



MWH

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

SUBJECT: Stakeholder Meeting

DATE/TIME: Tuesday, August 25, 2009, 1:00 pm- 4:00 pm

Attendees:

Lynette Cardoch, MWH PM
Debbie Swain, MSA PM
Jamie Docherty, MWH
Luis Casado, MWH
Joan Oppenheimer, MWH
Robert Ortiz, Brown and Caldwell PM
Gary Rand, FIU
Piero Gardinali, FIU
Mark Lewis, Biscayne National Park (BNP)
Joffre Castro, National Park Service
Kevin Whelan, National Park Service
Patrick Pitts, FWS
Irela Bague, Magbe Consulting
Cliff Walters, Cliff Walters Consulting

Jim Ferguson, WASD
John Chorlog, WASD
Donna Fries, WASD
Doug Yoder, WASD
Jose Lopez, SFWMD
Michael Wright, SFWMD
Dewey Worth, SFWMD
Rick Nevulis, SFWMD
Susan Markley, DERM
Inger Hansen, FDEP
Tim Powell, FDEP
Tigran Sarhissian, FRS
Daniel Barboni, FRS

Meeting Objective: Wrap-up discussions on treatment train configurations. Set foundation for next series of discussions focused on finalization of the project goals.

During introductions, Dr. Yoder expressed WASD's desire to build stakeholder consensus on treatment. It is critical to proceed with an outlined course of action. Mr. Lewis expressed BNP's commitment to the project and criticality to have all questions and options fully discussed. This step is critical once the project begins the NEPA process.

Pre-Chlorination and Disinfection Byproducts. At the previous stakeholder meeting, pre-chlorination and removal of chlorination were discussed, as the location of the connection to the effluent stream to be directed to the pilot plant may be after chlorination. Stakeholders indicated their preference for water that would by-pass the plant chlorination step. WASD has since identified a location at the South District plant that can direct non-chlorinated effluent to the pilot facility.

Additional documents—additional documents will be added to the website and distributed among stakeholder. These include the draft ecological monitoring plan and a microconstituents literature review update. As addition documents are loaded, emails will be sent to stakeholders. Requests were made to post or send the documents at least one week in advance of the meeting.

Three presentations were made, as attached. Discussion points are included below.



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1. Presentations: Removal Efficiencies of Treatment Processes on Microconstituents

- a. Evaluation of Endocrine Disrupting Potentials in Membrane Effluents Using Aquatic Toxicity Tests and Fish Bioassays”—presented by Jose Lopez, SFWMD
Dr. Castro and Dr. Markley inquired as to the cleaning of membranes and prevention of fouling. There was concern over use of chloramines in membranes. Very little gets through the membranes. There were also questions on the mortality of test species as a result of chloramines addition.
- b. “Microconstituents Removal and Treatment Efficiencies”—Joan Oppenheimer, MWH
Dr. Markley expressed that sampling protocols can make it difficult to confirm that the same parcel of water that is sampled as influent point is the same parcel of water sampled at effluent point.
Dr. Castro raised questions about partially oxidized compounds.
Dr. Markley stated that ultimately the project is about ecological restoration, and this has uncertainty. The goal is to reduce the uncertainty associated with the biological impacts microconstituents may have. The expectation is not that there be 100% assurance that the water have no microconstituents. The context is important for the water.
- c. FIU/SERC role in BBCWRPP—Gary Rand, FIU

Additional discussion items:

- There was a listing of testing concerns previously documented in the USACE Final Technology Report for the CERP South Dade Reuse Project. There was a request that the Technology Report be shared with all of the Stakeholders
- Treatment trains will be optimized before ecological testing begins.
- Transportation of the water to FIU campus.
- Loading rates to mesocosms important and should mimic loading rates that are anticipated in the wetlands
- Where is the water ultimately to be placed? The location of the discharge, freshwater or coastal wetlands is important in the selection of the test species and the mesocosms used. Different effluent versus salinity important to not confound results.
- The pilot project as currently designed may not provide reasonable assurances for the project to move to full scale. May need another study outside of the current scope, to



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determine feasibility and complete NEPA analysis. This may need to be done as part of CERP.

- The Tentatively selected Alternative O of the BBCW CERP project, identifies locations where the water would be beneficial
- Treatment cost is important as can be very expensive.
- Energy consumption and environmental impacts of the treatment process will need to be evaluated during NEPA phase
- Recommendation to focus on desired water quality testing plan at the next meeting.
- Results from the USGS testing on microconstituents may help determine which parameters can be added or removed from testing lists, to be generated.