

**FKNMS Connectivity Team Meeting**  
**Meeting Minutes: Meeting #4**  
**September 21, 2021**

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**Agenda**

- I. Vice Chair Introduction – Cara Capp, NPCA**
  - a. Mission of this team is to tackle important projects and issues that will affect the sanctuary
  - b. This group was created by the SAC to address issues of regional importance to the sanctuary
  - c. Attendance (Cara has record)
  - d. SAC meeting is in October and we do have the ability to bring an action item should that be appropriate
  
- II. Guest Presentation – BBSEER Project Managers**
  - a. Mindy Parrott – SFWMD
  - b. April Patterson – USACE
    - i. The Sanctuary is an important component of the BBSEER study and April looks forward to working with the group in the development of the project
  - c. **BBSEER Presentation**
    - i. This is a CERP project where the USACE is partnering with the SFWMD
    - ii. Today we are in a feasibility study in an effort to improve the system and the southern Everglades ecosystem
    - iii. The study area includes Card Sound, Barnes Sound, Little Manatee Bay, and even some areas of Florida Bay within the FKNMS – the hope is that with the right plan, the FKNMS will also receive benefits from BBSEER
    - iv. CERP 2000 had a number of plan features that would impact this area – CERP’s vision was to keep Everglades water in the Everglades in order to improve coastal wetlands, sheet flow, store water, and move water south.
      1. With time, this has evolved to supplement the regional water budget to include reuse water as well.
    - v. The objectives of BBSEER all involve mimicking historical water flow:
      1. Objective 1: restore salinity regimes, minimize unnatural canal releases
        - a. Improving quantity, timing, and distribution of freshwater to estuarine areas and nearshore subtidal areas including mangrove and seagrass areas
      2. Objective 2: Improve freshwater wetland depth, ponding duration, and flow timing
        - a. Restore freshwater depths, hydroperiods, etc.
      3. Objective 3: restore ecological and hydrological connectivity
        - a. Restore connectivity and habitat gradient in southern Everglades, Model Lands, and BBCW
      4. Objective 4: Sea Level Change Resiliency
        - a. Increase and restore ecological resiliency in coastal habitats of southeastern Miami Dade County
    - vi. Ecological Performance Measures

1. These are developed in order to evaluate different alternatives
2. These also allow us to look at different aspects of the ecology so that we can make comparisons of the alternatives as compared to future without
3. The sub-team has developed ten performance measures for habitats, including subjects such as salinity, canal releases, vegetation, mangroves, etc.
  - a. For each of these – there is a documentation sheet that shows how these measures were developed and how the measure will relate to the model output
  - b. Two performance measures (vegetation and mangroves) may be replaced with an eco tool to help develop these measures
- vii. In addition to the performance measures, there are a suite of ecological tools used to evaluate the plan – such as crocodiles or cape sable seaside sparrows
- viii. Planning Strategy
  1. The team evaluates risk and complexity of the plans
  2. Some plan components (in orange) rely on existing infrastructure and are simpler in terms of potential execution
  3. The Aqua features look at bringing water from one basin to another – may be used in conjunction with the orange features or alone – and thus are more complicated
  4. Green features include options like wastewater reuse, mine storage, changes to the agricultural draw down – these are larger, sweeping changes that would add in new sources of water and storage – but, they are also higher risk and higher cost
  5. At this point, there are 70 management measures that are features which could be added into plans or alternatives – mostly lower risk features that involve correcting drainage or making improvements to existing infrastructure
- ix. Challenges
  1. This is a highly urbanized area with a lot of existing infrastructure – and there isn't a lot of room for new infrastructure
  2. Sea level rise is also a challenge, but the team has a plan for evaluating the project as it may be effected by sea level rise
  3. Porous nature of the geology and likelihood of seepage
  4. Provide and maintain flood protection level of service
  5. Water quality requirements and meeting water quality standards – includes the challenges with reuse
  6. Envisioning how this project might work in the future within the 50 year planning horizon
- x. Sea Level Change
  1. Relying on the USACE intermediate curve (approx. a foot) of sea level change in the study area

2. Its important to plan the project features that are appropriate in the landscape and consider sea level rise resilience
  3. Also addressing sea level change through modeling – two models that are going to be joined with the regional simulation model in order to help predict salinity changes from sea level rise
  4. Understanding how habitat units may be affected by sea level change. Some of the benefits may change or decrease over time. This isn't a bad thing, but we do need to understand how to quantify those changes
- xi. Modeling
1. RSM (regional simulation model) is the typical model relied on for these projects.
  2. Round one of the modeling will look at baseline existing conditions and FWOP (future without); will include cursory measures to see what has a chance to work
  3. Round two of the modeling will incorporate sea level rise scenarios in both the alternatives to be compared and the FWOP
  4. Round 3 & 4 of the modeling will look at higher curves for sea level rise, not just intermediate as would be done in Round 2
- xii. Schedule
1. September 2020 was the kick off date for this project and we won't reach the end of this planning process until August 2025
  2. Around February 2024, the tentatively selected plan will be announced
  3. Right now, the team is in plan formulation and the PDT convened twice in September. The team is developing alternatives for modeling in Round 1. The performance measures are being developed and modified to prepare for modeling as well. Information is being collected for baselines and existing conditions to be used in modeling.
  4. The project timeline has been extended and no longer fits into \$3M/3 year time limits – thus, the Corps has requested this extension
  5. Upcoming BBSEER meetings are October 6, November 3, December 1 for PDT meetings.

### III. Questions on the presentation

- i. Suzy Roebing – you were speaking about the planning strategy and risk levels. How do you evaluate the risk levels in order to determine those categories? You also mentioned some alternatives to agricultural draw down – can you speak more about that?
  1. High risk features are captured as risk because we don't have all of the information on the features. For example, the Kendall rock mine could be a potential storage feature. We have some general information about the mine like how deep it is, porosity and composition of the geology, etc. But, we may need to do additional work in design to fully understand what exists there. We may not be able to store as much as we'd like there based on water pressure and other factors. This is just an example to illustrate that we have existing features and we are

evaluating each of them and determining what outstanding questions or analysis needs to be done in order to incorporate them into the model. Reuse is another example and was done in phase 1 of the project. We know that some are capable and expensive, some are less capable and less expensive. We are trying to understand our water budget and there is just a lot of uncertainty. Our hope is that the modeling will refine that further.

2. In the C102 and 103 basins, there is an annual schedule where we operated the coastal structures in a way which draws down the basin for the benefit of the agricultural activities going on in that basin. This allows them to plant crops in the late wet season which wouldn't be possible without the drawn down. This potentially has negative effects on wetlands near the coast because the draw down pulls water from the structures first. With sea level rise and salt water intrusion, there are shifts in land use from agricultural to other uses (which comes with development pressure to build on the agricultural lands). There are a lot of questions about if we can do something different or ceases the draw down completely to still meet the needs of the farmers that remain in those basins. We hope we can find a beneficial alternative and there's a lot of interest in doing that. We are constrained by the savings clause. If there is a flood level of service that those folks are experiencing, we cannot impact them. Thus, it's a challenge and that's why its in the green zone for consideration.
- ii. Cara Capp – people who are advocates for Biscayne Bay have long been advocates to remove the drawdown. The Drawdown was created in the 1980s by the governing board and was intended to be reevaluated every year. It was an emergency measure put in place during an extremely wet year to help the farmers and it is time that the Corps and the District reevaluate this practice.
- iii. Chris Bergh – Does the draw down affect just those basins? Does it have benefits further inland? What sort of crops are we talking about in those basins?
  1. The basins are based on the canals. There are tomatoes, palm trees, and a wide variety of other crops in the area. Some of the agriculture along the coast has retreated over time.
  2. There are row crop farmers that are impacted in a different way from the nurseries.
  3. There is agriculture in the area that feeds the C111 canal as well. So when we look at features in that area, we will still have to ensure that we're able to maintain flood level of service in that basin as well. One of the big asks is to back fill in the C111 canal, but that would reduce the amount of water coming into Manatee Bay. If you fill in that canal, you have to have somewhere for that water to go. The C111 north would serve to spread water over the landscape and there are varying opinions as to whether or not that is the best thing to do.

- iv. Cara Capp – A number of conservation organizations involved in BBSEER support the yellow book’s original intent to back fill the C111 and convert it into a spreader mechanism. We understand it’s a big ask, but the science tells us that this feature is the number one most ecologically beneficial feature for this project for Florida Bay and the southeaster region.
- v. Cara Capp – Every time one of these planning projects occurs, each individual project has to be reauthorized by Congress in a Water Resources Development Act. May this project be authorized in WRDA 2024 or 2026?
  - 1. We’ve tried to account for risk in the project schedule, but as we keep moving forward, we hope to address risks quickly to avoid further delay.
  - 2. Its very early to be able to make any projects related to Congressional authorization. Right now, we are definitely poised for a WRDA 2026 assuming we are able to continue to receive funding once/if the 3x3 request is approved. Right now we are working on that process.
- vi. Cara Capp – typically the Army Corps has a rule that projects like this have to be completed in 3 years, but we’ve already seen an extension on this project due to the nature and complexity of the planning.
- vii. Mindy Parrott – we will share these slides with the Connectivity Team

**IV. Public Comment**

- i. No public comment, but will reconvene at 11:15am for advertised public comment opportunity

**V. Member Comments**

- i. Cara Capp – there had been a conversation via email about development threats? Is anyone on the line that would like to speak to that?
- ii. Chris Bergh, TNC – there has been additional movement or concern related to the development of the South Dade Technology Complex. Not sure if anyone has more to share on that?
- iii. Cara Capp – the Miami Dade County Commission is considering a proposal for an 800 acre industrial complex outside of the UDB. The footprint would overlap with the project area of BBSEER. A number of groups, including the County staff, have recommended denial of this permit. It is out of alignment with the CDP and BBTF plans, but the County moved forward with state review of the project. State agencies are going to review the proposal and hopefully will say that the BBSEER project is ongoing and the industrial park would be in conflict with that. Karen Bohnsack said that the SAC is welcome to weigh in on any decision that would impact the Sanctuary.
- iv. Adam Gelber, DOI – attended the meeting with the Commission the other day and was only given one minute for public comment. The South Florida Ecosystem Restoration Taskforce aims to foster the compatibility of the built and natural environment. This area would sit in direct conflict of surface water management features under BBSEER. This is an out of cycle application and there needs to be a further policy dive by the sanctuary because there are in cycle applications going on right now. Two of which are on the docket outside of the UDB and we at Interior are evaluating what this means.

- v. Cara Capp—Sounds to me that this is exactly the type of issue the SAC created this team to take a look at. Because this threat is very linked to BBSEER, maybe we ask for time to give an update of this opportunity at the next meeting and also the threat the County project poses. Perhaps a resolution is in order as well.
- vi. Chris Bergh – Why does this have to go to the state for review?
- vii. Cara Capp – Comp plan amendments often have to go to the state for review and approval. There are typically cycles in which this is undertaken.
- viii. Chris Bergh – do you know who the developer is?
- ix. Cara Capp – I don't know off the top of my head – I think several people.
- x. Diana Umpierre & Suzy Roebling agree that this should be brought to the SAC.

**VI. Public Comment**

- a. Diana Umpierre, Sierra Club – is there anything we can do to ensure that this project would end up in WRDA 2024 without sacrificing the benefits of the project?
- b. Cara Capp – is this a situation where there is a shortage of resources or is this just how long it takes? I'm not sure the answer to this question.
- c. Gina Ralph, USACE – we need the time for the modeling. We need the time to build models that can talk to each other and that can incorporate different sea level rise parameters. Typically, we rely on performance measures for CERP projects from RECOVER – the science branch of CERP. But, we didn't have those available for BBSEER and so its taking longer to build these tools.

**VII. Meeting closing**

- a. Next connectivity meeting is November 16, 2021.
- b. Next SAC meeting is October 19, 2021.
- c. The agenda for both of these meetings is still in development, but will be virtual.
- d. SFERTF meeting is meeting on September 28<sup>th</sup> as a side note.