



PROJECT: Miami Dade Water and Sewer Department
Biscayne Bay Coastal Wetlands Rehydration Pilot Project

SUBJECT: Stakeholder Meeting

DATE/TIME: Tuesday, July 21, 2009, 10:00 am

Attendees:

Lynette Cardoch, MWH PM

Debbie Swain, MSA PM

Jamie Docherty, MWH

Luis Casado, MWH

Mark Lewis, Biscayne National Park (BNP)

Susan Markley DERM

Evan Skornick, DERM

Jose Lopez, SFWMD

John Chorlog, WASD

Bertha Goldenberg, WASD

Donna Fries, WASD

Robert Ortiz, Brown and Caldwell PM

Jose Jimenez, Brown and Caldwell

John Schaffer, SFWMD (By Telephone)

Joffre Castro, National Park Service

Patrick Pitts, FWS (By Telephone)

This meeting is the second stakeholder gathering for the Biscayne Bay Coastal Wetlands Rehydration Pilot Project (BBCWRPP). This meeting was publically noticed on the county calendar and informational emails were sent to the agencies listed in the Water Use Permit, Limiting Condition #43 (FDEP, SFWMD, and BNP)

MWH presented the status of the Biscayne Bay Coastal Wetlands Rehydration Pilot Project (BBCWRPP). The presentation (attached) reviewed Technical Memo #1 (Water Quality Evaluation, May 2009), Technical Memo #2 (Process Technology Assessment, May 2009), and the Preliminary Engineering Report, June 2009. These documents contain a summary of the influent water quality and the effluent water quality requirements, and detail the three areas of engineering preliminary designs and process treatment trains.

As the presentation progressed, there were several discussions points:

- Water Quality Parameters (slide 5). Mr. Castro indicated that other parameters for water quality testing, such as sulfate, may be added. Mr. Lopez suggested that the level of sulfate be tested if alum is added in the treatment process.
- Treatment Train Configurations (slide 8). The flexibility of the treatment trains presented was discussed. The recommended treatment trains are “plug and play”, meaning that some options can be replaced with others. The value of placing the GAC and the ion exchange processes before the membranes in the train was discussed. Mr. Joffre will provide literature reference regarding this concept. Mr. Jimenez explained that the ion exchange process needs cleaner water than is found earlier in the treatment streams, hence placing it before the membranes is typically not recommended. Mr. Lopez indicated that ultimately the trains need to be evaluated on the basis of which ones give



MWH

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us the most appropriate water, taking into account the cost factors as well. Ms. Fries reiterated that the cost factor is a critical evaluation factor.

- Water Quality Projected (slide 9). The differences in total P achieved through the different treatment trains were discussed. Dr. Markley indicated that although the regulatory requirements may be met, that the water quality achieved may not be suitable for application directly into Biscayne Bay, and OFW, nor directly into the coastal wetlands. The discharge site(s) may need to be located farther upstream, either in constructed wetlands or into another site.
- Testing and Monitoring. Aquatic toxicity testing addresses only one uncertainty, other variables must be addresses, such as the impact of dynamic loading and mass additions on the Bay.
- Ecological Monitoring Plan. Prior communication with stakeholders included lists of questions that needed to be addressed.
- Discharge sites. The BBCW discharge sites indicated in the Comprehensive Everglades Restoration Plan were discussed. Two general locations were identified, one to the north and one to the south of the SDWWTP.
- Pre-Chlorination and Disinfection Byproducts. Prechlorination and removal of chlorination were discusses. The location of the connection to the effluent stream to be directed to the pilot plant may be after chlorination. The potential impact of depending upon removal of chlorine, the other connection locations, the operation of chlorination facilities, and the possible MDLs was discussed. Although a connection may be available prior to HLD, the location is a significant distance from the pilot plant, and chlorination may take place if needed based upon the operation procedures.
- Other Discussion Items.
 - Technical Memorandum #2 should be corrected so that the text is consistent with the Figures 4 and 5 which show that the water passes through a one-pass multi-stage RO.
 - Cost and efficiency as pertinent decision factors for pilot scale testing were discussed.
 - Microfiltration, ultrafiltration and nanofiltration components as options were discussed.
 - Further questions as to how HiPOx functioned.



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Action Items:

1. Obtain lists of questions provided by stakeholders in the previous phase of this project
2. Send links directly to materials on website
3. Set next meeting date