

Program Agenda

Abstract/Paper page numbers are indicated at the end of listings
when applicable [example: “...(p. 2)”]

Sunday, June 22, 2008

6:00pm-8:00pm	Early Bird Social & Poster setup, Registration Open [CONFERENCE CENTER]
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Monday, June 23, 2008

7:00am-5:00pm	Conference Registration Open [CONFERENCE CENTER ATRIUM]
7:30am-8:30am	Morning Refreshments [POSTER SESSION ROOM]
8:30am-9:00am	Welcome & Announcements - Christian Langevin, Meeting Organizer, and Others [RIVER OF GRASS BALLROOM]
General Session I: Case Studies in Salt Water Intrusion	
9:00am-9:25am	Assessing Well Field Impacts on Water Quality in the Upper Floridan Aquifer in Southwest Florida - Terry Bengtsson (Featured Speaker).....(p. 22)
9:25am-9:40am	Modeling of Historical Evolution of Salt Water Distribution in the Phreatic Aquifer in and around the silted up Zwin Estuary Mouth (Flanders, Belgium) - Luc Lebbe(p. 141)
9:40am-9:55am	Assessment of Groundwater Resources in Rmel Coastal Aquifer (Morocco) by SEAWAT - Abdelkader Larabi(p. 136)
9:55am-10:10am	Dynamic Groundwater Equilibrium during a Base Level Drop: The Dead Sea Case - Yael Kiro(p. 121)
10:10am-10:40am	Refreshment Break [POSTER SESSION ROOM]
General Session II: Case Studies in Salt Water Intrusion, continued	
10:40am-10:55am	Simulation of Processes Controlling Migration of Saline Water and Brine above a Flooded Salt Mine in Western New York, USA - Richard Yager (p. 321)
10:55am-11:10am	A Case Study of Finite-Element Numerical Modeling on Salt Water Intrusion for the Ping-Tung Plain - Jing-Yea Yang (p. 325)
11:10am-11:25am	Salt Water Intrusion in the Shallow Aquifers of Venice - Eloisa Di Sipio (p. 59)
11:25am-11:40am	Study of Saltwater Intrusion into the Coastal Aquifer of Tavabe-e Arsanjan, Iran - Gholmareza Rakhshandehroo (p. 217)
11:40am-11:55am	Vulnerability Assessment of Groundwater Aquifer due to the Construction of the City Tunnel in Malmö, Sweden - Kenneth M Persson..... (p. 194)
11:55am-12:10pm	Combined Groundwater Quality and Groundwater Model Approach as Main Tool of an Aquifer Management for Sustainable Water Supply in the Santo Domingo Valley, Baja California Sur, Mexico - Jobst Wurl (p. 317)
12:10pm-1:25pm	Lunch in Sunset Terrace

Monday, June 23, 2008 (continued)

General Session III: Management of Coastal Aquifers	
1:25pm-1:50pm	An Assessment of the Impact of Geologic Heterogeneity on Predictions of Seawater Intrusion in Coastal Aquifers - <i>Whitney Trainor</i> (Featured Speaker) (p. 270)
1:50pm-2:05pm	Artificial Recharge of Fresh Water in the Belgian Coastal Dunes - <i>Alexander Vandenbohede</i> (p. 282)
2:05pm-2:20pm	Management of the Iao and Waihee Aquifer Areas With the Aid of a 3-D Numerical SUTRA Model, Maui, Hawaii - <i>Stephen Gingerich</i> (p. 84)
2:20pm-2:35pm	Pumping of Brackish and Saline Water in Coastal Aquifers: An Effective Tool for Alleviation of Seawater Intrusion - <i>Mohsen Sherif</i> (p. 254)
2:35pm-2:50pm	Managing Seawater Intrusion Using Multiple-depth Monitoring Wells - <i>Wes Danskin</i> (p. 49)
2:50pm-3:05pm	Field Validation of Simulation-Optimization Model for Protecting Excessive Pumping Wells - <i>Namsik Park</i> (p. 186)
3:05pm-3:35pm	Refreshment Break [POSTER SESSION ROOM]
General Session IV: Variable Density Flow and Transport Modeling	
3:35pm-3:50pm	Benchmarks for Two- and Three-Dimensional Variable-Density Ground-Water Flow Simulators: Analytical Expressions for Unstable Convection - <i>Clifford Voss</i> (p. 294)
3:50pm-4:05pm	Solute Extraction in Variable Density Flow: Shock Wave Driven Transport Compared to Pumping - <i>Shaul Sorek</i> (p. 258)
4:05pm-4:20pm	Use of Image Analysis to Develop New Benchmarking Datasets for Variable Density Flow Scenarios - <i>Rohit Goswami</i> (p. 87)
4:20pm-4:35pm	Modeling of the Potential for Vertically Downward Saltwater Migration from a Dredge Pond - <i>Peter Andersen</i> (p. 8)
4:35pm-4:50pm	Freshwater-Saltwater Mixing Zone in Coastal Aquifers: Biased vs. Reliable Monitoring - <i>Eyal Shalev</i> (p. 248)
4:50pm-5:05pm	Simulation of Coastal Wastewater Injection in Hawaii using SUTRA, and the Value of Compelling Visualizations in Conveying Results to the Non-Specialist Public - <i>Charles D Hunt, Jr.</i> (p. 97)
5:30pm-7:30pm	Welcome Reception on Ocean Lawn

Tuesday, June 24, 2008

7:00am-5:00pm	Conference Registration Open [CONFERENCE CENTER ATRIUM]
7:30am-8:30am	Morning Refreshments [POSTER SESSION ROOM]
General Session V: Submarine Groundwater Discharge & Field Studies	
8:30am-8:55am	Analytical Benthic Flux Model Forced by Surface-Water Waves: Application to the South Atlantic Bight, USA - Jeffrey King (Featured Speaker) (p. 117)
8:55am-9:10am	Mechanisms Driving Submarine Groundwater Discharge and Associated Radium Flux: Implications for Use of Radium as a Tracer - Holly Michael..... (p. 149)
9:10am-9:25am	The Role of Fresh and Saline Submarine Groundwater Discharge in Nutrient Contribution to Coastal Seawater, Dor Bay (Israel) - Yishai Weinstein..... (p. 310)
9:25am-9:40am	Global Land-Ocean Linkage: Direct Inputs of Water and Associated Nutrients to Coastal Zones via Submarine Groundwater Discharge (SGD) - Hans H. Dürr (p. 72)
9:40am-9:55am	Causes of Borehole Flow and Effects on Vertical Salinity Profiles in Coastal Aquifers - Delwyn Oki..... (p. 170)
9:55am-10:10am	Characterization of Local Rainwater Lenses in Agricultural Areas with Upward Saline Seepage: Monitoring Results - Perry de Louw (p. 54)
10:10am-10:40am	Refreshment Break [POSTER SESSION ROOM]
General Session VI: Field Studies of Salt Water Intrusion	
10:40am-10:55am	Altered Hydroperiod and Saltwater Intrusion in the Bald Cypress Swamps of the Loxahatchee River - David Kaplan (p. 109)
10:55am-11:10am	Global Warming and Salt Water Intrusion: Bangladesh Perspective - Md. Abu Noman (p. 167)
11:10am-11:25am	An Investigation of Groundwater Flow on a Coastal Barrier using Multi Electrode Profiling - Søren Erbs Poulsen..... (p. 209)
11:25am-11:40am	Pumping Test Analyses in an Aquifer with Fresh Water/Salt Water Interface - Liliana Cecan..... (p. 37)
11:40am-11:55am	Assessing the Extent of Saltwater Intrusion in the Aquifer System of Southern Baldwin County, Alabama - Dorina Murgulet..... (p. 159)
11:55am-12:10pm	Freshwater Lens Development on Padre Island, Texas - Egon Weber (p. 306)
12:10pm-1:25pm	Lunch in Sunset Terrace

20th Salt Water Intrusion Meeting

Tuesday, June 24, 2008 (continued)

General Session VII: Parameter Estimation	
1:25pm-1:50pm	Incorporating Initial Conditions in the Model Calibration Process - <i>John Doherty</i> (Featured Speaker) (p. 64)
1:50pm-2:05pm	Saltwater Intrusion and Hydraulic Conductivity Estimation in East Baton Rouge Parish, Louisiana - <i>Frank Tsai</i> (p. 274)
2:05pm-2:20pm	General Guidance Concerning Inverse Modeling Techniques and Value of Field Data Types for Seawater Intrusion Simulation - <i>Clifford Voss</i> .. (p. 296)
2:20pm-2:35pm	Efficient Calibration of Seawater Intrusion Models - <i>Juan José Hidalgo</i> (p. 95)
2:35pm-2:50pm	Calibration of a Density-Dependent Groundwater Flow Model of the Lower West Coast Floridan Aquifer System - <i>Jorge Restrepo</i> (p. 229)
2:50pm-3:05pm	Saltwater/Freshwater Interface Movement in Response to Deep-Well Injection in a Coastal Aquifer - <i>Alyssa Dausman</i> (p. 50)
3:05pm-3:35pm	Refreshment Break [POSTER SESSION ROOM]
General Session VIII: Geochemistry	
3:35pm-4:00pm	Chemical and Isotopic Evidence for Seawater Intrusion – Examples from the Coastal Aquifers of the Mediterranean and the Dead Sea - <i>Yoseph Yechieli</i> (Featured Speaker) (p. 328)
4:00pm-4:15pm	Base Exchange Indices as Indicators of Salinization or Freshening of (Coastal) Aquifers - <i>Pieter Jan Stuyfzand</i> (p. 262)
4:15pm-4:30pm	Use of Geochemical Tools to Study Groundwater Salinization in Volcanic Islands: a Case Study in the Porto Santo (Portugal) and Santiago (Cape Verde) Islands - <i>Maria Teresa Condesso de Melo</i> (p. 41)
4:30pm-4:45pm	Geochemistry of Phosphorus in a Carbonate Aquifer Affected by Seawater Intrusion - <i>Rene Price</i> (p. 213)
4:45pm-5:00pm	Time Scale of Water-Rock Interaction Processes in the Fresh-Saline Water Interface of Coastal Aquifers - <i>Amos Russak</i> (p. 233)
5:00pm-5:15pm	Utilizing Stable Isotopes (²H, ¹⁸O) to Better Identify Different Water Types of the Floridan Aquifer System in Southwest Florida - <i>Ed Rectenwald</i> (p. 225)
5:15pm-5:30pm	Geochemical and Isotopic Study of the Origin of Salinization in an Unconfined Coastal Aquifer of Cap Bon (Tunisia) - <i>Mohamed Fethi Ben Hamouda</i> (p. 18)
5:30pm-7:00pm	Poster Presentations & Social [POSTER SESSION ROOM]

Wednesday, June 25, 2008

8:00am-5:00pm	Optional Field Trip
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Thursday, June 26, 2008

7:00am-5:00pm	Conference Registration Open [CONFERENCE CENTER ATRIUM]
7:30am-8:30am	Morning Refreshments [POSTER SESSION ROOM]
General Session IX: Variable Density Flow & Transport Modeling	
8:30am-8:55am	Variable Density Flow and Transport in Tsunami Impacted Coastal Aquifers: Laboratory Investigations in Homogeneous Saturated Porous Media - Meththika Vithanage (Featured Speaker) (p. 290)
8:55am-9:10am	The Delayed Effects of Variable Density Flow on Flow and Heads in Fresh Groundwater - Frans Schaars (p. 240)
9:10am-9:25am	Experimental Mapping of the Saltwater/Freshwater Mixing Zone - Elena Abarca (p. 3)
9:25am-9:40am	Virginia Ground Water Withdrawal Permitting Program – Modeling for Resource Management - Roberta Patton (p. 190)
9:40am-9:55am	A Saltwater Upconing Model to Evaluate Wellfield Feasibility - Gregory Council (p. 45)
9:55am-10:10am	Dispersive Behavior of the Mixing Zone between a Shallow Freshwater Lens and Upward Seeping Saline Groundwater - Sara Eeman (p. 76)
10:10am-10:40am	Refreshment Break [POSTER SESSION ROOM]
General Session X: Impacts of Increased Water Demand, Optimization Modeling, & Case Studies	
10:40am-10:55am	Brackish Groundwater as a New Resource for Drinking Water, Specific Consequences of Density Dependent Flow, and Positive Environmental Consequences - Theo Olsthoorn (p. 174)
10:55am-11:10am	Analytical Method for Preliminary Management of Pumping and Injection in Coastal Areas - Namsik Park (p. 182)
11:10am-11:25am	Compositional Change of Groundwater Chemistry in the Shallow Aquifer of Small Tropical Island Due to Seawater Intrusion - Ahmad Zaharin Aris (p. 9)
11:25am-11:40am	TBD
11:40am-11:55am	The Use of Mapping the Salinity Distribution Using Geophysics on the Island of Terschelling for Groundwater Model Calibration - Arjen Kok (p. 124)
11:55am-12:10pm	Verifying the Use of Specific Conductance as a Surrogate for Chloride in Seawater Matrices - Robert Mooney (p. 155)
12:10pm-1:25pm	Lunch in Sunset Terrace

20th Salt Water Intrusion Meeting

Thursday, June 26, 2008 (continued)

General Session XI: Management of Coastal Aquifers	
1:25pm-1:40pm	Salt Water Intrusion Modeling in the Flemish Coastal Plain based on a Hydrogeological Database - Dieter Vandeveld (p. 286)
1:40pm-1:55pm	Management of Coastal Aquifers -- The Case of a Peninsula -- State of Qatar - Nauman Rashid (p. 221)
1:55pm-2:10pm	Evaluating Safe Yield for Supply Wells in an Aquifer with Fresh Water / Salt Water Interface - Gregory Nelson (p. 163)
2:10pm-2:25pm	Saltwater Intrusion Monitoring in the Biscayne Aquifer near Florida City, Miami-Dade County, Florida: 1996-2007 - Christopher Peters (p. 195)
2:25pm-2:40pm	Dynamics of Negative Hydraulic Barriers to Prevent Seawater Intrusion - Maria Pool (p. 203)
2:40pm-2:55pm	Alternative Approaches for Water Extraction in Areas Subject to Saltwater Upconing - David Tarbox (p. 266)
3:05pm-3:35pm	Refreshment Break [POSTER SESSION ROOM]
3:35pm-4:00pm	Seawater Intrusion in Australia - A National Perspective of Future Challenges - Adrian Werner (Featured Speaker) (p. 311)
4:05pm-6:00pm	Planning for 2010 & 2012 SWIMs
6:00pm-7:00pm	Dinner on Own
7:00pm-9:00pm	PEST Fest* [RIVER OF GRASS BALLROOM]
<p>*PEST FEST: A Festive Primer on the PEST Software for Parameter Estimation and Uncertainty Analysis</p> <p>The FEST will be a relaxed and happy occasion, hosted by John Doherty, author of PEST. The other entertainer will be Alyssa Dausman from the Fort Lauderdale office of USGS, who has lots of PEST and SEAWAT experience.</p> <p>All are welcome to attend. Admission is free.</p>	

Friday, June 27, 2008

7:00am-12Noon	Conference Registration Open	[CONFERENCE CENTER ATRIUM]
7:30am-8:30am	Morning Refreshments	[POSTER SESSION ROOM]
General Session XII: Variable Density Flow & Transport Modeling		
8:30am-8:55am	Salinization by Free Convection in Heterogeneous Aquifers: Results from a Numerical Modeling Study - Vincent Post (Featured Speaker)(p. 205)	
8:55am-9:10am	An Assessment Tool for Aquifer Storage and Recovery in Stratified Coastal Aquifers - Mark Bakker(p. 13)	
9:10am-9:25am	Tidal Effects on Transient Dispersion of Simulated Contaminant Concentrations in Coastal Aquifers - Ivana La Licata.....(p. 132)	
9:25am-9:40am	The Influence of Three-Dimensional Dune Topography on Salt Water Intrusion in Marina Romea, Italy: A Numerical Modeling Study Using LIDAR data - Pauline Mollema.....(p. 151)	
9:40am-9:55am	Simulations of the Dynamics of Surface Water-Groundwater Interactions in a Coastal Environment During a 25-Year/72-Hour Storm - William Hutchings.....(p. 101)	
9:55am-10:10am	Modeling Brine Discharge into the Soil - Mohamed J Safi.....(p. 236)	
10:10am-10:40am	Refreshment Break	[POSTER SESSION ROOM]
General Session XIII: Effects of Sea Level Rise & Climate Change & Geophysics		
10:40am-10:55am	Impacts of Climate Change on the Coastal Groundwater Systems in The Netherlands - Gualbert Oude Essink.....(p. 178)	
10:55am-11:10am	Climate Change Impact in a Shallow Coastal Mediterranean Aquifer, at Saïdia, Morocco - Julio Carneiro(p. 30)	
11:10am-11:25am	An Investigation into Control of Saltwater Intrusion Considering the Effects of Climate Change and Sea Level Rise - Hany Abd-Elhamid.....(p. 4)	
11:25am-11:40am	Time Domain Electromagnetic Induction and High Resolution Electric Resistivity Soundings to Map Salt Water Intrusion in Coastal Sandy Aquifers, Los Angeles County, California - Ted Johnson(p. 105)	
11:40am-11:55am	Large-scale Geoelectrical Measurements to Investigate a Buried Valley and its Interaction to Deep Saltwater Intrusion - Joern Schuenemann(p. 244)	
11:55am-12:10pm	Evolution of the Marine Intrusion Using Geophysical Methods after 25 Years in the Motril-Salobreña Aquifer (Southern Spain) - Carlos Duque.....(p. 68)	
12:10pm	Wrap up Conference - Meeting Organizer	
12:10pm-1:25pm	Lunch in Sunset Terrace	

Optional Field Trip – Everglades National Park

Organized by: Southwest Florida EcoTours, Inc.

Field Trip Schedule - Wednesday, June 25, 2008

7:30am	Board Buses at The Naples Beach Hotel & Golf Club
8:00am	Depart for Big Cypress National Preserve
9:00am	Arrive at Big Cypress National Preserve
9:15am-11:30am	Group Airboat Rides & View Native Florida Wildlife
11:30am	Board Buses to Rookery Bay National Estuarine Reserve
12:00pm-1:00pm	Rookery Bay Educational Presentation & Boxed Lunch
12:45pm-1:15pm	Self-Guided tour of Learning Center & Rookery Bay Store
1:15pm	Board Buses for Picayune Strand State Forest
2:15pm-3:45pm	Tour Picayune Strand State Forest
4:00pm-5:00pm	Board Buses & Return to Naples Beach Hotel

An airboat ride will be given to all field trip attendees, on airboats that seat a maximum of 18 guests. The airboats will leave approximately every 8 minutes to insure everyone a seat into the backwaters of the Big Cypress National Preserve which borders the northern edge of Everglades National Park. The airboat ride will last approximately 35 minutes. Attendees will also be allowed to view native Florida wildlife in an animal sanctuary and have the opportunity to safely hold a small alligator while a colleague takes a photo of them.

Following the airboat ride, the field trip attendees will re-board the buses for a trip to Rookery Bay National Estuarine Research Reserve for a 45 minute presentation by the educational staff of the facility. Rookery Bay will also allow the attendees to eat their boxed lunches during the presentation. They do recycle at the Rookery Bay so items will need to be put in the proper receptacles following lunch. Upon conclusion of the presentation, attendees will enjoy, at no charge, to view their educational learning facility which includes their aquarium and interactive displays. Attendees will also have the opportunity to purchase items in their store. Rookery Bay will have educational pamphlets and brochures available for the attendees.

We will then re-board the buses at Rookery Bay with staff from the South Florida Water Management District for a tour of the Picayune Strand State Forest, which is currently undergoing hydrologic restoration. We will include a couple of stops for the group for a first-hand look at the project.

Following the tour of Picayune Strand State Forest, the buses will return to the Naples Beach Hotel and Golf Club by 5:00pm.