



**PALM BEACH COUNTY
WATER RESOURCES
TASK FORCE JOINT MEETING
WITH BROWARD COUNTY
Coconut Creek Community Center**



**January 28, 2011
1:30 P.M. to 3:30 P.M.**

I. CALL TO ORDER AND OPENING REMARKS

Coconut Creek Vice-Mayor Lisa Aronson welcomed the two Task Forces to the City for this meeting. Broward County WRTF Vice-Chair Kristin Jacobs welcomed all to Broward County. Palm Beach County WRTF Chair David Levy expressed his pleasure in having the two Task Forces meet to discuss regional water issues. A quorum was announced for both Task Forces and Commissioner Jacobs called the meeting to order at 1:35 p.m. Commissioner Jacobs announced that those who were unable to pick up handouts at the door could find them posted on the web. (http://my.sfwmd.gov/portal/pls/portal/portal_apps.repository_lib_pkg.repository_browse?p_key words=bwrtf&p_thumbnails=no)

Palm Beach County WRTF Members Present:

Betty Bingham, David Levy, Jay Foy, Adrian Salee, Albrey Arrington, Tony LasCasas, Michael Dahlgren, Priscilla Taylor, Dick Tomasello (Alt. for John Flanigan), Ted Winsberg (Alt. for Steve Bedner), Dave Stewart (Alt. for Steve Wilson), Terrie Bates (Alt. for SFWMD)

PBC WRTF Alternates Present:

None- other than sitting for a member (see above)

PBC WRTF Members not Present:

Carmine Priore, John Flanigan, Steve Wilson, James Alderman, Steve Bedner

PBC WRTF Alternates not Present:

John Whitworth, Shelley Vana, Scott Maxwell, David Brown, Gale English, Susan Haynie

Broward County WRTF Members and Alternates Present:

Lisa Aronson, Douglas Bell, Kristin Jacobs, Richard Kaplan, Donald Rosen, Allegra Webb-Murphy

Guests Present:

PBC WRTF Working Group: Ken Todd (Chair), Mike Baker, Peter Kwiatkowski

Broward WRTF Tech Team: Steve Bassett, Hank Breitenkam, Randy Brown, Ray Gagnon, Todd Hiteshow, Jennifer Jurado, Dylan Larson

Other Guests: John Abbott, Mark Abbott, Harold Aiken, John Armstrong, Jim Barnes, Albert Basulto, Michael Bechtold, David Boyer, Les Bromwell, Martin Cala, Albert

Carbon, Ben Chen, Dave Collins, Ernie Cox, Carol Connolly, Phil Cooke, John Crouse, Tyler Davis, Lisa Wilson-Davis, Mark Elsner, Rosemarie Fallon, Rafael Friasre, Liz Fujikawa, Jane Graham, Kim Giles, Theresa Hadjipetrov, Glen Hanks, Kevin Hart, Fran Henderson, Gary Hines, Steve Holmes, Brian Houston, Glen Humphrey, Larry Johnson, Karl Kennedy, Ed Kent, Steve Lamb, Joan Lawrence, Alex Larson, Kevin Leo, Julie Leonard, Rod Ley, Maria Loucraft, Jon Luper, Don Mathis, Drew Martin, Domino Molyneauxd, Karen Moore, Bob Moresi, Carole Morris, John Mulliken , Martha Musgrove, Sean O'Keefe, Michael Owens, Sylvia Pelizza, Dean Powell, Rosemary Rayman, Franklin Sands, John Shearer, Brian Shields, Charlotte St, John, Maurice Tobon, Mark Tomczyk, Alex Vazquez, Georgia Vince, Elbert Waters, Tim Welch, Alan Wertepny, Brent Whitfield, Mike Zygnerski

II. **Broward WRTF appointment of Technical Team member to Selection Committee (RLI No. R0889908R1 - Water Conservation Education and Outreach)

Commissioner Jacobs declared that the Broward Task Force had one item of business to take care of and that was appointing a member of the Technical Team to participate in the Broward Water Conservation Incentives RLI process. Tim Welch of Sunrise offered to participate. A motion to accept Mr. Welch in this capacity was made by Commissioner Rosen and was seconded and passed unanimously.

Commissioner Jacobs noted that there were several presentations to be made and asked that public comments be held until after the presentations.

**III. Regional Environmental/Water Supply Partnership Project (C-51) Update
Dean Powell, Deputy Director, Intergovernmental Programs Department, SFWMD**

**Regional Environmental/Water Supply Partnership Project (C-51) Update
Dean Powell, Deputy Director, Intergovernmental Programs Department, SFWMD**

Commissioner Jacobs introduced Dean Powell, Deputy Director, Intergovernmental Programs Department at SFWMD who provided an update with a PowerPoint presentation on the regional environmental/water supply partnership project, or C-51 project. Mr. Powell is a scientist who deals with water supply planning and local government comprehensive plans. Mr. Powell mentioned that the project was originally in the Restudy and CERP but that it never went anywhere because they never had a need for the water. That changed after the Regional Water Availability Rule. The project was picked up by the utilities and eventually became a recommendation of the Broward Water Resources Task Force. He mentioned that it could have a beneficial effect on the Lake Worth Lagoon. Mr. Powell shared a map of the area and pointed out features and explained the concept of how it would be used to recharge wellfields. Mr. Powell mentioned that he shared the project with the Governing Board in October and that it could have benefits for Everglades Restoration, particularly as it relates to water quality benefits. He referred to it as a flow continuation equalization basin. The Governing Board directed staff to pursue exploration and Mr. Powell provided a three phase milestone schedule for that effort through the end of 2011, including a public participation process. He mentioned it was an aggressive schedule but worked well with the schedule for the Lower East Coast Plan update that is underway. The District is currently completing modifications to a regional model, a water availability analysis, identifying who could benefit, and quantifying the needs of the natural system. Mr. Powell indicated that March 4 is the tentative date for the first public workshop and that there is a website under development for the project. He opened up the floor for questions.

Mr. Levy asked about available geological information for the site. Mr. Powell mentioned it was a gross level of study at this point and that level of detail had not been done yet. Reference was made to the adjacent rock mine. Is it being looked at as a multiple use facility? Yes. Commissioner Rosen mentioned that the adjacent L-8 Reservoir has not been used and wanted to know why and asked why it could not be used as a test case to see if the concept would work. Mr. Powell mentioned that the pump station to move water out of that reservoir was not there and that they (SFWMD) were hoping that the Federal government would provide cost-share for the pump. Given the lack of progress to date, the Governing Board has authorized moving ahead with a design for the pump station and developing an interim pumping strategy to get water to the Northwest Fork of the Loxahatchee. With regards to whether the L-8 could be used as a test case, Mr. Powell mentioned that that water is intended to go north. He reiterated that nothing could be done until the pump was in place and that a specialized pump was required. Mr. Arrington brought up other issues with water quality, as the water currently has a chloride concentration higher than the drinking water standard of 250 mg/l. Mr. Powell said once the water is “exercised” it would freshen up. Mr. Arrington expressed a concern that the existing reservoir project had not proceeded and that consideration of a new project would take resources from the L-8 Reservoir. He mentioned that water for the environment needs to take priority in consideration of the C-51 project. Mr. Powell mentioned that there were different staff members at SFWMD working on each of the projects (L-8 and C-51). There was some further discussion about the delays caused by the Federal process.

IV. Ocean Outfall Legislation Implications and Planning Efforts Lisa Wilson-Davis, City of Boca Raton Utilities

Commissioner Jacobs announced the next speakers would discuss the ocean outfall legislation’s implications and reuse planning efforts. She introduced Lisa Wilson-Davis to highlight Boca Raton’s efforts on this issue via a PowerPoint presentation. As background, Ms. Wilson-Davis indicated that the legislation is impacting its system. She briefly described the City’s system. She shared a picture of an ocean outfall discharging wastewater and explained that their wastewater is 99.6% water and that the reason the effluent looked greenish-brown was that that is what happens when freshwater meets saline water because of the different densities. The City’s reuse system is 17.5 MGD and is co-located with their wastewater system. Back in the early 90’s they started project Iris for an in-city reclamation system targeting potential areas of saltwater intrusion, large potable water users near the facility, and single family homes and FAU. They reduced per capita water usage by 20%. They received \$2.97 million in funding (of \$10 million worth of projects) from SFWMD for distribution expansion and other infrastructure upgrades. She then discussed the constraints that come with the ocean outfall legislation. She mentioned that irrigation demands are not consistent and the system needs to be reliable. If it is raining, people don’t irrigate, so the design has to address disposal for those periods. If we have reuse, we have to ensure that customers have the reuse water when they need it. These are the two sides of the coin. There has to be a balance – a big operational constraint. There are regulatory and legislative constraints as well as funding constraints (funding is zero now). There are also NPDES requirements and several unknowns. Boca Raton’s strategy has been to increase distribution – adding 30,000 linear feet of pipe, increasing storage, and increasing plant capacity. They utilize stormwater ponds which provide additional storage that gives them the ability to time when they use reuse water. By the end of the year they will have committed 100% of average flows. The biggest unknown is whether numeric nutrient criteria will affect the ability to operate the system as designed. In conclusion, she indicated that the City of Boca Raton will meet the requirements of ocean outfall legislation. She opened up the discussion for questions. There was

a question about whether the storage ponds are lined or unlined, to which she answered by saying they had both kinds.

Alan Garcia, Broward County Water and Wastewater Services

Commissioner Jacobs introduced the next speaker, Alan Garcia of Broward Water and Wastewater Services to discuss their ocean outfall and reuse planning efforts. Mr. Garcia explained that the PowerPoint presentation was essentially the same as was presented to Broward Commissioners in October 2010. He reviewed the history of the Broward North Regional wastewater plant and discussed the outfall. He pointed out that they also do deepwater injection and some reuse. They currently use all 3 options. He reviewed the requirements of the ocean outfall legislation. The ocean outfall legislation imposes a requirement for 22.5 MGD of new reuse on top of what is being done to date. He described the reuse onsite in wastewater treatment where some is sent to the waste energy recovery system, some to Pompano for reuse, and WWS is working with Coconut Creek to extend reuse for irrigation. The next milestone is 2013 when a detailed plan to say how they will take care of the reuse is due. The critical element with the master plan is that it is integrated. He discussed the required reduction in nutrients by 2018 and how WWS intends to meet the requirements. The most cost effective approach is to shift additional water to deep injection wells. They have reduced nutrients from 22 ppm nitrogen to 14 ppm through some operational changes and are on track to meet the nutrient reduction goal. This has also provided cost savings in electrical use. He discussed peak disposal issues with large rainfalls and extensive infiltration. WWS plans to spend \$58 million for the next several years or interim term. Next he discussed the long-term plans. Mr. Garcia mentioned that currently they can handle peak disposal because of the outfall, but once the outfall is closed, they lose the ability to discharge 105 MGD. This is significant and means that WWS needs to build a duplicate deep injection system to address this challenge – a significant investment of about \$350 million for a system that will not be used that much. Next he discussed the reuse mandate and explained they looked at three options: recharge of the Biscayne aquifer, recharge of the Floridan aquifer, and reuse. He discussed the County review process of those three options. He mentioned that all options are still available. They estimate they could provide 8 MGD to large users. The issue is large golf courses are out west, far from the plant. He mentioned that costs of conveyance don't justify doing this and that it takes a long time to get a reuse system in the ground. Mr. Garcia mentioned his support of the C-51 project as it can use an existing infrastructure system. He opened the floor for questions.

Glen Hanks discussed Coral Springs wastewater system and asked if there was any mechanism that Coral Springs could use to divert some of the flow. There was some discussion about this and how the loss of revenues would impact WWS. Commissioner Rosen pointed out that the energy savings that had been made will be lost if they need to build new booster plants and new injection wells. Mr. Garcia mentioned that nothing in the ocean outfall legislation addressed carbon footprint reduction. There was further discussion about operations and acceptance by the public of reuse. Mayor Aronson asked for some input on Boca Raton's experience with the public and outreach. Ms. Wilson-Davis discussed that the consumptive use permit conditions and year round irrigation restrictions helped sell reuse to golf courses and that the public was generally receptive. Reuse is offered at 60% of potable water rates. Cooling towers are another area where reuse water can be utilized. Commissioner Jacobs then discussed the unintended consequences of land application of reuse water that can result in impaired water quality.

**Phil Cooke, Hazen and Sawyer for Albert Perez, Director of Public Utilities,
City of Hollywood**

Commissioner Jacobs then introduced Phil Cooke of Hazen and Sawyer to discuss Hollywood's system. Mr. Cooke started by mentioning that Alan had done a great job of discussing the regulatory issues and then began discussing Hollywood's system. He discussed similar strategies as the County is considering. Strategy 1 - an AWT plant is about \$350 million while Strategy 3 for a 100% reuse system is looking at a cost of about \$1 billion, largely for the distribution system. Strategy 2 looks at deep wells and is the preferred choice with 129 MGD of disposal capacity. Interim planning for Hollywood focuses on reduction of nutrient loads and maintaining peak effluent disposal capacity. With consideration of long-term planning, Hollywood has the same issues as Broward County, with an associated cost of \$200 million for deep wells. He discussed operational issues with nutrient removal. Hollywood built a system 10-20 years ago that provided irrigation for golf courses. These offsets are not credited toward the future. Hollywood runs a different type of treatment system - pure oxygen which is more difficult for achieving nutrient reduction. One option is to try and split flows in different parts of the plant. Costs are estimated at \$350 million for Biscayne Aquifer recharge, \$175 million for Floridan Aquifer recharge, and \$550 million for reuse. Hollywood will explore their options further with the regulatory agencies. Costs are higher because their plant is about half the size of Broward County's, which translates into increased costs for their customers.

Mr. Arrington asked a question about inflows and infiltration. Mr. Cooke explained that while Hollywood had a good handle on their own inflows, the system handles other municipalities and that was less well known. Also, given their location, the other issue that Hollywood has to deal with is saltwater infiltration. A question was raised about the benefits to the environment and the possibility of extending the outfalls. There was a discussion about the impacts from the outfall pointing to a NOAA study that did not identify impacts to reefs, and that there would be little benefit to extending the outfalls. Commissioner Jacob then discussed her experience with trying to lobby against the ocean outfall legislation in Tallahassee, saying that it was largely politics and not science that gave rise to the legislation. She expressed her frustration with the situation. Mr. Arrington added that while reuse is an important part of the state's water strategy, the current direction is in favor of deep well injection to avoid imposing an excessive burden in treatment costs on taxpayers. He asked if someone could comment on what Pembroke Pines is doing. Vice-Mayor McCluskey turned the question over to the Pembroke Pines engineer who explained what they were doing. Representative Sands mentioned that consumer education is important because people don't understand and they see a "Yuck" factor when you discuss reuse. He mentioned that he was on the new legislature's water policy committee. He mentioned he hears arguments between consumer use and agriculture. He hopes that the committee addresses the issue seriously. Commissioner Jacobs lauded Representative Sands for taking an interest in understanding the issue. Commissioner McCluskey indicated that the author of the article about the Pembroke Pines pilot project was new to the area and had not been educated in water issues, and stressed the importance of educating people. Randy Brown, Director of Utilities for Pompano Beach, pointed to the work of the International Water Reuse Association to combat misinformation and lack of knowledge. He mentioned that the International Space Station uses reuse water and referred to what California is doing with reuse. He pointed to the fact that people along the Mississippi and Missouri Rivers use reuse water constantly. The Water Reuse Foundation will be having a conference in November 2011 in Fort Lauderdale.

Commissioner Rosen asked Mr. Cooke a question about nutrient impacts from deep well injection versus other methods. Mr. Cooke said those studies had not been done for Hollywood. Hollywood is planning to use the Floridan Aquifer for future water supply. Ms. Wilson-Davis

pointed out that not all nutrients are bad – once deep-welled, the water is out of the system. She pointed out if applied correctly that reuse water could benefit vegetation by reducing the need for fertilizer application.

V. Current Water Conditions
Pete Kwiatkowski, SFWMD

Commissioner Jacobs introduced Peter Kwiatkowski, Director of the Resource Evaluation Division at SFWMD to review current water conditions and the dry season outlook. He reviewed weather conditions, explained the responsibilities of SFWMD, and he said the District's predictions for a dry season have materialized. He pointed to the October to December record low rainfall and mentioned that Lake Okeechobee is at a level about 2 feet below normal and explained why that is important to the coastal counties. He shared that we are in the moderate to severe category of drought in South Florida. He explained that the water shortage emergency management center is partially activated. SFWMD Service Center Directors are engaged in making the same presentation to local governments and stressed that the District is encouraging conservation and mentioned that the current Broward irrigation rules are helping to keep aquifer levels up, but that water restrictions might be necessary if dry conditions continue. Those restrictions are not meant as a penalty, but are aimed at protecting the resource. They are designed to prevent saltwater intrusion, loss of crops, provide for fire protection, minimize wildfires, ensure the ability of the stormwater treatment areas to function properly, and meet minimum flows and levels. Municipalities have the statutory authority to assist in enforcing restrictions on homeowners. SFWMD has the responsibility for golf courses, homeowner associations, and agricultural users. He mentioned a note to public works directors, that if water restrictions are imposed, they need to follow those restrictions (e.g., sprinklers irrigating medians). SFWMD doesn't want to get to the point where they are taking enforcement actions against local governments. Finally, he pointed to a web button that the District has developed and mentioned that local governments have used the web link to direct the public to the District's Water Shortage website.

Commissioner Jacobs thanked Mr. Kwiatkowski for his presentation. She mentioned that there was one other issue to discuss, and that was a resolution by the group to proceed with further exploration of the C-51 project. She asked if there were any members that wouldn't support a resolution. Mr. Arrington wanted to know what the language of the resolution would say. Commissioner Jacobs said it hadn't been crafted yet. Mr. Rosen expressed a desire to have an across the table conversation between the Task Forces. Dr. Jurado provided some history and mentioned that while it didn't seem like there was much progress envisioned 6 months ago, a lot has happened and there is some momentum now. There was further discussion on a resolution. Terrie Bates offered that the District does intend to have an open process with all stakeholders present. Ken Todd offered that the Palm Beach Task Force has already passed a resolution in support of further exploration. Dr. Jurado said she felt it would be of value to have a resolution acknowledging that both task forces supported moving forward and she discussed the points it would make. Commissioner Jacobs asked if there was any objection to having Dr. Jurado draft the resolution. Mr. Arrington offered that environmental restoration needs to be included in the language. Mr. Levy mentioned conveyance systems and that there had been issues with this in the past so it was important that a resolution not endorse any particular conveyance mechanism. There was some further discussion about the resolution. A motion was made to draft the resolution, was seconded, and approved by all.

VI. Public Comment

Commissioner Jacobs opened the floor for public comment. The first comments were from Alexandria Larson, representing “People Against Dumb Ideas” (she had left meeting, but left the following written comments for the record): Alexandria Larson commented on the proposed C-51 Reservoir project. She said there several issues that make the project problematic. First, she said there is presently no acceptable conveyance route to send water from the proposed reservoir to Broward County. The L-8 Reservoir project had public perception problems due to the scandals involved with several of the Commissioners involved at the time. She said another problem would be that if the project is dug in 100 acre per year increments to stay under the DRI threshold, the timing may not work for Broward County. She also commented on the Ocean outfalls. She said she believes deep well injection does not work and that the ocean outfall effluent is green and slimy because it is not properly treated, not because of the effluent coming in contact with salt water.

Sylvia Pelizza, Refuge Manager for Arthur R. Marshall Loxahatchee National Wildlife Refuge mentioned concerns about conveyance, but has worked with Fort Lauderdale to address some of those concerns, and as further discussion continues on the project wants to be involved and at the table as it could improve water quality for refuge. She indicated she wants to be involved in all discussions. Commissioner Jacobs agreed that their input to the Task Force is important and that she wanted to know if they could be added. Dr. Jurado indicated she thought that their participation in the SFWMD stakeholder process might be more appropriate.

Joan Lawrence of US Department of Interior, Senior Policy Advisor, Everglades Restoration Initiatives, reiterated Ms. Pelizza’s comments, but pointed out stewardship responsibilities for water conservation areas. She indicated that they want to be more than part of a group that is given a presentation to, and that they would like to be part of a technical group to be able to bring their expertise. They don’t want to be at the end of the process saying they have a problem.

Martha Musgrove representing the Arthur R. Marshall Foundation indicated the problems they see are with water conveyance and water quality issues. She indicated that the Foundation supports USFWS/DOI involvement in working group. With respect to the Lake Worth Drainage District, she indicated quite clearly that the canals around the refuge cannot be used for conveyance of water as dirty water would get into refuge. She said LWDD has some canals that could be used for conveyance. She brought up inter-basin transfers of water as a hot button issue and that there would be objections. She believes water utility grid is a good way of approaching water issues and supports multi-jurisdictional approaches, but that any memorandum of understanding clearly include consideration of financing. She pointed out that the people of the LWDD, a taxing authority, are not going to support funding infrastructure improvements that bring water to Broward County. She also mentioned moving water through the EAA and closed by saying almost everything involved with multi-jurisdictional inter-transfers of water raise fiscal issues and are not cost effective.

Jane Graham, Audubon of Florida expressed their desire to work with all on the C-51 project and expressed concerns including impacts on the snail kite and water quality. On reclaimed water, she shared Commissioner Jacobs’ concerns about impacts of reclaimed water on water quality. She referred to a presentation by Dr. Harvey Harper that indicated if you use reclaimed water for irrigation, you don’t need any additional fertilizers.

VII. Adjournment: There being no further business, the meeting was adjourned at 3:55.