

**MEETING SUMMARY**  
**Environmental Advisory Committee**  
**Southwest Florida Water Management District**  
**January 8, 2019**

The Environmental Advisory Committee (EAC) of the Southwest Florida Water Management District convened for a regular meeting at 1:30 p.m., January 8, 2019 at the Tampa Service Office, 7601 US Highway 301 North, Tampa, Florida 33637.

**Committee Members Present**

Ed Sherwood, Tampa Bay Estuary Program  
Paul Crowell, Keystone Civic Association  
Dave Kandz, Audubon Society  
Alan Bailey, Florida Trail Association  
Dwayne Carlton, Ocala/Marion County, Chamber & Economic Partnership  
Jennifer Hecker, Charlotte Harbor National Estuary Program  
Becky Aych, Environmental Confederation of Southwest Florida \*via phone

**Staff Members Present**

Caroline McKnight, Facilitator  
Michael Molligan  
Lizanne Garcia  
Joseph Quinn  
Will Vangelder  
Randy Smith  
Ross Morton  
April Breton

**Recording Secretary**

Lauren Vossler

A list of others present who signed the attendance roster is filed in the permanent records of the District. Approved summaries from previous meetings can be found on the District's website at [WaterMatters.org](http://WaterMatters.org).

*The numbers preceding the items below correspond to the order of presentation.*

**1. Call to Order and Introductions**

Mr. Dwayne Carlton, called the meeting to order, welcomed members, staff, and interested persons and asked for member introductions.

**2. Additions and Deletions to the Agenda**

None

**3. Approval of the October 2, 2018 Meeting Summary**

*The committee unanimously approved the October 2, 2018 meeting minutes with one minor change. Dr. John Kiefer's title was amended to "Wood PLC."*

**4. Public Comments**

There were no public comments presented.

**5. Charlotte Harbor National Estuary Program**

Ms. Jennifer Hecker, CHNEP Executive Director, provided information on the Charlotte Harbor National Estuary Program, which serves a 4,700- square-mile service area, including Lemon Bay, Charlotte Harbor, Pine Island Sound and San Carlos Bay. CHNEP is focused on four critical priority problems: hydrologic alteration, water quality degradation, fish and wildlife habitat loss, and public engagement. These issues are being addressed through research, restoration, education and public outreach.

CHNEP helps support water quality sampling in the region, including emerging pollutants like microplastics. They help collect and process microplastic samples and enter them into a centralized database.

Ms. Hecker explained CHNEP is working on storing and moving water safely from where it is causing harm to where it can enhance the environment and water supply. CHNEP is also working on other initiatives such as South Lee County Watershed Initiative and the Western Everglades efforts.

Ms. Hecker discussed CHNEP's oyster reef installation at the mouth of the Peace River, where volunteers bagged the shells and tied them to mats to create artificial reefs. This project has been very successful as over 300,000 oysters have been recruited since they were installed.

In response to the portion of the presentation regarding CHNEP's testing of cyanobacteria remediation technologies, Becky Ayech asked what happens with the algae and toxins after it has been collected. Ms. Hecker explained the sponges essentially act as a water filter and collect the contaminants. Contaminates are rung out and disposed in solid waste disposal facilities.

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## **6. Update of the 2000 Charlotte Harbor SWIM Plan**

Ms. Lizanne Garcia, lead project manager, provided information on the update of the 2000 Charlotte Harbor SWIM Plan, which includes issues and drivers, quantifiable objectives and management actions, as well as priority projects and initiatives. The District has hired Dr. Dave Tomasko, PhD, with Environmental Science Associates, as a consultant to help write the Charlotte Harbor SWIM Plan. Ms. Garcia expects to have the draft SWIM Plan ready for the Governing Board meeting in April. Once approved, the SWIM plan will then go out to the Florida Department of Environment Protection and local agencies for review prior to final adoption.

Ms. Garcia explained the Task Two Memo provided to the Committee Members, which discusses the issues and drivers of the Charlotte Harbor watershed. Part of this memo discusses ecosystem nutrient regions and WBID boundaries and whether/how impairments should be addressed. It also inquires whether the Numeric Nutrient Criteria (NNC) is consistent with imbalances in natural conditions or if they are related to the bioindicators.

Ms. Garcia explained the water quality goal is to reduce and maintain loading rates for total nitrogen total suspended solids at the sub-basin level for gaged portions of the Peace and Myakka rivers. This goal is consistent with a "Hold the Line" approach. Evaluation of nitrogen loading by sub-basins allows the District to identify which sub-basins are priority for nitrogen reducing projects. Ms. Garcia named Shell Creek, Joshua Creek, and tributaries coming in from the southern area of the Peace River watershed as project focus areas.

The natural systems goal is to maintain seagrass abundance and implement habitat restoration projects. Priority projects and initiatives include water quality monitoring, Minimum Flows and Levels, and monitoring seagrass and bioindicators.

Ms. Ayech asked, as opposed to solely restoring over drained, whether the District considers restoration on lands that have been altered from agricultural flooding as well, such as Flatford Swamp. Ms. Garcia responded in the affirmative.

Ms. Hecker asked about the District's intention to evaluate NNC in water bodies and Ms. Garcia explained the District wants to make sure the NNC levels are appropriate for the resource, and that based on the

health of seagrasses NNC may need to be reevaluated. Determination of impairments are made by the Florida Department of Environmental Protection.

Ms. Hecker questioned what other things the total maximum daily loads (TMDLs) could be tied to other than seagrass light targets, has the District looked at other ways of developing targets for nutrients not around seagrass. Ms. Garcia replied in the negative and suggested that this evaluation could be included as a proposed project in the updated SWIM Plan and that the District would like CHNEP to take an active role in any re-evaluation of NNC.

Mr. Alan Bailey mentioned, as a general reference, stream restoration design is discussed in part 654 of the National Engineering Handbook.

Mr. Ed Sherwood asked if SWIM Plan initiative updates provide opportunities for hydrologic restoration activities with the Regulatory industry and Ms. Garcia responded in the affirmative. Mr. Sherwood asked if the District would partner with other agencies if they provided additional funding sources and Ms. Garcia replied the District would consider partnering if the agency could help in implementing and achieving the goals set in the SWIM Plan.

## **7. Reclaimed Water Progress Within the SWFWMD**

Mr. Joseph Quinn, Water Supply project manager, provided information on the efforts that were accomplished on reclaimed water development within the District. Since 1987 there have been 369 projects involved within reclaimed water development. These projects have provided 131 million gallons per day of offset to traditional water supply needs. Mr. Quinn suggested the reclaimed water process is also cost effective at \$8 per gallon. To date, there is about 191 million gallons per day (mgd) of reclaimed water that is used for beneficial purposes, which represents 16 percent of Districtwide use. Mr. Quinn informed members the District's average reuse is at 54 percent utilization, Florida's average reuse is 30 percent utilization and the nationwide average reuse is 7 percent utilization. The District's goal of domestic waste water reuse is 75 percent utilization efficiency by 2040. Public supply customers are using reclaimed water instead of potable within the District, which include 138,000 lawns, 39 cooling towers, and 182 school grounds.

Mr. Quinn explained some direct and indirect potable reuse challenges are public perception, regulatory framework, utility training, competing uses/disposal and funding considerations. Mr. Quinn explained potable reuse is a dependable source because it is sustainable and reliable, locally controlled, safe, supported by research, based on sound science, technology and innovations and it is a cost-effective technology.

Ms. Hecker asked if there are programs where the District assists local governments with the costs to build the piping to expand use of reclaimed water. Mr. Quinn explained the District's Cooperative Funding Initiative has provided an average of \$21 million per year for the development of reclaimed water projects since the program's inception.

Ms. Hecker asked what is done to ensure wastewater not used during the wet season is disposed of in a way that would not impact downstream water quality. Mr. Quinn explained the District relies on the applicant to determine their disposal methods, although the development of a reuse component assists in reducing disposal pressure during wet seasons.

Ms. Ayech asked if pharmaceuticals are removed from the beneficial reuse. Mr. Quinn explained they are not eliminated but technology is working in this direction.

Ms. Ayech asked which impurities are being injected 8,000 feet into the ground in the TECO Energy project. Mr. Quinn explained they are the by-product residuals from the treatment and cooling process

within the power plant, such as higher total dissolved solids and nutrients, and they are injected into a non-potable system within the aquifer.

Members asked whether the reuse targets between 2020 and 2040 are primarily going to be generated from additional growth and residential irrigation, as well as whether the District plans to seek opportunities with large quantity users. Mr. Quinn said that growth will account for some increase in reuse, but the District will also be assessing a variety of options, including additional residential irrigation, as well as other commercial and industrial uses. He added the District continuously looks for new opportunities and the Cooperative Funding Initiative is an opportunity to incentivize the development of these projects. Members added this is a great opportunity to tie in regulatory with restoration.

**8. Next Meeting: April 9, 2019**

Members suggested a follow up presentation on the City of Tampa Augmentation Project, as indirect potable reuse has been an essential subject in the region.

In response to the Chair's request for future meeting topics, Ms. Hecker suggested Dr. Larry Band could share information on red tide and bacteria research at the next meeting. She also mentioned Florida Gulf Coast University has been doing a study on toxins produced by bacteria bloom and how they can have an impact on human health. Ms. Hecker offered to organize or co-host a presentation on microplastics.

Ms. Caroline McKnight stated they are still working on the red tide and microplastics presentations. She specified that staff would communicate with Ms. Hecker and collect additional information.

Mr. Mark Alderson will present on the Sarasota Bay Estuary Program at the upcoming April meeting.

**9. Announcements and Other Business**

None.

**10. Adjournment**

The meeting adjourned at 3:30 p.m.