

ASCE

AMERICAN SOCIETY OF CIVIL ENGINEERS SAN BERNARDINO & RIVERSIDE COUNTIES BRANCH LOS ANGELES SECTION, REGION 9– SINCE 1953

PRESIDENT'S MESSAGE

Steve Ledbetter, P.E.



Dear Membership,

I had the pleasure of attending the ASCE Region 9 Legislative Day last month in Sacramento. Each year, Region 9 organizes meeting between civil engineering advocates and state legislators during Infrastructure Week. It gives civil engineering advocates a chance to express our support for current legislation related to the field of engineering and provide input on public policy issues important to the civil engineering profession.

ASCE Region 9 briefed us advocates on current policy priorities including: infrastructure investment planning and prioritization, restoration of highway and transit funding, environment, and professional practice. This was my first venture into the state legislative process, and it was an eye opening experience. I had the opportunity to meet with Senator Roth (Riverside, Moreno Valley, and Corona), Senator de Leon (Los Angeles), Senator Stone (Temecula and Coachella Valleys), Senator Morrell (Big Bear, San Bernardino, Beaumont, and San Jacinto), Assembly Member Mayes (Yucca Valley, Beaumont, and Palm Desert), and Assembly Member Medina (Riverside and Moreno Valley). While initially feeling a little intimidated, I found myself at ease speaking with each legislator and/or staff member, explaining current bills (e.g. SBX1-1, AB 1591, AB 2800, SB885) and why we are requesting their support in the legislature. ASCE's policy priorities are aimed at enhancing not only our profession, but the infrastructure that supports the world around us. It was surreal to have a one-on-one conversation, in the State Capitol, with legislatures I've only read about or seen on TV and advertisements; some more engaging than others, some more open minded than others, and some more versed on infrastructure than others. One thing that resonated with me was Senator Roth stating that 10-years ago, very few in the legislature knew what infrastructure investment meant, now almost all are aware of the need for and the implications of failing to invest in the State's infrastructure.

...CONTINUED ON PAGE 4

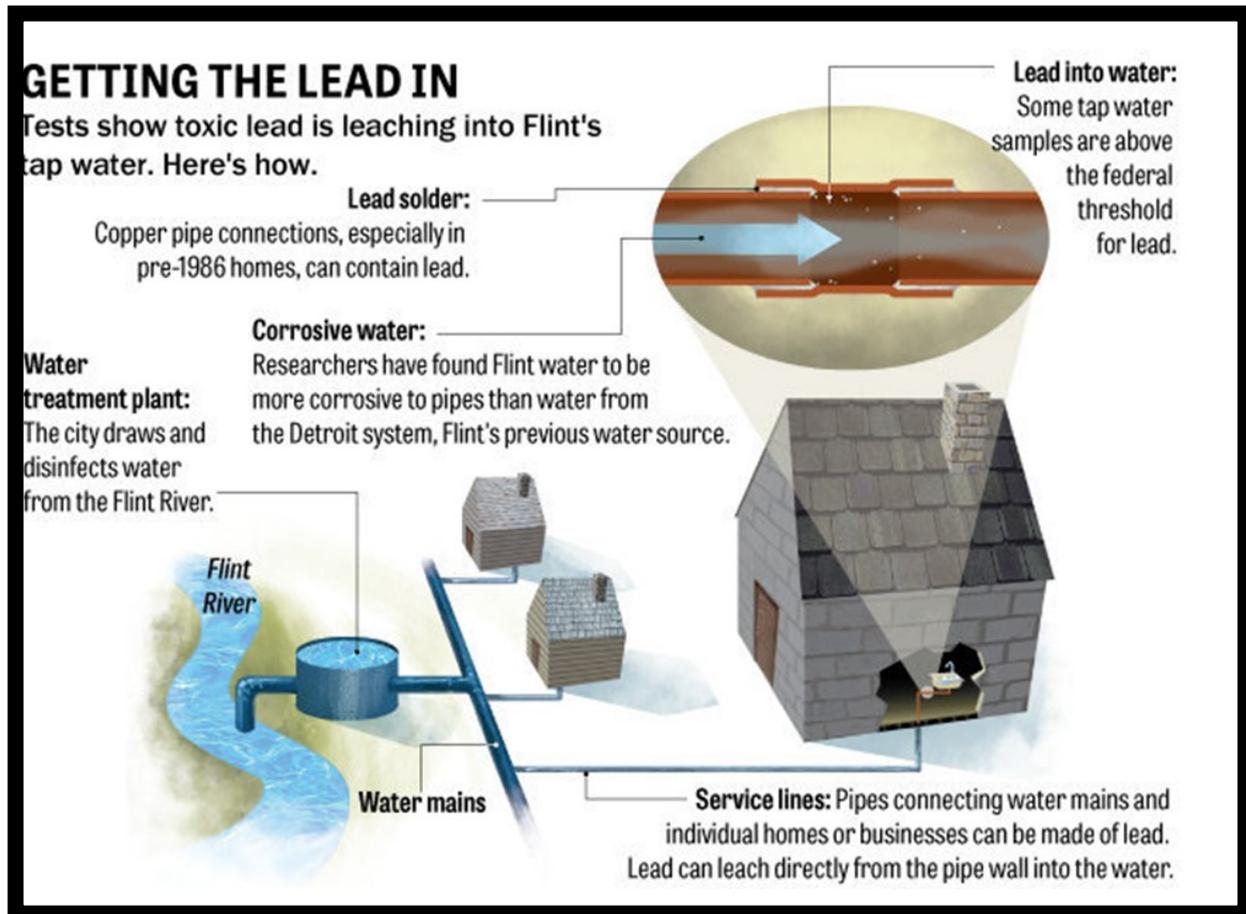
June 2016

NEWSLETTER



This Month in Engineering History: Water & Flint, Michigan

By: Christopher Quach and Jing Yang



Seemingly overnight, the relatively unknown City of Flint, Michigan dwarfed its more famous neighbor Detroit for reasons no City wants to be in the spotlight for.

It usually isn't given a second thought, but a significant amount of engineering and science is involved to bring water from the sources to our homes. Wells, pumps, pipelines, valves, reservoirs, and treatment plants must all be built to deliver it to our cups to drink and hydrants with which to fight the fires. No matter where it ends up, this water must be carefully treated to ensure it is safe to for human consumption. There are many steps involved to produce safe drinking water and while rare, mistakes can occur. Sparked by a financial crisis, on April 25, 2014 one such mistake was thrust upon the citizens of Flint, Michigan.

...CONTINUED ON PAGE 4

INSIDE THIS ISSUE

President's Message.....	1	Hany Farran Presentation.....	7
This Month in Engineering History.....	2	YMF Hike.....	8
Nomination Announcement for FY15/16 Officers	3	YMF K-12 Outreach.....	9
Branch Awards Dinner	5 and 6	Professional Directory.....	10
		Calendar and Membership Information.....	11

Nominations Announced for 2016/17 ASCE San Bernardino/Riverside Branch Officers

The San Bernardino/Riverside Branch Nominating Committee has made the following recommendations to the Board of Directors for the slate of officers for the term beginning October 2016:

President-Elect (for a three-year term; President-Elect, President, and Past President):

Julianna Gonzalez, P.E., Santa Ana Region MS4 Permit Manager, Riverside County
Flood Control and Water Conservation District

Vice President (for a one-year term):

Melissa Barbosa, P.E., Water System Engineer, Azusa Light & Water

Treasurer (for a one-year term):

Jeff Meiter, L.S, R.C.E., President, Valued Engineering, Inc.

Newsletter Editor (for a one-year term):

[VACANT]

Secretary (for a one-year term):

Sarah Lunetta, P.E., Associate Civil Engineer, Riverside County Department of Waste
Resources

Current Branch officers, not up for election, serving out their remaining terms are:

President (two-year term remaining; President and Past President):

Kenneth Cox, G.E., Senior Project Engineer, Leighton Consulting

Past President (one-year term remaining):

Steven Ledbetter, Project Manager, TKE Engineering, Inc.

In accordance with Article V, Sections 4 thru 6, of the current ASCE San Bernardino / Riverside Branch Bylaws, this serves as the announcement of the Official Slate of Officers and additional nominations from our Subscribing Members will be considered up to the Annual Meeting (June 23, 2016). If no other nominees exist, the Presiding Officer shall conduct the Branch election at the Annual Meeting (June 23, 2016). Submit any additional nominations, before June 22, 2016, to: ASCE San Bernardino/Riverside Branch President Steven Ledbetter, P.E. at (951) 680-0440 or sledbetter@tkeengineering.com.

In addition to the above Board positions, the **Assistant Newsletter Editor** committee member position is *VACANT*. This position is a great way to get involved in a moderate role with ASCE and see how service on the Board works both for and with you and your career.

President's Message

...CONTINUED from PAGE 1

It reaffirmed that civil engineers need to continue to expand our voice within the legislature; it's an uphill battle, but ASCE is making progress!

Speaking of infrastructure, ASCE San Bernardino-Riverside Branch's 2015-2016 Outstanding Achievement Awards program submissions are closed! This year we had some stiff competition between the projects vying for the Outstanding Project of the Year Award. We have an awards ceremony and banquet dinner planned for June 23 at the Riverside Convention Center, look for the event flyer and registration info herein. Join us to see the lineup of exciting and innovative new projects built throughout the inland empire!

Sincerely,
Steven Ledbetter, P.E.
San Bernardino and Riverside Counties Branch President

This Month in Engineering History

...CONTINUED from PAGE 2

Since 1967, Flint had been receiving its water from Lake Huron, purchased from the Detroit Water and Sewerage Department (DWSD). However, as a cost-saving measure, the Flint City Council decided to terminate its contract with DWSD and purchase water from the Karegnondi Water Authority (KWA) which would also supply water from Lake Huron. Most houses in the United States receive water from large distribution pipelines that run within public streets. This water travels from the distribution pipelines to the houses through smaller service lines that are now typically made out of copper. In the early 1900s, many of these service lines were made from lead because it was inexpensive and easy to work with. Many homes in Flint, Michigan are served through lead service lines, but the water they received from Lake Huron via DWSD was treated so that any leaching from the lead services were within acceptable limits.

The KWA water supply pipeline would not be in service until 2016 and the contract with DWSD ended in 2014. The city therefore decided to have its temporary water source switch to the Flint River, which had been a designated water back-up source for years. The switch was meant to save the City \$5 million over less than two years. Unfortunately, water from the Flint River was very corrosive and caused permanent damage to the lead service lines. Mistakenly, the City of Flint did not provide corrosion-control treatments which would have prevented lead from leaching out of the service lines. Soon after the switch, residents started to complain about the water color, taste, and odor.

After testing by a Virginia Tech University researcher, it was concluded that harmful amounts of lead (25 parts per billion [ppb], allowable level is 15 ppb) were leaching into the resident's' water. The residents of Flint were urged to not drink tap water and thousands of volunteers brought bottled water and installed lead filters at many homes. Although Flint has since switched back to receiving water from the DWSD, the damage from corrosion has permanently allowed lead to leach from the service lines. It is estimated that it will take up to 15 years to complete and cost \$60 million or more to replace all of the lead services in Flint, Michigan.

An important lessons learned from this incident is to always carefully analyze proposed system changes and apply the appropriate mitigation measures, especially for significant changes that will directly affect the health and safety of people. As engineers and scientists, it is quantitative data and correct information, not the dollar amount that should affect our decision making.

Sources:

Image was originally published in "Here's how that Toxic Lead got into that Flint Water", Ron Fonger, October 7, 2015, http://www.mlive.com/news/flint/index.ssf/2015/10/see_step_by_step_how_lead_is_g.html
<http://www.freep.com/pages/interactives/flint-water-crisis-timeline/>



LOS ANGELES SECTION, REGION 9

San Bernardino & Riverside Counties Branch

FOUNDED 1953

2015-2016 BOARD OF DIRECTORS

President

Steven Ledbetter, P.E.
TKE Engineering, Inc.
(951) 680-0440
sledbetter@tkeengineering.com

President-Elect

Kenneth Cox, G.E.
Leighton Consulting
(951) 252-8925
kcox@leightongroup.com

Vice President

Vacant

Treasurer

Julianna Gonzalez, P.E.
Riverside County Flood Control and
Water Conservation District
(951) 955-8064
juliannagonzalez@rcflood.org

Newsletter Editor

Melissa Barbosa, P.E.
Azusa Light & Water
(626) 812-5173
mbarbosa@ci.azusa.ca.us

Newsletter Editor

Jeff Meiter, P.E., L.S.
Valued Engineering, Inc.
(909) 982-4601
jeff@valued-eng.com

Past President

Brandon Reyes, P.E.
Michael Baker International
(909) 974-4967
brandon.reyes@mbakerintl.com

ANNUAL AWARDS BANQUET

Please join your San Bernardino and Riverside Counties Branch of ASCE at the annual awards banquet. Come celebrate the accomplishments of your fellow engineers, firms and agencies that are making an impact in our area.

This year we will recognize several remarkable recently constructed projects as well as award scholarships to our local university students.

You won't want to miss this year's festivities, hope to see you there!

Date: **Thursday, June 23, 2016**
(MUST RSVP BY 06/17/16)

Time: **5:30 PM – 8:30 PM**

5:30 PM – 6:30 PM Reception & Hors D'oeuvres
(cash bar)
6:30 PM – 8:30 PM Dinner and Program

Location: Riverside Convention Center (Meeting Room 1/2)
3637 5th St, Riverside, CA 92501



Cost: \$50 Private, \$35 Public/Student

Sponsorships Available: See form on next page.

Additional Info: Brandon Reyes, (951) 532-4510
brandon.reyes@mbakerintl.com



**ASCE San Bernardino/Riverside Branch
Annual Awards Banquet**



Sponsorship Form

This year’s dinner promises to attract the firms, agencies, and people who have helped shape the Inland Empire. By sponsoring the event, your company will be featured in the Awards Program and in the ASCE Newsletter. Your sponsorship will be put towards the ASCE annual student scholarships at the event. The breakdown of benefits is as follows:

Platinum Sponsor - (\$1000)

- Reserved Table for 10
- Mention at Dinner
- Mention and Logo in the ASCE Newsletter
- Listing on the Event Program

Gold Sponsor - (\$500)

- Reserved Seating for 5
- Mention at Dinner
- Mention and Logo in the ASCE Newsletter
- Listing on the Event Program

Silver Sponsor - (\$250)

- Reserved Seating for 2
- Mention at Dinner
- Mention and Logo in the ASCE Newsletter
- Listing on the Event Program

SIGN ME UP!

I want to be a part the ASCE San Bernardino/Riverside Branch Dinner, take advantage of the promotional opportunities afforded to me as a selected sponsor, and help support the Branch’s student scholarship program.

___ **Platinum** ___ **Gold** ___ **Silver**

Company: _____

Contact Name: _____

Address: _____

Phone: _____ Fax: _____

Email: _____

PLEASE EMAIL to: Julianna Gonzalez (Branch Treasurer)
Phone: (951) 955-8064 **Email:** juliannagonzalez@rcflood.org
Sponsorships will be invoiced for payment by ASCE Sb/Riv Branch

ANNOUNCEMENT RE: PRESENTATION BY DR. HANY FARRAN

ASCE members and friends are invited to a presentation by Dr. Hany Farran, P. E., professor at Cal Poly Pomona on Tuesday June 21st @ the Redlands Elks Club, 633 New York Street, Redlands. Dr. Farran will be speaking to the Redlands Round Table Service Club bi-weekly luncheon meeting. His subject will concern Bridge Structure and Architecture.

Dr. Hany has indicated that his presentation shows bridges from around the world. The intent is to reflect what we have learned from Mother Nature and also the progression of Bridge Engineering throughout the ages. Brief explanation of the structural system shall be highlighted for some of these great bridges. The great advances in materials, computerization and other aspects of technology shall be also mentioned during this presentation.

Luncheon cost -\$16.00, reservations required by Wednesday June 15th.

Contact John Egan, email: jegan@erscinc.com; cell phone 909.225.5985.

Prepared by John Egan, P. E.

Tel 909.225.5985



LOS ANGELES SECTION

San Bernardino-
Riverside Branch

YOUNGER MEMBER FORUM

ASCE SB/R YMF Icehouse Canyon Trailhead Hike Event

Ice-House Saddle/Cucamonga Peak

Saturday, July 16, 2016



Event Information:

Date: Saturday, July 16, 2016

Time: 7:30 AM – 4:00 PM

Meeting Location: Ice House Canyon Road

Mt Baldy, CA 91759

Coordinates (34.2502, -117.6369)

Parking: Free Parking Pass for the first 5 that register, or \$5 National Forest Parking Pass per day that can be purchased in Mt. Baldy Visitor Center on the same day.

Options: Upon Arrival you can choose to do the Ice-House Saddle Hike or The Cucamonga Peak Hike

Please bring your own food, snacks, and drinks.

Come and enjoy the great hike and meet fellow engineers in your area.

For more information or registration please contact: Ibrahim Ibrahim, ASCE SB/R YMF

at 208-596-5166 or ibra0717@hotmail.com

YMF K-12 Outreach

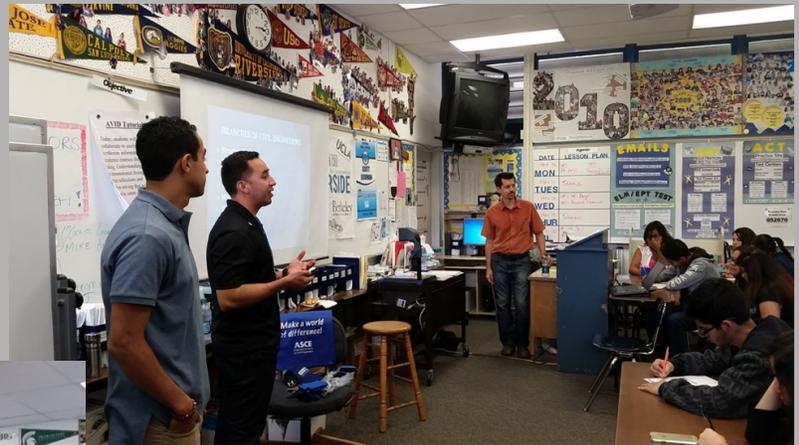
Presentation to Ramona High School

Part of the mission of the Younger Member Forum is to encourage more high school students to choose engineering when selecting a major in college. YMF works on planning multiple presentations throughout the year at local high schools to speak about the rewarding civil engineering career. On Friday, May 20, 2016 several YMF volunteers spent the day at Ramona High School in Riverside, CA. A total of six YMF members volunteered to talk to high school students about their own high school and college experiences, why they choose to pursue civil engineering as a career, where they are working now and what types of exciting projects they have participated in. This outreach presentation provided an opportunity to reach out to over 400 students in the Ramona H.S. AVID program over the course of 7 periods! The students and faculty shared their appreciation for the presentation and the visit. The most rewarding outcome of the event was that several students expressed their excitement about pursuing civil engineering in college!

Xochitl Lozano | Civil Associate | Michael Baker International

Temecula, CA | [O] [951-676-8042](tel:951-676-8042)

xochitl.lozano@mbakerintl.com | www.mbakintl.com



Professional Directory

Civil - Water Resources - Inspection - Land Surveying
Construction Management - Program Management
Municipal Consulting - Grant Writing - Funds Acquisition



2305 Chicago Avenue - Riverside - CA - 92507
Ph. (951) 680-0440 - Fax (951) 680-0490
www.tkeengineering.com



Water • Wastewater • Recycled Water • Storm Water
Planning • CEQA/NEPA • Surveying
Design • Construction Management • Inspection

Engineering the Details, Because Details Matter

Riverside, CA 92501 • 951-684-6900 office
www.kriegerandstewart.com




Serving the Building Industry for Over 20 Years

Land Planning • Civil Engineering • Surveying
Environmental • Landscape Architecture



DENNIS W. HEIDER, RCE
Principal Engineer

Ph: (909) 673-0292
FAX: (909) 673-0272

800-A South Rochester Ave.
Ontario, CA 91761

email: dennis@helderengineering.com
www.helderengineering.com



"Engineering with values and integrity"

CIVIL ENGINEERING • LAND SURVEYING • LAND PLANNING

180 N. Benson Avenue, Suite "A"
Upland, CA 91786
Office: (909) 982-4601
Cell: (909) 927-7347
jeff@valued-eng.com
www.valued-eng.com

Jeff D. Meiter, LS, RCE
President

Civil Engineering & Planning Since 1945

ALBERT A.
WEBB
ASSOCIATES

Corporate Headquarters
3788 McCray Street | Riverside, CA 92506
T: 951.686.1070 | F: 951.788.1256

Desert Region
36951 Cook Street #103 | Palm Desert, CA 92211
T: 760.568.5005 | F: 760.568.3443
www.webbassociates.com



Leighton Consulting, Inc.

866-LEIGHTON

Thomas C. Benson, Jr., PE, GE | President & CEO

Irvine
Los Angeles
Palm Desert
Rancho Cucamonga
San Diego
Santa Clarita
Temecula
Ventura

www.leightongroup.com

Geotechnical | Environmental | Testing and Inspection



CHJ Consultants
Providing Excellent Service for 50 Years

Geotechnical Engineering
Environmental Consulting
Construction Inspection
Materials Testing

www.CHJConsultants.com (909) 824-7311

Victorville | Colton | Palm Desert

Business Card Ad

Contact ASCE Board member
Julianna Gonzalez (Branch)
juliannagonzalez@rcflood.org



Project X
Corrosion Engineers
Ed Hernandez, PE, NACE CCT
MBE • DBE • SDB • SBE

Soil / Water Lab – Failure Lab
Corrosion Control Consulting

Phone : 213-928-7213 • info@projectxcorrosion.com
Field Investigations • Anode Testing • Weird Science
Corrosive Bacteria • Cathodic Protection Surveys

Upcoming Events

June

June 21, 2016– Dr. Hany Farran Presentation at Redlands Elks Club

June 26, 2016-Branch Annual Awards Banquet at Riverside Convention Center

Membership Information

Types of Membership and Annual Dues (National)

Students:	FREE
Associate Member:	\$50 per year of Baccalaureate degree and first year after, then incremental increases to \$225 over five years.
Member:	\$225
Affiliate:	\$225
Section (Branch) Dues:	\$55

National ASCE student membership is now FREE! Those who have chapters or clubs still must be a member of them before joining National. Log onto <https://www.asce.org/online>, fill out the short application or call 1-800-548-ASCE (2723) and instantly become a member of ASCE.

Online membership renewal is available! Go to <https://www.asce.org/renewal/inforrenewal.cfm>. You will need your membership number. All payments must be made with a major credit card. An e-receipt is transmitted to the member upon completion of the transaction.

Newsletter Information

Publisher:

ASCE San Bernardino-Riverside Counties Branch
P.O. Box 1541
Riverside, CA 92502-1541
Typesetting and Layout: Melissa Barbosa

Editor:

Melissa Barbosa
[\(626\) 812-5173](tel:6268125173)
mbarbosa@ci.azusa.ca.us

Identification Statement:

ASCE San Bernardino & Riverside Counties Branch
Newsletter is published monthly.
Subscription Rate: \$55 (included in section dues)

Advertisement Rates:

Professional Directory: \$250 per business card (10 issues)
Full page ad: \$235 per issue
1/2 page ad: \$125 per issue
1/4 page ad: \$75 per issue

Advertisement Information:

To place ads please contact the editor. Payments are due 30 days from the date of publication.

Billing Information:

Julianna Gonzalez
951-955-8064
juliannagonzalez@rcflood.org

