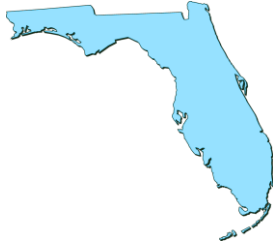


Managing Florida's Aquifers: Annual Conference

Groundwater Issues – ASR 19 (Yes! - 19th year of this event)

Florida Hotel & Conference Center, 1500 Sand Lake Rd, Orlando, FL 32809
Monday, September 30, & Tuesday, October 1, 2019

The American Ground Water Trust Annual Florida Groundwater Program



CONTINUING EDUCATION

The AGWT will issue certificates of attendance:

Approved by FL Water Environmental Association for Water Operators-DW,WW,DS – 13 PDHs (1.3 CEUs)

Approved by FL DEP for Water Well Contractors – Course ID #124-093019-101 - 10 S/B and 1 R/R Credits

Approved by FL Board of Professional Engineers



Event sponsors:



WHO SHOULD BE HERE?

Water professionals and groundwater end-users, engineers, geologists, hydrogeologists, planners, utility operators, water re-use and aquifer recharge consultants, water treatment specialists, water well contractors, industry & agriculture end-users, city & county government, regulatory authorities, legislators, elected officials, environmental NGOs, planners, water attorneys and interested citizens.

7:30 – 8:30 REGISTRATION Monday, September 30, 2019

8:30 – 8:45

CONFERENCE BACKGROUND AND INTRODUCTION

Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

8:45 – 9:15

GEOLOGIC THEORIES ABOUT THE ORIGIN OF THE LOWER FLORIDAN AQUIFER BOULDER ZONE

Thomas A. Herbert, PhD., P.G., Vice President, Lampl Herbert Consultants, Inc., Tallahassee, FL

9:15 – 9:45

HIGH RESOLUTION SEISMIC REFLECTION IMAGING OF THE FLORIDAN AQUIFER IN THE LAKE OKEECHOBEE AREA OF SOUTHERN FLORIDA

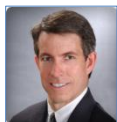
Finn Michelson, PG, Collier Geophysics, Stephenville, TX

Coauthors, Robert Verrastro, PG, SFWMD and John Jansen, PG, PGp., PhD, Collier Consulting, West Bend, WI

9:45 – 10:15 KEYNOTE PRESENTATION

MARKET-BASED INCENTIVE STRATEGIES FOR SUSTAINABLE USE OF FLORIDA'S WATER RESOURCES

Ernie Cox, JD, President, Family Lands Remembered, Jupiter, FL



Ernie Cox is the President of Family Lands Remembered, LLC, a company focused on the conservation and enhancement of Florida's land, water, agricultural and energy resources using creative planning, partnerships and market-based incentive strategies. Prior to founding Family Lands Remembered, Ernie was a practicing attorney for more than 15 years with the Gunster law firm. He was a shareholder and chaired the firms Conservation, Stewardship and Rural Development group. He received bachelor's degrees in geology and economics (1985) and a law degree with honors (1990) from the University of Florida. He serves as a Board Member of Florida Earth Foundation. Florida Earth Foundation's mission is to bring people together through education, public outreach, and facilitation to ensure the future integrity of Florida's environment and quality of life. A central theme of all Florida Earth is to provide programs that enable participants and partners in developing and implementing solutions to challenges in the water space.

10:15 – 10:40 BREAK

10:40 – 11:10

THE OCALA WETLAND PARK - CONSTRUCTED WETLAND FOR NUTRIENT REMOVAL AND FLORIDAN AQUIFER RECHARGE

Allison Lewis, PE, Engineer, Jacobs, Tampa, FL & Rachel Slocumb, Conservation Coordinator, City of Ocala, FL

11:10 – 11:40

PATHOGEN INACTIVATION RATES DURING STORAGE OF RECHARGED WATER IN THE UPPER FLORIDAN AQUIFER

John T. Lisle, PhD, Microbial Ecologist, US Geological Survey, St. Petersburg, FL

11:40 – 12:00 KEYNOTE PRESENTATION

FLORIDA'S WATER QUALITY CHALLENGES

Senator David H. Simmons, JD, Florida Senate District 9



First elected to the Senate in 2010, Simmons previously served as a member of the Florida House of Representatives, representing the 37th district from 2000 to 2008. He was elected as Florida Senate's President Pro Tempore for the 2018-2020 Legislative Term. David is a Founding partner of DSK Law and is board certified by The Florida Bar both as a Civil Trial Lawyer and Business Litigation Attorney. He obtained his law degree from Vanderbilt University Law School. Senate District 9 includes Greater Orlando, Seminole County and portions of Volusia County.

12:00 – 1:10 LUNCH – Sponsored by Florida Design Drilling Corp.

1:10 – 1:40

EXPLORATORY WELL IN LOWER FLORIDAN AQUIFER: CITY OF DELTONA WET WEATHER EFFLUENT MANAGEMENT

Mark McNeal, PG, CEO, ASRus, Tampa, FL

1:40 – 2:10

TAMPA AQUIFER PROJECT PHASE II (INTER-AQUIFER FLOWPATHS)

June Mirecki, PhD, Senior Hydrogeologist, US Army Corps of Engineers, Jacksonville, FL

2:10 – 2:40

JACKSONVILLE ELECTRIC AUTHORITY (JEA) LOWER FLORIDAN AQUIFER RECHARGE PILOT TEST DUVAL COUNTY

Erik Svenson, PG, Senior Groundwater Technologist, JACOBS Engineering Group, Matthews, NC,

Mark Lucas, PG, Senior Geochemist, JACOBS Engineering Group, Cary, NC and

Blake Roberts, GIT, Junior Hydrogeologist, JACOBS Engineering Group, Jacksonville, FL

2:40 – 3:00 BREAK

3:00 – 3:30

BIOSOLIDS DISPOSAL IN FLORIDA: LEGAL AND REGULATORY ISSUES RELATED TO WATER SUPPLY AND ENVIRONMENTAL PROTECTION

Craig Varn, JD, Shareholder, Manson Bolves Donaldson Varn, Tallahassee, FL

3:30 – 4:00

INTEGRATING DEEP WELL INJECTION AND ASR INTO A MANAGED AQUIFER CONCEPT

Virginia Walsh, PhD, PG, Chief of Hydrogeology, Miami-Dade Water and Sewer Department, Miami, FL and Ed Rectenwald, PG, PMP, Hydrogeology National Practice Lead, Black & Veatch, Fort Myers, FL

4:00 – 4:30

APPLICATION OF MODFLOW-USG GROUNDWATER MODELS TO EVALUATE EXPANDING SUSTAINABLE WATER SUPPLY IN THE UPPER TUUL RIVER BASIN, MONGOLIA

Laura Kuebler, Sr. Hydrogeologist, JLA Geosciences, Jupiter, FL and Shajan Joykutty, PE, Vice President, Hazen and Sawyer, Fort Lauderdale, FL

4:30 – 4:45

DAY ONE PRESENTATIONS - DISCUSSIONS AND Q & A

5:00 - 6:30 RECEPTION (Cash bar)



DAY TWO

7:30 – 8:30 REGISTRATION Tuesday, October 1, 2019

8:30 – 8:45

RE-CAP OF DAY ONE HIGHLIGHTS AND INTRODUCTION TO DAY TWO

Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

8:45 – 10:45

SPECIAL SESSION: LOCAL AND NATIONAL MAGNITUDE OF PFAS CONTAMINATION

Important information for all water managers, scientists, engineers and elected officials

“110 million Americans have some PFAS in their drinking water”

“95% of Americans have PFAS in their blood!”

PFAS: WIDE-RANGING SOURCES AND IMPACTS TO WATER SUPPLIES

Gregory Schnaar, PhD, Principal Env. Scientist, Daniel B. Stephens & Associates, Inc., Silver Spring, MD

“FOREVER COMPOUNDS” - PFAS AND WASTE - What to do with it now? (Landfills? Incineration? Wastewater Treatment?)

Norman Farmer, PFAS Program Director and US Technical Director, SGS North America, Orlando, FL

MICROPLASTICS IN GROUNDWATER, CARRIERS OF PERSISTENT POLLUTANTS INCLUDING PFAS

James Studer, PE, Principal Consultant, InfraSUR LLC, Albuquerque, NM

DRINKING WATER QUALITY: WATER EQUIPMENT DESIGN AND TREATMENT CAPABILITIES FOR REMOVING PFAS AND RELATED COMPOUNDS

Arna Ramic, Ion Exchange Technologist, ResinTech, West Berlin, NJ

10:45 – 11:00 BREAK

11:00 – 11:30

STATUS OF FLORIDA'S POTABLE REUSE PROJECTS

Charles Drake, PG, CPG, Vice President, Tetra Tech, Orlando, FL

11:30 – 12:00

THE CITY OF NORTH PORT ASR SYSTEM UPDATE AND RECHARGE OF RAW SURFACE WATER

David P Kelly, PG, Water Resources Leader, Cardno, Riverview, FL

12:00 12:30 KEYNOTE PRESENTATION

**INNOVATIVE TECHNOLOGIES IN THE MANAGEMENT OF LAKE OKEECHOBEE:
AN AGRICULTURAL PERSPECTIVE**

Ernie Barnett, Executive Director, Florida Land Council/Principal, Water & Land Advisors, West Palm Beach, FL



Ernie Barnett has more than 30 years of water resources management experience and public service, during which he contributed to several landmark environmental laws. He had a lead role in the successful passage by the Florida Legislature of the Lake Okeechobee Protection Act; the Everglades Restoration Investment Act, which has provided more than \$1 billion for Everglades restoration; and the Everglades Improvement and Management Act and the 2013 Everglades Improvement and Management Act. He also helped secure approval of the Water Resource Development Act of 2000, in which Congress authorized the Comprehensive Everglades Restoration Plan. In 2013, he led the South Florida Water Management District as Interim Executive Director. As Executive Director of The Florida Land Council Ernie works to proactively engage regulatory and resource management agencies to help formulate public policies for land protection stewardship.

Mr. Barnett has a Master of Science in Environmental Engineering from the University of Florida and Master of Science in Biology and Bachelor of Science in Environmental Resource Management and Planning, both from the University of West Florida.

12:30 – 1:30 LUNCH

1:30 – 2:00

ADVANCED WATER PURIFICATION FOR AQUIFER RECHARGE: What are some of the issues, concerns and solutions under consideration and how might these apply to Florida?

David Pyne, PE, President, ASR Systems, Gainesville, FL

2:00 – 2:30

PROGRESS ON RESEARCH INTO NUTRIENT REDUCTION BY MICROBIAL COMMUNITIES DURING ASR

John T. Lisle, PhD, Microbial Ecologist, US Geological Survey, St. Petersburg, FL

2:30 – 3:00

ASR - CITY OF BRADENTON: USE OF A DEGASSING TOWER FOR ARSENIC CONTROL

Susan Hochuli, PE, City of Bradenton, Bradenton, FL

Pete Larkin, PG, Vice President, ASRus, Tampa, FL

David Yonge, PhD, PE, Project Engineer, Jones Edmunds & Associates, Tampa, FL

3:00 – 3:10 BREAK

3:10 – 3:40

BRACKISH GROUNDWATER DEVELOPMENT IN CENTRAL FLORIDA: POLK REGIONAL WATER COOPERATIVE SOUTHEAST WELLFIELD PROJECT

Robert Maliva, PhD, PG, Principal Hydrogeologist, WSP Parsons Brinckerhoff, Fort Myers, FL

3:40 – 4:10

UPDATE ON SOUTH FLORIDA WATER MANAGEMENT DISTRICT ASR PROJECTS

Jonathan Shaw, PG, Principal Hydrogeologist, Water Supply Bureau, S. Florida Water Management District, West Palm Beach, FL

4:10 – 4:15

CLOSING REMARKS – WHAT HAVE WE LEARNED AT THS CONFERENCE? WHAT IS THE OUTLOOK FOR FLORIDA'S GROUNDWATER FUTURE?

4:15 ADJOURN

