the disease? What species is it affecting and how common is it? What's causing it? How can it be controlled?
 - o When and where is it occurring?
 - Field identification of disease is complicated so answering this question requires proper training. We partnered with coral experts to deliver a 2-day coral disease investigation training. We had 125 participants and a smaller group went in the water to practice the skills they learned.
 - Reef-tract wide disease surveillance program (Coral Disease Surveillance Surveys). We have 160 target sites of high value. This information will feed into another project to identify the coral disease boundary.
 - o What is causing the disease and risk factors associated with it?

- More intensive sampling and fixed site monitoring. DEP and FWC are hosting a sampling plan and analysis workshop to develop a plan of what, when, where and how to analyze samples. Sampling will occur at sites across the reef with repetitive data collection.
 - One fixed-site project is at Cheeca Rocks where photos will be captured every 2-4 weeks to capture the early stages of coral disease.
 - We are also working with FWRI on a data management plan to store and organize all the data in one place.
- How can it be controlled?
 - Still need additional research.
 - In the meantime, we are doing a workshop to discuss treatment and intervention techniques to identify opportunities within the regulatory framework.
- Lot of work to do but we are making progress so a big thank you to everyone involved.

Meghan Balling: USCRTF Update.

- This past August was the 38th USCRTF Meeting in Ft. Lauderdale.
- USCRTF is a group formed by presidential executive order which led to the National Action Plan, Coral Reef Conservation Act and National Action Strategy. By 2003 SEFCRI was formed.
- This year we had 287 attendees.
- Lots of meetings: Task Force meetings (AIC, Steering Committee, Federal Meetings, Business Meeting (covering topics such as ecological and economic value of Florida's coral reefs, coral disease, balancing ecosystem services with economic growth and stakeholder engagement)), Working Groups (enforcement, watershed and climate change), Workshops (marine debris, sedimentation and turbidity, restoration), and site visits (diving in Broward and Miami-Dade Counties, waterways tour, and a FKNMS dive). All materials will eventually be on the website.
- Art displays posters, pictures and exhibits that were all well attended. Art was provided by Gary Bremen and the NPS's From the Bow Seat exhibition. We had a total of 30 posters displayed by students and organizations to highlight their work. We had a calendar made from the photos from our underwater photo contest showcasing local resources. And we got to hear from a lot of local NGO and non-profit partners, agencies and other organizations during the exhibits. Thank you to Lindsay Guthrie for helping organize all that.
- Highlights from the meeting:
 - USCRTF awards. Categories included outstanding management, community level participation, public awareness and education, scientific advancement of knowledge, and leadership on climate change adaptation.
 - Coral fellowship program presented by Wendy Wood.
 - Vice Mayor Beam Furr and Regional Planning Councils joined us.
 - Bob Ginsburg dedication by Dr. Gene Shinn.

Francisco Pagan welcomes Mason to the stage to present on the latest from FWC.

FWC Presentation to SEFCRI (*Mason Smith*)

This is the same presentation given at the public workshops, so I will skip the slides that only apply to those workshops.

- Why Are We Here:
 - o The Goliath Grouper is an important species to the SEFCRI region.
 - o This has been an interest for a long time. We've been briefing our commissioners every 3-5 years. Last time we did that was February 2017 and they told us to go out to the public to get input on the possibility of a limited harvest in state waters for goliath.
- The History Behind the Management:
 - o It's managed in state waters by the FWC. Outside the FWC it's federal waters by the Gulf and South Atlantic Councils. In the 1980s is when it really gained the popularity and a couple regulations were established.
 - 1985- Florida set an 18-inch minimum size limit on goliaths.
 - 1986- Florida added goliath grouper to 5-fish grouper aggregate bag limit.
 - 1987- South Atlantic council prohibited harvest in Special Management Zones.
 - 1989- Gulf Council set a 50-inch minimum size limit.
 - o 1990- harvest was prohibited in Florida state waters and Gulf and South Atlantic federal waters.
 - o 1994- goliath was listed as critically endangered by the IUCN, which is an international and non-government organization concerned about this species.
 - o In 2011 the federal councils requested that NOAA fisheries work with FWC to move the goliath beyond the moratorium.
 - o In 2013 the joint council was formed to determine if the data were available to conduct a new stock assessment. FWC agreed to take the lead on a new assessment and the committee dissolved.
 - o In 2016 the federal assessment was completed and rejected for use in federal management, so the council decided to take no action beyond that.
- Background:
 - o We are one of the most important places for this species.
 - o Causes of decline:
 - Popular species for fishing, long-lived, declining juvenile habitats, concentrations occur in places where fishermen congregate.
 - o The Councils set a 50% SPR (the amount of spawning fish out there now compared to the amount you would expect if there was no fishing at all) management goal.
 - o Stock assessments were conducted in 2004, 2010 and 2016 and all assessments were rejected for use in federal management.
- Distribution and Biology:

- Goliaths range all throughout the Caribbean through Brazil.
- 37 years was the oldest fish to be found but it was found at a time when the fishery was very overfished, so it's likely there are older fish.
- Spawning aggregations occur in late summertime early fall.
- Susceptible to red tides and cold kills.
- Once the fish are born they float with plankton and settle into mangrove root systems.
- Assessment Challenges:
 - Most fisheries use catch data. Goliath grouper lacks this data typically used in stock assessments.
 - Assessments are catch-free models because we haven't had landings in 20 years.
 - Lack of live fishery information.
 - Distribution of stock beyond south Florida.
- Catch Rates for Different Surveys:
 - The RVC
 - Data from the Ref Environmental Education Foundation
 - Dive surveys
 - Catch rates
 - Still don't know how many people generally catch. Generally, we see a decrease into the 1980s-90s and then you see an increase through time. As soon as we were at the peak of our increase we had a cold snap and killed off many groupers.
- Uncertain Maximum Age Contributes to Uncertainty in Stock Status:
 - Rather than looking at catch rates going into the model, we look at the model output, which simulates what the stock status is a couple million times.
 - You can see it is really overfished. Graph shows the difference of if the maximum age is 37 or over 50. If 37 years is the maximum age, we are recovered. If it is 50 years, we are recovered right now but there is a lot of uncertainty. Declines are due to cold-kills and red tides. Through time all the juveniles hit by the cold kill will be affected over time.
- Assessment Summary:
 - We have a lot of data gaps.
 - Some assessments can't be addressed at this point until we get better data.
 - Harvest closures have increased the abundance in south Florida but not throughout the original range.
 - The rejected assessment is not being used in federal management.
- Spawning Research:
 - Some fish travel long distances to get to spawning areas.
 - South Florida has confirmed spawning sites.
 - Some goliaths may be hermaphroditic.
 - Fish at these sites are usually less than 20 years old.
- Using Close-Kin Analysis Method to Estimate Population Size:

- A non-lethal genetic method to estimate goliath grouper population abundance that uses the proportion of parent-offspring-pairs to estimate the number of adults in the population.
- Diet Information:
 - Consume a variety of benthic crustaceans and bottom fishes.
 - They are not apex predators, despite their large size.
 - Mostly eat bait fish (scad, sardines) and burrfish.
 - Less than 1% of diet was grouper or snapper.
- Mercury Levels:
 - Mercury concentrations cause health effects within the range and are higher in larger goliath groupers.
- Economic Studies:
 - Recreational divers' economic willingness to pay survey indicates people are willing to pay around \$100 to see goliath grouper.
 - Divers are willing to pay almost \$200 to see goliath grouper spawning aggregation sites.
- Research Needs:
 - Information on abundance over broader part of the range.
 - Historic and contemporary stock productivity metrics.
 - Better information on reproduction.
 - Age composition.
- Stakeholder Perspectives:
 - Varying opinions: preserve for ecotourism, role in the ecosystem, concerns about the distribution outside Florida, considered a nuisance by some (nuisance predation), desire for limited harvest.
 - Study by UF:
 - Recreational rod and line fishermen have a positive attitude and favor opening a fishery.
 - Recreational spear fishers and commercial fishers have a more negative attitude to ecological impacts but favor opening a fishery.
 - Sightseeing divers and non-fishing organizations have a positive attitude on contributing to goliath biodiversity and oppose opening a fishery to harvest.
- Two Options:
 - Status quo- catch and release fishing, no harvest, maximize viewing and diving opportunities, manage for high numbers of large fish and optimize ecosystem values.
 - Information needs addressed: abundance and distribution and information on range expansion.
 - Limited harvest- provide harvest opportunities. Not expected to impact stock sustainability and minimal impact to diving community. Goal is to provide harvest opportunities without impacting the rate of recovery.

- Information needs addressed: Information that could be achieved by having a limited harvest: abundance and distribution, ages, reproductive biology, information on ages.
- FWC is developing an app.
- Limited Harvest Opportunity Considerations:
 - Just for starting a dialog
 - State water only
 - Random draw to choose participants
 - Fee to use towards funding goliath research
 - Require participants to purchase recreational fishing license
 - Recreational harvest tag could be issued
 - Participants must hail in when they have a goliath.
 - Suggest allowable gear, slot limit, open areas, timing limitations
 - No commercial harvest
 - Scientific sampling
 - Report harvest locations and sightings
- Spawning aggregation sites in the Gulf of Mexico and those around Jupiter.
- Ways to Provide Comment:
 - Online at myFWC stakeholder commenting web page
 - Online survey
 - Commission meeting
 - Next meeting will likely be February 2018
- Questions:
 - Have you considered any area closures?
 - *(Mason)*: Might need to coordinate with people here on what that would look like.
 - Deerfield Beach people have permits that can get slot grouper and then they'd be gone. Some areas are so easy because the artificial reefs are known, and the groupers are easy to catch or spear. Area closures might be a good way to avoid that.
 - *(Mason)*: One recommendation we've heard is shifting the slot limit to smaller sizes, too. When we have our meeting, we will have a nice compilation of solutions or strategies we've heard to discuss.

Wrap Up and Adjourn Meeting

Francisco Pagan: Thank you all for being here. We will be presenting all the new ideas to the TAC and sending that package before the end of the year.