



3rd Symposium in GRA's *Water Resources Series*

## “Increasing Groundwater Storage to Meet California’s Future Demand: Challenges and Solutions”

June 20-21, 2007  
The Westin Hotel – Long Beach, CA

### SYMPOSIUM AGENDA

#### Day 1 – Wednesday, June 20, 2007

**7:30 am            REGISTRATION - Continental Breakfast**

#### **Session 1: Perspectives on the Science and Policy for California Groundwater Storage**

Moderator: Tim Parker, Schlumberger Water Services

8:30-8:45	<b>Welcome</b> Jim Strandberg, GRA Vice President Tim Parker, Ted Johnson, Jim Strandberg and Eric Reichard GRA Symposium Co-Chairs
8:45-9:15	<i>Global Climate: Time for a Change</i> Bill Patzert, NASA Jet Propulsion Laboratory, California Institute of Technology
9:15-9:45	<i>The Importance of Groundwater Storage for California’s Future Water Supply</i> Kamyar Guivetchi, Program Manager, California Department of Water Resources
9:45-10:15	Technical, Water Quality and Regulatory Challenges of Groundwater Storage Tam Doduc, Board Chair, California State Water Resources Control Board

**10:15-10:35    Morning Break**

#### **Session 2: Groundwater Storage Policy: Legal Aspects, Rules and Regulations**

Moderator: Rob Saperstein, Hatch & Parent

10:35-10:55	<i>Introduction to Groundwater Storage in California: The Law and Rules of the Game</i> Rob Saperstein, Managing Partner, Hatch & Parent
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10:55-11:40	<i>Update on Groundwater Recharge Project Requirements and Permitting</i> Pamela Creedon, Executive Officer, Central Valley Regional Water Quality Control Board Gerard Thibeault, Executive Officer, Santa Ana Regional Water Quality Control Board
11:35-11:55	<i>Overview of California Department of Health Services Programs Involvement in ASR and Recharge Using Recycled Water</i> Paul Williams, District Engineer, Los Angeles District, California Department of Health Services
11:55-12:15	<i>Legal Issues of Groundwater Storage in the Central Basin</i> Ed Casey, Partner, Weston, Benshoof, Rochefort, Rubalcava & MacCuish LLP

**12:15–1:30 Lunch Break – Vendor and Poster Session**

**Session 3: Existing and Planned Groundwater Storage Projects in California and Abroad - Part 1**

Moderator: Greg Hamer, Geomatrix Consultants

1:30-1:55	<i>Groundwater Management In the Yuba River Basin</i> Jeff Weaver, MWH Americas, Inc.
1:55-2:15	<i>Maintaining and Operating Artificial Recharge Program Wells in Las Vegas Valley, Nevada</i> Erin Cole, Las Vegas Valley Water District
2:15-2:35	<i>Conjunctive Use in the Elsinore Basin</i> David Ringel, MWH, Inc.
2:35-2:55	<i>Evaluation of Orange County Groundwater Basin Storage and Operational Strategy</i> Tim Sovich, Orange County Water District

**2:55-3:15 Afternoon Break**

**Session 4: Existing and Planned Groundwater Storage Projects in California and Abroad - Part 2**

Moderator: Eric Reichard, U.S. Geological Survey

3:15-3:40	<i>Subsurface Investigations for Groundwater Recharge in Unlithified Strata with Alternating Depositional Environments</i> Owen Kubit and Shay Overton, Provost & Pritchard Engineering
3:40-4:00	<i>Storing Water in California Desert Basins: Selection of Managed Aquifer Recharge Sites in the Ames Valley Groundwater Basin (San Bernardino County, CA)</i> Edwin Lin, Todd Engineers
4:00-4:20	<i>Planning, Development and Operation of a Managed Aquifer Recharge System for the Phoenix Metropolitan Area</i> Mario Lluria, Salt River Project
4:20-4:40	<i>Kern County Groundwater Storage Program</i> Rick Iger, Kern County Water Agency
4:40-5:00	<i>Evaluation of Yield and Groundwater Quality for Selected Wells in Tropical Region</i> Thamer Ahmed Mohammed, Universiti Putra Malaysia

**5:00–6:30 Reception – Exhibitor Area and Poster Session**

## Day 2 – Thursday, June 21, 2007

7:30 am            **REGISTRATION - Continental Breakfast**

### **Session 5: Aquifer Storage and Recovery for Groundwater Storage**

Moderator: Ted Johnson, Water Replenishment District of Southern California

8:30-9:15	<i>ASR and the Quest for Water Supply Sustainability</i> R. David G. Pyne, ASR Systems
9:15-10:00	<i>ASR Design Concepts – Key to Success</i> Tom Missimer, Schlumberger Water Services

10:00-10:20    **Break – Exhibitor Area**

### **Session 6: Water Quality and Groundwater Storage**

Moderator: Peter Murphy, Kennedy/Jenks Consultants

10:20-10:45	Aquifer Replenishment with Treated Groundwater – A Case Study for Sustaining our Water Resources Paul M. Tornatore, Haley & Aldrich
10:45-11:15	<i>Modeling Contaminant Sources Prior to Site Selection of Ground Water Recharge Basins</i> Mohsen Mehran, Rubicon Engineering, Inc.
11:15-11:35	<i>Nitrates in a Desert Basin</i> Tracy Nishikawa, U.S. Geological Survey
11:35-11:55	<i>Changes in Water Quality During Aquifer Storage and Recovery with Reclaimed Water</i> Rebecca Overacre, Carollo Engineers

11:55–1:00    **Lunch Break, and Policy Speaker**

#### ***Update on California Groundwater Coalition***

Chris Frahm, Hatch & Parent, CGC/GRA Legislative Advocate

#### ***The Role of Storage and Conjunctive Use in the MWD Service Area***

Tim Brick, Metropolitan Water District

### **Session 7: Tools for Planning**

Moderator: Chris Petersen, MWH

1:00-1:30	<i>Groundwater Accounting Tools Employed by Kern County Water Agency</i> Nick Gatti, Kern County Water Agency
1:30-1:50	<i>Use of Linked Ecological and Groundwater Modeling in Basin Management</i> Victor Harris, MWH Americas, Inc.

1:50-2:10	<i>Evaluating the Feasibility of Artificial Recharge Sites Using High Resolution Electrical Methods</i> John Jansen, Aquifer Science and Technology
2:10-2:30	<i>Harnessing the Power of a Dry River and Predicting the Results: Modeling a Short Term Groundwater Banking Program in the Mojave River</i> Lance Eckhart, Mojave Water Agency
2:30-2:50	<i>Efficient Mapping of Aquifer Materials for Optimizing Groundwater Storage Locations</i> Kurt Thomsen, KOT Environmental Consulting

**2:50-3:10 Afternoon Break – Exhibitor Area**

## **Session 8: IRWMPs and Groundwater Management**

Moderator: Jim Strandberg, Malcolm Pirnie, Inc.

3:10–3:30	<i>Groundwater Storage in the Integrated Regional Water Management Plans</i> Norman Shopay, California Department of Water Resources
3:30-3:50	<i>San Francisco Bay Area IRWMP</i> Rosalyn Stewart, Jones & Stokes
3:50-4:10	<i>Los Angeles Basin IRWMP – A Work in Progress</i> Hector Bordas, Los Angeles County Flood Control District
4:10-4:30	<i>Upper Kings Basin IRWMP</i> Jim Blankey, WRIME

**4:30 - 4:45 Closing Remarks**  
GRA Chairs

**REMINDER - FIELD TRIP JUNE 22, 2007**

## **Poster Presentations**

*Characterization of Vadose Zone and Assessing Enhanced Recharge Potential of Western San Fernando Basin*

Anita Regmi, Department of Geological Sciences, California State University, Northridge