Dear Members,

I hope everyone is having an exciting and fruitful start to 2015. As each year passes at ASCE, the organization is always looking to increase member involvement to help sustain Civil Engineering as a whole. At the branch level, we have made it our goal to present a wide range of events and offerings to our membership this year. With that said, I wanted to pass along a unique opportunity with a local group in need of some civil engineers.

In February of last year, ASCE formed an alliance with the American Water Works Association and Engineers Without Borders – USA to create the Community Engineering Corps (CE Corps). CE Corps’ goal is to provide pro-bono engineering services to underserved communities in the United States to help them meet their infrastructure needs and improve community members’ quality of life. The CE Corps works only with communities that do not have the financial resources to access engineering services in a traditional fee for service manner. A CE Corps project is available in our area and ASCE is reaching out to our branch members to see if we’d like to adopt this project.

The **Huerta del Valle Community Garden**, located in Ontario, CA, is an organization of community members that grow their own organic crops. Through growing their food, they work toward sustainable community empowerment and health. The Garden would like to create spaces for such things as education programs, seed storage, a community demo-kitchen, a youth club-house, performances and meetings. They’d like to do this through the design (CE Corps project) and construction of a rammed earth mini-library, rammed earth amphitheater, shading structure, and upcycled shipping container club-house and kitchen.

...CONTINUED ON PAGE 4
In 1973, the country suffered from the oil crisis and gas prices skyrocketed. As a result more attention was placed on finding alternative energy sources with an emphasis on renewable energy. In 1975, NASA led a program for the Department of Energy and the Department of the Interior to develop wind power in the US. In California, the use of wind to produce electricity was occurring statewide. Reports were prepared to discuss the status of the technology at the time, proposed development, regulatory processes, issues hindering development, and recommendations needed to resolve identified issues.

Wind farming in California primarily began in Riverside, Kern, Alameda, Contra Costa, Monterey, Merced, San Diego and Solano Counties. In Riverside County, wind energy development was studied through the San Gorgonio Wind Resource Study EIR (1982). The San Gorgonio Pass was at that time as it is now considered to be one of the best areas in the nation for the development of wind energy.

...CONTINUED ON PAGE 4
February 2015 Presentation

Lessons Learned – North Outfall Replacement Sewer Tunnel 25 years later

Richard Escandon, PG, CEG
Principal Geologist, Kleinfelder, Riverside, California

The North Outfall Replacement Sewer (NORS) tunnel was constructed in the early 1990’s in the City of Los Angeles as a partial remedy to increase sewer capacity and decrease pollution caused by overflow into Santa Monica Bay. The 18-foot diameter, eight-mile-long mainline tunnel and associated diversion tunnels were excavated in soft-ground conditions using open-face shield and Earth-Pressure Balance (EPB) tunnel boring machines (TBMs). Shield tunneling in running ground conditions beneath LAX resulted in significant ground losses and numerous sinkholes on airport property. EPB tunneling also resulted in ground losses and damage to surface improvements due to inappropriate operation of tunneling equipment. Throughout the 1980’s and 1990’s, open-face shield tunneling was commonly used for large tunnel projects in the Los Angeles area, including the Los Angeles Metro subway tunnels. Advances in pressurized TBM technology over the past 25 years have resulted in the increased use of pressurized TBMs and decreased use of open-face shields for large tunnel projects in the Los Angeles area. However, shield TBMs still remain a viable method of excavation in soft ground conditions if properly designed, operated and monitored. This presentation reviews the construction history of the NORS tunnel and some of the lessons learned using both open-face shields and EPB TBMs.
President’s Message

...CONTINUED from PAGE 1

CE Corp project needs:
- A Professional Engineer licensed in the state in which the project will be constructed who is willing to serve as the Responsible Engineer in Charge (REIC).
- Additional project team members are needed to work with and support the REIC.
- An independent review panel of three experienced professionals, who are not part of the design team, is also needed to ensure the quality of the design.

Are you interested in being part of the project team that assists the Huerta del Valle Community Garden? If so, please respond to me (Brandon.Reyes@mbakerintl.com) by 2/20/15 letting me know:
- if you are a P.E. licensed in California and interested in being the REIC;
- if you are interested in being part of the project team, as a team member or independent panel reviewer;
  or
- if you aren’t able to volunteer at this time, but believe this is a worthwhile project that we should pursue.

When replying, please include your related engineering work experience.

I look forward to hearing from you! Your responses will determine if we submit an application to adopt this project. If I receive a positive response, I will schedule a teleconference/meeting for interested individuals to learn more and discuss next steps.

Brandon Reyes, P.E., M.ASCE
Branch President

This Month in Engineering History

...CONTINUED from PAGE 2

The San Gorgonio Pass Wind Farm was developed in the 1980's as a result of the San Gorgonio Wind Resource Study. The farm is located on the eastern slope of the San Gorgonio Pass where ideal conditions are present due primarily to the pressure differences which exist between western Riverside County and the Coachella Valley. As the warm desert air rises over the Coachella Valley it forces cooler air through the pass between the San Bernardino and San Jacinto Mountains creating average wind speeds of 15-20 miles per hour more than the 13 mph minimum required to generate wind energy.

Most of California’s wind generating capacity and output are located in three primary regions: Altamont Pass, Tehachapi and San Gorgonio. The Bureau of Land Management reports that 2,300 acres of private and 3,187 acres of BLM administered public lands in the San Gorgonio Pass are presently developed for wind energy production. There are over 4,000 wind turbines ranging from 80 - 160 feet in height comprised of 40 different wind farms with a total capacity of 615.41 megawatts.
Soon Californians will have the crucial decision on a massive water project, with far reaching consequences for years to come. It is as well a major engineering challenge. While the project is to bring water to Central and Southern California, all Californians will be voting on the decision and a major factor is the Bay Area Delta Conservation Plan (BDCP). John will discuss the BDCP and the benefits that it will bring not only to the 25 million Californians that rely on water that passes through the Delta, but also on the benefits of the program to the Delta in general. The presentation will look in depth at Conservation Measure No.1 (also known as the twin tunnels) that will be used to convey water 35 miles south from the Sacramento River to the South Delta at Clifton Court forebay.
E-Week Volunteers

Volunteers will give a short presentation to a local school about careers in engineering. Presentation materials will be provided. Please contact:

Kenneth Cox
951-500-3500
kcox@leightongroup.com

HELP INSPIRE
the next generation of engineers.

DISCOVER ENGINEERS WEEK
FEBRUARY 22-28, 2015
ENGINEERS WEEK 2015

VOLUNTEERS NEEDED

We need your help to leave a mark during this year’s E-Week. We will be working to motivate young students to pursue engineering. Let’s give back to our community and give these students the extra push they need.

Below is the list of events you can participate in. You can sign up for any portion of the time range shown. The more volunteers we have, the more students we can reach out to!

Contact: Xochitl Lozano xochitl.lozano@mbakerintl.com
Joel Lozano lozbar18@gmail.com

E-Week Events

Tuesday- February 24
CITRUS HILL HIGH SCHOOL CAREER FAIR
Location: 18150 Wood Road, Perris, CA 92570
Time: 12pm - 12:45pm

Wednesday- February 25
CITRUS HILL HIGH SCHOOL PRESENTATION
Location: 18150 Wood Road, Perris, CA 92570
Time: 11am - 2:45pm

Friday- February 27
RAMONA HIGH SCHOOL PRESENTATION
Location: 7675 Magnolia Avenue, Riverside, CA 92504
Time: 8am - 2:45pm
STEM “U” LATE Your Mind:
Pi (π) Day

Moreno Valley College
16130 Lasselle Street
Moreno Valley, CA 92551

Saturday- March 14, 2015

Time: 9:00 A.M. - 3:00 P.M.

VOLUNTEERS NEEDED

We need volunteers interested in an exciting opportunity to impact students’ lives. The event features several hands-on stations from professional, community, and educational organizations to increase the number of students interested in pursuing educational and career opportunities in STEM and health related fields. ASCE YMF will be hosting an activity and we need your help! Please sign up to volunteer at any time of the day possible for you. Shifts will be available.

Contact: Xochitl Lozano xochitl.lozano@mbakerintl.com
Joel Lozano lozbar18@gmail.com
The Popsicle Stick Bridge Competition (PSBC), is a free, all-day competition where high school student teams to present and test Popsicle stick bridges that they design and construct prior to the event. The competition emphasizes the benefits of pursuing higher education and careers in science, technology, engineering, and mathematics while promoting the engineering profession in our community. Students will gain great exposure to the civil engineering profession while learning about the design process, team work, and meeting deadlines.

**Tentative Schedule**

<table>
<thead>
<tr>
<th>Start - End</th>
<th>Event(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 9:00 AM</td>
<td>Registration / Display Set-up/Bridge Compliance</td>
</tr>
<tr>
<td>9:00 - 9:30 AM</td>
<td>Official Welcome and Group Photo</td>
</tr>
<tr>
<td>9:30 - 11:00 AM</td>
<td>Round 1: Presentations / Bridge Testing / Impromptu / Station Tours</td>
</tr>
<tr>
<td>11:00 AM - 12:30 PM</td>
<td>Round 2: Presentations / Bridge Testing / Impromptu / Station Tours</td>
</tr>
<tr>
<td>12:30 - 1:15 PM</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>1:15 - 2:45 PM</td>
<td>Round 3: Presentations / Bridge Testing / Impromptu / Station Tours</td>
</tr>
<tr>
<td>2:45 - 3:15 PM</td>
<td>Round 4: Presentations / Bridge Testing / Impromptu / Station Tours</td>
</tr>
<tr>
<td>3:15 - 4:30 PM</td>
<td>Awards and Recognitions</td>
</tr>
</tbody>
</table>

*Tentative schedule - subject to change*

Visit our website or email us directly for more information!

[http://bridge.mlab-ymf.org](http://bridge.mlab-ymf.org)
popsicle.bridge@gmail.com
We are so excited about our Student Chapter and all it has to offer this year. Our chapter has already got off to a great start! We recently were able to attend a Technical Tour of the Wilshire Grand Tower, the tallest building West of the Mississippi. The city of Los Angeles looks forward to its completion in the near future. For several students and faculty, it was a returned visit that allowed for comparison since their last visit. The rest of the students attending were experiencing the magnitude of this project for the very first time. Everyone was excited to witness a structure of this magnitude & to have a personal presentation and tour.

This month is a busy one, as Seniors get ready to take their FE exams which they have been preparing for their whole Academic Career. Also occurring this month, is our continued efforts in preparing for PSWC, Pacific Southwest Conference. In just a few short months CBU will be traveling to Arizona State University to compete in our first Concrete Canoe competition. We consider ourselves truly blessed and we look forward to completing yet another milestone for our chapter.

“And whatever you do, work heartily, as for the Lord, and not for men...” Colossians 3:23
Cal Poly Pomona ASCE wrapped up the fall quarter by giving back to the community and began the winter quarter by having its annual trip to Mammoth Lakes.

On Dec. 13, Cal Poly Pomona ASCE had eight members – along with two members from CSU Long Beach ASCE – came out to Bolsa Chica State Beach to volunteer at the Surfrider Foundation Beach Cleanup. Volunteers walked along the beach for a few hours in the morning and gathered over 25 pounds of trash. It was a beautiful way for the club to give back to the community and enjoy a joint event with another ASCE chapter.

Throughout a month long period starting on Nov. 20, Cal Poly Pomona ASCE collected monetary donations for a Toys for Tots fundraiser because this was simpler than having students carry around a toy to school. After all of the money was collected, nearly 20 toys were purchased during a successful shopping trip. The toys were donated to a local fire station to help in their collection effort. This was an easy event that gave students a good way to give back during the holidays.

Cal Poly Pomona ASCE had its annual Mammoth trip on Jan. 9–11. Thirty-Four members from the chapter spent the weekend together in Mammoth for a chance to play in the snow and enjoy each other’s company. With a light dusting of snow after the first night students spent their time sledding, having friendly snowball fights, eating in the Village, and even enjoying the world-class ski runs Mammoth has to offer. This event was a great way for officers and members to socialize outside of the normal school environment. Even some freshmen and transfers attended the trip and they were able to network more with officers while showing their interest in ASCE. This was an event that brought all attendees closer together.

CPP and CSULB ASCE members search for debris at Bolsa Chica State Beach during CPP ASCE’s winter break.

Members had a snowball fight and sledded down the hill during the day while others went skiing and snowboarding.

Like us on Facebook: www.facebook.com/CPPASCE
Visit our website: www.cppasce.com
ASCE Society Fellowships

Society Fellowships assist with graduate tuition fees, are awarded annually and require ASCE membership. For further details and downloadable forms visit

http://www.asce.org/ASCE_Fellowships/

**Trent R. Dames and William W. Moore Fellowship**

Eligible: Practicing engineers or earth scientists, professors or graduate students, who are members of ASCE.

Grant: For the exploration of new applications of geotechnical engineering or the earth sciences to social, economic, environmental, and political issues.

Award: Award is for tuition, research, and living expenses. Awarded annually.

**Freeman Fellowship**

Eligible: Any member of ASCE.

Grant: Made toward expenses for experiments, observations, and compilations to discover new and accurate data useful in engineering. Emphasis on hydraulic science and art.

Award: Award is for tuition, research, and living expenses. Awarded annually.

**J. Waldo Smith Hydraulic Fellowship**

Eligible: Any graduate student who is a member of ASCE, preferably an Associate Member of ASCE.

Grant: Made toward research in the field of experimental hydraulics.

Award: Award is for tuition, research, and living expenses. Awarded annually.

**Arthur S. Tuttle Memorial Fellowship**

Eligible: Any member of ASCE; undergraduates should apply during the senior year.

Award: Award is for tuition expenses for first year civil engineering graduate students. Four scholarships awarded annually.

Applications must be received no later than February 10.

For more information, contact the Honors and Awards Program Office at awards@asce.org.
Civil engineering professor emeritus Donald G. Wells passed away on May 1, 2014 following an extended illness. Affectionately known as “Water Wells”, he was a leader in the environmental and water resources group within the Civil Engineering Department and was especially instrumental in enhancing the department's laboratory facilities. A graduate of Stanford University, he joined the faculty in 1970 and retired in 2003.

Wells was actively engaged in student extracurricular activities, both formal and informal. He served for many years as the faculty advisor for the Cal Poly Pomona chapter of the American Society of Civil Engineers (ASCE), and loved playing volleyball and other impromptu sports with his students. He set a very high standard for faculty-student rapport and mentorship, a legacy that continues to this day. His retirement party in 2003 will long be remembered for its outpouring of affection from his former students, many of whom have gone on to very prestigious positions in industry and government.

Donald G. Wells Memorial Scholarship

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In memory of his legacy, the College of Engineering has created the Donald G. Wells Memorial Endowed Scholarship.

Donated touched so many lives in a positive and supportive way. Contributing to this scholarship will help that tradition continue. Your gift to the Don Wells Scholarship Endowment is 100% tax deductible. The tax ID number is 95-2417645. To contribute to this fund, please follow the donation link below:

https://secure.qgiv.com/for/dgwmes
The Institute of Transportation Engineers
Riverside - San Bernardino Section
Invites you to play in our
32nd ANNUAL GOLF TOURNAMENT

| When: | Friday, March 20, 2015 at 8:00 am - Shotgun Start, Scramble Format |
| Where: | Menifee Lakes Country Club |
|        | 29875 Menifee Lakes Dr. Menifee, CA (951) 672-4824 |
|        | I-215 to Newport Rd. East on Newport Rd to Menifee Lakes Dr. |
|        | WWW.Menifee-Lakes.com |
| Who: | Everyone is welcome to play. You need not be a member to participate. |
|      | Dress Code: Slacks or Bermuda-length shorts only. NO Denim. Shirts must have collars. |
| Cost: | $75- Early bird special if received by Monday March 9, 2015 |
|      | $85- if received by deadline date Friday March 13, 2015 |
|      | Includes green fee, cart, and buffet lunch. |

Golfing Awards and Raffle prizes will be made possible by money and items donated by our vendor and consultant friends. If you would like to make a donation or you have any questions, please contact JR Morgan, at (951) 780-8435.

Make checks payable to “RSBITE” and send to:

JR Morgan
7182 Westport St.
Riverside, CA 92506

| Name: | Phone: |
| Address: | City: | Zip: |
| Company: |

List Names of Golfers You Will Be Playing With

| Name: | Name: | Name: |
| Company: | Company: | Company: |

Ite Riverside - San Bernardino Section (Charter Effective January 1, 1989)
Institute of Transportation Engineers
Want to get involved?

1. Contact your local Branch OR Younger Member Forum for the next tour or technical presentation scheduled
   Your local Branch and YMF chapters coordinate tours of projects that help you to enhance your civil engineering knowledge as it applies to projects all around us.

2. Help us plan a tour or help us present to our group
   We are always looking for ideas / presenters so don’t hesitate. You see a project you think we should see, let someone know, or better yet, if you are working on a great project, we’d all love to learn about it.

   http://www.asce-sbriv.org/asce_new/index.html
ASSISTANT ENGINEER
TKE Engineering, Inc.
(Riverside, CA)

TKE Engineering, Inc. (TKE) is looking for a self-motivated individual to work, under the supervision of senior civil engineers, on a wide array of civil projects. The position is full-time. Applicants will be expected to perform field and office assignments in connection with the planning, design, and construction of a wide variety of civil engineering projects. Assistant engineers will be assisting project managers in carrying out engineering drafting work, quantity and cost estimation, preparation of engineering studies and technical reports, and project coordination.

Duties Include: conducting engineering studies and developing recommendations; analyzing problems; identifying project consequences of proposed actions, developing alternative solutions, and implementing recommendations in support of project goals; provide technical and professional engineering support services to Senior Engineering staff members; ability to use computer-assisted engineering software and equipment to perform engineering tasks; assisting in engineering design; collecting and preparing data for evaluation; assisting in the coordination of projects from conception (feasibility) through final plan preparations; supporting multidisciplinary projects.

The ideal candidate will have a Bachelor of Science Degree in Civil Engineering or a related field; THREE years of paraprofessional engineering experience (after successfully receiving their bachelor's degree); current Engineer-in-Training Certificate (or P.E.); strong analytical, conceptual, communication and organizational skills; ability to work and thrive in a team environment; ability to self-motivate and work productively without supervision; a valid Driver's License, Class C or higher, is required.

To complete our application process, applicants must submit a current resume which may be submitted via email to Candice Lucero at clucero@tkeengineering.com. If you have any questions regarding our application process, please contact Candice Lucero at (951)680-0440 or via e-mail. More information can be found by visiting our website at www.TKEengineering.com.

CValdo Corporation, currently has employment opportunities for a Project Manager and Senior Project Manager with expertise in drainage and flood control projects. Qualified licensed California Civil Engineering candidates please send cover letter, resume and professional references to Human Resources via e-mail at marielc@cvaldo.com. For detailed job descriptions and company information, see our website at www.cvaldo.com/careers.html.

RBF Consulting, a Company of Michael Baker International, seeks several Land Development and Public Works Engineers and Designers in our Palm Desert and Temecula offices. For additional details and to apply please visit:

https://career.mbakercorp.com/

David Evans and Associates, Inc in Ontario, CA office is hiring a Professional Civil Engineer (PE) to support our land development business unit. The successful candidate will work on multidiscipline projects performing independent engineering calculations and design using specialized technical skills, experience and engineering judgment to transform concept designs into construction drawings and technical specifications. Please use the following link for more information:

Careers at David Evans and Associates, Inc.

Want to advertise an employment opportunity?
Contact the Newsletter Editor at juliannagonzalez@rcflood.org
Upcoming Events

February 10, 2015– ASCE Fellowship Applications due

February 18, 2015– Lessons Learned– North Outfall Replacement Sewer tunnel 25 years later

February 22-28, 2015– Happy Engineers Week

February 24, 2015– IECES Bay Area Delta Conservation Plans Twin tunnels

February 28, 2015– 21st Annual Popsicle Stick Bridge Competition

Membership Information

Types of Membership and Annual Dues (National)

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<tr>
<th>Type</th>
<th>Annual Dues</th>
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</thead>
<tbody>
<tr>
<td>Students</td>
<td>FREE</td>
</tr>
<tr>
<td>Associate Member</td>
<td>$50 per year of Baccalaureate degree and first year after, then incremental increases to $225 over five years.</td>
</tr>
<tr>
<td>Member</td>
<td>$225</td>
</tr>
<tr>
<td>Affiliate</td>
<td>$225</td>
</tr>
<tr>
<td>Section (Branch) Dues</td>
<td>$55</td>
</tr>
</tbody>
</table>

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

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juliannagonzalez@rcflood.org

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Full page ad: $235 per issue
1/2 page ad: $125 per issue
1/4 page ad: $75 per issue

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