President’s Message

by Thor Larsen, P.E., President

Engineers Week – February 16-23, 2013
The Sacramento Section enjoyed a very festive Engineer’s Week. The Project awards and Golze Scholarship banquet had a very good turnout at the Hilton on February 20. At the Sunrise Mall, the annual Engineer’s Day at the Mall was held on Saturday, February 23. As usual, a fun and informative event for students and parents! Please see the photos as they say more than words about the events.

2012 Golze Scholarship Recipients

Cole Bianchini – California State University, Sacramento
Alexandra Oran – California State University, Chico
Brian Phan – University of the Pacific
Ingrid Verastegui – University of the Pacific
Juliana Walton – University of California, Davis

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2012 Project Awards

Architectural
7th & H Street Housing Community
Structural Engineer: Miyamoto International, Inc.
Owner: Mercy Housing California

Bridge-Large Project
Sacramento Railyards 5th & 6th Street Overhead Structures
Designer: Quincy Engineering, Inc.
Owner: City of Sacramento

Bridge-Small Project
Davis Road Bridge Over Pixley Slough
Construction Manager: ADKO Engineering, Inc.
Owner: City of Stockton

Energy
McKenzie Solar
Design: RBF Consulting
Owner: RE McKenzie Holdings LLC

Environmental
Auburn Tunnel Outlet Modifications
Designer: West Yost Associates
Owner: Placer County Water Agency

Flood Control
American River Common Features, Site R6
Construction Manager: Magnus Pacific Corporation
Owner: US Army Corps of Engineers

Geotechnical
Bloomer Hill Communication Tower
Micropile Foundations
Designer: Holdredge and Kull
Owner: Butte County Communications Department

Small Project
Coleman National Fish Hatchery
Barrier Weir Site
Contractor: Contractor Services Group, Inc.
Owner: U. S. Department of the Interior, Bureau of Reclamation

Sustainability
Elk Grove Rain Garden Plaza
Owner: City of Elk Grove

Transportation-Large Project
US 50 HOW Lanes Phase I
Designer: Quincy Engineering, Inc.
Owner: Caltrans

Transportation-Small Project
Warner Street Truck Route
Project Manager: Omni-Means Engineering
Owner: City of Alturas

Water
Lodi Surface Water Treatment Facilities
Designer: HDR Engineering, Inc.
Owner: City of Lodi

Wastewater
Atwater Regional Wastewater Treatment Plant
Designer: West Yost Associates
Owner: City of Atwater

Outstanding Project of the Year
TRLIA/DWR - EIP Upper Yuba Levee Improvement Project
Contractor: Magnus Pacific
Owner: Three Rivers Levee Improvement Project
The Engineerogram is the official publication of the Sacramento Section of the American Society of Civil Engineers and made available to ASCE members paying local dues to the Section. It is published regularly at the beginning of the month. To contribute articles, mail, fax, or e-mail to ASCE/Sacramento Section Executive Secretary, Lori Campbell, at asce@asce-sacto.org. Deadline for articles is on the 20th of the month prior to the issue.

Advertising Rates: Full Page $250 - A page is 7 1/2” x 9 1/2”
Half Page $130 - 1/2 page (either horizontal 7 1/2 x 4 3/4; or vertical 3 3/4 x 9 1/2)
Quarter Page $75 - 3 3/4 x 4 1/4
Professional Card $150 for a full year - 2 1/2 x 1 1/2 (reduced down from 2 x 3 1/2); OR
$175 for a full year for 2 x 3 1/2 size business card

Classified Ad in Newsletter or Website $50/100 words - no logo

(To our contributing writers: The Engineerogram reserves the right to make revisions, correct spelling and grammatical errors, to prioritize information and to summarize content. Articles may be shortened as editorial requirements dictate. Questions regarding this policy may be directed to the President of the Sacramento Section. Thank you for your understanding. Editors.)

March/April 2013

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University of California, Davis Alex Wong and Joe Novielli Co- Presidents ucd.asce-president@gmail.com

For more ASCE activities if you wish to be active in a committee, career opportunities, complete text for the legislative activities, go to the Sacramento Section web site at www.asce-sacto.org, or contact a current officer. To MAKE CHANGES OR RENEW YOUR MEMBERSHIP, go to website: www.asce.org. For MEMBERSHIP APPLICATIONS, please e-mail to memapp@asce.org.
MASTER CALENDAR

<table>
<thead>
<tr>
<th>Date(s)</th>
<th>Time(s)</th>
<th>Event Description</th>
<th>Location</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARCH</td>
<td></td>
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<tr>
<td>Wednesday, March 6</td>
<td></td>
<td>California Infrastructure Symposium and Region 9 Awards Dinner</td>
<td>Union Station</td>
<td><a href="http://www.lasection.org">www.lasection.org</a></td>
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<tr>
<td>Thursday, March 7</td>
<td></td>
<td>SC EWRI Climate Change Symposium</td>
<td>Lions Gate Hotel and Conference Center at McClellan</td>
<td>SC EWRI website <a href="http://asce-sacto.org">http://asce-sacto.org</a> Questions: Robert Shibatani <a href="mailto:Robertg@theshibantanigroup.com">Robertg@theshibantanigroup.com</a></td>
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<tr>
<td>APRIL</td>
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<tr>
<td>Thursday, April 4</td>
<td></td>
<td>YMF Business Meeting</td>
<td>Jacobs</td>
<td>Bryan Perrin, 916-856-0816 <a href="mailto:Bryan.Perrin@usace.army.mil">Bryan.Perrin@usace.army.mil</a></td>
</tr>
<tr>
<td>Wednesday, April 10</td>
<td>11:30 a.m.–1:30 p.m.</td>
<td>Sacramento State Department of Civil Engineering – 6th Annual Luncheon</td>
<td>Sac State Alumni Center</td>
<td><a href="http://www.eecs.csus.edu/wcm/ce/">http://www.eecs.csus.edu/wcm/ce/</a></td>
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<tr>
<td>Saturday, April 13</td>
<td>9:00 a.m.–2:00 p.m.</td>
<td>Creek Week Water Quality Monitoring and Stream Assessment</td>
<td>Arden-Arcade/Carmichael</td>
<td>Holly Canada, 916-651-9239 <a href="mailto:hcanada@water.ca.gov">hcanada@water.ca.gov</a></td>
</tr>
<tr>
<td>Sunday, April 14</td>
<td>4:00 p.m.–7:00 p.m.</td>
<td>EWB UC Davis Student Chapter &quot;Wine Into Water&quot; Fundraiser</td>
<td>UC Davis International House</td>
<td>ewb-sac.org Anne <a href="mailto:Halloran@ch2m.com">Halloran@ch2m.com</a></td>
</tr>
<tr>
<td>Monday, April 15</td>
<td>6:00 p.m.–7:30 p.m.</td>
<td>ASCE Sacramento Section Board Meeting</td>
<td>HDR Engineering</td>
<td>Thor Larsen 916-806-5098 Natalie Calderone <a href="mailto:Natalie.calderone@ae-com.com">Natalie.calderone@ae-com.com</a></td>
</tr>
<tr>
<td>Tuesday, April 16</td>
<td></td>
<td>Capital Branch Board Meeting</td>
<td>Applebee’s - Arden Way Sacramento</td>
<td>Mario Carreon, President <a href="mailto:Mario.Carreon34@gmail.com">Mario.Carreon34@gmail.com</a></td>
</tr>
<tr>
<td>Wednesday, April 17</td>
<td>6:00 p.m.–7:00 p.m.</td>
<td>EWB SVPC Meeting</td>
<td>Fox and Goose Pub Sacramento</td>
<td>ewb-sac.org Anne <a href="mailto:Halloran@ch2m.comCal">Halloran@ch2m.comCal</a></td>
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<tr>
<td>Wednesday, May 1</td>
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<td>Construction Forecast and Outlook for 2013 and Beyond</td>
<td>Holiday Inn, 300 “J” Street, Sacramento, CA</td>
<td>ascesacto.org/content.php?page=Construction_Institute</td>
</tr>
<tr>
<td>Thursday, May 9</td>
<td>5:30 p.m.–9:00 p.m.</td>
<td>YMF Mix It Up in May</td>
<td>Luigi’s Slice, 1050 20th Street, #150, Sacramento, CA</td>
<td><a href="http://www.eecs.csus/wcm/ce-ce-golf-registration-2013.pdf">www.eecs.csus/wcm/ce-ce-golf-registration-2013.pdf</a></td>
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<tr>
<td>Friday, May 10</td>
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<td>CSUS 2nd Annual Civil Engineering Golf Tournament</td>
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<td>JUNE</td>
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<tr>
<td>Monday, June 6</td>
<td>5:30 p.m.–8:00 p.m.</td>
<td>YMF Annual BBQ</td>
<td>3330 McKinley Boulevard Sacramento, CA</td>
<td>Bryan Perrin <a href="mailto:Bryan.perrin@usace.army.mil">Bryan.perrin@usace.army.mil</a></td>
</tr>
<tr>
<td>Monday, June 24 - Sunday, June 30</td>
<td>5:30 p.m.–8:00 p.m.</td>
<td>3rd Orthotropic Bridge Conference</td>
<td>Sheraton Grand Sacramento Hotel</td>
<td><a href="http://www.orthotropic-bridge.org">www.orthotropic-bridge.org</a></td>
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Shasta Branch
For more information about the Shasta Branch meetings, please contact Susan Goodwin at sgoodwin@vestra.com

Feather River Branch
For more information about the Feather River Branch meetings, please contact Annie McAllister at annie.steel@gmail.com

Capital Branch
For more information about the Capital Branch, you may e-mail or call Mario Carreon at 916-802-6470, Mario.Carreon34@gmail.com

Central Valley Branch
For more information about the Central Valley Branch meetings, please contact Kevin Seeman at 916-684-5534, K.Seeman@conteches.com

SAVE THE DATE
ASCE Construction Institute (Sacramento Section) presents

Construction Forecast and Outlook for 2013 and Beyond
May 1, 2013 from 5:30 – 8:30 p.m.
Holiday Inn, 300 J Street, Sacramento, CA

Keynote Speaker
Congresswoman Doris Matsui

Panel Members
Joe Calcura, US Army Corps of Engineers
Mark Cowin, Director, DWR
Malcolm Dougherty, Director, Caltrans

For more information visit: asce-sacto.org/content.php?page=Construction_Institute
ASCE Sacramento Section Awards Banquet

Awards Banquet Social Hour


Project of the Year – Upper Yuba Levee Improvement Project
Owner – Three Rivers Levee Improvement Agency (TRLIA)


Student Golze Scholarship Winner
Cole Bianchini – California State University, Sacramento
Safety Assessment Program (SAP) Training

By Joyce Copelan, P.E.

The Safety Assessment Program (SAP) training is for licensed civil engineers, structural engineers, architects, and certified building inspectors who are interested in assisting communities with post-disaster responses, such as earthquakes. A recent training session was held on February 22, 2013, at the CalEMA Facility, Mather, CA. The SAP training bases its building safety evaluations from Applied Technology Council's ATC-20. Volunteers will be ready to provide technical engineering assistance when requested by local communities after a large earthquake event. For those who are already trained as Safety Assessment Program volunteers, the on-line refresher course is available at [http://www.calema.ca.gov/Recovery/Pages/Safety-Assessment.aspx](http://www.calema.ca.gov/Recovery/Pages/Safety-Assessment.aspx).

Instructors from left to right:

**Hussain Bhatia, P.E., S.E.**

**Craig Copelan, P.E.**
Safety Assessment Program Overview and Safety Assessment Process and Procedures.

**Joyce Copelan, P.E.**
Field Safety and Course Organizer.
Women of ASCE Mentor Girl Scouts at Engineering the Future Day

By Joyce Copelan, P.E.

In celebration of National Engineers Week, women of ASCE Sacramento Section connected with Girl Scouts Heart of Central California at their headquarters in an Engineering the Future Day on February 17, 2013.

Our group of almost a dozen women from ASCE Sacramento Section, wearing our Design Squad tee shirts, provided PBS Design Squad related activities, mentoring and active participation in panel discussions. Two groups of approximately 80 girls and their families, first Kindergarten to Grade 5, then Grades 6 to 12, were excited to meet mostly women engineers as they participated in engineering related hands-on activities and demonstrations. Both groups then had opportunities to hear from and ask questions to diverse panels of female engineers who practiced in the fields of civil engineering, petroleum engineering, geotechnical engineering, electrical engineering, mechanical engineering and engineering education. Questions to the panel included: How did you become interested in engineering? What do you like about your work in engineering? What was your biggest challenge that you overcame? How does one become an engineer? The two groups of girl scouts then received fun patches from the women engineers on the panels after individually connecting with at least one engineer and asking at least one question. Some of our engineers on the panel were once Girl Scouts just like the Girl Scouts who came to the event. The feedback after the event was quite positive as many Girl Scouts with their families enjoyed the activities, learning and connecting with engineers at Engineering the Future Day. Website: http://www.girlscoutshcc.org. We look forward to connecting again and hope to see many of these Girl Scouts obtain their degree in engineering and join us as members of their professional engineering organizations such as American Society of Civil Engineering, Sacramento Section.

Sacramento Regional Science and Engineering Fair

Members of ASCE Sacramento Section participated as mentors and judges in the Sacramento Regional Science and Engineering Fair on March 9, 2013 at Rosemont High School. Members of robot teams, PHOENXTRIX and NOVA advancing to the international competition, joined members of ASCE to provide outreach activities.

The Sacramento Regional Science & Engineering Fair showcases students in Sacramento, El Dorado, Placer, San Joaquin, Yolo, Yuba, Sutter, Solano, and Amador counties who will become our future scientists, technology experts, engineers, and mathematicians. This regional competition celebrates achievement by students in middle school (6th – 8th grade) and high school (9th – 12th grade), supported by devoted parents, teachers, and other mentors. These bright, creative students were encouraged by members of ASCE to consider engineering and to join us as future members of our profession. Through the Fair competition, hundreds of the area’s best and brightest students are challenged to go beyond their classroom studies. They work independently or in teams to conduct research and tackle tough questions in the fields of Engineering, Computer Science, Environmental Science, Medicine & Health, Chemistry, Biology, and a dozen other categories. www.srsefair.org. “We need to teach our kids that it’s not just the winner of the Super Bowl who deserves to be celebrated, but the winner of the science fair.” -President Obama

ASCE SEI Structures Congress

The ASCE SEI Structures Congress will be held during the first week in May in Pittsburgh, PA. Our SEI group works hard to promote engineering of structures. Activities include technical field tours - the San Francisco Oakland Bay Bridge Seismic projects and other locations, lectures and conferences, and outreach within our community to groups that are less represented within engineering.

We thank the nonprofit engineering organizations who collaborated with us, the united whole is greater than the parts. The SEI Sacramento Chapter appreciates the 2013 SEI Chapter of the Year Award. We share this honor with members of SEI at both the local level and national level. Thank you for your support.
Butte County is one of 18 northern California counties that are participating in the Northern Planning Area of California (NPAC) project to provide daily and emergency response interoperable communications services for northern California, with a goal of being integrated into the Nevada and Oregon systems. Weedy Hannibal, Senior Systems Analyst with Butte County Communications Department, is coordinating efforts by NPAC with First Net to develop a new federal First Responder digital network with a goal of covering 92 percent of the United States. First Net is a collaborative effort by the National Telecommunications and Information Administration (NTIA) and the Federal Communications Commission (FCC). Although, the Bloomer Hill Communication Tower (BHCT) presently provides daily and emergency communication services for the Butte County Public Safety Agencies, Sheriff’s Department, Fire Department, District Attorney’s Office, Public Works Department, and Public Health Department, the tower's optimum location and elevation makes it uniquely suitable for integration into the national First Responder digital network.

Holdrege & Kull (H&K) provided geotechnical engineering services for design and construction of micropile foundations to support the proposed 140 foot high, three legged steel space frame BHCT. The use of micropile foundations designed by H&K saved Butte County about $300,000 over the use of conventional mat or cast in drilled hole (CDIH) pier foundations that are typically used for communication tower foundations. The use of micropile foundations also minimized the project's impact on the surrounding environment by eliminating the need for regrading of Bloomer Hill Road to allow transport of massive quantities of concrete to the site, as well as, eliminating heavy concrete truck traffic on Oroville Quincy Highway.

Project Description
The BHCT site encompasses a fenced area of about 3,360 square feet and consists of a 140 foot high, three legged steel space frame tower, with a vault structure to house controls, an emergency generator, and a propane storage tank. The BHCT project site is located about 22 miles east of the City of Oroville, California on the top of Bloomer Hill at

Location Map

Micropile Detail
an elevation of about 3,005 feet above mean sea level. Access to the site from the City of Oroville is along Oroville Quincy Highway to Bloomer Hill Road. Bloomer Hill Road to the BHCT site is a 3.5 mile length of very rugged, steep, rutted, unpaved, and poorly maintained U.S. Forest Service fire access road. The very difficult access conditions to the site provided many serious logistical and scheduling challenges during the geotechnical engineering investigation and construction phases of the project.

Geotechnical Engineering Investigation
H&K performed the geotechnical engineering investigation of the site in July of 2010. The geotechnical engineering investigation revealed that the site is located within the western metamorphic belt of the Sierra Nevada Province. According to the Chico Quadrangle Geologic Map (California Division of Mines and Geology, 1992) the project site is generally underlain by the upper metavolcanic and volcanic units of the Jurassic Period (104 to 205 million years before present) Smartville Complex. According to the Fault Activity Map of California and Adjacent Areas (Jennings, 1994), the closest known active fault to the site, which has surface displacement within Holocene time (about last 11,000 years), is the Cleveland Hills Fault, which is located about 10 miles to the southwest of this site. Other local late Quaternary age (present to 2 million years before present) fault zones, located to the south of the site are the Swain Ravine Fault and the Prairie Creek Fault.

H&K provided geotechnical engineering oversight for drilling of one 60 foot deep exploratory boring beneath the center of the proposed tower location. The soil and rock profile encountered at the exploratory boring generally consisted of the following soil and rock units (described from top to bottom): 2 feet of medium dense, clayey sand (SC), 19 feet of stiff, low-plasticity, sandy clay (CL) that showed with increasing depth the parent rock texture (decomposed rock), and 39 feet (maximum depth achieved) of intensely weathered, very intensely fractured, greenstone of the Smartville Complex. No groundwater was encountered in the exploratory boring at the time of the site investigation. Representative soil and rock samples were taken with generally poor recovery with a Standard Penetration Test sampler and diamond core barrel sampler. Laboratory test results and sampler penetration blow count data were used to estimate the engineering material properties of the soil and rock, which were used to design the micropile foundations.

Micropile Foundation Design
The very rural location of the site and the very poor condition of the access road made transport of concrete very expensive for construction of typical mat foundations and CIDH pier foundations. Additionally, the estimated average time for a concrete truck to travel from the closest batch plant to the site allowed very little time for placing the concrete without exceeding the required expiration time of the concrete. With the preceding in mind, H&K proposed the use of micropile foundations, which significantly reduced the tower foundation construction costs and eliminated the need to transport massive quantities of concrete from a distant batch plant to the site. Although, micropile foundations are not a new technology, to the best of our knowledge they have not been used for tower foundations. The micropiles were designed for bearing, uplift, and lateral loads that were provided by the tower manufacturer. Load tests were performed on installed micropiles to verify that the allowable design capacities were achieved.

H&K designed a steel reinforced concrete pile cap.
for each tower leg. Seating plates were installed to connect the pile caps to the respective tower leg. The tower was assembled on the ground in four sections. A crane was used to lift and hold each section in place, while being permanently secured together with high strength bolts.

Crane Lifts Tower Section

[A short video about the micropile design can be found at http://handk.net/multimedia/videos. To start the video, point to the photo titled ASCE 2012 Geotechnical Project of the Year Award and click. ~ Ed.]

Materials Testing and Inspections
H&K provided materials testing and inspection construction quality assurance engineering services. These services included: grout sampling and testing, concrete sampling and testing, structural high strength bolt torque testing, reinforcing steel placement and size, among others.

Construction Management
H&K provided construction management (CM) engineering services with a resident onsite engineer during all phases of construction. These services included submittal review, scheduling, progress tracking, request for information responses, final CM report, and site safety monitoring, among others.

Project Completion, Value Engineering, & Budget
The BHCT was completed on time and within budget. H&K’s relentless pursuit of value engineering solutions for its clients lead to the use of micropile foundations for the BHCT, which cost about $97,000. This resulted in a savings to Butte County of about $300,000 (materials and labor) had the tower been founded on typical mat or CIDH pier foundations.

This significant savings allowed Butte County to complete this project in one year rather than the original two year schedule that would have been required, because of annual budgetary constraints.

Safety Performance
Worker and public safety are always paramount concerns on all H&K design and construction services projects. The safety record for the BHCT project was 100 percent incident-free with no lost-time injuries for both H&K’s and the contractor’s personnel.

Environmental Considerations
The use of micropile foundations minimized the project's impact on the surrounding environment by eliminating the need for regrading of Bloomer Hill Road to allow transport of massive quantities of concrete to the site, as well as, eliminating heavy concrete truck traffic on Oroville Quincy Highway.

Outstanding Accomplishments
H&K values its clients and strives to provide cost effective solutions for their needs through innovative value engineering concepts. H&K is very proud to have been a partner with Butte County in constructing this critical communication tower. H&K believes that the significant cost savings realized by Butte County from the use of micropile foundations for the BHCT can also be realized by other communication tower clients with tower sites located throughout northern California and beyond. H&K is also pleased that this project was completed with minimal impact on the environment, as a result of using innovative value engineering micropile foundations for the BHCT.

[The project received the Geotechnical Project of the Year Award from the Sacramento Section of ASCE. ~ Ed.]

From left to right:
Don Olsen, Weedy Hannibal, and Chuck Kull
This Month in the State Capital – March  

By Richard Markuson

Fracking Legislation
Senator Fran Pavley has introduced Senate Bill 4 to and Assembly member Bob Wieckowski has introduced Assembly Bill 7 to regulate fracking operations in California. Among their other provisions the bills:

- Would define, hydraulic fracturing and hydraulic fracturing fluid
- Requires an operator of a well to record and include all data on hydraulic fracturing treatment, including names and locations of all known seismic faults, as a part of the history of the drilling of the well
- Require DOGGR, in consultation with the Department of Toxic Substances Control, the State Air Resources Board, and the State Water Resources Control Board, on or before January 1, 2015, to adopt rules and regulations specific to hydraulic fracturing, including governing the construction of wells and well casings and full disclosure of the composition and disposition of hydraulic fracturing
- Require an operator to file with the supervisor or a district deputy, at least 30 days prior to the commencement of a hydraulic fracturing treatment, a notice of intention to commence hydraulic fracturing treatment containing specified information
- Require the hydraulic fracturing to be completed within one year of the filing of the notice of intention
- Require DOGGR, within 10 days of the receipt of the notice of intention, to make the notice publicly available, to post it on the division's Internet Web site, and to notify the appropriate regional water quality control board
- Require the supplier of the hydraulic fracturing treatment to provide to the operator, within 30 days following the conclusion of the hydraulic fracturing, certain information regarding the hydraulic fracturing fluid
- Require the operator, within 60 days of the cessation of hydraulic fracturing treatment, to post on an Internet Web site accessible to the public specified information on the fracturing and fluid
- Require a supplier claiming trade secret protection for the chemical composition of additives used in the hydraulic treatment to disclose the composition to DOGGR, but would prohibit those with access to the trade secret to disclose it, and a person who violates this prohibition would be guilty of a misdemeanor.

Land Use Court
Senate Bill 123 would require the presiding judge of each superior court to establish an environmental and land-use division to process civil proceedings brought pursuant to the California Environmental Quality Act (CEQA) or in specified subject areas, including:

- Air quality
- Biological resources
- Climate change
- Hazards and hazardous materials
- Land use planning, and
- Water quality.

The bill would require the Judicial Council, by rule of court, to identify statutes in those specified areas that would be within the jurisdiction of the environmental and land-use court division.

The bill does not specify how this new system would be funded and with more than $150 million in cuts last year and an additional cut of $200 million proposed for next year's budget, the proposal is most likely doomed. Just last week the Judicial Council voted to indefinitely delay court construction in Sacramento, Nevada, Los Angeles and Fresno counties while funds are spent to replace a Long Beach courthouse damaged by an earthquake. California Supreme Court Chief Justice Tani Cantil-Sakauye has been extremely critical of court cuts and Los Angeles Assistant presiding Judge David Wesley has said "We are witnessing the dismantling of the Los Angeles justice system." LA County has already closed 60 courtrooms and is planning to close 10 courthouses, halt construction projects and order more staff layoffs. Part of Governor Brown's 2014 budget proposes new court fees, such as $50 to fight a traffic ticket by mail and $1 per page for photocopying documents.

Governors’ Appointments
The Governor has appointed Cheryl Roberts to the CA Building Standards Commission. Roberts is a battalion chief, Rancho Cucamonga Fire Protection District.

Senate Rules Committee has appointed Robert Garcia (as local government official from the south coast region) Vice Mayor on the Long Beach City Council and a Professor of Public Policy at the University of Southern California and Jeff Duclos (as an alternate local government official from the south coast region) member of the Hermosa Beach City Council and a principal of Vonjesseen-Duclos Inc., a public relations consulting firm to the California Coastal Commission.

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Hartnett of Redwood City, partner at Hartnett, Smith & Paetkau, a law firm as a public member to the High-Speed Rail Authority.

The Assembly Speaker has appointed Assembly Member Ken Cooley to the Seismic Safety Commission.

Recent Reports
The office of the State Auditor has released its report, "Southeastern Los Angeles County: Various Reasons Affect the Rates Water Suppliers Charge and the Rate Increases They Have Imposed."

The Legislative Analyst's Office has released its analysis of proposed ballot initiative, the California Nuclear Waste Act, would immediately prohibit the generation of nuclear power, including existing power plants, until CA Energy Commission finds the federal government has identified a demonstrated technology for construction and operation of nuclear fuel rod processing plants and the permanent disposal of high-level nuclear waste; LAO finds it "could have significant effects on the CA economy which, in turn, would affect both state and local government revenues and costs."

The Legislative Analyst's Office has released its analysis of proposed ballot initiative, the California Electrical Utility District Act, to create a district that would provide electricity service to customers now served by PG&E, Southern California Edison and San Diego Gas and Electric and, its sponsor says, would end nuclear power generation in the state; LAO finds it would "result in a substantial net change in state and local finances."

The State Library's California Research Bureau has released "Professional Licensing and Military Spouses," says state has "approximately 72,500 military spouses residing here in any given year" and about one third are in professions that require licensing.

Legislative Analyst's Office releases "Cal Facts: 2013," "snapshot" pieces of information to provide an overview of public finance and program trends in the state.

This Month in the State Capital – April
By Richard Markuson

Infrastructure Spending Measure Popular
At least 27 bills are pending in the Legislature dealing with infrastructure spending – from school construction to authorization for a “Green Infrastructure Bank.” SB 798 (De Leon) would establish the California Green Infrastructure Bank as a public corporation and would make it responsible for administering the act. It should produce an interesting discussion in the Legislature inasmuch as California already has the California Infrastructure and Economic Development Bank (I-Bank) – described as “the State’s only general purpose financing authority” whose purpose is “to finance public infrastructure and private development that promote a healthy climate for jobs, contribute to a strong economy and improve the quality of life in California communities.” The I-Bank has extremely broad statutory powers to issue revenue bonds, make loans and provide credit enhancements for a wide variety of infrastructure and economic development projects and other government purposes. I-Bank has about $32 billion in various financings, for infrastructure projects throughout the State. Perhaps someone should mention this the Senator De Leon?

AB 41 (Buchanan), SB 45 (Corbett) and SB 301 (Liu) would authorize a new education bond, AB 53 (Perez) Would require the Governor's Office of Business and Economic Development to lead the preparation of a biennial California Economic Development Strategic Plan, AB 164 (Wieckowski) Would require a lease agreement between a governmental agency undertaking an infrastructure project and a private entity to include performance bonds as security to ensure the completion of the construction of the facility and payment bonds to secure the payment of claims of laborers, mechanics, and materialmen employed on the work under contract, AB 229 (Perez) would authorize the creation of an infrastructure and revitalization financing district (IFD), and the issuance of debt with 2/3 voter approval, AB 243 (Dickenson) would authorize an IFD to finance projects in redevelopment project areas and former redevelopment project areas and former military bases, AB 294 (Holden) would authorize an IFD to utilize the Educational Revenue Augmentation Fund (ERAF) portion of incremental tax revenue, AB 662 (Atkins) would delete the prohibition on IFDs including any portion of a redevelopment project area, AB 690 (Campos) would revise and recast the provisions governing IFDs and instead provide for
the creation of jobs and infrastructure financing districts (JIDs) with 55% voter approval, AB 701 (Perez) would require the I-Bank to serve as the primary state agency for purposes of developing an application for, and applying to, any federal infrastructure bank or financing authority, AB 716 (Quirk-Silva) The California Infrastructure Planning Act requires the Governor to submit annually to the Legislature, a proposed 5-year infrastructure plan containing prescribed information. This bill would additionally require the plan to set out priorities for coordination of investment and would expand the definition of infrastructure to include housing, AB 1066 (Holden) would state the intent of the Legislature to promote infrastructure development, AB 1080 (Alejo) would authorize certain public entities of a community revitalization and investment area, to form a community revitalization plan within a community revitalization and investment authority to carry out the Community Redevelopment Law in a specified manner. AB 1081 (Medina) would require the 5-year infrastructure plan to include information related to infrastructure identified by state and federal transportation authorities and a recommendation for public sector financing, ACA 3 (Campos) and ACA 8 (Blumenfield) would create an additional exception to the 1% limit for a property rate imposed by a city, county, or special district to service bonded indebtedness incurred to fund certain fire, emergency response, police, or sheriff buildings or facilities, and equipment, that is approved by 55% of the voters, SB 1 (Steinberg) would authorize certain public entities of a Sustainable Communities Investment Area to form a Sustainable Communities Investment Authority to carry out the Community Redevelopment Law, SB 33 (Wolk) and SB 628 (Beall) would eliminate the requirement of voter approval for creation of an IFD and for bond issuance, SCA 3 (Leno), SCA 4 (Liu), SCA 7 (Wolk), SCA 8 (Corbett), SCA 9 (Corbett) and SCA 11 (Hancock) would lower the vote requirement for the imposition, extension, or increase of a parcel taxes for a variety of project categories from 2/3 to 55%.

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Recent Reports
The Legislative Analyst's Office has released the following hearing handouts:

- **Overview of State Infrastructure Bonds**
  - Presented to the Governance and Finance and Natural Resources and Water Committees.

- **Funding Principles for Building a Water Bond**
  - Presented to the Governance and Finance and Natural Resources and Water Committees.

- **Oversight of High-Speed Rail Project**
  - Presented to the Senate Committee on Transportation and Housing, and the Senate Budget and Fiscal Review Subcommittee No. 2 on Resources, Environmental Protection, Energy and Transportation.

The State Water Resources Control Board releases report, "Recommendations Addressing Nitrate in Groundwater," recommendations include creating a reliable, stable funding source to provide long-term safe drinking water infrastructure for the small disadvantaged communities impacted by nitrate contamination.

The Legislative Analyst's Office releases its report, "The 2013-14 Budget: Transportation Proposals," outlines Governor's budget proposals for various state transportation departments and programs, including CA Dept. of Transportation, CA High-Speed Rail Authority and CHP, identifies issues for legislative consideration and oversight, and makes recommendations to approve, modify, or reject the proposals. The report are available on the LAO's website.

California Budget Project releases report, "Back on Track? The Social and Economic Context of the
**Governor's Proposed 2013-14 Budget**, provides overview of Gov. Jerry Brown's proposed spending plan, including what the tax increases approved by voters this past November mean for the state budget and California's future.

The Legislative Analyst's Office releases its report "The 2013-14 Budget: Resources and Environmental Protection," outlines Governor's budget proposals for resources and environmental protection programs, identifies issues for legislative consideration and oversight, makes recommendations to approve, modify, or reject the proposals. The report is available on the LAO's website.

State Water Contractors has released a review comparing the single tunnel alternative proposal by the Natural Resources Defense Council and other organizations, to the twin tunnels proposed under state-federal Bay Delta Conservation Plan, says the single tunnel would "reduce environmental benefits and reduce water supplies for 25 million Californians and farmers on millions of acres of land."

Next 10 releases its updated California Budget Challenge, an online simulator that allows users to set their priorities for the state budget, includes options for "restoring services and programs and paying off billions of recession-era debt," the online tool is available at www.budgetchallenge.org.

State Water Resources Control Board releases its report to the Legislature, "Communities That Rely on a Contaminated Groundwater Source for Drinking Water," finds 680 out of 3037 community water systems relied on contaminated groundwater between 2002 and 2010 and Kern, Tulare and Madera counties led the state with the most contaminated systems.

CA Air Resources Board has released its "Annual Report to the Joint Legislative Budget Committee on Assembly Bill 32," says ARB has made "excellent progress" towards achieving the goal of reducing greenhouse gas emissions to 1990 levels by 2020, says it has adopted and is implementing "over 20 measures" to achieve greenhouse gas emission reductions, including the Cap-and-Trade regulation, the Low Carbon Fuel Standard, and the Advanced Clean Cars program.

Next 10 has released its study, "How Does California's Economic Performance Compare to Other States," findings include: over the long-term (1991-2011) job growth in CA has been "sluggish," with a higher unemployment rate than most states.

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**Region 9 – March**

**The Beginning of the 21st Century - a Special Time for the Region 9 Sections**

*By Jay H Higgins, P.E., M.ASCE ASCE Region 9 Governor*

January 2013 marked the beginning of a special time for the ASCE Los Angeles Section. It was the official beginning of the yearlong celebration of the 100th anniversary of the founding of our section. Over the first two decades of the 21st century all four sections in Region 9 (State of California) will have celebrated their centennial anniversary. The San Francisco Section celebrated its 100th anniversary in 2005; San Diego Section will celebrate on September 20, 2015; and Sacramento Section on October 10, 2021. These are important milestones in the history of the civil engineering profession in California.

What is special about 2005, 2013, 2015, and 2021 is that we celebrate the history of your Civil Engineering profession, all that has been accomplish, as well as looking forward to what will be accomplished in the future. Think about where Los Angeles and other areas of the State of California were 100 years ago and California's phenomenal growth. It was the civil engineers that brought water to the Los Angeles area, controlled flooding that periodically threatened the safety of our citizens, built the great ports and harbors in the northern and southern part of the State, the Golden Gate Bridge, and the highway and rail systems that move the goods, services, and people throughout the State. It short, Civil Engineers enhanced the quality of life for everyone throughout California as the State grew and continues to develop.

You only have to go to the L.A. Section website at http://www.ascelasection.org and click on the History and Heritage Committee link to find an extensive list of truly amazing accomplishments throughout the Los Angeles Section's ten county geographic area. L.A. Section Civil Engineers should be proud of the outstanding projects on this list. Some have not only received L.A. Section Civil Engineering Historic Landmark status, but also State and National status. These historical designations serve to help us preserve and recall the significance of these projects and the Civil Engineers who designed and built them.

The L.A. Section actually began its celebration before 2013 with the kickoff celebration at its annual meeting held in October 2012. We also requested
and received support-in kind from agencies and "pre-event" financial support from corporations and individual Section members. Thank you to those that stepped up and supported this important milestone in the history of the Section. A list of these supporters will appear in the L.A. Section newsletter each month through December 2013 and on our Centennial website. Each Branch and YMF President has been sent a poster listing these supporters. They will display these posters throughout the year at every Branch or YMF event as recognition of our supporters. While at a meeting, if you see a firm representative or individual that is on that list, please take the time to thank them for their support of our Centennial Celebration.

What did we do with the pre-event funding? The goals included the production of a short version video (2 minutes) and one longer version (10 minutes) about the accomplishments of Civil Engineers in southern California and other promotional material. You can view the two minute video by going to YouTube web site and type in "ASCE Los Angeles Section" and click on "LA Section 100th Anniversary" (if you received this article electronically click here). To view the ten minute video at the YouTube site, type in "ASCE Los Angeles Section 2013 Centennial Video" (if you received this article electronically click here). These videos may be used for outreach to public policy makers and to educate the public. The Section Board encourages ASCE members to look for opportunities to make presentations to city councils, teachers associations, Rotary clubs, school groups, and Chambers of Commerce, just to name a few, to get the message out about the important work of Civil Engineers and the importance of maintenance and improvement to our State's infrastructure. ASCE headquarters also has many resources that will be helpful in making presentations. You may contact me at jay.higgins@urs.com and I will help steer you to the right person at ASCE headquarters for the information you may need.

Another activity made possible by the pre-event financial support was the hiring of a professional event planner to assist in the planning of the Section's premiere event of our celebration year, the California Infrastructure Symposium and Awards Dinner on March 6th at the historic Los Angeles Union Station with the transportation sessions in the Metro building and the water sessions in the Metropolitan Water District venue.

The Infrastructure Symposium and Awards Dinner is a Region 9 annual event.

This year the Board of Governors supported the Symposium being held in Los Angeles in conjunction with the Section Centennial Celebration. This event includes over 500 business leaders, infrastructure advocates and decision makers. The Symposium event with two parallel infrastructure panel tracks includes the following:

1) Transportation covering Ports, Highways, Local and High Speed Rail and Transportation Funding;

Featured speakers include:
- Greg DiLoreto, President, American Society of Civil Engineers
- Michael Antonovich, Los Angeles County Supervisor and MTA Chair
- Jeffrey Kightlinger, General Manager, Metropolitan Water District of Southern California
- Dan Richard, Chairperson of the Board, California High Speed Rail Authority
- Jeff Morales Chief Executive Officer, California High Speed Rail Authority
- Mark Cowin, Director, CA Dept of Water Resources
- Celeste Cantú, General Manager, Santa Ana Watershed Project Authority

This is an impressive list of leaders in the transportation and water fields and we appreciate them taking the time to support the Infrastructure Symposium. We would also like thank the Region 9 Board of Governors and the other Sections in the Region for their support of our Infrastructure Symposium and Awards Dinner.

Look for other Section events throughout the year, such as the re-dedication of the 100 year old Colorado Street Bridge in Pasadena. Please support these events and bring a friend or neighbor to show them the great things Civil Engineers do.

Lastly, I’d like to thank all the volunteers who participated on the committees for the Centennial Celebration and the Infrastructure Symposium. We could not have accomplished all this without their dedicated efforts. The L.A. Section looks forward to helping the other sections in Region 9 during their upcoming Centennial year.
On January 23, 2013 the Region 9 Board of Governors adopted the following priorities for ASCE Region 9. These priorities focus on supporting members, promoting the profession, and supporting public policies that benefit society. We look forward to working with you in turning these goals and objectives into reality for the coming year.

**Background**

ASCE Region 9 includes over 18,000 (as of 1/1/12) ASCE members distributed among four Sections: Sacramento, San Francisco, Los Angeles, and San Diego. Among them, the Sections include 17 Branches, 11 Younger Member groups, and 25 Student Chapters.

**Priorities**

- **Facilitate collaborative activities between all ASCE groups within Region 9**

Each of the entities within Region 9 faces and addresses challenges with membership, fund raising, member engagement, leadership succession, and promoting the civil engineering profession within their areas. Region 9 will facilitate activities and promote collaboration and communication among ASCE groups to help address these common challenges.

Examples of current Region 9 activities include:

- Regular contact and sharing of advice by Section Governor representatives with Sections and Branches
- Coordination between Section Presidents and the Board of Governors through monthly meetings
- Bringing practicing engineers and infrastructure industry advocates together to discuss statewide issues related to infrastructure at an annual Infrastructure Symposium
- Celebration of civil engineering excellence by recognizing outstanding projects and individuals at an annual Awards Banquet
- Facilitating training for Section, Branch, Younger Member, and Student Chapter officers in ASCE Regions 8 and 9 at the annual Multi-Regional Leadership Conference

- **Communicate with all ASCE groups within Region 9 to ensure that we are serving member needs**

Improved communications between Region 9 and ASCE groups within the Region will increase members’ awareness of Region 9 activities and of civil engineering issues that are of statewide significance. The Region leadership will also benefit from the enhanced communication by ensuring that Region activities are consistent with members’ needs.

Examples of current Region 9 activities include:

- Participation and interaction of Governors with ASCE members, Younger Members, and Student Members at Section, Branch, YMF and Student Chapter meetings.
- Publishing monthly articles in Section newsletters about recent or upcoming ASCE activities of statewide significance; written by a member of the Board of Governors or a Region 9 Committee Chair
- Providing education about ASCE Region’s role and obtaining feedback from attendees at the Multi-Regional Leadership Conference about how Region Governors can further assist ASCE groups. Conducting quarterly conference calls with Section and Branch leaders to offer advice and support in addressing common issues of concern.
Infrastructure advocacy, including legislative and policy support

Region 9, working with its Legislative Advocate and with input from each of the Sections, will continue to support and promote statewide policies that benefit the public through enhanced quality of life, safety and support of sustainable systems.

Examples of current Region 9 activities include:
- Tracking legislation and reaching out to public officials regarding issues related to water and transportation infrastructure and policy; principally led by the Water and Transportation Committees of the Region 9 Board of Governors
- Developing and updating the California Infrastructure Report Card and other public outreach tools about the importance of investment in infrastructure and education on the condition of California infrastructure
- Organizing Legislative Activities Day - an annual event that brings ASCE members from each of the four Sections to Sacramento to meet with elected officials to discuss critical issues that can be addressed by the civil engineering profession
- Publishing monthly articles (“This Month in Sacramento”) in each of the Section newsletters, written by the Legislative Advocate
- Seeking opportunities to appoint ASCE members to State registration boards for the civil engineering profession
- Assisting with designation of ASCE civil engineering landmarks of Statewide infrastructure significance.

International Orthotropic Bridge Conference

The Sacramento Chapter of ASCE’s Structural Engineering Institute has been working hard with fellow ASCE members to develop a conference that will feature the latest international developments in Orthotropic steel bridges and would like to issue an invitation to bridge engineers to attend the conference.


This conference is the third in a series of conferences on this interesting topic and will discuss the latest additions to the ranks of orthotropic bridges that provide safe, efficient and seismically resistant transportation for vehicles on highways around the world.

Please Keep Your Membership Information Updated

Have you changed your membership information lately? Please go to the membership page of the ASCE National website to join, renew, or change your membership information at http://www.asce.org/pplcontentwide.aspx?id=9641. This is the only way that the Sacramento Section is able to receive your information in our database so that we may keep you informed about Section activities.