

21st ANNUAL FLORIDA LAKE MANAGEMENT SOCIETY CONFERENCE

Conference Theme: Exploring the Springs Coast

Plantation Inn, Crystal River, FL

June 14-17, 2010

FINAL PROGRAM

MONDAY - JUNE 14, 2010 – Workshops (Sabal A, B,C, D)

8:00 am-5:00 pm	Check-In and Registration (Magnolia – Pine Room)
8:00 am-8:30 am	MORNING REFRESHMENTS (Sabal)
8:15-11:45 am	Workshop 1: Water Quality Monitoring, Data Analysis and Interpretation. Harvey H. Harper, Ph.D., P.E. – President Environmental Research & Design, Inc.
8:15-11:45 am	Workshop 2: Application of the Lake Vegetation Index for Accurate Assessment, Part I (classroom). Russel Frydenborg and Nia Wellendorf, Florida Department of Environmental Protection.
8:15-11:45 am	Workshop 3: Where’s the Money and How Do I Get It? Secrets of Successful Grant Writing. Sherry Brandt-Williams, Mary Brabham and Paul Haydt, St. Johns River Water Management District; Kelli Hammer Levy, Pinellas County; and Shannon Carter Wetzel, Seminole County
8:15-11:45 am	Workshop 4: Designing a Sediment Removal Project. Shailesh Patel, Dredging & Marine Consultants
12:00-1:00 pm	LUNCH (provided with full-day Workshop registration) (Sabal)
1:15-4:45 pm	Workshop 5: Application of the Lake Vegetation Index for Accurate Assessment, Part II (field)*. Russel Frydenborg and Nia Wellendorf, Florida Department of Environmental Protection (*requires Workshop #2 as a prerequisite)
1:15-4:45 pm	Workshop 6: Environmental Mapping with YSI’s EcoMapper AUV. We all Love a Yellow Submarine. Brian Bendis, AMJ Environmental, Inc. and Matthew Previte, YSI/Services, Florida

* Indicates Student Presenter

TUESDAY - JUNE 15, 2010

8:00 am-4:00 pm	Check-In and Registration (Magnolia Conference Facility – Pine Room)
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7:00 am-8:30am	Breakfast (Plantation Room Restaurant)
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Sessions Sabal Conference Facility

8:00 - 8:20 am Opening Remarks: Kelli Hammer Levy – FLMS President and Program Chair
Jim Griffin – FLMS Conference Co-Chair
John Walkinshaw -- FLMS Conference Co-Chair

Session 1: Restoring Lake Jesup, A Hypereutrophic Central Florida Lake

Moderator: Sherry Brandt-Williams

8:20-8:40 am **The Lake Jesup Interagency Restoration Strategy Document and Basin Management Action Plan (BMAP) --** Sherry Brandt-Williams, Ed Lowe, Lawson Snyder, Jennifer Gihring, Erich Marzolf, Tiffany Busby, Marcy Policastro, John Abendroth, Samantha Budd, Regina Morse, and the Lake Jesup Technical Stakeholder's Group

8:40-9:00 am **Proactive Water Quality Implementation Process, Lake Jesup Basin, Seminole County, Florida –** Robert Walter and Mark Flomerfelt

9:00-9:20 am **Floating Island Treatment Systems (FITS): Phosphorus Removal From Organic-Rich Surface Water –** Treavor H. Boyer, Mark T. Brown, Sherry Brandt, Amar Persaud, Sam Arden, Poulomi Banerjee, R.J. Sindelar, and Pedro Palomino

9:20-9:40 am **Feasibility of Using Alum to Reduce Nutrient Loads to Lake Jesup –** Harvey Harper, Regina Morse, and Sherry Brandt-Williams

9:40-10:00 am **Nutrient Removal at Lake Jesup through Invasive Species Management: An Assessment of *Phragmites australis* –** Mary C. Boyd*, Mark T. Brown, and Sherry Brandt-Williams

10:00-10:20 am **Lake Jesup Cooperative Efforts: Vegetation Restoration--** Gloria Eby and Ed Hayes

10:20-10:40 am	MORNING BREAK (Magnolia – Exhibitor Hall)
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Session 2: Vegetation Management: Tools for Assessment and Monitoring

Moderator: John Walkinshaw

10:40-11:00 am **Quality Assurance for Use of the Florida Lake Vegetation Index –** Nia Wellendorf and Russel Frydenborg

11:00-11:20 am **Interspecific and Interseasonal Differences in Water Depth Distribution and Cover of Dominant SAV in the Lower St. Johns River –** Jennifer J. Sagan

11:20-11:40 pm **Update on Hydrilla Management in the Lakes of Winter Park and Maitland–**
Evaluation of Control Methods – Timothy Egan

11:40-12:00 pm **Use of Side Scanning Sonar Equipment to Image Physical Impacts of**
Recreational Boating on Seagrass Beds in Cockroach Bay, Florida – David
Eilers and Jim Griffin

* Indicates Student Presenter

TUESDAY – JUNE 15, 2010 (Continued)

12:00-1:00 pm	DELI BUFFET LUNCH (Palm Dining Room)
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Session 3: Hydrology and Nutrient Interactions

Moderator: Lawrence Keenan

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| 1:00-1:20 pm | Control of Phytoplankton by Nitrogen and Phosphorus – Science and Semantics and Lake Management – <u>Michael Coveney</u> |
| 1:20-1:40 pm | Seepage Pathways and Head Potentials at Lake Wimauma, Florida <u>Charles Fellows</u> , James Hirsch, Louis Motz, and Jill Hood |
| 1:40-2:00 pm | Hydrologic Fluxes and Nutrient Regimes in Two Bayous of Western Choctawhatchee Bay – <u>Alison McDowell*</u> , Alexander Maestre, and Matthew Schwartz |
| 2:00-2:20 pm | Water Quality Responses to Flow Variations in the Middle St. Johns River Basin: Lakes Harney, Monroe, and George – <u>Scott Wuitschick</u> and Gerold Morrison |

2:20-2:40 pm	AFTERNOON BREAK (Magnolia – Exhibitor Hall)
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Session 4: The Results: Best Management Practices in Action Part I

Moderator: Mike Perry

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| 2:40-3:00 pm | Efficacy of a Large-Scale Constructed Wetland to Remove Phosphorus and Suspended Solids From a Sub-Tropical Shallow Lake – <u>Ed Dunne</u> , Mike Coveney, Erich Marzolf, Victoria Hoge, Roxanne Conrow, Robert Naleway, Edgar Lowe, and Larry Battoe |
| 3:00-3:20 pm | NuRF – The First Year – <u>Lance Lumbard</u> |
| 3:20-3:40 pm | Geofilter Tube Technology Helps in Successful Restoration of Fish—Pocket Canal – <u>Sergio Duarte</u> |
| 3:40- 4:00 pm | Nutrient Removal Evaluation of Suntree Technologies Curb and Grate Inlet Filter Baskets within Urban Residential Watersheds of Orange County, Florida – <u>Ron Novy</u> and Tim Lindsey |

Session 5: Monitoring and Assessment -- Indicators of Change

Moderator: Jim Griffin

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| 4:00- 4:20 pm | A Detailed Analysis of the Hillsborough River: The Application of Lake Assessment Techniques to the Assessment of River Reaches — <u>Jim Griffin</u> and David Eilers |
| 4:20-4:40 pm | Factors Related to Warmouth (<i>Lepomis gulosus</i>) Biomass and Density in Florida Lakes — <u>David Watson</u> , Dan Willis, Mark Hoyer, and Dan Canfield |
| 4:40-5:00 pm | A Review of Recent Wetland Findings Concerning Clam Shrimp and Fairy Shrimp Within a West-Central Florida Natural Area – <u>Jonathan Ipock</u> , Kym Rouse Campbell, Todd Campbell, Wayne Price, and D. Christopher Rogers |

5:30-6:30 pm	POSTER SESSION (Magnolia – Pine Room)
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6:30-8:30 pm	EXHIBITORS' SOCIAL (Magnolia – Exhibitor Hall)
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TUESDAY – JUNE 15, 2010 (Continued)

Session 6: Poster Session (Magnolia – Pine Room)

- 5:30-6:30 pm **Dead on Arrival? A Fresh Look at Assumptions Regarding Impingement and Entrainment Mortality at Power Plants** – Judy Dudley, Ann Shortelle, Shannon McMorrow, and Joe Neese
- 5:30-6:30 pm **Water Quality Changes Following Nutrient Loading Reduction and Biomanipulation in Lake Griffin** – Walt Godwin, Rolland Fulton, and Brian Sparks
- 5:30-6:30 pm **A 20 Year External Phosphorus Budget For Lake Apopka, 1989-2008** – Vicki Hoge, Ed Dunne, and Mike Coveney
- 5:30-6:30 pm **Reclaimed Water in the Middle St Johns River Basin Watershed** -- Sherry Brandt-Williams, Robert Godfrey, and Erich R. Marzolf
- 5:30-6:30 pm **Mapping Total Phosphorus Concentrations in Water Bodies Using LANDSAT TM and ETM+ Data** -- Louis Sanderson, Robert K. Vincent, and Chip Tokar
- 5:30-6:30 pm **Coral diversity of nine natural reefs along Florida's Spring Coast** -- Madison Hayes, Cole Kolasa, Brooke Liston, Morgan Liston, and Connor Waugh
- 5:30-6:30 pm **The Right Tool for the Right Place: Assessing The Use of Polyacrylamide in a Stormwater Pond** -- Shannon Carter-Wetzel, Cayden Lawne, Matt Rayl, and Zynka Perez

6:30-8:30 pm	EXHIBITORS' SOCIAL (Magnolia – Exhibitor Hall)
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WEDNESDAY - JUNE 16, 2010

8:00 am-3:00 pm Check-In and Registration (Magnolia Conference Facility Pine Room)

7:00 am-8:00 am Breakfast (Plantation Room Restaurant)

Sessions Sabal Conference Facility

Session 7: Watershed Management: Results and Recommendations

Moderator: Shannon Carter-Wetzel

8:00-8:20 am **Sustainable Stormwater: Maximizing Your Low-Cost Resources** – Shannon Carter-Wetzel, Kim Ornberg, and Ann Shortelle

8:20-8:40 am **Integrated Water Management for Multiple Benefits – The Peace Creek Watershed** – Mike Britt

8:40-9:00 am **Use of Reclaimed Water to Offset Fertilizer Applications: A Cost Effective Pollution Prevention Management Practice?** – Erich Marzolf

9:00-9:20 am **Copper Impairment in Florida Waters: An Ounce of Prevention and Pounds of Cures** – Ann Shortelle and William Tucker

9:20-9:40 am **Ploidy of Grass Carp (*Ctenopharyngodon idella*) in the Suwannee River, Florida** – Bruce Jagers, Joe Hinkle, and Allen Martin

9:40-10:00 am **Restoration of Lake Holden: A True Success Story Using a Multi-Faceted Approach to Nutrient Load Reductions** -- Harvey Harper and Brian Cananzaro

10:00-10:20 am	MORNING BREAK (Magnolia – Exhibitor Hall)
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Session 8: Potential Methods to Develop Site Specific Alternative Nutrient Criteria for Lakes

Moderator: Kelli Hammer Levy

10:20-10:30 am **Introductory Remarks:** Russell Frydenborg

10:30-10:50 am **What Determines Nutrient Concentrations in Florida Lakes: Natural Factors or Human Activities?** – Dana Bigham*, Roger Bachmann, Mark Hoyer, and Dan Canfield

10:50-11:10 am **What is the Best Way to Set Nutrient Standards for Florida Lakes?** – Roger Bachmann, Dana Bigham, Mark Hoyer, and Dan Canfield

11:10-11:30 am **Challenges Associated with the Development of Site Specific Alternative Criteria for the Winter Haven Chain of Lakes** – David Tomasko

11:30-11:50 am **Using the Morphoedaphic Index, Water Color, and Compensation Depth to Develop Numeric Nutrient Criteria for Lakes** – Ed Lowe, John Hendrickson, Larry Battoe, and Mike Coveney

12:00-1:30 pm	BANQUET LUNCH/FLMS ANNUAL MEETING (Palm Dining Room)
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WEDNESDAY - JUNE 16, 2010 (Continued)

Session 9: Monitoring and Assessment of Florida's Aquatic Resources Part I

Moderator: David Evans

- 1:30-1:50 pm **Mapping Changes in Woody Vegetation Cover Over the Choctawhatchee Bay Area and Its Subsequent Effects on Water Chemistry of the Estuary System – Jenney Kellogg Lazzarino* and Julia Terrell**
- 1:50-2:10pm **Lake Morphology: Application of Spatial Analysis to Better Manage and Understand Lake Morphologic Data – Jim Griffin and David Eilers**
- 2:10-2:30 pm **Quantification of Seagrass Abundance in Choctawhatchee Bay, Florida Using Landsat TM Imagery – Jenney Kellogg Lazzarino and Julia Terrell**
- 2:30-2:50 pm **Seagrass Communities of Florida's Springs Coast - A comparison of the 1985, 1999, and 2007 Maps and Coverages – Keith Kolasa**
- 2:50-3:10 pm **Calibration of Three Florida Biological Indices Using the Biological Condition Gradient Approach – Russell Frydenborg**
- 3:10- 3:30 pm **Effects of a Catastrophic Forest Fire on the Trophic Parameters of an Outstanding Florida Water – Ivelisse Ruiz-Bernard* and Dan Canfield**

3:30- 3:50 pm	AFTERNOON BREAK (Magnolia – Exhibitor Hall)
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Session 10: Techniques and Tools for Water Quality Assessment

Moderator: John Walkinshaw

- 3:50-4:00pm **Water Quality Modeling of Lake Jesup Using QUAL2k: Part IV—Return of the Secchi – Scott Lowe, Kim Ornberg, and Mark Flommerfelt**
- 4:00-4:20 pm **Designing a Dynamic Data Driven Application System for Estimating Real-Time Load of DOC in a River – Ying Ouyang**
- 4:20-4:40 pm **The Southwest Florida Water Management District's Ambient Lakes Monitoring Network: Using Florida Lake Regions to Define Expected Water Quality in Lakes – Chris Barnes***
- 4:40– 5:00 pm **The Relationship Between Land Use and Stormwater Quality in a Phosphate Rich Watershed in North Central Florida—Jian Di and Erich Marzolf**

5:00-5:30 pm	FLMS BOARD MEETING (Sabal)
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THURSDAY - JUNE 17, 2010

7:00 am-8:15 am Breakfast (Plantation Room Restaurant)
10:00 am-12:00 noon Exhibitor Breakdown

Sessions Sabal Conference Facility

Session 11: Monitoring and Assessment of Florida's Aquatic Resources Part II

Moderator: Shannon Carter-Wetzel

8:15-8:35 am **Use of Pressure-Sensing Data Loggers to Estimate Stormwater Runoff and Other Water Budget Components** – Charles Fellows, James Hirsch, Louis Motz, and Jill Hood

8:35-8:55 am **Rating Improvement and Uncertainty Analysis for Flow at G381B_C and G381E_C of Stormwater Treatment Area 3/4** – Kwaku Oben-Nyarko and Jing-Yea Yang

8:55-9:15 am **The Effects of Salinity Pulses on Submerged Aquatic Vegetation in the Lower St. Johns River** -- Jennifer Tallerico, Dean Dobberful, and Mallarie Yeager

9:15-9:25 am **Florida Lakewatch's Role in the Florida Long-Term Monitoring Project** – Jason Bennett and Mark Hoyer

9:25-9:45 am	MORNING BREAK (Magnolia – Exhibitor Hall)
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Session 12: The Results: Best Management Practices in Action Part II

Moderator: Lawrence Keenan

9:45-10:05 am **How to Combat the Detrimental Effects of Eutrophication, Control Algae Blooms, and Meet Water Quality Standards** – Seva Iwinski

10:05- 10:25 am **Evaluation of Stormwater Pond Functionality Through Alternative Designs for Ecosystem Facilitation** – Zachary Marimon*

10:25- 10:45 am **Lake Jackson Shoreline Restoration** – Erin McCarta

10:45-11:05 am **Nutrient Reduction and Oxygenation in a South Florida Retention Pond Using Artificial Destratification Aeration** – Amanda Quillen

11:05- 11:25 am **A Simple Approach for the Removal of Oil, Gas, and other Hydrocarbons from Stormwater Runoff** – Jiexuan Luo*

11:25-11:45 am **Student Awards and Concluding Remarks:** Shannon Carter-Wetzel, FLMS President 2010-2011

12:00	CONFERENCE ADJOURNED
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