

Inland Geological Society

Newsletter of the Inland Geological Society

Volume 23 No. 12

This Meeting:
Wednesday
Dec. 5th

Time:
Social: 6:00pm
Dinner: 7:00pm
Lecture: 7:30pm

Location:
LSA Associates
1500 Iowa Ave
Suite 200
Riverside, CA
92507
(Map on Pg.5)

Coming to
Dinner?
Please RSVP:
By Monday 12/3
(951) 782-3295
dlass@waterboards.ca.gov



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December Speaker:

Eric Lindberg
Wildermuth Environmental, Inc.



Abstract

An Overview of the Arlington Basin Investigation: Phase I

Eric Lindberg, Andy Malone, Wenbin Wang - Wildermuth Environmental Inc.

The Arlington groundwater basin is a shallow, alluvial-filled valley located in western Riverside County and within the limits of the City of Riverside. Total groundwater storage in the Arlington Basin was approximately 80,000 acre-ft in 2004. The quality of groundwater in Arlington Basin is generally poor, with average TDS concentrations of approximately 1,000 milligrams per liter (mg/L) and nitrate-nitrogen concentrations of approximately 20 mg/L.

The Arlington Desalter, operated by Western Municipal Water District (WMWD), is a reverse-osmosis groundwater treatment facility located within the Arlington Basin, and is the paramount extractor of groundwater in the basin. WMWD is contemplating various alternatives to expand the Arlington Desalter from ~6 million gallons per day (mgd) of treated product water capacity to ~8-10 mgd. WMWD is concerned that expansion of the Arlington Desalter will cause excessive drawdown of groundwater levels leading to reduced yields at the existing desalter wells and subsequently reduced production at the desalter. WMWD is also concerned about drawdown impacts on other producers within Arlington Basin and neighboring basins.

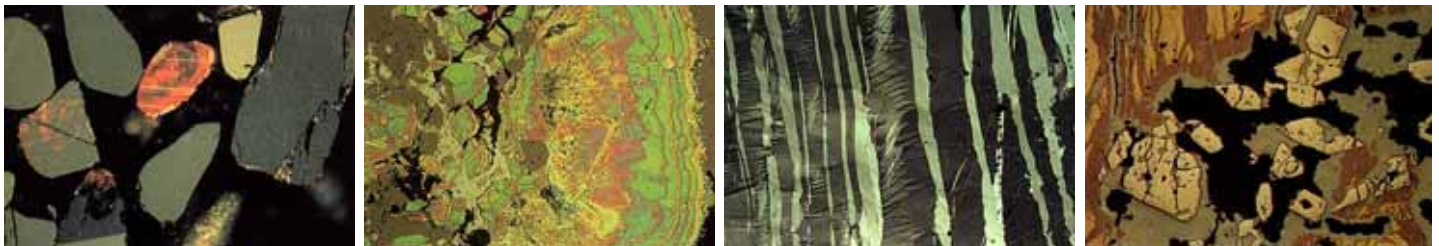
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To characterize these concerns, Wildermuth Environmental, Inc. (WEI) constructed a groundwater-flow model in Arlington Basin, and used this model to predict the hydrologic impacts of an expanded Arlington Desalter. Such impacts include drawdown at the desalter wells, changes to basin inflows and outflows, and sustainability of aquifer utilization. The model results were analyzed to determine the sustainability of the desalter expansion, and the impact of expansion to the water resources in the area. Feasibility, in this case, is defined as the ability of the aquifer system to supply the expanded desalter with the required volumes of raw groundwater over the life of the facility (at least 30 years) without causing unacceptable impacts at the desalter wells, within the groundwater basin, or within neighboring basins.

This presentation succinctly summarizes the methods used to investigate the effects of desalter expansion. Specifically, this outlines the building of a conceptual hydrogeologic model, compiled from observed data, and the subsequent use of a numerical, computer-simulation, groundwater-flow model of the aquifer system to characterize the hydrologic impacts of various alternatives of desalter plant expansion in the Arlington groundwater basin.

Biography:

Eric Lindberg has been a Scientist in the Hydrogeology department at Wildermuth Environmental since 2005. His professional experience includes hydrogeologic basin studies in the Arlington, Chino, and Antelope Valley groundwater basins located in southern California. This project work includes empirical and historical data collection, lithologic and hydrologic analyses of groundwater basins, interpretation of groundwater level and groundwater quality data, and planning and implementing monitoring programs. Mr. Lindberg received a Bachelor of Science Degree in Geology in 2006 from California State University, Chico.



Lecture Opportunity

Western Center for Archeology & Paleontology

Trilobite Hunting on the Roof of the World:

Using fossils to understand the history of the Himalaya

Dr. Nigel Hughes, Professor of Earth Sciences, University of California Riverside

December 6, 2007— 7:00 p.m. Free to members, \$8 non-members, \$5 students

The Western Center for Archeology & Paleontology is located at 2345 Searl Parkway, Hemet, near the entrance to Diamond Valley Lake Marina. From I-215, exit east at Newport Rd (which turns into Domenigoni Parkway); go 11 miles east from I-215 to Searl Parkway; turn right. Evening talks are in Bldg 8 (parking lot is on the east side of the buildings). For more information contact: Dr. Paisley S. Cato, Asst. Director, Western Center for Archeology & Paleontology, pcato@westerncentermuseum.org 951-791-0033.

Job Opportunities/ Upcoming Events

URS Corporation—Staff Geologist



(New Job Posting as of 10-31-07)

URS Corporation, is currently looking for a Staff Geologist to join the Remediation Department in their Ontario, CA office to support a retail gas station portfolio. The position will be part of the ConocoPhillips project team in the GeoSciences Division, providing support for retail gasoline station field activities and reporting.

Requirements: B.S. Degree in Geology, Geological Sciences or Hydrogeology with broad coursework in the sciences with 2+ years of consulting experience. URS Corporation is an Equal Opportunity Employer and strongly supports diversity in the workforce, offering competitive salaries and a comprehensive benefits package. For immediate consideration please submit your resume to mike_blackmore@urscorp.com

GSA—2008 Combined Section Meeting

Cordilleran (104th Meeting) and
Rocky Mountain (59th Meeting)

March 19-22, 2008

Las Vegas, NV

<http://www.geosociety.org/sectdiv/cord/08mtg/>

2008 Desert Symposium & Field Trip

California State University's Desert Studies Center at Zzyzx, California, 22nd annual Desert Symposium: *Development of the Colorado River and its entry into the Salton Trough*. Abstracts of the proceedings and a field trip guide will be published.

April 18-21, 2008

Field Trip—April 19-21, 2008

For more info, contact Dr. William Presch at: wpresch@fullerton.edu

IGS Meeting Schedule

January 10, 2008 (Thursday)

George Copenhaver, Geocon, Geology of the San Diego & Arizona Eastern Railway, San Diego & Imperial Counties, California, USA & Baja California, Mexico

February 6, 2008 (Wednesday)

Christine Jones, Cemex
Aggregate Mining in the IE

March 6, 2008 (Thursday)

Richard Escandon, Kleinfelder
Proposed Santa Ana Mountain Tunnel

April 2, 2008 (Wednesday)

Cindy Li, Santa Ana RWQCB
Septic Tanks Impact on Lake Williams

May 1, 2008 (Thursday)

David Lynch, Thule Scientific
San Andreas Fault

June 4, 2008 (Wednesday)

TBA

July 10, 2008 (Thursday)

TBA

August 6, 2008 (Wednesday)

TBA

September 4, 2008 (Thursday)

TBA

October 1, 2008 (Wednesday)

TBA

November 6, 2008 (Thursday)

TBA

December 3, 2008 (Wednesday)

TBA



~2008 IGS Officers Ballot~

President

Greg Johnson (LA DPW) _____
Co-Chair (open) _____

Vice President (Program Chair)

Thomas Deane (Deane Consulting, Inc.) _____
Co-Chair (open) _____

Secretary

Dixie Lass (Santa Ana RWQCB) _____
Write in _____

Treasurer

Margaret Gooding (LSA Associates) _____
Write in _____

Board-appointed positions:

Membership Chair
Steve Mains (Watermaster Support Services) _____

Newsletter Editor
Patrice Copeland (Santa Ana RWQCB) _____

Web Mistress/Master
Marina West (Joshua Basin WD) _____
Ernie Roumelis (AKW Geotechnical) _____

Student Liaison Officers (one from each local college/university)

- CSU San Bernardino _____
- UC Riverside _____
- Cal-Poly Pomona _____
- Riverside Community College _____
- Chaffey College _____
- Crafton Hills College _____
- Other _____

Please mark your ballot and bring it with you to the December meeting or fax, e-mail or mail it to:

Steven Mains
Watermaster Support Services
6447 Jaguar Drive
Riverside CA 92506
Phone/Fax 951-780-5636
watermains@aol.com

IGS MEETING LOCATION:

LSA Associates, Inc.
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Inland Geological Society Newsletter

c/o Copeland Consulting

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