The Society of American Military Engineers (SAME) Sacramento Post hosted a two-day summer symposium focused on the tough challenges facing California and the opportunities for those able to provide technology and resources. The symposium “Moving Forward Through Tough Challenges” was held on Tuesday, August 12th and Wednesday, August 13th at the beautiful Lion’s Gate Hotel at McClellan Business Park. The most common feedback by attendees was that the event provided a wealth of valuable business information.

California's Drought

One of the toughest challenges facing California is the current extreme drought. Speakers were invited to the symposium to address this issue. Mr. David Murillo, the Director of the Mid-Pacific Region, Bureau of Reclamation put into perspective the difficult choices that the extreme drought conditions are forcing on an agency that manages water resources. This theme was continued by Mr. Gary Bardini, Deputy Director, Department of Water Resources (DWR) for the State of California and Ms. Danielle Blacet, Special Projects Manager, substituting at the last minute for Mr. Tim Quinn, Executive Director. Increasing extremes of drought and flooding are predicted. The Statewide Water Action Plan lists up to 15 action items to combat drought in the long term, including additional storage and better management of groundwater. Each speaker discussed potential details of the water bond, still in the formation stage during the conference.

California Delta

The California Delta has long been a topic of interest to SAME Sacramento Post membership. The symposium included discussions on the Delta.

Mr. Russell Stein, Deputy Director, California Department of Water Resources, State of California described the co-equal goals of the Bay Delta Conservation Plan (BDCP) and presented the plan as essential to meeting the water challenges that California is facing.

(continued on page 2)
Mr. Gordon Enas Deputy Chief, Delta Habitat Conservation and Conveyance Plan (DHCCP), DWR, (with considerable assistance from Mr. Kent Zenobia), further described the conveyance portion of the BDCP. With the environmental documents nearing completion, 2015 will be a busy year of permitting, preliminary engineering, and the start of restoration. The system would be operational in 2028.

Mr. Dave Mraz, Chief, Delta Levees and Environmental Engineering Branch, FloodSAFE Environmental Stewardship and Statewide Resources Office (FESSRO), DWR discussed efforts to achieve sustainability for the Delta. The subventions and special projects programs for the Delta are implementing innovative solutions such as degraded levees and setbacks and polders.

### Infrastructure Improvements

Our aging infrastructure is source of concern which our membership can help address. Several speakers provided information on major infrastructure improvements and expansions. Mr. Drew Lessard, Area Manager, Central California Area Office, Mid-Pacific Region, Bureau of Reclamation briefed the group on several topics with emphasis on the Folsom Dam operation and maintenance and the Joint Federal Project.

American River Common Features R6 project and two projects for Three Rivers Levee Improvement Authority--Upper Yuba and Feather River.

Mr. Ruben Robles, Director of Operations, Sacramento Regional County Sanitation District (SRCSD) provided an impressive presentation on the expansion of the Sacramento Regional Wastewater Treatment Plant known as the EchoWater Project. The project will add ammonia and nitrate removal, filtration, and disinfection treatment to the overall water treatment for this large facility.

Despite travel curtailments, Mr. Paul Robinson, Chief of the Energy Division and Karen Moore, Program Manager, both with Huntsville Division, USACE, were kind enough to accept an invitation and travel to Sacramento to speak at the symposium. They described the “Net Zero” concept for Army Installations to produce as much energy as they consume. Success requires implementing energy conservation, improved efficiency, and onsite power generation.

Mr. Scott Flake, Director, Power Generation and Project Development, Sacramento Municipal Utilities District, addressed the attendees on the Iowa Hill pumped storage project. The project construction consists of a new 6,400 acre-foot off-stream reservoir and an underground cavern, penstock and tailrace.

Mr. Sam Garcia, Biology Program Manager, Pacific Gas & Electric (PG&E) discussed the ongoing efforts to maintain and upgrade the vast infrastructure of PG&E. The company invests roughly $6 billion annually in the transmission and distribution of gas and electricity from Bakersfield to Redding.

### Transportation

Transportation is not historically a major topic for SAME but was added to the symposium due to its importance for our community. Mr. Gregory Nadeau, the Deputy Administrator for the Federal Highway Administration, spoke to the group, traveling out from Washington DC to address our membership. Mr. Nadeau discussed the federal support and
interaction with the state and local transportation projects with emphasis on the Sacramento Region.

Mr. Scott Jarvis, Assistant Chief Program Manager, California High-Speed Rail Authority briefed attendees on this major project. He was joined by Mr. Robert Padilla, Small Business Advocate, California High-Speed Rail Authority. The high speed rail system will connect all of the major population centers of California, the 8th largest economy in the world.

Ms. Diane Nakano, Assistant General Manager of Engineering and Construction for our Sacramento Regional Transit briefed the group on the expansion program ongoing at SRT. The plan includes eventual service to the Sacramento International Airport and Cosumnes River College.

Business Opportunities

Your Sacramento Post annually provides a robust discussion of business opportunities for large and small businesses from our government partners. This discussion started with a highly informative discussion from Mr. Nathan Dietrich, District Director, Office of Congresswoman Doris O. Matsui. Mr. Dietrich addressed the situation in Washington DC.

Mr. Joseph F. Calcara, Director of Programs for the South Pacific Division, US Army Corps of Engineers (USACE) spoke to the group about the wide range of work that is ongoing or expected for each of the districts within the South Pacific Division over the next fiscal year.

Other speakers addressing their ongoing programs and upcoming contracting plans included:

- COL Steve Buethe, Director, Facilities & Engineering, California Army National Guard
- COL Mike Farrell, Commander, Sacramento District, USACE
- Mr. Sigmund Csicsery, Supervisor, Air Force Civil Engineer Center (AFCEC). Mr. Csicsery was assisted by Ms. Kirsten Christopherson, Team Lead, Travis Integrated Support Team (IST) Environmental Quality Program and Mark Smith, Team Lead, Travis IST, Restoration Program.
- LT Jeremy Schwartz, Naval Facilities Engineering Command
- CAPT Wade Gesele, Commanding Officer, Civil Engineering Unit, Oakland, US Coast Guard

General's House Reception

The symposium this year featured an evening reception held at the historic residence used by the generals who commanded McClellan Air Force Base. The General's House reception was enjoyed by all who attended. The food had a barbeque theme. Premium beer was provided by 12 Bravo Brewing Company. Wine tasting was a selection of California State Fair gold metal winners. There was live music provided by pianist Peter Kagstrom. The SAME Sacramento Post board members provided prizes for a silent auction. Perhaps the biggest surprise of all was the raffle prize provided by the sponsor. The prize was one-week use (with a choice of weeks in 2015) of a luxury condominium in St. Thomas Virgin Islands.

The 2014 Symposium was a great success. Important information was exchanged, teaming and training accomplished, and professional development hours were earned. For the Sacramento Post, money was made for our charitable programs of science and engineering student scholarships, support for our troops and their families, and other local programs. We thank our membership for the support of SAME.
Folsom Joint Federal Project Tour
By Nathan Rockwood, Mead & Hunt, SAME Director and Program Chair

Mr. David Thomas and the JFP Team hosted the members of the Society of American Military Engineers with an overview of the project and status of construction during a lunch hour on July 24.

David Thomas, director of the project, provided an entertaining debrief to our members with slideshow presentations and photos as well as videos to illustrate the complex construction activities going on at the site.

Because of the nature of a gravity dam, it is the weight of the structure that provides the stability to hold back the reservoir. The auxiliary spillway’s new dam, or control structure, is constructed of concrete several floors below finished grade. Above grade, it stands as tall as the Statue of Liberty, or 146 feet tall. The new control structure has six gates that are 23 feet wide and 34 feet tall. The gates are located 50 feet lower than Folsom Dam’s existing gates, which will allow more water to be released from the reservoir prior to a storm event. This provides added protection and safety to the existing dam.

Thomas explained the many stakeholders who are interested in the operation of the new control structure. Some want water for kayaking, others want water for fishing, and others want water for drinking, all at different times of the year and in different amounts. It is a large undertaking to coordinate with all of those who have an interest in the operation of the new spillway.

Thomas indicated that there was one advantage to the recent drought in California in that it provided opportunities for construction work to be done on the upstream side of the control structure in the approach channel.

During the onsite tour, members were able to see the control structure from above. Several of the massive tainter gates were already in place. They were also able to see up close and personal the massive secondary bulkhead gates that were awaiting installation. Lastly, they saw the 3,000 foot long spillway chute and stilling basin.

Click here for a time-lapse video of the construction of the control structure:
https://www.youtube.com/watch?v=Yc9o0hAv7-8

Click here for a time-lapse video of the installation of the massive gates:
https://www.youtube.com/watch?v=1QQOKtv92TE

A Scholarship Awardee’s Perspective on the JFP Tour
By Morgan Smith, UC Santa Cruz Student, 2014 SAME Scholarship Awardee

I was invited by the Society of American Military Engineers to go on a field trip to the Folsom Dam alongside a multitude of other SAME members and construction workers. Once I had arrived at the site, I realized just how large the Dam was. Tractors, cranes, and all sorts of other heavy machinery were stationed around the auxiliary spillway beside the Dam, several of them working together to move one of the incredibly heavy sluice gates into place. While I was on the field trip, I met Ms. Namba, a representative from Granite Construction. She and other SAME members I met on the trip helped to explain the various functions and components of the Dam and the auxiliary spillway. I’m glad that the U.S. Army Corps of Engineers and the U.S. Department of the Interior are taking steps to prevent potential flood damage to the Dam and the surrounding suburbs. The field trip was a wonderful way to observe engineering applied to real-world projects, and I am grateful that I could be a part of it.
The Sacramento STARBASE program hosted the Sacramento Post for our September meeting. STARBASE is a national Department of Defense program focusing on elementary students, primarily fifth graders. The goal is to motivate them to explore Science, Technology, Engineering and Math (STEM) as they continue their education. The STARBASE Academies serve students that are historically under-represented in STEM. Students who live in inner cities or rural locations, those who are socio-economically disadvantaged, low in academic performance or have a disability are in the target group. The program encourages students to set goals and achieve them. (http://dodstarbase.org/)

The California National Guard operates two of the 75 STARBASE Academies, in Sacramento and Los Alamitos. The Sacramento program, now in its 21st year, is located at the Okinawa Street Armory on the former Sacramento Army Depot. This spring, the Sacramento Academy graduated its 50,000th student! The Academy currently serves eleven school districts, 47 schools, and approximately 3,000 5th grade students each year.

The members in attendance first heard from Brigadier General (CA) James Gabrielli, the Director of Youth and Community Programs for the California Military Department. He gave an overview of the history and vision for the STARBASE Academy. He explained that the program focuses on fifth-graders because that is the key point to encourage the students in STEM interests – if we wait until middle or high school, we are already too late. We then heard from the Director of the Sacramento Academy, Captain Kel Thede, who gave us more details on the curriculum.

The best part of the meeting, however, was when we joined a room full of active, enthusiastic fifth graders for a hands-on experiment. The students were divided into teams, with each team receiving a wooden space shuttle and an “egg” pilot. Given a short time and a limited set of materials to choose from, each team attempted to strap and pad their pilot into the shuttle so that the pilot would survive a trip down a zipline followed by a hard landing. Although only two of the eight pilots survived their landing (and one didn’t even make it to takeoff!), it was clear the students were able to relate the experiments to Newton’s Laws. Several of them told us this program had convinced them to be engineers or scientists when they grow up.

Following the meeting, the Board of Directors of the Sacramento Post approved the development of a sponsorship program for the Academy. This will involve providing volunteers on a rotating basis to talk to the students about their careers in STEM related fields. You’ll be hearing more about this opportunity soon.
SAME Sacramento Post Participates in the Great American River Clean Up

By Sarah McIlroy, Stantec, SAME Director

On Saturday, September 20, 2014 members of the Sacramento Post participated in the Great American River Clean Up. Locally, the event was hosted by the American River Parkway Foundation and is an annual effort to maintain the health of the American River Parkway and American River. Removing trash and debris prevents pollutants from entering the watershed, harming the wildlife, or creating hazards for recreational users. Additionally, keeping the Parkway clean protects ocean life by preventing trash from being washed downstream during the winter rains.

Seven members of the Post picked up trash near Larchmont Park on the Parkway. Mark Ellis with BC Laboratories graciously donated a Starbucks gift card for the Most Unusual Trash Item collected. At the end of a morning of picking up juice box straw wrappers, beer bottle caps, cigarette butts, and other miscellaneous litter, we decided the Most Unusual Trash Award would go to Devon Musgrow with California Laboratory Services for finding a wine barrel ring.

[Image of group of people cleaning up]

Save the date!
November 3-6, 2014

Hosted by the Portland, San Francisco and Sacramento Posts

http://posts.same.org/portland/home.html

Join the ‘SAME Southwest Region Group’ on LinkedIn to get the latest updates on SAME as well as connect with other SAME members in your area. The Southwest Region includes eight Posts and associated Field and Student Chapters throughout California and Nevada.
SAME and PEMA present

**Annual 2014 HOLIDAY MIXER**

Tuesday, December 16, 2014
6pm-9pm

**WEAR A FESTIVE, SEASONAL HAT!**

All firms are strongly encouraged to bring a raffle prize ($75 min)

**CONTESTS!**

For best and most creative/original hat!
For best and most creative/original raffle prize!

Sacramento State University Alumni Center
(see samesacramento.org for map)

For more info: Mike Conrad
(916) 736-2267
mconrad@sapperwest.com

Register online at:
www.regonline.com/2014holidaymixer

All event proceeds go to
St. John’s Shelter Program for
Women and Children and the Fisher House,
non-profit 501(c)(3) organizations
SAME and PEMA present

Annual 2014

HOLIDAY MIXER

Tuesday, December 16, 2014

SPONSORSHIP OPPORTUNITIES

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<tr>
<th>Sponsorship Opportunity</th>
<th>Amount</th>
<th>Details</th>
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| Main Event              | $1,500     | Top company recognition in all promotional flyers, signage, appreciation at event  
|                         | (1 available) | Top company logo recognition on website  
|                         |            | 5 complimentary tickets                                                                 |
| Bar Sponsors            | $1,000     | Company & logo recognition on all promotional material, website, at event  
|                         | (2 available)| Customized recognition at venue station  
|                         |            | 3 complimentary tickets                                                                 |
| Hors d’oeuvres          | $750       | Company & logo recognition on all promotional material, website, at event  
|                         | (2 available)| Customized recognition at venue station  
|                         |            | 2 complimentary tickets                                                                 |
| Donations               | $250       | Company recognition on promotional material, website, and at event     |

Sacramento State University Alumni Center  
(see samesacramento.org for map)

For more info:

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
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</tr>
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All event proceeds go to  
St. John’s Shelter Program for Women and Children and the Fisher House, non-profit 501(c)(3) organizations
Needed-A Few Good Membership Updates
by David Cook, PE, PMP, F.SAME, Past President

Membership in our post for 2014 is ending the year about where we started. That said, the post needs a few good membership updates. SAME National judges our post on a “black and white” basis. Ending up with the same robust membership as 2013 is “bad” and adding even one new member is “good”. While we feel that our post is strong and remains strong, we need to add a few members to cross that bright line thrown down by National.

Public sector is not the issue. The Sacramento baseline for 2014 is 106 public members. The current database total is 116 public sector members, showing a gain in our public sector participation.

But we also need to look at total membership (not including students). Based on the National Database on October 12, 2014 the membership stands at:

Individual Members: 226
Company and Agency Representatives: 440
Total Membership: 666

At the end of 2013 the total membership stood at 669, which is our baseline to measure growth or decrease for 2014. So we are three members down. Please, for those of you reading this, if you are a sustaining member firm, have your company add (an) additional representative(s) to the Sacramento Post. There is no cost if your firm currently list less than six representative to Sacramento Post. You are (within guidelines) allowed six representatives and many of our sustaining member firms do not list six representatives to Sacramento.

Making our membership goals is important in that it opens the door for recognition of the other programs the post pursues each year--education, training, leadership, mentoring, emergency preparedness and more.

If there are any questions about membership, please don’t hesitate to contact David Cook at 530-558-5697 or cook931@me.com.

Sacramento Post Sustaining Member Firms

The Sacramento Post is made strong by the continuing support of our Sustaining Member Firms and our Supporting Agencies. These great organizations are listed below (based on the National Database on October 12, 2014).

347 Group, Inc.  B2 Environmental Inc.
AECOM Bay West LLC
AHTNA Engineering Services, LLC BC Laboratories, Inc.
Ahtna Facility Services, Inc. Black & Veatch Special Projects Corp.
Ahtna Government Services Corp. Blackburn Consulting
Alta Vista Solutions Blaine Tech Services, Inc.
AMEC Brown and Caldwell
Anvil Builders, Inc. Burleson Consulting Inc.
ARCADIS, U.S., Inc Burns & McDonnell
Atkins

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Sacramento Post Sustaining Member Firms (cont)

(continued from page 9)

CA Department of Water Resources
Cabrera Services Inc.
Cardno, Inc.
CB&I Federal Services, LLC
CBC Geospatial Consulting, Inc.
CDM Smith
CH2M HILL
City Light & Power, Inc.
Collins Engineers Inc.
ECC
ECORP Consulting, Inc.
Engineering/Remediation Resources Group (ERRG)
Environmental Quality Management Inc.
ERM
Forsgren Associates, Inc.
Gannett Fleming Inc.
Genterra Consultants, Inc.
Geocon, Inc.
GHD Inc.
Gilbane Federal
Granite Construction Company
Hal Hays Construction Inc.
Hammel, Green, and Abrahamson, Inc.
HDR
HydroGeoLogic Inc.
Jacobs
Kiewit
Kleinfelder
Leidos
Magnus Pacific Corporation
Marsh Creek LLC
Martin Brothers Construction
Mead & Hunt, Inc.
MGE Engineering, Inc.
Michael Baker International, LLC
MWH
NCE
Ninyo & Moore
Nordic Industries, Inc.
Northgate Environmental Management, Inc.

Pacific States Environmental Contractors, Inc.
Parsons
Parsons Brinckerhoff
PIKA International
Psomas
RFE Engineering
Robert Heinen Consulting Engineers
Rolf Jensen & Associates
ROKE, Inc.
SAGE Engineers Inc.
Shannon & Wilson Inc.
Site Work Solutions, Inc.
Spectrum Services Group, Inc.
Stanley Consultants Inc.
Stantec, Inc.
Sterling Global Operations, Inc.
Suulutaaq, Inc.
Swinerton Builders Government
Synectics
Taber Consultants
Tepa, LLC
Terracon Consultants, Inc.
TerraneaPRMC, LLC
Terraphase Engineering, Inc.
Tetra Tech, Inc.
The Dutra Group
The Stahl Companies, Inc.
The Whiting Turner Contracting Company
Towill, Inc.
Tri-Technic Inc.
Trihydro Corporation
U.S. Army Corps of Engineers - Sacramento District
URS Corporation
Versar
WEST Consultants, Inc.
Westervelt Ecological Services
Weston Solutions, Inc.
Wildlands
Wood Rodgers, Inc.
Woodward Drilling Company, Inc.
Woolpert, Inc.