



GROUNDWATER RESOURCES ASSOCIATION
of California

The 4th Symposium in the Series on Tools and Technologies

“Geophysics at the Beach”

May 25, 2010 • Doubletree Club Hotel, Santa Ana, CA

SYMPOSIUM AGENDA

(as of 4/27/10)

7:00 REGISTRATION/CONTINENTAL BREAKFAST

8:25 WELCOME
Conference Chair or GRA President

General Session 1: Geophysics – The Basics and Global Perspectives

Moderator:

8:30 *A Brief Overview of Geophysics*
John Jansen, ENTRIX

9:15 *New Applications of Geophysics at the United States Geological Survey*
Bill Alley, United States Geological Survey

10:00 BREAK – EXHIBITOR AREA

General Session 2: Groundwater Geophysics

Moderator:

10:20 *Groundwater Mapping with Seismic Methods: Case Studies in Southern California*
Michael Rymer, United States Geological Survey

10:40 *Accurate Groundwater Mapping with Seismic Methods*
Rufus Catchings, United States Geological Survey

- 11:00 *Use of Geophysical Logs to Inform Development of a Groundwater Flow and Transport Model of the Alamitos Gap Area, Los Angeles and Orange County*
 Rob Sengebush, INTERA Incorporated
- 11:20 *Geophysical Mapping Saltwater Intrusion Through the Sunset Gap in Orange County*
 Roy Herndon, Orange County Water District
- 11:40 *Examining Scales and Physical Drivers of Submarine Groundwater Discharge Using ²²²Rn and Multi-Electrode Resistivity: Some Examples from Alaska, Washington, and California*
 Peter Swarzenski, United States Geological Survey

12:00 LUNCH (On your own – Box Lunch provided)

General Session 2: Groundwater Geophysics (Continued)

Moderator:

- 1:00 *Geophysical Surveys in Search of Groundwater in the Nevada Desert*
 Leigh Wood Dudash, Consulting Geophysicist
- 1:20 *The Use of Advanced Borehole Geophysical Logging for Hydrogeologic Property Characterization and Deep Multi-Level Groundwater Monitoring Well Design in the Los Angeles Basin*
 Ned Clayton, Schlumberger Water Services
- 1:40 *Characterization of a Proposed Groundwater Recharge and Recovery Site in Antelope Valley, California*
 Matthew Burgess, United States Geological Survey

General Session 3: Geophysical Site Characterization

Moderator:

- 2:00 *High-Resolution Geophysical Data Collection for Stratigraphic Analysis and Improved Conceptual Site Models*
 Bradley Cross, ARCADIS U.S.
- 2:20 *Seismic Refraction and the New Title 27 Landfill Gas Monitoring Regulations at Scholl Canyon Landfill*
 Paul Stoppelman, County Sanitation Districts of Los Angeles County
- 2:40 *The Use of Near-Surface Geophysics in the Design of a Subsurface Water Management System*
 Thomas Fogwell, Weiss Associates

3:00 BREAK – EXHIBITOR AREA

General Session 4: Detecting Fluid Flow

Moderator:

- 3:20 *Geophysical Techniques for Assessing Critical Seepage Pathways in Earthen Levees*
 Martin Miele, Consultant
- 3:40 *Groundwater Exploration Using Controlled Source and Natural Source Audio-Frequency Magnetotellurics (AMT)*
 Norman Carlson, Zonge Engineering & Research Organization, Inc.
- 4:00 *Dynamic Monitoring of Subsurface Flow Using Electrical Geophysics*
 Dale Rucker, hydroGEOPHYSICS, Inc.

General Session 5: Methods and Applications in Fractured Bedrock

Moderator:

- 4:20 *Hydrogeophysical Characterization and Monitoring of Fractured Bedrock*
 Matthew Becker, California State University
- 4:40 *Using Geophysical Methods to Characterize Fractured Granitic Terrain in California*
 Seema Turner, ENVIRON International Corporation

5:00 – 7:00 Poster Presentations and Exhibitor Reception

Poster Presentations

Borehole Spectral Gamma Ray Geophysical Logging: Background, Applications, and Examples of its Use in the Sacramento Valley, California

Christopher Bonds, California Department of Water Resources

Geophysics as a Component of a Groundwater Basin Conceptual Model

Tony Morgan, United Water Conservation District

Use of Gamma-Ray and Spectral Gamma-Ray Data to Identify Primary Volcaniclastic Deposits in the Subsurface – Implications for aquifer Characterization, Sutter Buttes, California

Steven Springhorn, California Department of Water Resources