



SFWMD C-8 AND C-9 WATERSHEDS FLOOD PROTECTION LEVEL OF SERVICE ADAPTATION PLANNING AND MITIGATION PROJECTS STUDY

Date: February 28, 2022

Time: 10:30 AM – 12:00 PM

Subject: Bi-Weekly Meeting

Invited Attendees:

- Hongying Zhao, **SFWMD**
- Ana Carolina Maran, **SFWMD**
- Nicole Cortez, **SFWMD**
- Akin Owosina, **SFWMD**
- Ann Springston, **SFWMD**
- Lichun Zhang, **SFWMD**
- Matahel Ansar, **SFWMD**
- Larry Brion, **SFWMD**
- Carol Ballard, **SFWMD**
- Ruben Arteaga, **SFWMD**
- Sashi Nair, **SFWMD**
- Francisco Pena Guerra, **SFWMD**
- Shahana Mona, **SFWMD**
- Vijay Mishra, **SFWMD**
- Irela Bague, **Miami Dade**
- Marina Blanco-Pape, **Miami Dade**
- Alberto Pisani, **Miami Dade**
- Gregory Mount, **Broward**
- Kevin Hart, **SBDD**
- Susan Bodmann, **Broward**
- Jennifer Jurado, **Broward**
- Rajendra Sishodia, **Broward**
- Virginia Walsh, **WASD**
- Omar Abdelrahman, **RER**
- Pamala Sweeney, **RER**
- Katherine Hageman, **RER**
- Valentina Caccia, **RER**
- Michael Zygnerski, **Broward County**
- Karina Cordero **RER**
- Michael DelCharco, **Taylor Engineering**
- Angela Schedel, **Taylor Engineering**
- Pat Lawson, **Taylor Engineering**
- Joseph Wilder, **Taylor Engineering**
- Stephanie Massey, **Taylor Engineering**
- Lynette Cardoch, **Moffatt & Nichol**
- Peter Sahwell, **Nova Consulting**
- John Loper, **Anclote Consulting**
- David Key, **ESP – Florida**
- Nathan Slaughtner, **ESP - Florida**

Notes:

1. Meeting Kickoff

- a. Roll Call

2. Update Presentation

- a. Overview of Mitigation Project Categories & List

- i. The Team has looked at many of the pieces of the puzzle on the projects. By being able to run these projects we have learned a lot about how the system responds to projects. We are able to “bracket” the size of the project and the impacts they have. For example – there is a pump size that really has diminished returns. Larger pumps do nothing to improve flood reduction. Or, we can look at how much surface storage would be needed to really reduce the canal stages in an event? How much storage can the mine-pits handle?



- ii. We went through the regional project list and gave some details on the projects and how they could work and what the preliminary results looked like.
 - iii. One “what if” scenario was widening the C-8 canal. Just to see what would happen with different pump sizes.
 - iv. Kevin Hart – asked questions about the storage in the rock pits. Joseph said the model showed the system was pretty leaky. As a test, Joseph set a berm at 9 ft and pumped and pumped and pumped. At somewhere near 6 feet the pits couldn’t hold any more water.
 - v. Valentina Caccia asked about the goal of the work and increased flow to the Bay. What are the impacts of the total flow going to be?
 - 1. Joseph – we are first looking at flooding. We are looking at moving water, storing water, slowing up drainage, and so on to obtain flood reduction.
 - 2. Valentina – is there certain areas that show flooding impacts?
 - 3. Hongying – for now, we are looking at SLR and mitigating those impacts for future conditions. Water Quality is always important, and we’ll be considering it.
 - 4. Akin – the FPLOS study is how we address the flood control system. Phase I identified the deficiencies and now in Phase II we are trying different things to see what moves the needle on improving the flooding and water quality.
 - 5. Valentina – maybe we can meet later or I can read something to get up to speed.
- b. Discussion of M2A and M2B Runs
- i. Presented a list of projects that we are proposing for model runs M2A.
 - ii. Hongying – M2A probably cannot mitigate 100yr 3 ft SLR condition. If she remembers correctly, the pump iterations showed minimum pump size needed for the 5yr SLR1 is 1,000 cfs to achieve the criteria. Why did we propose 500 cfs? Trying to start at the lower end – so we are not overwhelming the Bay. Akin, we may circle back on this question.
 - iii. Pamela Sweeny asked – if we were considering storage, did we need a specific place? Or just more generic modeling? If you moved forward have you done feasibility? Joseph – we looked at some GIS data and aerial photographs and just ball parked it. So, some semblance of reality, but no not a feasibility. She pointed out that they are looking at this all the time and could definitely help when we pinpoint where we’d need it. We agreed – and think that is exactly why we are all on this call. First, we are trying to figure out what kind of storage would move the needle on flood control. Then based on that we’d circle back around to everyone and try and dig in deeper on where that storage would need to be.
 - iv. Pamela Sweeny asked – if canal widening and dredging are done together, does this eliminate the need for the pumps? Joseph answered that pumps are always needed – this might be attributable to the modeling assumptions of coincident rainfall with tidal surge. Joseph also discussed that SLR will cause the structures to be closed or closed longer. When this happens gravity drainage will no longer work, and a combination of detaining, storage or pumping the flow will be required to keep the area upstream of the structure from flooding.

3. Discussion

- a. Hongying asked about the Lake Ojus storage idea? No comments.
- b. Carolina asked if stakeholders could send in questions and comments? Yes, by the end of the week. Send them to Nicole.



- c. Akin – this is not the end of this, we have a long way to go and plenty of time for input from everyone.

4. Action Items:

- a. Separate meeting with Valentina
- b. Share the M2A and M2B scenarios with the team for comments and questions. (additional notes: HZ will follow up with the District team and Nicole will follow up with the partners/stakeholders. HZ will compile all the comments and send it back to the Taylor Engineering on March 7th, next Monday or earlier.)

