SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD)
WATER RESOURCES ADVISORY COMMISSION (WRAC) ISSUES WORKSHOP
2013 LOWER EAST COAST WATER SUPPLY PLAN UPDATE

June 27, 2013, 1:00 p.m.
South Florida Regional Planning Council
3440 Hollywood Boulevard, Suite 140
Hollywood, FL 33021

MEETING SUMMARY

Item 1. Welcome and Opening Remarks - Dean Powell, Bureau Chief, Water Supply, SFWMD

Mr. Powell opened the workshop and welcomed participants. He noted that two LEC utilities recently won awards for their conservation and reuse programs: Miami-Dade Water and Sewer Department was awarded the Audubon Florida Excellence in Water Conservation Award for demonstrated water use reductions as a result of an effective conservation program and the City of Pompano Beach Utilities Department was awarded the 1000 Friends of Florida's Community Steward Award for the achievements of their water reuse program. Mr. Powell noted that the draft Lower East Coast (LEC) Water Supply Plan is posted online and comments are welcome before the deadline of July 26, 2013.

Item 2. Today's Agenda and Follow-Up from Previous Workshop - Mark Elsner, Section Administrator, Water Supply Development, SFWMD

Mr. Elsner summarized the day's agenda. The primary purpose of today's meeting was to provide an overview of the draft plan that was posted on June 5, 2013 to facilitate stakeholder review of the draft plan and submission of written comments by July 26. Mr. Elsner summarized comments received from the public on the draft plan's Chapters 5 and 6 and Appendices D, E, and G that were distributed previously. Edits have been made to the plan to address these comments as well as previously submitted comments.

Item 3. Overview of the Draft 2013 LEC Water Supply Plan Update - Mark Elsner and Robert Verrastro, Lead Hydrogeologist, SFWMD

Mr. Elsner reviewed the content and structure of the plan. The plan has three parts: the Planning Document, the Appendices, and the Support Document. Mr. Elsner reviewed the highlights of each chapter in the plan. An 18 percent increase in population is expected in the LEC Planning Area by 2030 with a corresponding public water supply demand increase of 12 percent. Mr. Elsner noted that water supply capacity needed by 2030, 94 percent appears to be currently available. The plan notes that seven utilities

need to build projects to meet projected 2030 demands. Of the seven utilities, five are currently either under construction or have completed construction as the plan was being drafted.

Mr. Verrastro gave an overview of future guidance for water source options identified in the plan based on the content found in Chapter 7. The majority of demands will continue to be met with fresh ground and surface water; however, source diversification is a continuing trend. Brackish groundwater has had limited development, but its use by LEC water utilities is growing. The SFWMD is finalizing the East Coast Floridan Model, which will be available as a tool to better understand the Lower Floridan Aquifer and its use for water supply. Completion of the Herbert Hoover Dike Major Rehabilitation, and any subsequent changes in Lake Okeechobee's regulation, will affect surface water supplies. The SFWMD encourages new surface water storage (e.g., reservoirs or aquifer storage and recovery systems) to provide additional supply.

Mr. Verrastro explained this plan's connection with local government planning. Following approval of the plan by the SFWMD Governing Board, utilities will have 18 months to update their water supply facilities work plans as part of the their comprehensive plan.

Mr. Verrastro noted that written comments on the draft document are welcome. The deadline to submit comments is July 26, 2013. The link to the current draft of the plan is http://www.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/lec_plan_ext_draft_060513.pdf

Questions/comments included the following:

Regarding the future timeline for MFLs (minimum flows and levels) and water reservations: the 2005-2006 LEC Plan included a chart with specific dates for completion of MFLs. In Appendix B of this 2013 LEC Plan, information on recovery strategies lacks a timeline and specifics on funding are lacking. Why hasn't this been included in this plan?

When we started this plan, Restoration Strategies and the Central Everglades Planning Project (CEPP) were not in existence. CEPP is still underway and its projects will help with the restoration efforts. As required, the MFL strategies have been updated and projects no longer under consideration have been eliminated. The strategies continue to rely largely on Comprehensive Everglades Restoration Plan (CERP) projects. CERP has not been realized as originally envisioned. This plan is a bridge to the next five-year plan update, when more information will be available.

- *Regarding the Lake Okeechobee Herbert Hoover Dike rehabilitation, lower lake stages associated with 2008 LORS (2008 Lake Okeechobee Regulation Schedule) are beneficial for the lake's habitat. Sections of the plan that mention higher stages are*

of concern for that reason. Ecological needs of Lake Okeechobee need to be taken care of first.

- *Sea level rise and related saltwater intrusion could be faster and more influential than seems to be considered in the plan. The monitoring mentioned in the plan may not be sufficient in guarding against these impacts or preparing to mitigate them. The plan should have a Plan B if the saltwater intrusion gets really bad. Conservation practices may need to be improved and should include mobile irrigation labs and the use of less sod. The plan should address these topics in more detail.*
- *Is the potential water supply quantity produced by the repairs to the Herbert Hoover Dike and future change to the operating schedule known? Can this volume be quantified in acre/feet/year? The plan should state that any surplus water should be used for water supply and not just environmental restoration as is seemingly stated in the plan.* The Herbert Hoover Dike Major Rehabilitation is a U. S. Army Corps of Engineers project. It is too early to determine the quantity of water that could be produce by a regulation schedule change. The first step would be to restore a 1-in-10 level of service to users that have had cut backs due to 2008 LORS implementation.
- *Please don't assume that in the western area of the LEC Planning area that agriculture will increase in this basin, especially on Tribal lands. The Tribe seeks more water for restoration not agricultural expansion.*
- *Storage may be an appropriate 'source' for the irrigation use category. Consider editing the graphic displaying the water use matrix by placing a check on "storage" for "irrigation". ASR (aquifer storage and recovery) (storage) is being used for irrigation on Florida's west coast.*
- *Studies have shown that smart irrigation systems use much less water (70 percent savings) than two-day a week watering rules.*
- *It appears that in brackish wellfields, preferential flow is occurring. There is a need to do additional work, including seismic, to identify these layers and areas.*
- *Are there numeric goals for reuse?*
- *Direct potable reuse is being used in Texas. While this isn't currently being used in Florida, it may be a supply option under consideration by the end of the twenty-year planning horizon of this plan. It is worth expanding the discussion of direct potable reuse in the plan.*
- *We also need to look at indirect recharge of potable water with reuse. Could the SFWMD and the DEP (Florida Department of Environmental Protection) conduct epidemiological and biological type studies to understand any potential impact?*
- *The plan should include more detailed conservation program recommendations that are more stringent and goal based, rather than just aspirational goals.*
- *A more rigorous plan for conservation should be included in the plan.*
- *Is there an attempt to quantify the benefits of CEPP restoration flows on east coast water supply wells? Could the plan be amended prior to the normal five-year interval*

to incorporate findings from CEPP? CEPP's influence on water supply is part of the ongoing evaluation and will be included in the next plan update.

- *There should be an amendment prior to the normal five-year interval to update timelines and note progress on efforts such as CEPP. The plan, in its current form, is more of a report than a real plan.* The plan reflects the most current information. CEPP is still underway and projects that will be a part of that plan will help with the restoration efforts and will be captured in the next five-year plan update. CERP has not been realized as originally envisioned and implementation schedules are being updated but will not be available prior to completion of this plan. We have integrated the current schedule, but this plan cannot drive project implementation.
- *Could modeling be used to quantify the potential positive impacts on saltwater intrusion and water supply that would be gained by implementing CERP and CEPP? If so, it would be beneficial for building political support for these restoration programs.* Some of that will come from CEPP and will be included in the next plan update.

Item 4. **Summary of Model Scenarios - Jose Otero, Section Leader, Hydrologic and Environmental Systems Modeling, SFWMD**

Mr. Elsner noted that the modeling is not included as a part of the plan's documents, but was an associated analysis. Mr. Otero acknowledged Ms. Jenifer Barnes, the lead modeler for the effort. Mr. Otero reviewed the inputs of the model, including cultivated acreage and water supply demand estimates for 2010 and 2030. With other water uses staying primarily stable over the planning horizon, the model primarily reflects the changes in public water supply from 2010 to 2030 as other factors such as restoration projects or mitigation projects are not simulated. Additional model input data included limited land use changes extracted from sources such as county comprehensive plans. Mr. Otero discussed the hydrological and hydrogeological differences seen when comparing the 2010 run with the 2030 run. In most regions, the differences were minor.

Questions/comments included the following:

- *How does the model account for loss of open space that provides recharge to the aquifer? More education of local planning personnel is necessary to protect recharge areas from development.* The model's large scale (2-mile by 2-mile grid cells) prevents an analysis of local effects.
- *The modeling averages, especially for the Caloosahatchee, may mask the effects of extreme events and details like the timing of discharges.* In addition to this presentation, the model's full input/output files are available on the District's ftp site: ftp://ftp.sfwmd.gov/pub/lecwsp.
- *The presentation mentioned an additional rock mine in the Lake Belt region. Where did that data come from?* This is consistent with the Florida Department of Environmental Protection's Lake Belt area permit. The permit requires mitigation

but this was not included in the model because the specific mitigation plan is unknown at this time.

- *Saltwater intrusion is affected by freshwater flows through coastal canals. What is your schedule for incorporating these kinds of flows (e.g., coming from projects like the C-111 Western Spreader Canal) into the model and plan?* The model may not be the best tool for doing that. If appropriate, another model would have to be used to examine those types of effects on the saltwater line. For example, the Regional Simulation Model (RSM) better reflects the C-111 projects.
- *The presentation referred to "minimal" effects on Lake Okeechobee's stage, but even very small changes in stage (even just an inch) affect the lake's sensitive habitat. What were the specifics used to determine that Lake Okeechobee stage changes will be "minimal"? Does the model contain specific data on stage that could be reviewed? In the lake, the volume of water in 1-inch of storage is significant.* The data is available for daily stage in Lake Okeechobee and can be reviewed. However, given that agricultural demands were kept constant, very little change in the lake's stage would be expected.

Item 5. Next Steps - Robert Verrastro

Mr. Verrastro gave an overview of the next steps of the plan. Comments are due by July 26, but earlier submissions are appreciated. Time is available in August for a sixth workshop if substantive changes are made to the plan and an additional workshop is necessary. The current schedule is to present the final plan document to WRAC on September 5 and to the SFWMD Governing Board for approval on September 12. An invitation was made by SFWMD to any local governments that would like to have a presentation on the draft plan.

Item 6. Public Comment

There were no further public comments.

Item 7. Adjourn

The meeting adjourned at 3:02 PM.