Dec. '15

Los Angeles Section

Monthly: Est. 1913

 (\blacklozenge)

ORANGE / SAN_BERNARDINO/RIVERSIDE / SAN_LUIS_OBISPO / SANTA_BARBARA/VENTURA / DESERT / SOUTHERN SAN_JOAQUIN / METROPOLITAN LOS ANGELES

PRESIDENT'S MESSAGE

John Rogers, P.E., F.ASCE Los Angeles Section President

.....



On Engineering Funding... And A View of the Future

Urgent discussions in Washington, in Sacramento, and in local and County chambers throughout Southern California reflect the vital debates taking place over one of our political leaders' primary concerns – money. Council members, supervisors, and State and Federal leaders are bombarded with requests for funding, everything from national defense to medical care to our favorite as Civil Engineers – Infrastructure Funding. ASCE and its members have been proactive in this respect, visiting legislators

in Washington, Sacramento, and Los Angeles during organized campaigns, and sending hundreds of emails through ASCE's superbly organized Key Contact program. Our primary focus has been on sustained, dependable funding for maintenance, repairs, and new construction. We have learned that there is no easy answer, to guarantee that reasonable and responsible goals are met. And we have seen that it is not realistic to expect elected officials on either sides of the aisle to agree on long term funding strategies – or on little else, for that matter.

Two mega-projects have recently garnered major attention in California, both championed by Governor Jerry Brown: the \$68 Billion California High Speed Rail project, and the \$15 Billion Delta tunnels. Both are extremely controversial, both have been contemplated in various forms for many years, and either one of them is guaranteed to start an argument in any coffee house or tavern.

The rail project promises a 2 hour 40 minute one-seat surface journey from Los Angeles to San Francisco, resulting in less travel time between city centers than by air travel, by the time ground transportation and security at each end of the journey are factored in. But the project has suffered from inevitable decision difficulties at every turn. Structural challenges include the routing necessary to traverse the difficult corridor from San Jose to San Francisco through the very congested Silicon Valley area, without disrupting commuter traffic. Legal challenges have been raised by farmers and local governments over right-of-way issues in the San Joaquin Valley. There is also difficulty in gaining a consensus on the best way to tackle the formidable mountain barriers that separate Bakersfield from Los Angeles.

The Twin Tunnels, part of the endlessly controversial Bay-Delta Conservation Plan, seems to have an equal share of engineers, water experts, politicians, farmers and environmental activists arrayed on each side. It would be delightful to just watch the two sides battle it out. Unfortunately, the vital water needs on both sides demand an expedited decision; this seems to be a case where the old axiom is going to apply: a successful negotiation results when neither side is pleased.

An Op-Ed article in the LA Times on November 9 raised an interesting question. Steven Straus, visiting professor at Princeton University's Woodrow Wilson School of Public and International Affairs, described the first-ever international urban planning conference in New

continued on page 3

VOL. LV NO. 11

۲

In This Issue page	
PRESIDENT'S MESSAGE1	
ENGINEERS, UNLESS2	
LEGISLATIVE UPDATE 4-5	
PROFESSIONAL DIRECTORY	





ARTICLE

Engineers, unless we wave our arms a bit we'll never inspire the next generation



by Fred Gonzalez, Tri-Chair, 2nd Annual Symposium and Business Meeting



On August 7th the Los Angeles Section Sustainability Committee hosted its 2nd Annual Sustainability Symposium and Business Meeting. This year's event, Tri-Chaired by Dr. Monica Palomo, Brianna Pagan, and Fred Gonzalez was held at the Forum Conference Room of the Ronald Tutor Campus Center on the campus of the University of Southern California (USC). The picturesque, Italian Renaissance style architecture of the venue provided an enlightening backdrop for the topics discussed. Approximately 25 people attended.

The day began with Registration, refreshments, and networking. This was followed by the first presentation by Dr. Kevin R. Anderson, Ph.D., P.E. of California State University at Pomona. Dr. Anderson presented information about his current research at his Solar Thermal Alternative Renewable Energy Lab. Partnered with Compo Energy, Inc. (compoenergyinc.com), represented by Mr. Henry Hovakimian, Director of Operations, Dr. Anderson explained the principles of and research for their solar updraft tower utilizing compost waste heat. The audience was astounded by the efforts of this project to date to optimize structural components, and biological, chemical, and thermodynamic processes. The partners also asked for assistance from civil/structural engineers interested in this field.

Following the first presentation, a delicious, sustainably sourced and presented buffet lunch was provided by Tender Greens Restaurant (tendergreens.com).



After lunch, a presentation on Living Building Challenge (LBC) was made by Courtney Crosson, Senior Sustainability Consultant, of BuroHappold Engineering. Ms. Crosson discussed the principles of the LBC and it various levels of accreditation for new building



developments. Ms. Neha Yadav, P.E., with KPFF Consulting; and Ms. Monica Cowen, P.E. with BuroHappold Engineering, presented LBC case studies for recently completed Hawaii Preparatory Academy Energy Lab, and proposed improvements to Santa Monica City Hall. Audience members were impressed with LBCs tenets of strict local sourcing of human and material resources, and the challenge of finding sustainable water supplies in drought stricken areas.

Both presentations were well received by all in attendance. Following the presentations, attendees went on a walking tour of sustainable buildings and operations on the USC campus. Sites included the Ronald Tutor Campus Center, USC's first LEED (Gold) certified building; Cromwell Track and Field Thermal Energy Storage System; Annenberg School of Communication certified for its Green Office Program and sustainable practices; and various urban gardens and drought tolerant landscaped areas.

The event ended with a short business meeting chaired by Mr. Cody Briggs, Chair of the Los Angeles Section Sustainability Committee. Attendees had the opportunity to provide input on the event, propose improvements for next year's events/activities, and talk about openings for officer positions with the Sustainability Committee.

The Tri-Chairs would like to thank all who helped make the event a success, including Mr. Cody Briggs, Chair; Jason Zhang, Treasurer, Mimi Luk of Gayle Stewart Enterprises, Mrs. Kate Briggs and Tender

Greens Restaurant, USC Student Chapter of ASCE, the Ronald Tutor Campus Center and Office of Sustainability at USC, and all of the presenters. We look forward to presenting a bigger and bolder event next year.



þage 2

۲

PRESIDENT'S MESSAGE

continued from page 1

York in 1898. Delegates would have been wonderfully prescient to recognize the massive social change that the coming of the automobile would bring about in just a few years. In 1898, there were only 800 automobiles registered in the U.S. Less than 30 years later, there were 19 million. 55% of American families were car owners. Instead, the planners were obsessed with a problem they saw as being more important: how to manage the waste from the 20 million horses that were used to transport goods and people in the world's urban centers.

Professor Straus writes that our policy wonks are now suffering from a lack of foresight very similar to that of their 1898 predecessors: building high speed rail systems, massive airport expansions, dedicated bus ways and transit-oriented housing, when all of these things may be obsolete in 30 years through the growth of autonomous vehicles. Selfdriving vehicles can potentially reduce the number of cars on the road by 60% to 90%, and may result in the loss of 2.5 million driving jobs. In similar fashion, should we worry about moving massive quantities of potable or irrigation water from the Sacramento Basin to the Los Angeles Basin, when in 30 years entire new supplies may be available through re-use, reclamation and desalinization? Will we really need the flood-control capabilities of the Los Angeles River, or the San Gabriel, or the Santa Ana? Will the power grid need to be expanded exponentially, or will point-of-use supplies become the norm to the extent that a robust grid will no longer be necessary? Where will the mean high tide line be in 30 or 40 years? On top of all these major problems, what are the best strategies to deal with unsafe or less than ideal conditions that exist right now: bridges collapsing, AMTRAK telling us that their Hudson River rail tunnel (over 100 years old) is unsafe , structurally inadequate apartment buildings in the Fernando Valley threatening to collapse in a relatively mild tremor?

Interesting questions, aren't they? How shiny is your crystal ball?

ARTICLE

New Governor Perspective

by James Frost, P.E., M. ASCE, ASCE Region 9 San Diego Section Governor



It is already Fall. The leaves have changed (in most areas), we are fast approaching the holiday craziness, and ASCE's new fiscal year has begun. As the incoming Region 9 Governor from the San Diego Geographic Region, I have formally begun my three-year term for ASCE on the Region 9 Board of Governors, and I am glad to be a part of such a great team.

I would first like to thank the outgoing governors, Larry Pierce and Mark Norton.

They have done a tremendous job on the Board and I look forward to continuing their efforts on many ongoing tasks. I know they will both stay active in our various committees but will also enjoy their newly found free time.

For those of you who do not know me, I am a native of San Diego having grown up in the region, gone to school at UC San Diego, and spent the majority of my career here. For the past 23 years, I have worked in the bridge design and construction field and currently serve as Kleinfelder's Western Region Structures Manager. My Society experience includes working with the ASCE Transportation Group where I served as the Treasurer, Secretary, Vice Chair and Chair for the group. I next served with the San Diego General Section ASCE Board of Directors, beginning with two years as the Treasurer, followed by one year of service as the Secretary, two years as Director, and one year each as Vice President, President Elect, and President. I have over 13 years of ASCE leadership experience, and will continue as a member of the Region 9 Board. Over the next three years, I will strive to position civil engineers as leaders in our community. As you know, ASCE's three strategic initiatives are "Infrastructure Policy," "Raise the Bar," and "Sustainability." All three of these initiatives can be closely tied to civil engineering leadership within our political, educational, and environmental arenas. My goal as a Regional Governor is to raise awareness of civil engineers as essential problem solvers for many of our biggest challenges in society, from crumbling bridges to developing a sustainable water supply.

Part of what I enjoy about ASCE is working collaboratively with a great group of people. This has always been the case at the Section, Regional, and Society level. Our current Board is composed of some of the most passionate and capable industry leaders in California. I am encouraged to be a part of this team and will do my best to make a significant difference during my term.

As the Governor from the San Diego Section, I will be dedicated to the interface between the Section and Regional activities. I will make sure our voice is heard on Regional and National issues and also communicate with the Section, Branch, YMF, and student chapters. I think my experience with ASCE will be a valuable asset to the ASCE Region 9 Board, and I look forward to working with all of the ASCE members within Region 9.



ARTICLE

State Investments and Legislative Update

۲

by Richard Markuson, CA Region 9 Legislative Advocate





The State Legislature adjourned the regular session on September 11 but the special session called by Governor Brown to enact permanent and sustainable funding to maintain and repair the state's transportation and critical infrastructure, improve the state's key trade corridors and complement local infrastructure efforts remain in session.

The Legislature has yet to act on two bills, ABX1 3 (Frazier) and SBX1 4 (Beall),

sent to conference – comprised of 10 members: Assemblymembers Jimmy Gomez, D-Los Angeles, Kevin Mullin (D-South San Francisco), Autumn Burke, D- Inglewood, Melissa Melendez, R- Murrieta, Jay Obernolte, R – Hesperia and Senators Jim Beall, D – San Jose, Connie Leyva, D – Chino, Ben Allen, D – Redondo Beach, Ted Gaines, R – El Dorado Hills, Anthony Canella, R – Merced. We previously reported that Assembly Transportation Committee Chairman Jim Frazier, D-Antioch was serving. When Speaker Atkins tapped Jimmy Gomez as the Assembly Co-Chair, Frazier decided not to participate.

The Committee held two hearings in October pertaining to the **Overview of Proposals to Address Transportation Challenges**. The report was prepared by the independent Legislative Analyst.

Legislation

(

Governor Brown signed two ASCE supported measures in October, AB 194 **(Support)** by Assembly Member Frazier that authorizes regional transportation agencies and the California Department of Transportation (Caltrans) to develop high-occupancy toll lanes and other toll facilities without limitation; and AB 1171 **(Support)** by Assembly Member Linder that would authorize regional transportation agencies to use the Construction Manager/General Contractor project delivery method, as specified, to design and construct certain expressways that are not on the state highway system.

Appointment

Governor Brown has made the following appointment:

As special assistant to the state oil and gas supervisor at the California Department of Conservation, Division of Oil, Gas and Geothermal Resources: **Brady Van Engelen**, Sacramento, former budget consultant for the CA State Senate Budget and Fiscal Review Committee.

As area district deputy in the Division of Oil, Gas and Geothermal Resources at the California Department of Conservation: **Bill Bartling**, Bakersfield, president at Aspectus Energy Consulting.

Recent Reports

State Water Resources Control Board has released its water conservation data for August, finds urban water users reduced use by 27 percent, says "cumulative savings for the summer, despite hot

and dry conditions, puts the state half-way to meeting its goal of 1.2 million acre-feet of water saved" between June 2015 and February 2016. Contact: George Kostyrko, gkostyrko@waterboards.ca.gov.

Treasurer John Chiang has released the "2015 Debt Affordability Report," finds that, despite improvement, California's credit rating is still among bottom three in the country with Illinois and New Jersey; also estimates "the State will issue a combined \$7.87 billion of new money General Fund-backed bonds in 2015-16 and 2016-17" and "estimated debt services payments from the General Fund will increase by \$31.2 million in 2015-16 and \$282.1 million in 2016-17."

PLoS One released **Aligning Natural Resource Conservation and Flood Hazard Mitigation in California**. "The National Flood Insurance Program paid out more than \$38 billion in claims since its inception in 1968, more than a third of which has gone to the one percent of policies that experienced multiple losses and are classified as 'repetitive loss.' This study demonstrates that flood losses could be mitigated through action that meets both flood risk reduction and conservation objectives.... We demonstrate that government funded buyouts followed by restoration of targeted lands can support social, environmental, and economic objectives: reduction of flood exposure, restoration of natural resources, and efficient use of limited governmental funds.

The U.S. Geological Survey released Assessment of Undiscovered Continuous Oil and Gas Resources in the Monterey Formation, San Joaquin Basin Province, California, 2015. This fact sheet encapsulates the reduced estimates of gas and oil resources in California's Monterey Formation. In 2011, the U.S. Energy Information Administration had estimated there were 13.7 billion barrels of potential recoverable oil; this study significantly changes that estimate, suggesting that there are only 21 million barrels of oil that may require enhanced recovery methods to extract oil and gas from the shale. While this report only looked at the San Joaquin basin, forthcoming analysis will cover the other three basins that comprise the formation.

The Ground Water Protection Council and Interstate Oil and Gas Compact Commission released Potential Injection-Induced Seismicity Associated with Oil & Gas Development: A Primer on Technical and Regulatory Considerations Informing Risk Management and Mitigation. This report was developed by "representatives of state oil and gas regulatory agencies and geological surveys with support from subject matter experts from academia, industry, federal agencies, and environmental organizations.... The focus of this document is induced seismicity associated with underground disposal of oilfield-produced fluids in Class II wells ... [and it suggests that] [m]anagement and mitigation of the risks associated with induced seismicity are best considered at the state level, with specific considerations at local or regional levels. A one-size-fits-all approach is infeasible, due to significant variability in local geology and surface conditions, including such factors as

Los Angeles Section Monthly: DECEMBER 2015

ARTICLE

population, building conditions, infrastructure, critical facilities, and seismic monitoring capabilities."

The **Delta Stewardship** Council released *Challenges Facing the Sacramento-San Joaquin Delta: Complex, Chaotic or Simply Cantankerous?* "In this paper we look at multifaceted questions about water and environmental management in the Delta. Our goal is not to evaluate specific recent initiatives, but to provide a larger framework to guide implementation of these and future initiatives. We illustrate how the complexity of the Delta problem complicates management and leads to inefficiency and conflict. We give examples of trade-offs, disagreements and the consequences of failure in managing these issues. We discuss why bold new approaches to managing Delta

ARTICLE

(

Reaching Our Future Civil Engineers

۲

by Chuck Spinks, P.E., ASCE Committee on Pre-College Outreach



Of the 349,000 Civil Engineers currently in the workforce, 18%, or 64,000 civil engineers, are from the Baby Boomers generation (born approximately between 1946 and 1964). More and more of this large generation have been retiring, creating more pressure on Gen Xers (born approximately between 1965 and 1980) to move up, and in addition increasing the demand for new entry-level engineers. As the economy continues to recover and expand, these pressures and

demands will continue to increase.

As ASCE Members, there is a lot we can do to help direct bright and motivated pre-college students towards Civil Engineering:

- If your Section or Branch doesn't already have one, help to create a new Pre-College Outreach Committee;
- Get more involved in expanding public awareness of Civil Engineering by connecting with local students, teachers, and parents;
- Represent ASCE at High School Career Fairs;
- Participate as a judge at local Science & Engineering Fairs;

• Participate in ASCE's pre-college outreach training. Learn what resources ASCE can provide you to help with your outreach efforts at http://www.asce.org/pre-college_outreach_training/.

Next year in 2016, ASCE is once again the chair with DiscoverE of National Engineers Week (E-Week). Most Sections and Branches already have activities during E-Week, so it is a great time to take advantage of the event to: expand your group's activities; get more members involved; encourage ASCE members with children in school to visit that school to talk about Civil Engineering; help start a Civil Engineering Club at a local High School; and hold an E-Week Luncheon to recognize the volunteers that helped with E-Week activities. Visit the DiscoverE web site for other ideas for activities, at http://www.discovere.org/.

Region 9 E-Week Volunteers that received national ASCE recognition for Outstanding Service in 2015 were: Carlos Beltran, Imperial County Branch; Amy Choi, Orange County Branch; and Julian Garcia and Laura Rocket of the Metropolitan Los Angeles Branch. There were certainly many more that helped with successful programs last February that were not nominated for recognition. For 2016 therefore, make sure that the names of deserving volunteers are submitted by their Sections and Branches to ASCE for deserved recognition.

issues are urgently needed to address inefficiencies in water use,

aging infrastructure, and the deteriorating condition of native species."

The Center for Law, Energy and the Environment at UC

Berkeley School of Law released Grading California's Rail Transit

Station Areas "A new analysis of California's rail transit systems

discovers which transit stations serve as hubs of thriving, walkable

areas that encourage residents and workers alike to ride the train,

and which station areas need improvement. The report divided rail

transit station areas into three types: residential, employment, and

mixed, and calculated grades based on 11 key indicators including

walkability, ridership levels, existing land-use and permitting policies,

affordability and transit quality."

The ASCE Committee on Pre-College Outreach (CPO) can help groups looking to inspire the next generation of civil engineers with flyers and handouts. http://www.asce.org/pre-college_outreach/. Many of these materials are currently being updated to provide a more helpful tool for volunteers. On a related note, the CPO has recommended to the ASCE Board of Direction that a new ASCE membership category for Middle and High School students be created. It will be free, and a membership card will be issued for access to the members-only web site, where students can read copies of Civil Engineering magazine and have access to additional resources not normally available to non-members.

ASCE and the CPO are also moving ahead aggressively in the creation of the new IMAX 3D movie, DREAM BIG, which is due for release in February 2017. Three California Museums with IMAX 3D capability have already expressed interest in the movie: the Ruben H. Fleet Science Center in San Diego; the California Science Center in Los Angeles; and the Tech Museum of Innovation in San Jose. This will be a significant tool for spreading our Civil Engineering message. Once the movie is out, ASCE will be soliciting involvement from the Regions, Sections, and Branches in looking for other venues to show the movie, and in identifying ways to maximize the number of students that see the movie.

Not sure where to start? Contact Jeannine Finton, Senior Manager of Pre-College Outreach for ASCE, at jfinton@asce.org or 703-295-6310.

Los Angeles Section Monthly: DECEMBER 2015

215743-ASCE Newsletter (Dec 15).indd 5

PROFESSIONAL DIRECTORY

۲



۲

۲

۲

page 6

۲

PROFESSIONAL DIRECTORY



SUSTAINABILITY COMMITTEE CALL FOR MEMBERS

www.ascelasection.org/main/groups/sustainability_committee



Reminder:

((()

Copy deadline for the January 2016 issue is December 1, 2015; copy deadline for the February 2016 issue is January 1, 2016.

.....

National ASCE (800) 548-2723 (ASCE) Access National ASCE at: www.asce.org L.A. Section web site at:

www.ascelasection.org

MATERIALS SUBMISSION INFORMATION

All graphic materials submitted for use in the ASCE newsletter should have all fonts outlined, and links included; EPS or PDF files preferred. Other formats are Adobe InDesign or Adobe Illustrator (any version); additional acceptable file formats are JPEG or TIFF files (minimum 300 dpi). Images embedded in Microsoft Word documents should be sent separately, at a minimum resolution of 300 dpi at the display size desired. Collected files, including links and fonts, should be compressed and e-mailed, or sent on CD or Zip disk (provide return address). Business cards can be submitted electronically as well, or send clean, crisp, B&W laser print, unfolded. This publication's size is $8\frac{1}{2}$ " × 11".

Los Angeles Section Monthly: DECEMBER 2015

þage 7

Los Angeles Section

Monthly: Est. 1913

1405 Warner Ave. Suite B Tustin, CA 92780

> Postmaster: This contains time-sensitive materials. Please deliver promptly.

۲



Please contact ASCE Membership at 1-800-548-ASCE for any <u>address changes.</u>

NEWSLETTER INFORMATION

Publisher

()

ASCE LA Section Gayle Stewart 1405 Warner Ave., Suite B Tustin, CA 92780 Phone (714) 258-8306 Fax (714) 258-8391 E-mail: GStewart@associationplanet.com

Editor

Dr. Cris B. Liban, P.E. LACMTA One Gateway Plaza Mail Stop 99-17-2 Los Angeles, CA 90012 Phone (213) 922-2471 FAX (213) 922-6875 E-mail: cliban@alumni.ucla.edu Typesetting, Layout & Printing: Apollo Printing & Graphics



Please send all copy to the Editor by the first of the month preceding publication.

Identification Statement

ASČE Newsletter, (ISSN 0273-6233) is published monthly by ASCE, Los Angeles Section, 1405 Warner Ave. Tustin, California 92780. Subscription price included in Section dues of \$45.

Circulation

Circulated monthly (except for a joint July/August issue) to the 5,000 subscribing members of the Los Angeles Section, ASCE.

NEWAdvertising Rates

EMPLOYMENT ADS \$100/column inch

DispLay Ads 1/8 page \$200 1/4 page \$300 1/2 page \$465 1 page \$740

PROFESSIONAL DIRECTORY \$450 per business card for a full year (Additional fees may be applied for typesetting. Please call for information.)

Position Wanted Ads No cost to L.A. Section members.

For more advertising and billing information, please contact Gayle Stewart at (714) 258-8306 or gstewart@associationplanet.com

National ASCE (800) 548-2723 (ASCE) Access National ASCE at: www.asce.org L.A. Section web site at: www.ascelasection.org