

MANAGING FLORIDA'S AQUIFERS

Holiday Inn Hotel, Orlando Airport, Orlando, FL, Monday Sept 21 & Tuesday Sept 22, 2015

PROGRAM



This is the American Ground Water Trust's 15th annual aquifer recharge program with a focus on Florida water management issues.

The event is an essential one-stop-shop for all professionals, end-users and citizens who have an interest in the management of Florida's aquifers. Year after year the attendees tell us that this is the one water-issues conference in Florida that they don't want to miss. The invited program presenters will provide updates on projects and technology innovations and the regulatory framework that allows for the development and the conservation of the state's groundwater. In the two days of the conference there will be opportunity to discuss and assess progress and roadblocks for effective integrated management of Florida's water resources.



CONTINUING EDUCATION

The AGWT will issue certificates of attendance

Approved - Water Well Contractors – 10 Credits – 4 S/B and 6 R/R. Course ID 124-092115-101

Approved - FL Prof Engineers Provider #306 – 13 PDH (Day 1 – 6.75 - #0009166/ Day 2 - 6.25 PDH ~ #0009941)

Approved - Water/Wastewater Operators 12.5 PDHs (Day 1 – 6.5/Day 2 – 6.0) FWEA (CEU provider for FDEP)



Endorsed by the IAH Commission: Groundwater for Decision-makers

Event Sponsors



Day one Program – Monday, September 21st

7:00 REGISTRATION

8:20 **CONFERENCE OBJECTIVES – AQUIFER MANAGEMENT CHALLENGES**

Andrew Stone, American Ground Water Trust, Concord, NH

8:50 **LARGE-SCALE ARTIFICIAL GROUNDWATER RECHARGE OVER LONG-TIME PERIODS IN RESPONSE TO CLIMATE CHANGE IN ARID REGIONS AND FLORIDA**

Dr. Thomas M. Missimer, U. A. Whitaker College of Engineering, Florida Gulf Coast University, Fort Myers, FL

9:20 **SB 536: PROGRESS UPDATE ON THE USE OF RECLAIMED WATER, STORMWATER, AND EXCESS SURFACE WATER IN FLORIDA**

Janet G. Llewellyn, Policy Administrator, Office of Water Policy, Florida DEP, Tallahassee, FL

9:50 **UPDATE ON FLORIDA'S AQUIFER RECHARGE REGULATIONS AND RECENT PERMITS**

Joe Haberfeld, UIC Program Manager, Florida DEP, Tallahassee, FL

10:20 BREAK

10:45 **FEDERAL GOVERNMENT'S WATERS OF THE U.S. RULE (WOTUS) (Takes effect August 28th) IMPLICATIONS FOR FLORIDA'S LANDOWNERS AND WATER MANAGERS**

Greg Munson, Shareholder, Gunster Law Firm, Tallahassee, FL

11:15 **REVISED HYDROGEOLOGIC FRAMEWORK OF THE FLORIDAN AQUIFER SYSTEM IN FLORIDA**

Dr. Eve Kuniansky, Groundwater Specialist, United States Geological Survey, Norcross, GA

11:45 **NUTRIENT REDUCTION DURING ASR CYCLE TESTS IN THE UPPER FLORIDAN AQUIFER**

Dr. June Mirecki, Geochemist, US Army Corps of Engineers, Jacksonville FL

12:15 LUNCH

1:30 **CLEARWATER: RESULTS FROM THE FIRST FLORIDA POTABLE REUSE PILOT WITH POST-TREATMENT FOR AQUIFER PROTECTION**

Dr. Dave MacNevin, Project Engineer, Tetra Tech, Miami, FL

2:00 **UPDATE ON RULE MAKING AND LEGISLATION RELATED TO MINIMUM FLOWS AND LEVELS AND SPRINGS**

Eric Olsen, Shareholder, Hopping Green & Sams, Tallahassee, FL

2:30 **ECONOMICS OF MANAGED AQUIFER RECHARGE - COSTS, BENEFITS, AND RISKS**

Dr. Bob Maliva, Principal Hydrogeologist, Schlumberger Water Services, Fort Myers FL

3:00 BREAK

3:15 Panel Session

**AQUIFER STORAGE AND RECOVERY (ASR) SYSTEMS:
THE SUCCESS SCORE-SHEET FOR UNITED STATES PROJECTS**

Moderator Tracy Mercer

ASR CHALLENGES AND SOLUTIONS: SOME NATIONWIDE PERSPECTIVES

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

TECHNICAL AND REGULATORY ISSUES: AN OVERVIEW OF WEST COAST ASR PROJECTS

Jeff Barry, Principal Hydrogeologist, GSI Water Solutions Inc. Santa Barbara, CA

WICHITA, KANSAS: AQUIFER STORAGE RECOVERY PROJECT

Daniel Clement, Engineer, Burns & McDonnell, Wichita, KS

FLORIDA ASR PROJECTS TRACK RECORD

Donald Ellison, Senior Professional Geologist, Southwest Florida Water WMD, Brooksville, FL

5:15 RECEPTION (cash bar)



Day two Program – Tuesday, September 22nd

7:30 REGISTRATION

8:15 **SUMMARY OF DAY ONE**

Mike Weatherby, CEO, HydroGeo Consulting LLC, Tampa, FL

8:30 **WEST PALM BEACH WATER QUALITY CRITERIA EXEMPTION ALLOWS CYCLE TESTING WITHOUT DISINFECTION**

Dr. Poonam Kalkat, Assistant Director of Utilities, City of West Palm Beach, FL and James Andersen, JLA Geosciences, Jupiter, FL

9:00 **UPDATE REPORT ON RECLAIMED WATER ASR PROJECTS - SARASOTA COUNTY AND CITY OF PALMETTO**

Thomas Farkas, Senior Hydrogeologist, Water Systems Engineering, Atkins Global, Tampa, FL

9:30 **A REGULATORY INSTITUTIONAL CONTROL FOR ASR UIC PERMITS: MEETING THE TEST OF REASONABLE ASSURANCE**

John Mayhut, Senior Project Hydrogeologist and Mike Waldron, Senior Hydrogeologist, Water Resources Management, Kadrmass Lee & Jackson, Lake Worth, FL

10:00 **EXPANDING ALTERNATIVE WATER SUPPLY OPPORTUNITIES IN CENTRAL FLORIDA THROUGH CLASS V INJECTION WELL PERMITTING**

Mark McNeal, President, ASRus, LLC, Tampa, FL

10:30 BREAK

10:45 **NEXTGEN UNDERGROUND THERMAL ENERGY STORAGE SYSTEM & FLORIDA'S GEOLOGY: A PERFECT FIT:**

Chuck Hammock, Partner, Andrews Hammock & Powell, Inc., Consulting Engineers, Macon, GA

11:15 **TECHNIQUES TO OPTIMIZE A CONVENTIONAL ACID TREATMENT FOR ASR WELLS.**

Paul Petrey, Operations Manager, Applied Drilling Engineering, Inc., Tampa, FL

11:45 **DEEP WELL INJECTION, AQUIFER RECHARGE OR ASR? AN ALTERNATIVES ANALYSIS APPROACH**

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

12:15 LUNCH

1:15 **EVERGLADES RESTORATION: THE ASR REGIONAL STUDY REPORT ON SCIENTIFIC & ENGINEERING INVESTIGATIONS**

Robert Verrastro, Hydrologist, South Florida Water Management District, West Palm Beach, FL

1:45 **RISKS TO GROUNDWATER FROM OIL & GAS WELL STIMULATION AND RELATED WASTE WATER DISPOSAL IN COUNTIES OVERLYING THE SUNNILAND FORMATION**

Jennifer Hecker, Director of Natural Resource Policy, Conservancy of Southwest Florida, Naples, FL

2:15 **PROTECTION FOR FLORIDA'S GROUNDWATER BY DESIGNATING THE FLORIDAN AQUIFER AS "SOLE SOURCE" DRINKING WATER SUPPLY**

Tom Larson, Conservation Chair, Sierra Club, Jacksonville, FL

2:45 **THE ECONOMIC IMPLICATIONS AND THE IMPACTS ON WATER SUPPLY MANAGEMENT OPTIONS IF THE FLORIDAN AQUIFER IS DESIGNATED "SOLE SOURCE"**

Chuck Drake, Saint Johns River Water Management District Governing Board Member, Orlando, FL

3:15 **WATER MANAGEMENT: WHAT DOES SUSTAINABLE MEAN?**

Andrew Stone, American Ground Water Trust, Concord, NH

3:45 ADJOURN



This Conference is endorsed by the IAH Commission: Groundwater for Decision-makers



**INTERNATIONAL ASSOCIATION OF HYDROGEOLOGISTS
COMMISSION - GROUNDWATER OUTREACH TO DECISION MAKERS**

Background to the Commission:

World-wide, ignorance and misunderstanding of groundwater is a major barrier to effective water resources management. Groundwater professionals need to be advocates for sensible water policy to ensure that water allocation decisions are based on hydrologic reality. Science-based knowledge, effectively communicated, can support the dual objectives of sustainably maximizing the use of groundwater for economic, social and environmental benefit while protecting against overdevelopment and contamination. IAH members can contact Andrew Stone, the Commission Director for more information at astone@agwt.org

Is your company interested in an international profile as a supporter of education initiatives that bring objective and accurate groundwater information to decision-makers and end-users?

Please consider corporate support for the Commission's work

The American Ground Water Trust is a national, non-profit public education organization that has been providing ground water information, awareness and education since 1986.



The Trust's programs:

- ☺ Promote efficient and effective ground water management
- ☺ Communicate the environmental and economic value of ground water
- ☺ Showcase ground water science and technology solutions
- ☺ Increase citizen, community and decision-maker awareness
- ☺ Facilitate stakeholder participation in water resource decisions