

# the Watershed

Jupiter Beach, Florida

September 14, 2007

## The Loxahatchee River, Regional, and Alternative Water Supply

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**Technical Program:** Join us in September for excellent technical presentations discussing the restoration of the wild and scenic Loxahatchee River and alternative water supply for future demands. The complete agenda for the Technical Program is located on Page 10. Ms. Melissa Meeker, Governing Board Member of the South Florida Water Management District, is the keynote dinner speaker, and will discuss the "State of the District" and several other important issues facing the District and Florida residents.

**Tour:** Join us for kayaking – or by canoe – on the Loxahatchee River, leaving from Riverbend Park on Saturday morning for a fun, relaxing morning spent out enjoying nature at its best. Come and see why Riverbend Park is considered by most to be a jewel in Palm Beach County's park system.

**Location & Accommodations:** A block of rooms has been reserved at \$129/night (plus taxes). [Deadline for the group rate is Monday, August 20, 2007.](#) (See Page 12) The Jupiter Beach Resort marks the dawning of a new era for Palm Beach resorts and offers the perfect resort destination with 1,000 feet of private beach. The Jupiter Beach Resort and Spa is not a designated "Green Lodge," however, they are taking extra steps to help make our meeting a "green" one! You will notice recycling containers in the conference room, pitchers of water and reusable coffee mugs and water glasses. Let's do our part to set a good example and reduce waste and recycle what we produce.



2007 Meetings: January 26 Gainesville; March 16 Apalachicola; May 18 Tampa;  
July 12-14 Key West; September 14 Stuart; November 16 Fort Myers



## **AWRA NATIONAL NEWS**

*Upcoming conferences hosted by AWRA*

- ◆ **43rd AWRA Annual Water Resources Conference, Nov. 12-15, Albuquerque, NM (Early registration deadline is This November,** Albuquerque is the place to be for professionals in the water resources community who want to participate in a multidisciplinary conversation about complex water resources challenges and make connections that will improve how we understand the water issues that are of importance to the Southwest, the US and the world! Watch the website for complete program and registration information.
- ◆ **GIS and Water Resources V, March 17-19, San Mateo, CA** (abstracts due October 29, 2007) AWRA continues its series on Geographic Information Systems and Water Resources with its fifth specialty conference on the topic. GIS has become a necessary component in the planning and management of water resources, and the natural and human systems affected by water resources.
- ◆ **Riparian Ecosystems and Buffers: Working at the Water's Edge, June 30 - July 2, 2008, Virginia Beach, VA** (abstracts due February 4, 2008) In 2000, the American Water Resources Association began hosting Riparian Specialty conferences on a four-year interval. These highly successful conferences have built a solid foundation of knowledge about the critical riparian landscape while providing an invaluable opportunity for networking among scientists and the managers who are implementing programs and practices on the ground. The 2008

Conference will continue to build on this successful history. A major aim of the conference is to foster interactions among scientists and practitioners in the field. The Conference Planning Committee encourages you to submit an abstract for consideration or contact the Conference Chair, Al Todd, with any ideas for a panel or a session devoted to one particular riparian topic. We look forward to an exciting conference full of innovative ideas, cutting edge information and a glimpse at the future of riparian systems!

### *Remember to Vote!*

Ballots for the AWRA National Board of Directors election are due by 8/15. According to Marketing Director Terry Meyer, all members in good standing were sent ballot links via email. For any emails that bounced, she sent a ballot via USPS. National members with ballot/voting questions can email Ms. Meyer at [terry@awra.org](mailto:terry@awra.org).

For more information and to renew your membership or become a member of the National AWRA, go to [www.awra.org](http://www.awra.org), or contact David Watt at 386-329-4355 or [dwatt@sjrwmd.com](mailto:dwatt@sjrwmd.com).

## **AWRA FLORIDA NEWS**

- Membership Announcements
- Board of Directors Summary
- A Message from the Board of Directors
- Education Committee
- Technical Program Summary
- Student Chapter News
- Other Announcements

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## **Membership Announcements**

The 2007 Membership Directory was distributed in May! In an effort to increase the directory's usefulness a section titled "Member Businesses" which cross-references the business name with our member's names was added. We want to thank the Sponsors for underwriting the cost of producing and distributing this important networking tool.

Since the last newsletter we've had 3 individuals rejoin our organization in response to the January membership mailing and we've had 20 new members join since the last newsletter! Our membership is at a record level which is a definite testament to the value of belonging to the only multidisciplinary association for water resources professionals! Please take a few minutes to introduce yourself to the new members at

the next meeting. We want the new members to know they joined one of the best professional organizations in the State!

If you haven't renewed your 2007 membership an application form is included in this newsletter. Dues for both Regular and Student membership remain at \$20 and \$4, respectively.

Please feel free to contact me for membership questions or ideas on how we can improve service to our members. Hope to see you at the next meeting in Jupiter on September 14th.

Annette Carter, Membership Services Coordinator, [ancarter@sfwmd.gov](mailto:ancarter@sfwmd.gov), 561-682-6433

**New Members** (continued from back page)  
Roy Martinez, AWWA Research Foundation, Denver  
Tony Martin, CSA International, Jupiter  
Margaret Palmer, HydroMentia, Ocala  
Brad Peebles, SCS Engineers, West Palm Beach  
Honey Rand, Environmental PR Group, Lutz

Tommy Strowd, South Florida WMD, West Palm Beach  
Derek Tisdell, Barnard Construction Company, South Bay  
John Wilcox – Saxon, Gilmore, Carraway, Gibbons, Lash & Wilcox, Tamps

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### **Board of Directors Summary**

By David Watt

The Florida Section AWRA Board of Directors (BOD) met in Key West on Thursday July 12, at 11:00 AM. The detailed agenda and minutes will be included on our website next month after they are approved by the BOD. Highlights of the meeting include:

- Steve Nix has resigned his position on the Board due to family health issues. The Board appointed Mike DelCharco to fill the vacancy.
- Ballots to elect the 2008 Board of Directors will be sent to members in September.
- Improvements continue on our website. We encourage members to check it out and give us your feedback.
- The Public Education Committee recommended and the board approved 10 Butler grant awards of \$500 each, 6 Storch awards of \$1000 each, and our first Sandy Young scholarship winner, Stuart Norton (Stuart was present at the Key West meeting to formally receive his scholarship). Thanks to

everyone who has contributed to our public education fund!

- The overall public education fund has been renamed in honor of past president and long-time committee chairperson Rosanne Clementi. Congratulations Rosanne!
- Due to cost considerations, the Casa Marina contract was not renewed for 2008. A committee was appointed to develop other options for our July meeting. They were charged to evaluate the feedback they received from the surveys handed out at the Key West meeting and other sources, and report back to the Board at the September meeting.

Remember, Board meetings are open to all members of the Florida Section and their guests. Please feel free to arrive early at one of our bi-monthly meetings to sit in on our lively discussions. The Board always welcomes member input.

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### **A Message from the Board of Directors**

For those who attended the Annual Meeting last month in Key West, you undoubtedly participated in the end of an era. (No, we are not talking about the demise of John Wehle's alter ego, "Bubba Doc.") The July 2007 meeting marked the 25th anniversary of the convening of Florida Section's AWRA Annual Meeting at the Casa Marina in Key West. John Wehle, who has spearheaded this gala gathering for the past quarter century, has indicated that he will be stepping down as the program chairman of the annual July meeting. In addition, the Casa Marina is undergoing substantial renovations and will ultimately become an ultra resort, beyond the financial means of the Florida Section and most of its members. So, it appears that we will not be returning to the Casa Marina in 2008. AWRA, Key West, and the Casa Marina will become the legend of many fond memories and stories, perhaps many best left untold...

However, the Board of Directors is already at work on plans for the next iteration of annual meetings. President Patrick Victor has established a subcommittee of the Board that is scouting venues and facilities throughout the state. Our preference is to remain in Key West, if we can find a facility that can accommodate us and our pocket books. We are also researching other venues in the Keys as well as other "waterfront conference facilities with family amenities" (we are not calling these places "resorts") throughout the state.

The Florida Section July Annual Meeting has evolved into a huge success in terms of attendance, camaraderie, sponsorships, and a heightened focus on the tremendous work of the Section's Clementi Educational Programs. Your Board is diligently working to ensure that the 2008 Annual Meeting will continue the tradition!

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### **The Rosanne Clementi Education Program**

The Key West meeting this year was very special for a number of reasons. We had another great turn out of members, guests and families. We had wonderful

technical presentations. We had a wonderful time at the President's reception and the Luau dinner. We got

to enjoy the temperate climate of Key West in July and we got to honor one of our own.

Upon the recommendation of John Wehle, with unanimous support from the Board of Directors, the Florida Section's education funding process has been renamed the **Rosanne Clementi Education Program**. Year round, Rosanne works tire-lessly on new and creative ways to provide financial support for the JB Butler Grant, the William V. Storch Award, and the Sandy Young Scholarship, and to find ways to reach as many potential applicants as possible.

Rosanne's tireless efforts have paid off handsomely for the benefit of many students throughout the state, from elementary schools to doctoral programs. As of this year, the Section will have given more than \$35,000 in JB Butler Grants. This program has resulted in

providing assistance to dozens of teachers and thousands of students and there has been extensive positive feedback on the educational value of these grants. The William Storch Award is given to college or graduate students to support educational activities. Since its inception, nearly \$30,000 has been awarded to students by the Florida Section. Many generous donations have been received to support the Sanford N. Young Scholarship, created in 2005 to honor the memory of Sandy Young. This year, the Section is very pleased and proud to make its first award of this Scholarship to Stuart B. Norton. See the education committee summary for additional details about the **Rosanne Clementi Education Program** and the 2007 recipients.

Congratulations to Rosanne and to all the beneficiaries of her hard work!

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### Education Committee

It has been a great year for the Education Committee. Kristin Bennett took Jay Yingling's suggestion and started the "50/50 Raffle" which now provides a bit of money from five Section meetings each year into the general education fund. We again had a very successful Silent Auction and Wine Tasting event at the Key West meeting. All the accounts have not been balanced yet but we feel certain we raised at least \$7,000 for our education funds. Thanks to all who participated through their bids. Thanks to Kristin Bennett and Annette Carter for all their help. Thanks to Ed Finch for another wonderful wine tasting event for the Sanford N. Young Scholarship Endowment. We will report the final accounting in the next newsletter.

#### JB Butler Science Grant

We had fifteen requests for grant money. The Board allowed the Education Committee to award ten grants this year for almost \$5,500.00. The recipients are: Bryce Forrester from Excel Alternative School, Orlando; James Lis from Southwest Middle School, Orlando; Richard Thomas from Alachua Elementary School, Alachua; Cynthia Sepulveda from Three Points Elementary School, Orlando; Jesica Goodman from Conway Middle School, Orlando; Sara Charbonet from Westwood Middle School, Gainesville; James Barbella from Azalea Park Elementary School, Orlando; Lisa Andrews from the Big Cypress National Preserve, Ochopee; Suzy Williams from Hickory Creek Elementary School, Jacksonville and Sidonia Todd

from Tanglewood Riverside Elementary School, Ft. Myers.

#### William V. Storch Award

The Board of Directors approved six \$1,000.00 awards to the following students. Marcus Griswald, University of Florida; Russell Ferlita, University of South Florida; April Moore, University of North Florida; Gordon Brown, University of Florida, Heather Bryne, University of Florida; and Mikhal Moberg, University of Central Florida.

#### Sanford N. Young Scholarship

Sandy Young was a 20-year member of AWRA, and was a member of the Board of Directors for much of that time. After his untimely death in early 2005, the Section established an endowed scholarship fund in his name. In very short order, that fund has accumulated more than \$40,000 and is generating sufficient returns to provide a \$2,000 scholarship each year. This year marks the first awarding of a scholarship from this fund. Sandy's wife, Kay



Kay Young, Stuart Norton, & Doug Durbin

presenting the scholarship check to Stuart Norton (a graduate student at the University of Florida). Kay was very pleased at seeing Sandy remembered through this tangible program that benefits water resources in Florida.

Congratulations to all the recipients of our grants and awards.

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## Technical Program Summary

Thursday Session – July 12, 2007

By Doug Durbin

**Kim Olsen and Tony Martin, CSA International — Shoreline Habitat Restoration Projects:** Shoreline habitats serve a variety of important ecological and water quality improvement functions. These habitats, including seagrasses, mangrove forests and oyster beds have been impacted and physically eliminated in many areas through human activities. CSA International is working on a series of efforts to restore shoreline habitats in the Indian River Lagoon (IRL) and St. Lucie River (SLR). One project in the IRL placed concrete reef balls, along with oyster shell and other concrete structure, at two sites to enhance oyster habitat quality, while another project created more than one-half acre of oyster habitat. A habitat mosaic project restored fringing habitat around a mosquito impoundment area which had been degraded by hurricanes and provided both saltmarsh and mangrove habitat. These and other projects are being maintained and monitored, and further efforts are being considered, pending the availability of adequate funding.

**Mike Vanatta, Environmental Turf — Turf and the Environment:** There are alternatives to using St. Augustine grass and bahiagrass for turf purposes in Florida. One is seashore paspalum (*Paspalum vaginatum*), which has been bred to produce a number of hardy cultivars. This species requires less nitrogen than standard Florida turf species, and can be irrigated with brackish or sea water, which allows for conservation of freshwater sources and provides for effective weed control. Seashore paspalum can be grown in the southern states, typically anywhere bermudagrass can grow. It is of greatest use on sports fields and golf courses, as well as home lawns. Zoysia is another alternative, with several species available. It is a fine or medium textured grass, with low fertilization requirements and high shade tolerance. Ultimate FloriZoysia was developed at the University of Florida and is suitable for home lawns. Centipede grass is yet another alternative, with several cultivars available. It requires some irrigation, but is otherwise very low maintenance, requiring only very infrequent mowing. It can be used instead of St. Augustine in most locations.

**Catherine Katsikis, Laboratory Data Consultants FL, Inc. – Concepts of QA/QC and Data Validation:** Quality Assurance and Quality Control are the management process and the specific activities undertaken to ensure that analytical results are of acceptable quality to the user. The Florida Department of Environmental Protection (FDEP) has an extensive QA Rule specifying QA/QC processes and Standard Operating Procedures to ensure acceptable results and screen out unacceptable results. A QA/QC system is a detailed series of steps, procedures, checks,

evaluations and corrective actions. Analytical laboratories have a very extensive series of requirements to be followed in order to be certified by the National Environmental Laboratory Accreditation Conference (NELAC), and to be accepted by FDEP or other state agencies. Failure to produce reports of performance through QA/QC checks (such as calibration records or analyses of blanks) can result in data being rejected, or at least coded as questionable. Failure to provide adequate QA/QC can result in lost data, lost time and money in sampling and analyses, damaged professional reputations, loss of employment, fines, and even conviction of criminal charges.

**Kristin Bennett and Doug Durbin, Florida Section Education Committee – Overview of the Section's Education Grants/Awards/Scholarships:** The Florida Section of AWRA has a mission to support education and uses a number of vehicles to fulfill this mission. The J.B. Butler Grant is awarded to K-12 teachers to aid in water resource education. As of this year, the Section will have given more than \$35,000 in Butler Grants. This year, 15 applications were received, and 10 grants are being awarded, which required approval by the Board of Directors to exceed its 2007 budgeted amount. This program has resulted in providing assistance to dozens of teachers and thousands of students and there has been extensive positive feedback on the educational value of these grants.

The William Storch Award is given to college or graduate students to support educational activities. Since its inception, nearly \$30,000 has been awarded to students by the Florida Section through this vehicle. In 2007, 12 applications were received and the Board of Directors approved the funding of six awards of \$1,000 each. Part of this amount was made possible by a generous donation from the children of William Storch, who attended the 2006 meeting in Key West.

The Sanford N. Young Scholarship was created in 2005 to honor the memory of Sandy Young, a long-time Board member who passed away unexpectedly in April of that year. The fund has grown very rapidly, and is now an endowed fund designed to provide funding for at least one \$2,000 scholarship each year. Many generous donations have been received, and donors are continuously being sought. A substantial portion of the fundraising proceeds from activities at the Key West meeting also goes to the fund. This year, the Section is very pleased and proud to make its first award of this Scholarship. From a pool of several strong applicants, the Education Committee recommended, and the Board approved, giving the scholarship to Stuart B. Norton. Stuart is completing a Master's degree in the Environmental Engineering program at the University of Florida. He then expects to enter the doctoral program and begin a research program on modeling geochemical

processes and the effects of aquifer storage and recovery activities on arsenic. The Section looks forward to seeing Stuart, and future Young Scholarship recipients, make their own contributions to water resource management in Florida.

**Gordon Brown, UF Student Chapter Update – EPA**

**P3 Grant:** The EPA funds a series of P3 (People, Prosperity and the Planet) Grants each year, and can provide up to \$75,000 for a recipient project. The grants are for efforts undertaken by students. Water resource students at the University of Florida submitted an application for funding to study dune lakes in the Florida panhandle. These lakes are rare, only being found in a few areas of the world. At least some of the dune lakes in Florida are at risk from eutrophication as a result of human land use changes in their basins. The UF students proposed to study the limnological status and behavior of lakes. They will survey the lakes in developed and undeveloped areas to explore the effects of land development. They also hope to develop recommendations for management practices to minimize further degradation. Sampling and analysis are planned for fall 2007, with supplemental monthly sampling, and a second large event in spring 2008. The UF Student Chapter was awarded \$10,000 under the P3 Grant program to begin this work, and further funding is being sought from EPA for additional work.

**Jeff Pearson, Charlotte County Utilities Director and Tonya Simmons, Malcolm Pirnie – Water Supply Planning Activities in Charlotte County, Florida:**

Charlotte County is faced with an increasing demand for water and faces a series of challenges in meeting that demand. Geographic challenges are present because of the growth patterns in the county relative to the available water supply options. The county also relies almost solely on water from the Peace River Manasota Regional Water Supply Authority, which has limitations based on both water quality and on demand from other customers coupled with recurring drought conditions. Development is currently focused in the western part of the county, away from the Peace River where the current water supply is withdrawn. Demand is growing by about one MGD per year. About 20 percent of the water in the county is reused for irrigation, and about 2,000 residences use canal water for irrigation. The county is developing a water supply strategy to expand to multiple sources and maximize conservation and demand management. The county is aggressive in promoting conservation and efficient water use. In terms of surface water sources, only Shell Creek offers any capacity, but the volume is fairly small so the county is not pursuing that option. The county is also exploring siting options for a reverse osmosis plant to treat brackish water. This option could allow siting of a water supply nearer the center of development activities. Babcock Ranch appears to have up to 10 MGD of Floridan Aquifer water, and this water is available to the county, but it would likely require

transferring water from the South Florida Water Management District to the Southwest Florida Water Management District, a prospect that will likely lead to involved regulatory and political interactions.

**John Sansalone, P.E., UF AWRA Faculty Sponsor – Low Impact Development and Stormwater:**

Human development has historically reduced the amount of land surface that is pervious to rainfall, which changes the pattern of hydrologic behavior, as well as affecting water quality. The “first flush” concept of pollutant transport that has guided stormwater management for many years is not as well understood, nor as predictable, as stormwater managers might believe. Low-Impact Development (LID) techniques can be developed to mitigate for decreased perviousness and for the unpredictable nature of stormwater quality and quantity. Various LID systems can be categorized as Engineered Infiltration Systems, Permeable Pavement Systems, Vegetated Infiltration Systems, and Combined Systems comprising more than one of the previous three types. Primary needs of an LID system are hydrologic control and particle control. Concrete permeable pavement can be designed to be very effective in restoring more natural hydrologic and water quality treatment behavior. This material is prone to clogging, but regular sweeping or vacuuming of the surface can maintain the desirable properties of permeable pavement. Mr. Sansalone also discussed Computational Fluid Dynamics, a new and powerful tool for evaluating urban runoff and drainage. It allows for the mathematical analysis and prediction of the behavior of water and particles based on the Navier-Stokes equations. To be useful such models must obviously be properly calibrated and verified.

**Stephen R. Lienhart, P.E., URS Corporation – Florida Keys Reasonable Assurance Demonstration:**

Total Maximum Daily Loads (TMDLs) are being developed to protect or restore water quality by identifying the assimilative capacity of water bodies and then working to keep loadings below that level. This is a long-term and iterative undertaking, with a complex process and numerous potential complications. An alternative is the development of Reasonable Assurance documentation that provides for protection of a water body before the TMDL process runs its course. A Reasonable Assurance plan can only be prepared if a water body is not already designated as an Impaired Water Body under state regulations (Chapter 62-303 FAC), and approval of such documentation actually prevents a water body from being listed as “Impaired.” The Florida Keys have experienced continued growth, increased tourism, and declining water quality, and the waters of all of the Keys are listed as impaired for nutrients. The Keys are atypical as a water management area because they represent a tiny land mass associated with a massive water body that is affected by activities and processes beyond the control of the Keys’ water resource agencies and managers. Efforts are underway to reduce nutrient loading from land-based sources in the Keys and to identify linkages between nutrients and

ecological components of the receiving waters. The primary obstacle to further upgrades and improvements is funding limitations.

Friday Session – July 13, 2007

By Michael DelCharco

**Patrick Mullen and Neil Johnson, MWH – Alternative Water Supplies: Reuse by MBR Treatment and Groundwater Recharge:** This project developed a pilot groundwater recharge wastewater plant for the City of Sunrise. The project is funded by the South Florida Water Management District (SFWMD) and the City. The objectives include treating raw water, meeting Florida and Broward County standards, Nutrient (P) removal to low levels, and, of course, assessing the possibility of full capacity recharge. The wastewater plant and water treatment plant are co-located along I-75, outside of the recharge and protection zones required by the District. Additional geotechnical investigations are underway to confirm transmissivity of the area and flow path travel times. SFWMD recently added funding to examine microconstituent removal/oxidation study. This includes all the pharmaceuticals, stimulants, and pesticides. Currently, no requirements for removal exist, but with some public pressure, that requirement is likely forthcoming.

**Paul Souza, U.S. Fish & Wildlife Services – System-wide Mitigation and Multi-Species Management:** Landscape-level approaches to restoration help keep the “big picture” in focus. The Everglades is home to 68 imperiled species. This has created a groundswell of support from the public and, combined with a good bit of luck with the economy, produced an excellent commitment to habitat restoration. Only about 100 Florida panthers remain and only one breeding population exists today — in south Florida. Fourteen panthers have been killed by vehicles so far in 2007, while all of 2006 saw only 11 deaths due to vehicles. This higher mortality may actually be a positive indicator of increased reproduction and dispersal by these cats. The Picayune Strand restoration will have a tremendous benefit for panther habitat. Six to ten cats with several new litters have been using this area over the last couple of years. The landscape-level approach is perfectly suited to panther habitat restoration because it involves a large, multi-system, multi-stakeholder team. Snail kites have decreased dramatically due to drought and other bird populations have been affected as well. An Avian Ecology workshop in 2003 was so successful that another workshop, during the week of August 13, 2007, is planned. The USFWS is proud to be a partner in the restoration of the Everglades.

**Tommy Strowd, Assistant Deputy Executive Director, Everglades Restoration Area, SFWMD – 2007 Everglades Restoration Update:** This restoration is not quite as easy as the media sound-bytes may make it seem! Mr. Strowd gave an overview of the area and the Central and South Florida projects. The system today is

highly channelized and regulated. The plan is to use a multifaceted approach to restore the hydrology and hydraulics to “get the water right” and generally allow the ecosystem to re-establish itself. He detailed some of the Stormwater Treatment Area (STA) projects and noted that STA-2 and STA-6 are about 98% completed. EAA Reservoir A-1 will store 190,000 acre-feet of water — large enough that you probably won't be able to see across it upon completion. Two test cells have given the District the opportunity to examine the physical features surrounding the reservoirs. Overall costs for the Reservoir A-1 seepage canal will be approximately \$262 million. In an abundance of caution, the District conducted studies to examine the effects of overwash on levee banks. While the results showed various amounts of erosion, overall the District is confident that the current design will not be significantly affected by overwash on the outside of the dams resulting from waves blown across the dams by large storm events.

**Ernie Barnett, Director, Policy and Legislation, SFWMD – 2007 Legislative Update:** Recent legislative changes mean the Water Management Districts (WMDs) will have to roll back 3% of their budgets. The manner and degree to which the property tax issue will affect the WMDs is not yet known. Mr. Barnett discussed several bills: Senate 392 — Northern Everglades; and House Bill 197 — Environmental Resource Permitting. Senate Bill 1680 — Herbert Hoover Dike Memorial will address rehabilitation issues. Senate Bill 2770 — Complete Federal Funding for Comprehensive Everglades Restoration. This bill asked Congress to take on a full and equal partnership in the funding of CERP. Senate Bill 2776 — Venomous Reptiles Bill helps control the exotic species let loose in south Florida. Some major budget issues: Florida Forever is at \$300 million/year; Everglades, Lake Okeechobee, and Estuaries: \$200 million; Water protection and sustainability: \$300 million; Energy: \$62 million; Oceans: \$3.2 million; Beaches: \$30 million, etc. To Congress's credit, while they cut many projects, they kept the funding consistent for water resource needs. The Northern Everglades focus will build on the Kissimmee River restoration and will provide, for the first time ever, a dedicated funding mechanism for the northern system. The effort requires a detailed technical plan for the Kissimmee and Lake Okeechobee systems to store and treat water. In addition, plans are underway for the estuaries that will help meet salinity targets and other TMDL goals. The federal contribution of \$5 million each year will be matched by Martin County and SFWMD to bring the total to about \$15 million for each water body.

**Panel Discussion: Florida's Water Future**  
**Roy Martinez, AWWA Research Foundation, Sr. Account Manager:** Mr. Martinez discussed Florida's water challenges, how to move forward, and future plans. He is the primary contact with many agencies for the water utilities and helps facilitate discussions that address national trends, implications, and strategies. Partnering organizations include Florida Section

American Water Works Association (FSAWWA), Florida Water Environmental Association (FWEA), American Water Works Association Research Foundation (AwwaRF), Water Environment Research Foundation (WERF), Florida Rural Water Association (FRWA), Florida Water and Pollution Control Operators Association (FWPCOA), and Florida Engineering Society (FES). Broad organization representation includes utilities, consultants, universities, WMDs, FDEP, Florida Department of Health, and Audubon of Florida. Florida Trend conducted a survey of utilities to see what was of common interest. It identified four areas: Total Water Management, Regulatory, Finance, and Workforce. The company discussed the trends at length at a Florida Water Resources Conference in April of 2007. The group will have a summit on September 25 and 26 to discuss Florida's Water Future.

**Kathleen O'Neal, PBS&J:** The Total Water Management (TWM) Initiative refers to integrated water resource planning, alternative water supply beneficial reuse, and source water protection. TWM really boils down to sustainability. The Lower East Coast is a case study for TWM. Florida is water rich, but has a problem with storage and flexible distribution. The committee is working on developing a statewide strategy to move towards TWM.

**Jim Reynolds, Florida Keys Aqueduct Authority:** Mr. Reynolds discussed financial approaches to TWM. Four issues in these financial approaches are 1) Capital Improvement including aging infrastructure, new requirements due to regulation and resource changes, public outreach and involvement, and long-term

challenges versus short-term accountability; 2) Financial Planning including sufficiency of revenue, financing of capital projects, reserves, and revenue diversion; 3) Rate Planning and Development including cost of service basis, affordability, revenue stability, conservation considerations, and capital cost recovery fees; and 4) Organizational/Governance issues including regional solutions, and public and private partnerships.

**Ralph Terrero, Miami Dade Water and Sewer:** Miami-Dade Water and Sewer covers about 450 square miles and serves 2.5 million people. It distributes about 350 MGD to the local community. The utility employs over 1000 people and is currently going through a large reorganization. It will have 590 people in its water group alone and will still have 64 vacancies. The utility is having difficulty finding licensed professionals (electrical, engineers, plant supervisors, etc.) because of market competition. Pay issues, training, recruitment and retention, and other issues make staffing such a large utility company challenging.

**Woody Woodraska, PBS&J:** A sea change is taking place in the water management industry. The change includes the integration of all the activities associated with water into the TWM concept. Conservation will be the underlying driver in water resources. Currently the industry is still largely fragmented — each area of interest doing their own part, whether in financing, educating, or regulating. The future of water management is combining all the parts of the system into a useful, meaningful whole.

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### Florida Section Meeting Notice – November 16, 2007

Mark your calendars for the Florida Section meeting in Ft. Myers. The October 2007 issue of *The Watershed* will provide details of this meeting.

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### Water Forum hosted by Florida's Water Future

#### SAVE THESE DATES – SEPTEMBER 25 AND 26, 2007

Florida is challenged by many interrelated and competing demands for water including: domestic, industrial and environmental. Balancing these demands to promote public health, environmental stewardship and sustained growth of Florida's economy requires integrated planning and implementation by all stakeholders. A successful future of the water and wastewater industry and the people of Florida will depend upon proactive visioning and planning. Public and private utilities and other industry professionals from across the state have come together to form **Florida's Water Future (FWF)**. FWF's mission is to engage the state's water and

wastewater utilities in creating and leading a movement and ongoing process to assure the future sustainability of Florida's water resources.



Following the FWF's very successful inaugural event recently held in conjunction with the Florida Water Resources Conference this past April, FWF is hosting its second Forum to discuss the sustainable water issues with which we are faced. The goal of the Forum is to build consensus to move forward with recommended solutions. The Forum's objectives are to: Educate stakeholders on

the problems and recommend solutions; and strengthen relationships between utilities, the State's

water management districts, the Florida Department of Environmental Protection and others. Topics to be discussed include:

- Total Water Management
- Utility Finances
- Employment and Workforce

Mike Sole, Secretary of the Florida Department of Environmental Protection, has been invited to address Forum participants.

**Florida's Water Future Partners** include: Florida Section, American Water Works Association, American Water Works Association Research Foundation, Florida Water Environment Association, Water Environment Research Foundation, Florida Water Pollution Control Operators Association, Florida Engineering Society, Aqua America, Florida Rural Water Association.

For more information, contact Roy Martinez, Senior Account Manager, AWWA Research Foundation, by phone 303-347-6125 or email [rmartinez@awwarf.org](mailto:rmartinez@awwarf.org).

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## *Thank You to Our Meeting Sponsors!*

(Sponsors as of August 16, 2007)





**Florida Section Bi-Monthly Meeting**  
**Friday, September 14, 2007**  
**Jupiter Beach Resort**  
5 N A1A, Jupiter, Florida

***Loxahatchee River, Regional & Alternative Water Supply***

- 11:00 a.m. – 12:30 p.m.**      **Board of Directors' Meeting**  
*Dutch Treat; Section members welcome\**
- 11:30 a.m.**                      **Registration**
- Technical Program – Agenda**
- 12:50 p.m.**                      **Welcome & Introductions**
- 1:00 p.m.**                      **Restoring The Loxahatchee River: Plan and Process**  
*Mike Voich, SFWMD*
- 1:30 p.m.**                      **Partnerships for Restoration of the Wild and Scenic Loxahatchee River**  
*Paul Millar, Martin County; Kim Love, Tetra Tech EC, Stuart*
- 2:00 p.m.**                      **Measuring Results: The Loxahatchee River Science Plan**  
*D. Albrey Arrington, Loxahatchee River District*
- 2:30 p.m.**                      **Regional Water Availability Rule and It's Effect on the Loxahatchee River**  
*Beth Carlson Lewis, SFWMD*
- 2:50 p.m.**                      **Break**
- 3:00 p.m.**                      **Benefiting The Loxahatchee River through an Innovative Reuse Program**  
*Richard C. Dent, Loxahatchee River District*
- 3:30 p.m.**                      **Integrating Public Water Supply and Environmental Management through Membrane Technologies**  
*David Brown (Invited), Town of Jupiter Utilities Director*
- 4:00 p.m.**                      **Water and Waste Water Infrastructure as a Barrier to Alternative Water Supply Projects**  
*Carlyn Kowalsky, SFWMD*
- 4:30 p.m.**                      **Effluent Reuse as an Alternative Water Supply: Emerging Issues and Future Concerns**  
*Gary Witt, G.M., Witt & Associates*
- 5:00 p.m.**                      **Networking Social Hour**
- 6:00 p.m.**                      **Dinner Keynote Address: State of the District**  
*Melissa Meeker, Governing Board Member, SFWMD*

\* Please indicate on your registration form if you plan to attend the Board Meeting so that arrangements may be made for lunch.



**Registration Deadline – September 7, 2007; Hotel Registration Deadline – August 20, 2007**

**Jupiter Beach Resort and Spa – Friday, September 14, 2007 @ 1 p.m.**

<b>Name:</b>	First:	M.I.:	Last:	Suffix: (PE, Ph.D., etc.):
<b>Firm/Organization:</b>				
<b>Street Address:</b>				
<b>City, State, ZIP:</b>				
<b>Phone:</b>		<b>Fax:</b>		
<b>E-Mail:</b>				

Item	Cost	# Attending	Extended Amount
Board of Directors Meeting (Members Welcome)	Dutch Treat		
Florida Section Member Registration	\$45		
Non-member Registration Apply this fee to making me a Member or to renew my membership	\$65		
Dinner Guest /Guest Name: _____	\$25		
Students (if a Florida Section Member)	Free		
Students (Non-member) Apply this fee to making me a Member or to renew my membership	\$4		
Donation to Sanford N. Young Scholarship Fund		-----	
Donation to General Education Fund		-----	
Saturday a.m. kayak and canoe trip on the Loxahatchee River (1 or 2 people to a boat) (details forthcoming) <b>MUST PREPAY</b>	\$25/boat		

Checks are payable to AWRA Florida Section **TOTAL \$**

**Dietary Restrictions?** Contact Meeting Chair Tara M. Bardi at [tbardi@gmwittassoc.com](mailto:tbardi@gmwittassoc.com)

**PDH Credit for Engineers** AWRA is an approved provider by the Florida Board of Professional Engineers (FBPE Provider No.EX00089) and offers Professional Development Hour (PDH) credit to Florida Licensed Professional Engineers. You will only receive credit if you attend the entire technical session. Please check the box below and include your PE number if you would like to obtain PDH credit.

**I plan to be present for the entire session and would like PDH credit. My PE number is:** \_\_\_\_\_

<p><i>Make checks payable to</i></p> <p><b><u>AWRA Florida Section</u></b></p> <p><b>Please mail to:</b> Tara M. Bardi / AWRA G.M. Witt &amp; Associates, Inc. 1495 Forest Hill Blvd., Suite F West Palm Beach, FL 33406 <a href="mailto:tbardi@gmwittassoc.com">tbardi@gmwittassoc.com</a> 561-642-9923</p>	<p><i>Sponsorship Opportunities</i></p> <p><b>Don't miss this great opportunity to highlight your organization and network with water resource professionals and students. Get your logo on the sponsorship boards!</b></p> 	<p><i>Accommodations</i></p> <p><b>Jupiter Beach Resort and Spa</b> 5 North A1A, Jupiter, FL 33477 Phone: 800-228-8810 \$129/night +\$5.00 resort fee Available Sept. 13, 14 and 15 <i>Jupiter Beach</i> <a href="http://www.jupiterbeachresort.com">www.jupiterbeachresort.com</a> Book by 8-20-07 for special rate Code: AWRA</p>
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**JOINING AND RENEWING MEMBERS**

- |  |                                 |                                  |
|--|---------------------------------|----------------------------------|
| Preference for Receiving our Newsletter:                             | <input type="checkbox"/> E-mail | <input type="checkbox"/> US Mail |
| Are you an AWRA National Member:                                     | <input type="checkbox"/> Yes    | <input type="checkbox"/> No      |
| Would you like information on AWRA National?                         | <input type="checkbox"/> Yes    | <input type="checkbox"/> No      |
| Are you interested in corporate sponsorship opportunities?           | <input type="checkbox"/> Yes    | <input type="checkbox"/> No      |
| Would you like to be part of a bi-monthly meeting team or committee? | <input type="checkbox"/> Yes    | <input type="checkbox"/> No      |

*Please complete this entire form for our membership records and the membership directory*

## Jupiter Beach Resort & Spa

5 N A1A, Jupiter, Florida 33477 • (800) 228-8810 or (561) 745-7156

Mention AWRA for the group rate (\$129 per night)

**Deadline to receive Group Rate is Monday, August 20**



Links to recreational areas:

Loxahatchee River District website:

<http://www.riverfirst.com/>

Jonathan Dickinson State Park:

<http://www.floridastateparks.org/jonathandickinson/default.cfm>



Wilderness Guided Boat Tours:

<http://www.floridaparktours.com/schedulesfees.html>

Eco Lodge/Cabin Rentals:

<http://www.floridaparktours.com/cabinrentals.html>



Riverbend Park:

<http://www.co.palm-beach.fl.us/parks/locations/riverbend.htm>

For a list of monthly programs, click here:

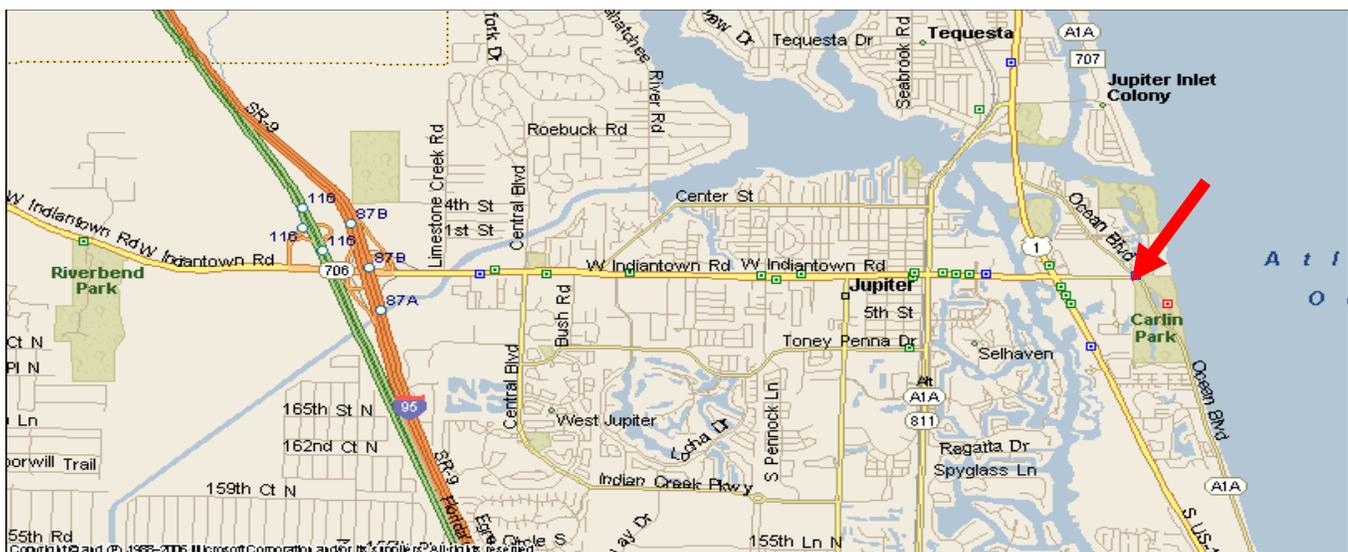
<http://www.co.palm-beach.fl.us/parks/locations/riverbendprograms.htm>

Lighthouse Tour (& Museum):

<http://www.lrhs.org/>



The Jupiter Beach Resort is indicated by the red arrow.





# 2007 Membership Application

## MEMBERSHIP DUES

New  \$20 Regular   
 Renewal  \$ 4 Student

## DIRECTORY INFORMATION

Please give us the information requested below, as you would like it to appear in the membership directory.

Name: \_\_\_\_\_  
First Middle Initial Last Suffix (Ph.D., PE, PG, etc)

Company/Affiliation: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
Box, Street or Route Suite or Apartment

City State Zip Code

Daytime Telephone: \_\_\_\_\_ Area Code \_\_\_\_\_ Alternate Telephone: \_\_\_\_\_ Area Code \_\_\_\_\_

Facsimile: \_\_\_\_\_ Area Code \_\_\_\_\_ E-mail: \_\_\_\_\_

## MEMBERSHIP INTERESTS

Would you like to receive our newsletter via e-mail? Yes  No   
 Are you an AWRA National Member? Yes  No   
 If not, would you like information? Yes  No   
 Are you interested in sponsorship opportunities? Yes  No   
 Would you like to be part of a bi-monthly meeting team? Yes  No

SPONSOR/RECRUITER: \_\_\_\_\_

## PAYMENT INFORMATION

\$\_\_\_\_\_ Annual dues (please indicate if you are paying for additional years)  
 \$\_\_\_\_\_ Florida Section Water Resources Education Fund (tax deductible contribution)  
 \$\_\_\_\_\_ Sandy Young Scholarship Fund (tax deductible contribution)  
 \$\_\_\_\_\_ **TOTAL (Please make checks payable to AWRA Florida Section, THANK YOU!)**

Return application & your check to: **Annette Carter, Membership Services Coordinator  
 c/o South Florida WMD  
 3301 Gunn Club Road  
 West Palm Beach, Florida 33406**

Florida Section membership dues are due January 1 and are good through December 31. Contributions or gifts to the Florida Section are deductible as charitable contributions for federal income tax purposes. Dues payments may be deductible by members as an ordinary and necessary business expense. For membership information, please contact Annette Carter at [ancarter@sfwmd.gov](mailto:ancarter@sfwmd.gov) or (561) 682-6433.

### Section Use Only:

Date Received: \_\_\_\_\_ Check #: \_\_\_\_\_ Amount: \_\_\_\_\_



**AWRA Newsletter Editor:**  
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**VISIT THE FLORIDA SECTION WEBSITE AT:**  
[www.awraflorida.org](http://www.awraflorida.org)

**☞ Contact Upcoming Meeting Chairmen Regarding Sponsorship or Assistance ☞**

**Apalachicola**  
 March 16, 2007  
 Bill McCartney  
 850-656-1212

**Tampa**  
 May 18, 2007  
 Doug Durbin  
 813-664-4500

**Key West**  
 July 12-14, 2007  
 John Wehle  
 561-254-1792

**Jupiter**  
 September 14, 2007  
 Tara Bardi  
 561-757-0030

**Fort Myers**  
 November 16, 2007  
 Ron Hamel  
 863-675-2180

**Welcome New Members!**

Brent Anderson, WRS Infrastructure & Environment, Tampa  
 James Barbella, Azalea Park Elementary, Orlando  
 Edward Bettinger – Florida Dept of Health, Bureau of Water Programs, Tallahassee  
 John Burns – MACTEC Engineering and Consulting, Newberry  
 Martin Clasen, PBS&J, Tampa  
 Mike Copeland, WRS Infrastructure & Environment, Tampa  
 Guillaume Denigot, University of Florida, student  
 Donald Esry, Creech Engineering, Gulf Breeze  
 Sandeep Gulati, University of Florida, student  
 George Horne, South Florida WMD, West Palm Beach  
 Daphne Lambright, Biotechnical Support Services, Tampa  
 Jacqueline Martin, University of Florida, student  
*(continued on Page 3)*

