

Inland Geological Society

September 2009

Newsletter of the Inland Geological Society

Volume 25 No. 9

This Meeting:
Thursday,
September 3rd

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

Location:
LSA Associates
1500 Iowa Ave
Suite 200
Riverside, CA
92507
(Map on Pg.4)

Coming to
Dinner?
Please RSVP:
By Friday 8/29
(951) 782-3295
dlass@
waterboards.ca.gov

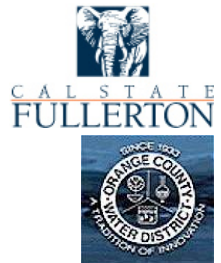
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September Speaker:

Dr. Tara A. Kneeshaw, Ph.D.
Assistant Professor of Geology, Cal-State Univ., Fullerton

Roy L. Herndon, PG
Chief Hydrogeologist, Orange County Water District



The Battle to Provide Clean Water for a Growing Population

Abstract

An issue that too many of us take for granted is the continuing availability of clean, safe and abundant drinking water. As we are faced with new water scarcity issues across the globe, due to changing climatic conditions and a continually increasing population, it is more important than ever to educate ourselves about the state of our water supplies. Understanding usage trends and the hidden “costs” of our available water resources is an important first step. Across the globe water shortages are already evident as some the Worlds’ largest rivers are “drying up” before reaching the ocean. Battles over clean water sources are already underway and are likely to escalate as drought conditions and issues of water quality persist.

Locally, we are faced with court-ordered reductions in water deliveries from northern California and a continuing state-wide drought, water suppliers in central and southern California are scrambling to meet future water demands. The Orange County groundwater basin is a “hidden treasure” as it underlies a 350-square

Continued on Page 2

mile area with a population of 2.5 million living on top of it. While the basin is over 2,000 feet thick, it is susceptible to water quality impacts, including salts, nitrate, industrial chemicals, and seawater intrusion. The costs of groundwater protection are in the millions of dollars per year, but the alternative is to allow the resource and the public's confidence in their drinking water to deteriorate.

Biographies:

Dr. Kneeshaw is an assistant professor of hydrogeochemistry in the Department of Geological Sciences at California State University, Fullerton. She is new to southern California coming from Texas A&M University where she finished her PhD this past August. At Texas A&M, Dr. Kneeshaw conducted research at the U.S. Geological Survey's Norman Landfill Research Site in Norman, OK, where she used field techniques to evaluate rates of biodegradation reactions in a landfill-leachate contaminated wetland-aquifer system. Dr. Kneeshaw received bachelor's degrees in both biology and geology from Albion College in Albion, MI. She grew up in Kalamazoo, MI (and yes! There really is a Kalamazoo) where all of her family still resides. After graduating from Albion College, Dr. Kneeshaw spent about two years in Santa Cruz, CA working for the U.S. Geological Survey on a variety of different scientific topics. This experience eventually led her to focus on the interdisciplinary research in the area of environmental biogeochemistry that she is still interested in today.



Dr. Kneeshaw's recent research endeavors involve evaluating the fate and transport of contaminants in both surface and groundwater systems. Several students under her advisement are currently conducting research at the Villa Park Reservoir in Villa Park, CA, where they are investigating the biogeochemical controls on high iron and manganese concentrations found in the reservoir water.

Mr. Herndon is the chief hydrogeologist at the Orange County Water District, the agency responsible for managing the 350-square-mile Orange County groundwater basin in southern California. Mr. Herndon directs the activities of OCWD's Hydrogeology Department, including numerical groundwater flow modeling, performance evaluation and improvement of two seawater intrusion barriers, basin-wide and local water level and water quality investigations, and the operation of a comprehensive water resources data management system. He also serves on the Alamitos Seawater Barrier Management Committee, Groundwater Resources Association of California Board of Directors, and the MCAS El Toro Restoration Advisory Board. Current activities include contaminant plume investigation and remediation, seawater intrusion investigation, and recharge alternatives evaluation. He holds a B.A. degree in Geology from The Colorado College, a M.S. degree in Hydrology and Water Resources from the University of Arizona, and is a California professional geologist and certified hydrogeologist.

Contact Information:

Dr. Tara A. Kneeshaw
 Department of Geological Sciences
 California State University, Fullerton
 800 North State College Blvd.
 Fullerton, CA 92834-6850
 Phone: (657) 278-5660
 Fax: (657) 278-7266
 Email: tkneeshaw@fullerton.edu

Roy L. Herndon, PG
 Orange County Water District
 18700 Ward Street
 Fountain Valley, CA 92708
 Phone: (714) 378-3260
 Fax: (714) 378-3369
 Email: rherndon@ocwd.com

Upcoming Meetings/Events

Rock & Gem Shows—Various locations

Various rock and mineral shows will be throughout So. California. To find one near you, visit www.rockngem.com/showdates.asp

AEG—2009 Annual Meeting



The Association of Environmental and Engineering Geologists will be having their 52nd Annual Meeting in South Lake Tahoe, California. The meeting will be held on **September 21 - 26, 2009** at the Harrah's Hotel & Casino. For more details, please visit www.aegweb.org/

SME—SoCal Section Meeting



Dr. Erik Melchiorre will be giving a talk on "the world famous dimension stone (marble) quarries of Cararra (Italy) and Vermont (USA)". The meeting will be on **Tuesday, September 15, 2009** at the Pomona Mining Co. Restaurant. For more info, visit www.smenet.org/southerncalifornia/

Groundwater Resources Association of California—27th Biennial Groundwater Conference & 18th GRA Annual Meeting

The conference/meeting will be **October 6 -7, 2009** at the Sacramento Convention Center in Sacramento, CA. For more info., visit www.grac.org/

The Geological Society of America—2009 Annual Meeting

GSA will be holding their 2009 Annual Meeting on **October 18 - 21, 2009** at the Oregon Convention Center in Portland, Oregon. For more info., visit www.geosociety.org/

IGS Meeting Schedule

October 7, 2009 (Wednesday)

Suzie Earp, Water Resources Institute
1938 Santa Ana River Flooding in San Bernardino area

November 5, 2009 (Thursday)

Dr. W. Richard Laton, CSU Fullerton
2009 McElhiney Distinguished Lecturer
Boring Logs—What's Important and What's Not: A Scientific Viewpoint

December 2, 2009 (Wednesday)

Shelby Barker, Student at CSU Fullerton
An Investigation of the Potential Surficial Recharge in Lucerne Valley Groundwater Basin, Western Mojave Desert, California

January 7, 2010 (Thursday)

Baird King, Student at UCR
A Record of Climate Change in the Rock Creek Drainage of the Eastern Sierra Nevada, CA

February 3, 2010 (Wednesday)

TBA

March 4, 2010 (Thursday)

TBA

April 8, 2010 (Wednesday)

TBA

Employment Wanted

Michael Cyrocki, PG, CHG; Sr. Hydrogeologist

Phone: 909-481-1535; email: michael_cyrocki@hotmail.com

Over 15 years of environmental consulting and groundwater resources development. Skill Set: groundwater exploration, groundwater modeling (WinFlow and GW Vistas), aquifer testing and characterization, borehole and surface geophysics, basin conceptual models, well hydraulic performance evaluation, water production well design, water rights, lithologic logging, e-log interpretation, drilling rig applications, CA Energy Commission AFC preparation, technical presentations, technical writing, water well maintenance, environmental assessment/remediation, client/regulatory agency liaison, stratigraphy/depositional environments, and Pleistocene geology.

Employment Wanted

P.O. BOX 9411, SAN BERNARDINO, CA 92427
909-648-1357 • APOACH22@HOTMAIL.COM

ALONZO POACH

EDUCATION

California State University, San Bernardino

Bachelor of Science, June 2009

Dual Major: General Geology and Environmental Geology

Geology GPA=3.5.

- M.A.S.S. (Math and Science Scholar) scholarship, 2007-2009.
- Analyzing mineralogical genesis of nitrogen minerals and associated isotopic signatures of San Bernardino County funded by NASA's exobiology program.
- Geologic mapping projects include:
 - Tectonically deformed area around San Andreas Fault in San Bernardino Mountains from Badger Canyon to Sycamore Canyon.
 - Low angle thrust sheets in Mescal Range, eastern California.
 - Carbonate and shale units and associated thrust faults of the Horse range east central Nevada.
 - "Tape and Brunton" maps of underground mine workings in Rich Hill gold district, Stanton, Arizona.
- Completed Phase I study of Shandin Hills area, San Bernardino, CA.

WORK EXPERIENCE

California Regional Water Quality Control Board Lahontan Region

Victorville, CA, 92392

June 2008 to Present

Technical Student Assistant: Directly assist engineers and geologists reviewing reports, organizing data for facilities, database management and general office work. Facility experience includes landfills, waste water treatment plants, mines, surface impoundments, and underground storage tanks.

California State University, San Bernardino

San Bernardino, CA, 92407

April 2007 to June 2009

Peer Advisor: College of Natural Sciences; Under the direction of Cindy Paxton, Ph.D., Assistant Dean, provide academic information to science students (e.g. Physics, Nursing, Biology, Geology, and Kinesiology) regarding prospective educational goals.

Instructional Student Assistant: Assist in evaluating and grading assignments in geology and natural science courses.

Camino West Coast Services/Tire Guys

Redlands, CA, 92373

July 2005 to April 2008

Auto Technician: General vehicle repair including, but not limited to: engine repair/maintenance, brake repair, transmission repair/maintenance, and axle repair.

Supervisor: Tim Unruh, Store Manager.

JC Penney Outlet

Ontario, CA, 91764

July 2004 to July 2005

Customer Service: Assisted customers with returns and exchanges, sorted and assigned items to appropriate departments, departmental maintenance, delegated customer concerns to upper management, cashier.

Supervisor: Michelle Bradford, Assistant store manager.

SPECIAL SKILLS

- Fluent in Spanish.
- Computer skills include: limited GIS experience, spreadsheet-programming and data analysis (Microsoft Excel), word-processing, Microsoft Access, and PowerPoint.
- Fabrication and repair (metal and wood) using a variety of professional tools.
- Experience using wire feed and "stick" arc welders, oxyacetylene torches, and plasma cutters (includes professional training).

REFERENCES

Patrice Copeland, PG
Senior Engineering Geologist
California Regional Water
Quality Control Board
pcopeland@waterboards.ca.gov
Direct Tel. 760-241-7404
Office 760-241-6583

Nathaniel Ring
Mechanic
Tel. 909-649-6825
Work 909-793-9999

Joan Fryxell, Ph.D.
Dept. Geological Sciences
CSU San Bernardino
jfryxell@csusb.edu
Tel. 909-537- 5311
Dept. 909-537-5336

IGS MEETING LOCATION:

LSA Associates, Inc.
1500 Iowa Ave, Suite 200
Riverside, CA 92507

**2009 IGS OFFICERS****President**

Greg Johnson, LADPW
 gjohnson@ladpw.org
 626.458.4923

Treasurer

Margaret Gooding, LSA Associates
 Margaret.gooding@lsa-assoc.com
 951.781.9310 x279

Newsletter Editor

Shelby Barker, CSU Fullerton
 crabshel@yahoo.com
 760.680.0389

Vice President

Thomas Deane, Deane Consulting, Inc.
 deanehydro@verizon.net
 909.747.4515

Secretary

Dixie Lass, Santa Ana RWQCB
 dlass@waterboards.ca.gov
 951.782.3295

Membership

Steven E. Mains, Watermaster
 Support Services
 watermains@aol.com
 951.780.5636

Web Mistress

Marina West, Big Horn Desert View
 Water Agency
 wells.out.west@gmail.com
 760-910-3264

Web Master

Ernie Roumelis, AKW Geotechnical
 eroumelis@verizon.net
 951.265.9849

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c/o Shelby Barker
14982 Farmington Street
Hesperia, CA 92345