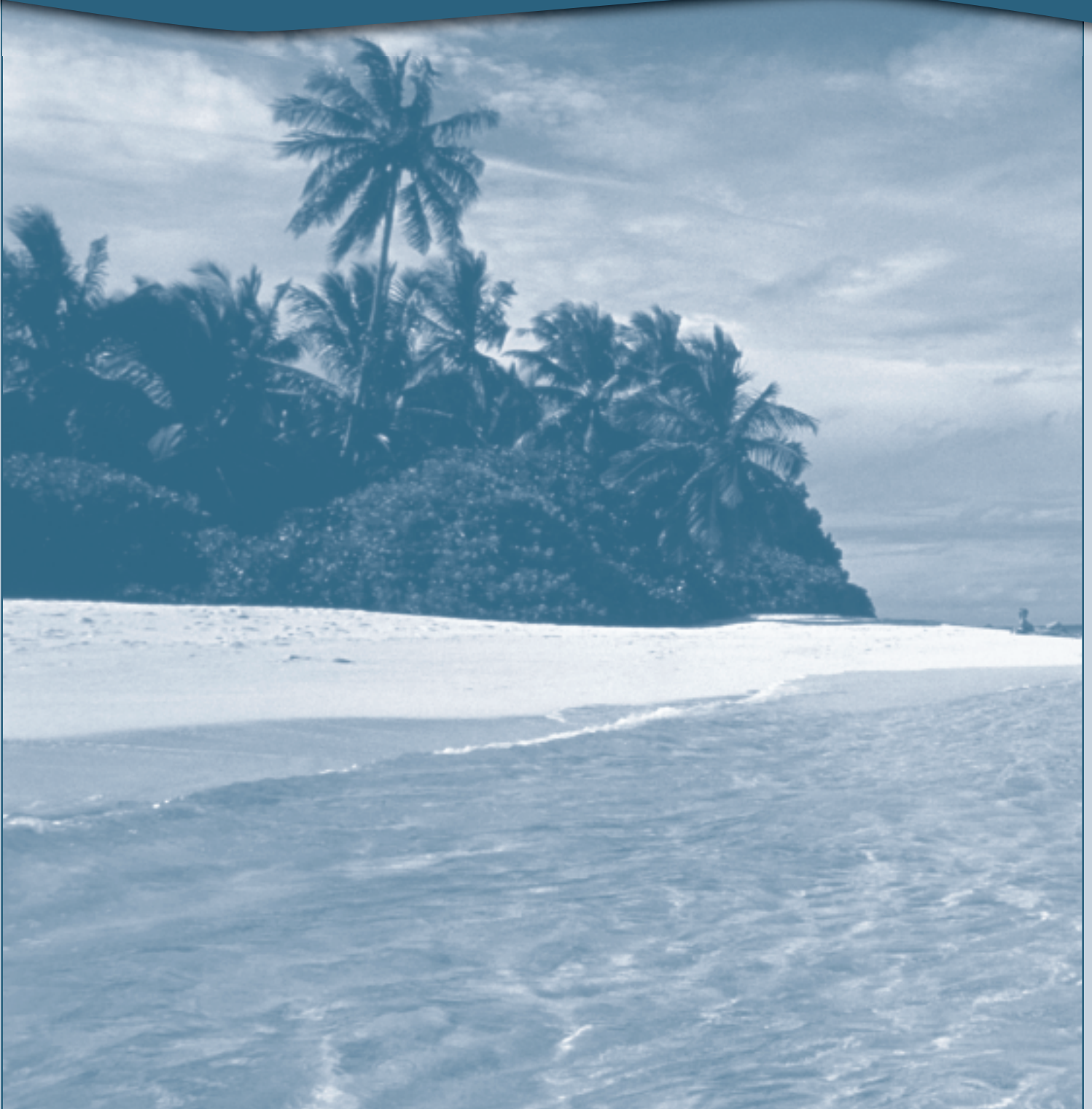




# 5th Conference on Hydrogeology, Ecology, Monitoring, and Management of Ground Water in Karst Terrains

February 23-24, 2009  
Safety Harbor Resort and Spa  
Safety Harbor, Florida



# Monday, February 23, 2009

8:00 a.m.–5:00 p.m.

*Registration*

**9:00–11:00 a.m.**

## **Ground Water Extraction from Karst Aquifers**

9:00–9:25 a.m.

**Sixty MGD Quarry Dewatering: Engineering Approaches to Reducing Karstic Discharge at a Cement Quarry in Eastern Pennsylvania**

Richard Hisert, John Gansfuss, and Trevor Thomas, H2H Associates LLC

9:25–9:50 a.m.

**Use of MODFLOW-DCM to Simulate Conduit/Diffuse Ground Water Flow in Three Karst Aquifer Systems**

Ronald Green, Southwest Research Institute

9:50–10:10 a.m.

*Break*

10:10–10:35 a.m.

**Utilization and Protection of Large Karst Springs in Southeastern Europe and the Middle East**

Neven Kresic, Ph.D., MACTEC Engineering and Consulting Inc.; Zoran Stevanovic, University of Belgrade;

Gultekin Gunay, Keystone Engineering; Ezzat Raeisi, Ph.D., Sharaz University

10:35–11:00 a.m.

**The Impact of Karst Development on Peace River Flow**

Ron Basso, PG, Southwest Florida Water Management District

**11:00 a.m.–3:45 p.m.**

## **Karst Aquifer Characterization**

11:00–11:25 a.m.

**An Explorer's Perspective of Diving Underwater Caves at Weeki Wachee Spring and Other Localities in West-Central Florida**

David J. DeWitt, PG, Southwest Florida Water Management District

11:25–11:50 a.m.

**Characterization of Conduit-Matrix Interactions at the Santa Fe River Sink/Rise System, Florida**

Elizabeth Sreaton, Ph.D., University of Florida

11:50 a.m.–1:20 p.m.

*Lunch (on your own)*

1:20–1:45 p.m.

**The Special Water Quality Issues of Karst, Dual Porosity, and Fractured Aquifers Arising from the Mobilization and Transport of Sediment Through Aquifers**

Malcolm Anderson, WMH

1:45–2:10 p.m.

**Peace River Karst and the Hawthorn Aquifer System**

Michael T. Gates, PG, Southwest Florida Water Management District

2:10–2:35 p.m.

**Clues to Connections: Geophysical Analysis to Aid in Identifying and Characterizing Flowpaths Direct and Indirect**

Lynn Yuhr, PG, Technos Inc.

2:35–3:00 p.m.

**Characterizing Bedrock in Karst Formations Using Wireline Coring**

William H. Morrow, Parratt Wolff Inc.

3:00–3:20 p.m.

*Break*

3:20–3:45 p.m.

**Ground Water Flow Through the Ozark Plateau Aquifer**

Carol M. Wicks, University of Missouri-Columbia

**3:45–5:00 p.m.**

## **Impact of Human Activities on Ground Water**

3:45–4:10 p.m.

**Impact of Human Activities on Ground Water Quality in a Karst Formation**

Todd K. Knause, Stanley Consultants Inc.

4:10–4:35 p.m.

**A Brief History of Anthropogenic Impacts on Florida's Ground Water Systems: Recognized Shortcomings, and Identified Knowledge and Process Needs**

Stephen R. Lienhart, PE, URS Corp.; Paul O'Neil, PE, Southwest Florida Water Management District

4:35–5:00 p.m.

**Joint Use of Surface Water and Ground Water of the Fergana Valley (Central Asia) as a Way of Overcoming Water Deficiency**

Yusup Khai Rysbekov, SIC ICWC of Central Asia

## Tuesday, February 24, 2009

8:30 a.m.–1:00 p.m.	<i>Registration</i>
<b>9:00 a.m.–1:50 p.m.</b>	<b>Innovative Characterization Techniques</b>
9:00–9:25 a.m.	<b>Contributions to Hydrogeologic Research Through Cave Diving Exploration in Karst Aquifers</b> David J. DeWitt, PG, Southwest Florida Water Management District
9:25–9:50 a.m.	<b>Hydraulic Characterization of Karst Aquifers Through Quantitative Ground Water Tracing</b> Todd Kincaid, H2H Associates LLC
9:50–10:15 a.m.	<i>Break</i>
10:15–10:40 a.m.	<b>Hypogene Processes in the Edwards Aquifer in South-Central Texas: A Paradigm Shift in Understanding Deep Seated Karst Aquifers</b> Geary M. Schindel, Edwards Aquifer Authority
10:40–11:05 a.m.	<b>Microgravity Characterization of an Existing Wellfield in the Karst Region of the Yucatan Peninsula, Mexico</b> Joel D. Peterson, PE, Montgomery & Associates
11:05–11:30 a.m.	<b>Robotic Three-Dimension Characterization of Vulcanigenic Caves in Zacaton, Mexico</b> Marcus Gary, Zara Environmental LLC
11:30 a.m.–1:00 p.m.	<i>Lunch (provided)</i>
1:00–1:25 p.m.	<b>Special Utility of Flexible Liner Methods in Karst Formations</b> Carl Keller, Flexible Liner Underground Technologies
1:25–1:50 p.m.	<b>The Use of Multi-Electrode Electrical Resistivity and Multi-Channel Analysis of Surface Waves for Karst Characterization</b> Eric Cross, N.S. Nettles & Associates Inc.
<b>1:50–3:30 p.m.</b>	<b>Ground Water Modeling in Karst</b>
1:50–2:15 p.m.	<b>Determining Potential Contaminant Flowpaths in Karstic Environments: A Minimally Invasive Approach</b> Paul Rollins, Willowstick Technologies LLC
2:15–2:40 p.m.	<b>Numerical Modeling in Karst Aquifers: Examples from Florida and Pennsylvania</b> Todd Kincaid, H2H Associates LLC
2:40–3:00 p.m.	<i>Break</i>
3:00–3:30 p.m.	<b>Underwater Cave Diving Video</b>
<b>3:30–5:00 p.m.</b>	<b>Ecology and Vulnerability of Karst Aquifers</b>
3:30–3:55 p.m.	<b>Evaluation of Spring Flow, Bacterial Contamination, and Distribution of Fresh Water Resources in the Vicinity of Verrettes, Haiti</b> Peter Wampler, Ph.D., RPG, and Andrew Sisson, Grand Valley State University
3:55–4:20 p.m.	<b>Man-Made and Natural Mechanisms Leading to Catastrophic Collapse in the Karstic Epler Formation of Eastern Pennsylvania</b> Richard Hisert, John Gansfuss, and Trevor Thomas, H2H Associates LLC
4:20–5:00 p.m.	<i>Discussion and Concluding Remarks</i>