The 16th Annual Southwest Florida Water Resources Conference
“Coastal Eutrophication and Harmful Algal Blooms”

Technical Program: The November bimonthly meeting will again be held in conjunction with the 16th Annual Southwest Florida Water Resources Conference on the campus of Florida Gulf Coast University in Fort Myers. This year’s focus will be on the issues related to the Coastal Eutrophication in Florida’s rivers, estuaries and near-shore environment. No environmental topic has been in the news more frequently this past year than this one. In keeping with the conference’s long tradition of bringing forward experts in the fields to provide relevant and timely research and perspective on an issue, this year’s event may well surpass all previous events.

Experts will present on topics such as Harmful Algal Blooms (HAB), which is the collective name for a variety of organisms that associated with the discoloration of local waters, massive fish kills, and respiratory distress, in addition to producing toxic compounds that have closed beaches and prompted shellfish warnings. With the continual micro-algal and macro-algal overblooms that have plagued both the east and particularly the west coast, the topic will be of interest to both scientists and the general public. Program Chairs, Dr. Win Everham, and Dr. Diane Bondehagen, FGCU, have collected a renowned group of speakers that should not disappoint anyone interested in this topic. Students are encouraged to attend in order to have an opportunity to be drawn for one of two $500 on-the-spot awards to be given for students in attendance. For additional information, please visit www.caloosahatchee.org/awra/.

The Florida Section Board of Director’s meeting will be held from 10:15 a.m. to Noon in Room 221 of Howard Hall (Bldg. 4).

Location & Accommodations: A block of rooms has been reserved at Wynstar Inn, 10150 Daniels Parkway, Fort Myers, FL 33913; Phone 239.791.5000; Fax 239.791.5001. Accommodation rates are $69 for single queen rooms and $89 for double queen rooms, 11% tax will be added. The cutoff for this discount is Nov. 3, 2006, so make your reservations now.
AWRA Florida Section Bimonthly Meeting  
Friday, November 17, 2006  
Florida Gulf Coast University  
The 16th Annual Southwest Florida Water Resources Conference  
“Coastal Eutrophication and Harmful Algal Blooms”

AGENDA

8:30  Registration

9:00  Welcome – FGCU President Bill Merwin

9:15 – 10:30  Session I – Coastal Eutrophication  
Ken Hudnell, United States Environmental Protection Agency  
Peter Barile, Harbor Brach Oceanographic Institute

10:15 – 12:00  AWRA Florida Section Board of Directors’ Meeting (Room 221, Howard Hall Bldg)

10:30 – 10:45  Break

10:45 – 12:00  Session II – Harmful Algal Blooms  
Quay Dortch – ECOHAB Program, NOAA Coastal Ocean Program  
Joann Burkholder, North Carolina State University

12:00 - 1:15  Lunch  

1:15 – 2:30  Session III – Red Tide  
Larry Brand, UM Rosenstiel School of Marine and Atmospheric Science  
Kelli Dixon, Mote Marine Laboratory

2:30 – 2:45  Break

2:45 – 4:00  Session IV - Politics of Nutrient Loading and HABs  
Panel Discussion

4:15  Social Hour at Baldy’s on FGCU Campus

5:30 (??)  Night out in Ole Fort Myers – Walking tour of Downtown, starting at Spirits of Bacchus (SOBs) on Hendry Street

Conference updates and forms will be posted on www.caloosahatchee.org

The meeting will take place in the Student Union (a change from past programs) on the beautiful FGCU campus. The campus is conveniently located just east of I-75 from either exit 128 (Alico Road) from the north or exit 123 (Corkscrew Road) from the south. Be sure to check in at the front gate for parking assignments the day of the program.

The conference will run from 9:00 am to 5:00 pm with a lunch break where we will hear from Michael Grunwald, Washington Post reporter and author; "The Swamp: The Everglades, Florida, and the Politics of Paradise”

While no formal events are scheduled for Saturday, southwest Florida offers some of the finest beaches, shelling and fishing in the state. If you have any questions, you can call the meeting co-chairpersons, Ron Edenfield at 941-277-0003 or e-mail at redenfield@ectinc.com or Ron Hamel at 863-675-2180 or e-mail at gulfcitrus@aol.com.
AWRA NATIONAL NEWS

Upcoming conferences hosted by AWRA

Florida Section Directory Updates

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 our next meeting in Fort Myers November 17th! Annette Carter, Membership Services Coordinator, annette.carter@tteci.com or (772) 781-3403
Board of Directors Summary
- by David Watt

The Florida Section AWRA Board of Directors met in Jupiter on Friday September 15, at 11:00 AM. The detailed agenda and minutes will be included on our website. Highlights of the meeting include:

- The UF Student Chapter has been very active, including continuing work on their New Orleans post hurricane sediment project, receiving honorable mention for student chapter of the year from National AWRA, and presentation of poster sessions at the upcoming annual meeting of AWRA National in Baltimore.
- Look for meeting notices and other AWRA news in upcoming issues of the Florida Specifier. The Board is looking into various ways to get more exposure for our bi-monthly meetings and other AWRA news.
- Updated application forms for our education awards are nearing completion, including the new Sandy Young Memorial Scholarship.
- Final ballot for election of 2007 Board of Directors: We are excited to have Marji Hightower from SJRWMD as a nominee for the Board.
- Strategic planning and policy development continue. A draft work plan will be discussed at the November meeting.
- Board members will continue to contact former members to encourage them to renew their dues.

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.

September Technical Program Summary
- by Doug Durbin

RARE CORAL Project – Allan Phipps, South Plantation High School Environmental Science & Everglades Restoration Magnet Program. Artificial reefs can be placed in marine and estuarine systems to supplement existing habitats, replace damaged or destroyed habitat, and provide eco-dive opportunities. Through its RARE CORAL (Restoration through Artificial Reef Education, Creating Outreach Reefs through Alternative Learning) project, a group of Miami-Dade County high school students constructed, deployed, and is now monitoring, a “twin” set of concrete “reef balls.” One set was placed near-shore at Oleto River State Park, and the other 1.5 miles offshore. The project benefits a number of high-school students, as well as involving several scouting groups and providing a middle school outreach program. Emphasis is put onto including a broad array of activities associated with the reef balls, ranging from biological studies, to artwork, to web-site development, to public education on water quality protection. The RARE CORAL program meets the goals of the Southeast Florida Coral Reef Initiative, which is a much larger public program focused on coral reef protection and restoration. Mr. Phipps is a recipient of a J.B. Butler Education Grant from the Florida Section of AWRA.

Innovative Reuse Projects – Carlyn Kowalsky, Department Director, Water Supply Development, SFWMD. As water demands increase, it is becoming clearer that all forms of water – surface water, groundwater, drinking water and wastewater – are all part of the same overall resource on which we must rely. Much of the United States has inadvertently come to rely on “unplanned reuse” where wastewater generated and released upstream in a watershed ultimately becomes potable water for citizens farther downstream. This is common throughout much of the central part of the nation. Other areas have a harder time addressing potable reuse, primarily due to public perception. Orange County, California currently treats about 70 million gallons of wastewater each day and pumps it into the aquifer, from which it is recovered through drinking water wells. The treatment process before groundwater injection includes reverse osmosis, ultraviolet light filtration, and oxidation with hydrogen peroxide. In addition to augmenting the county’s drinking water supply, this process eliminates the discharge of more than 60 MGD of wastewater to the ocean. The Los Angeles area has a number of other large, complex water reuse projects. In Florida, the City of West Palm Beach is treating wastewater, then discharging it into wetlands, from which it recharges the aquifer near the City’s public supply wellfield. The lower east coast of Florida generates some 350 million gallons per day of wastewater and very little of it is made available for reuse. While high costs and negative public perception are obstacles, the increasing demand for potable water and concerns over existing wastewater outfalls appear to be making direct and indirect potable reuse projects more viable.

Hoover Dike: Yesterday, Today and Tomorrow – Steve Duba, U.S. Army Corps of Engineers. The Herbert Hoover Dike surrounding Lake Okeechobee was initiated in 1931 in response to flooding caused by two hurricanes which killed some 2,500 people. The dike was largely constructed by hydraulic pumping of native material, a process which would not meet today’s engineering standards. The inflow capacity to the lake exceeds the outflow capacity by
about 8 to 1. Water level in the lake is normally managed between 12 and 15 feet, and the top of the dike is about 30 to 40 feet. The ACOE monitors the integrity of the dike continuously, particularly in response to storms and high-water events. Nearly $10 million were spent on repairs in 2004 and 2005 following the hurricanes those years. Recent concerns over safety of the dike have led to the implementation of a major rehabilitation of the dike in the coming years. There has been ongoing debate over whether the structure is a levee or a dam, but for the past decade, the ACOE has managed it as a dam (meaning it has received a higher level of attention and funding). The current goal of the ACOE is to implement a lasting solution for improving the integrity of the dike and maximizing public protection.

**Hurricanes and Water Management Preparedness – Water Levels in Canals and Lake Okeechobee – Bob Howard, Director of Operations, SFWMD.** The water management system of canals, lakes and other waterways in southern Florida is massive and complex, with nearly 2,000 miles of canals and levees, 160 major drainage basins and 2,000 control structures. Major features of the systems include Lake Okeechobee and several massive water conservation areas, as well as the Everglades. Storm events with high rainfall can provide difficult challenges for water management and many areas were developed long before modern flood prevention criteria were developed. This means some degree of flooding of homes, roads, and other developed areas is often unavoidable. Hurricanes in recent years, and their effects on water movement and water levels in Lake Okeechobee, caused widespread movement of large amounts of aquatic vegetation and other debris, which has cost millions of dollars to clean up, and which further hamper water management efforts and emergency preparedness as the clean-up proceeds.

**The Structural Integrity of the Hoover Dike – Les Bromwell, Ph.D., Principal Engineer, BCI Engineers & Scientists, Inc.** The effects of Hurricane Katrina on levees in New Orleans foreshadow the kind of damage and loss that can occur where aging or poorly engineered structures are in close proximity to people and property. The Herbert Hoover Dike around Lake Okeechobee was constructed nearly 80 years ago, without modern engineering technology. Lessons learned from levee failures in New Orleans during Hurricane Katrina suggested that the Hoover Dike may pose a serious threat to human safety and property. A scientific review team was assembled to assess the status of the dike and produced a final report in April 2006. The dike, completed in 1938 and extending some 140 miles around the lake, is constructed of a variety of heterogeneous native materials. There was no sorting of the construction materials and no compaction during construction, leading to many seepage and piping problems through the structure. The US Army Corps of Engineers began to notice seepage problems in the 1980’s, but only minor repairs were implemented, and a similar pattern of problems and minor repairs occurred in the mid-1990’s. While continuous erosion and seepage problems pose a chronic threat, the risk of catastrophic failure associated with a tropical storm or hurricane is predicted to be extremely high under certain storm conditions. One section of the dam is already undergoing significant repairs, but renovation of the entire dam could take many years at the current pace and funding level. The review panel’s 2006 report recommended that planning for the dam’s failure should be done in conjunction with the planning to prevent such failure. It was also recommended that the State of Florida, through the South Florida Water Management District, take the lead in emergency planning and public safety preparations. Essentially all of the review panel's recommendations have now been embraced and the ACOE has recently shown much stronger and more proactive attitudes toward protecting the public and responding to concerns associated with the Herbert Hoover Dike. A brief panel discussion on the Herbert Hoover Dike followed the individual presentation.

**Time to Renew Your Membership for 2007**

AWRA Florida Section membership dues for 2007 are due January 1st, 2007. Please use the membership application form in this newsletter for 2007 membership. Dues for both Regular and Student memberships remain at $20 and $4, respectively. What an excellent value to belong to the only multidisciplinary association for water resources professionals! Since the last newsletter we have had eleven new members join our organization! Please take a few minutes to introduce yourself to the new members at the next meeting. We want them to know they joined one of the best professional organizations in the State!

**Florida Section Meeting Notice – January 26, 2007**

**Mark Your Calendars** for our January meeting. It will be held on January 26, 2007, at the UF/TREEO Center, Gainesville, Florida. The meeting theme will be Public, Private and Volunteer Partnerships for Education and Research in Water Resources and include such topics as: Goals and Future of Water Institute at UF; Professors and former students take startup program to Lake Okeechobee; How Gainesville Regional Utilities is preparing to handle future drains on water resources; Emerging contaminants in groundwater; Update from JB Butler Award Recipients; Career Opportunities in Water Resources; Student Poster Session; Update on LID in Gainesville from Mayor Hanrahan; and Sponsorship Opportunities – Tabletops available as well as sponsorships. For more information, please contact: Carol Hinton Chinton@treeo.ufl.edu, Mark Diblin MCDIBLIN@mactec.com, or Gordon Brown gbsailorny@msn.com.
DON’T FORGET TO SEND IN YOUR 2007 BALLOT

Ballot

2007 Board of Directors Nominations

Each year, per our By-laws, we must vote to approve our Board of Directors, from which the Board then elects the Officers. Members may vote with or without the attached ballot; i.e., a short note with the member's voting preference will also suffice as a valid ballot.

Votes should be directed to Robert Moresi, PG, Tellers Committee, at the following email address (rmoresi@sfwmd.gov) or US Mail to 2680 Starwood Circle, West Palm Beach, FL 33406.

Please submit your vote by November 15, 2006. Only votes by members in good standing will be counted. Thank you for your cooperation.

2007 Board of Directors, AWRA Florida Section

Patrick R. Victor, P.E.
Jacksonville

Kristin K. Bennett, Esq.
West Palm Beach

Carol Hinton
Gainesville

Cathleen C. Vogel
Miami

Gordon H. Brown
Gainesville

Gary K. Howalt
Jacksonville

Jay W. Yingling
Tampa

Annette F. Carter
Stuart

Donald W. McEwen
Havana

David R. Watt, P.E.
Palatka

Douglas J. Durbin, Ph.D.
Tampa

Steve J. Nix, Ph.D., P.E.
Jacksonville

Robert W. Higgins, P.E.
West Palm Beach

Ron M. Edenfield, P.E.
Fort Myers

Paul W. O’Neil, Jr., P.E.
Tampa

Allan Biddlecomb, P.G.
Gainesville

John J. Fumero, Esq.
West Palm Beach

Garrett Wallace
West Palm Beach

Marji Hightower
Palatka

Approval of Candidates

Write in Candidate(s)

to replace
2007 Membership Application

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: ___________________ Alternate Telephone:  _______________________

Facsimile: ___________________ 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 Tetra Tech EC, Inc.
  759 South Federal Highway, Suite 100
  Stuart, Florida 34994

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 Annette.Carter@tteci.com or (772) 781-3403.

Section Use Only:
Date Received:  _______________  Check #:  _______________  Amount:  _______________
**Wynstar Inn & Suites**

A block of rooms has been reserved at Wynstar, 10150 Daniels Parkway, Fort Myers, FL 33913; Phone 239.791.5000; Fax 239.791.5001. Accommodation rates are $69 for single queen rooms and $89 for double queen rooms, 11% tax will be added. **Deadline for group rate: November 3, 2006.**

Wynstar Inn and Suites is a brand new, up-scale, non-smoking, limited service hotel. Wynstar is conveniently located next to I-75, 2.5 miles away from Regional Southwest Airport and minutes away from area beaches, Teco Arena and the Minnesota Twins training facility. Wynstar offers clean, comfortable rooms at reasonable rates. Choose from one of many room types including king studios and two room suites. On site there is a fitness center, a heated pool, and a rental car service.

**Meeting Location:** Conference: Florida Gulf Coast University – Student Union, Second Floor
AWRA Board Meeting: Howard Hall, Room 221

The conference will take place on the second floor of the FGCU Student Union on the beautiful FGCU campus. The campus is conveniently located just east of I-75 from either Exit 128 (Alico Road) from the north or Exit 123 (Corkscrew Road) from the south. Please be sure to park in Parking Lot #7.
AWRA Florida Section Bimonthly Meeting
Friday, November 17, 2006 • 9 am - 5 pm
Florida Gulf Coast University • Fort Myers, FL

16th Annual Southwest Florida Water Resources Conference
Coastal Eutrophication and Harmful Algal Blooms

Registration Form

Meeting Registration Deadline – November 10, 2006
Hotel Reservations Deadline – November 1, 2006

Name: ___________________________ Organization: ___________________________

Mailing Address: ____________________________________________________________

Phone: ___________________________ Guest Name: ____________________________

E-mail: ___________________________

Make checks payable to AWRA Florida Section and mail to:

R. M. Edenfield, P.E.
Environmental Consulting & Technology, Inc.
4100 Center Pointe Dr. Ste 112
Fort Myers, FL 33916
redenfield@ectinc.com

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Number attending the Board Meeting

* You may sponsor a student to attend the event by paying their registration fee. We will include your name with a thank you in the program brochure. If you wish to do this, please include the number of students you wish to sponsor. You may designate the student(s), or you may allow them to be used on a first come, first served basis.

PDH Credit for Florida Professional Engineers

We have been approved by the Florida Board of Professional Engineers (FBPE provider # EX00089) to offer Professional Development Hour (PDH) credit to Florida registered 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 all technical sessions and would like PDH credit.
My PE number is __________

Local accommodations will be at the Wynstar, 10150 Daniels Parkway, FM 33913, approximately 7 miles north of the University (Phone - 239.791.5000, Fax 239.791.5001). Accommodation rates are $69 for single queen room and $89 for double queen rooms, 11% tax will be added. The cutoff for this discount is Nov. 3, 2006. A block of rooms is being held for conference attendees so make sure you mention FGCU to get the discounted rate.

Directions to FGCU from I-75: I-75 south to Alico Road, East to Ben Hill Griffin Parkway, South to FGCU Blvd, East to the Campus and the conference location at the Whitaker Center.
Contact Upcoming Meeting Chairmen Regarding Sponsorship or Assistance

Gainesville
January 27, 2007
Carol Hinton
352-392-9570 x209

Apalachicola
March 16, 2007

Tampa
May 18, 2007

Key West
July 12-14, 2007
John Wehle
561-253-4309

Vero Beach
September 21, 2007

Welcome New Members!
D. Albrey Arrington, Ph.D., Loxahatchee River District, Jupiter
Elizabeth A. Barnes, Taylor Engineering, Jacksonville
Robert M. Birrenkott, Esq., Carey, O'Malley, Whitaker & Manson PA, Tampa
Miao-Li Chang, Ph.D., South Florida WMD, West Palm Beach
Anthony D. Dabbiero, Travel Incorporated, Tampa
Linda Jennings, R.W. Beck, Orlando
Patrick Lien, R.W. Beck, Orlando
Steven J. Musso, Student, Palm City
Christopher A. Niforatos, P.E., Halcrow, Tampa
Rajaram Vijayendran, Metco Services Inc., West Palm Beach
Lichun Zhang, Taylor Engineering, West Palm Beach