

Inland Geological Society

January 2012

Newsletter of the Inland Geological Society

Volume 28 No. 2

This Meeting:

Friday,
February 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 Monday 1/30
(951) 784-2168
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February Speaker:

Mr. Marvin Glotfelty

**Co-Founder and Principal Hydrogeologist, Clear Creek Associates
2012 Distinguished McElhiney Lecturer**

**Life-Cycle Economic Analysis of Water Wells -
Considerations for Design and Construction**

Abstract

This presentation includes discussions of several key elements of well design/construction that impact the total (life cycle) cost of water wells, such as well screen type, construction material, well development method, and frequency of well cleaning. An example life-cycle economic analysis will be presented, comparing low-carbon steel vs. stainless steel well screen. The economic analysis will include consideration of the actual construction cost of 70 municipal wells that were installed between 1993 and 2011. The economic elements to be considered will include initial capital cost; energy requirements for water pumping; operations & maintenance costs; probable well longevity and replacement schedules; etc. The operations & maintenance costs are actual values from a large water purveyor. Previously, this economic analysis was performed independently in 2003 and 2007, with essentially identical results to those of this 2011 economic analysis. The life-cycle economic analysis results provide the lesson that in some cases, more expensive well installation costs pay for themselves in the early life of the well, with dividends in value and economics for many subsequent years.

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Biography:

Marvin Glotfelty is a co-founder and Principal Hydrogeologist with Clear Creek Associates, a ground water consulting firm with offices in Scottsdale and Tucson, AZ, as well as Claremont, CA and Leesburg, VA. He received his BS and MS degrees in geology from Northern Arizona University, and currently serves on the Advisory Council for NAU's School of Earth Sciences and Environmental Sustainability. He is a Registered Professional Geologist in Arizona and California, and also a Licensed Well Driller in Arizona. During his professional career spanning over two decades, Mr. Glotfelty has participated in almost every aspect of the hydrogeologic sciences, including recharge projects, water supply studies, water rights issues, groundwater quality, well installation programs, and well rehabilitation projects. He has been involved with the design, installation, rehabilitation, or abandonment of over 700 water wells in the southwestern United States, and has served as Technical Director of the Arizona Water Well Association since 1990. Mr. Glotfelty has given over 100 presentations on hydrogeologic and water well topics, and he has authored over 20 publications, including a Dictionary of Driller's Terms (published by the National Ground Water Association in 2004). He also provided editorial review of the Water Well Construction and Abandonment chapter of the 3rd edition of *Groundwater & Wells* (published by Johnson Screens Co., 2007), and in 1995 he received the City of Phoenix Mayor's Environmental Award for his work with rehabilitation of municipal wells to improve their water quality.

DID YOU NOTICE?

This month's speaker

Mr. Marvin Glotfelty
2012 NGWA Distinguished
McElhiney Lecturer

will be presenting on

FRIDAY
February 3, 2012.

You won't want to miss it!

STUDENTS

Are you graduating this year?
Or maybe you have been
working on a research project?

Do you want to practice your
presentation before your
defense? Are you looking to
meet your future employer?

Presenting your research at
an upcoming IGS meeting!

Contact Jon Smith, Debbie
Kunath or Steve Mains to
get your name in the schedule!

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

South Coast Geological Society Meeting



Woody Higdon, a Geology Imagery Specialist for Geo-Tech Imagery, will be presenting a talk on "Computer Based Stereo Photo Analysis for Geologists" on **Monday, February 6, 2012** at the Doubletree Club Hotel in

Santa Ana, CA. For more info., visit www.southcoastgeo.org

SME—SoCal Section Field Trip

The Society of Mining, Metallurgy and Exploration (SME) is having a field trip to the Rio



Tinto Borax Mine led by Mr. Brandon Griffiths. The field trip will be on **Saturday, January 28, 2012** at the Rio Tinto Borax in Boron, CA. Please meet at the Visitor Center on Borax

Rd. at 9 am Sharp. For more info., visit www.mine-engineer.com/socalmining

San Diego Assoc. of Geologists Meeting

Mr. Mike Buga will be presenting a talk on the "San Jacinto Fault Work Update—Clark Lake and Hog Lake" on **Wednesday, February 15, 2012**. For more info, visit www.sandiegogeologists.org

San Diego Assoc. of Geologists Meeting

Dr. Scott Burns will be presenting a talk on the AEG Jahns Lecture on Subduction Earthquakes on **Wednesday, March 21, 2012**. This will be a joint meeting with EERI. For more info, visit www.sandiegogeologists.org

San Diego Assoc. of Geologists Meeting

Geology student presentations will be held on **Wednesday, April 18, 2012**. For more info, visit www.sandiegogeologists.org

REG REVIEW, Inc.—ASBOG Study Course

Are you taking the CEG or CHG exam in Fall 2012? REG REVIEW, Inc. will be offering a study course for the CEG and CHG exams on **Saturday, June 19, 2012**. The courses will be offered at the Best Western Orange County Airport North in Santa Ana, CA. For more info., visit www.regreview.com/

IGS Meeting Schedule

March 1, 2012 (Thursday)

Dr. Norman Meeks

"How ineffective is the headward erosion process" and "A brief summary of Lake Manix history"

April 12, 2012 (Thursday)

Joint Meeting with Society of Mining, Metallurgy, and Exploration (SME)

Meeting will be held at the California State University, San Bernardino

May 3, 2012 (Thursday)

TBA

June 6, 2012 (Wednesday)

TBA

July 12, 2012 (Thursday)

TBA

August 1, 2012 (Wednesday)

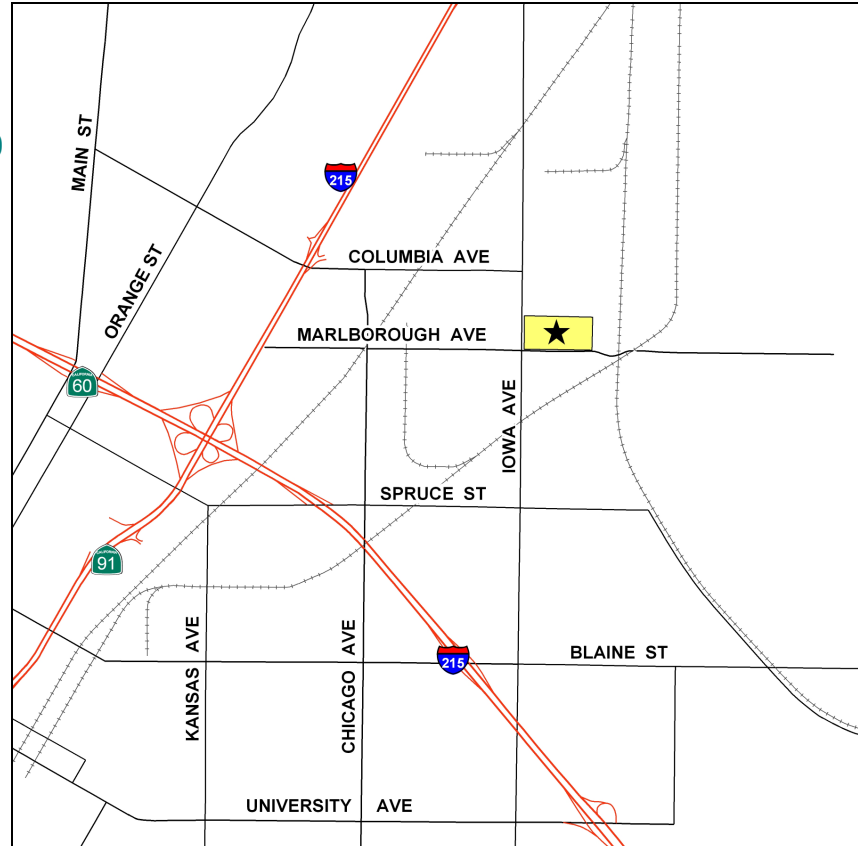
TBA

September 6, 2012 (Thursday)

TBA

IGS MEETING LOCATION:

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

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