

# Los Angeles Section

*Monthly: Est. 1913*

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## PRESIDENT'S MESSAGE

Yazdan Emrani, P.E.  
Los Angeles Section President



### What Does it Mean To be A Civil Engineer in 2014?

On March 7th, I attended the annual Student Night and Job Fair in downtown LA. It was a great event and the organizers had done a fantastic job. I had the honor of speaking at this event and my topic "What Does it Mean To be A Civil Engineer in 2014". My talk focused on not only what a civil engineer is expected to do professionally these days, but how it is also important to lead a balanced life. I received a lot of positive comments about my talk after the event, so I thought I would turn it into an article for this month's publication.

Civil Engineers are thinkers and innovators. We combine the tools of today, with a vision of tomorrow, to engineer the world of the future. However, we have to recognize that there are other definitions of an engineer. Some say that an engineer won't tell you what 2+2 is without asking what factor of safety you'd like built into the answer. Or that an engineer is just someone who solves a problem you didn't know you had, and solves it in a way you don't understand.

So, even where engineers get credit for our technical skills; skills which allow us to improve technology and contribute to economic growth; we're not always good at explaining how civil engineering is relevant to people's lives.

#### It's up to us to change that view.

Civil engineers of the 21st century must possess a wide range of business and interpersonal skills, as well as technical expertise. Engineering solutions have to adapt and always be relevant to the issues of the day; and we must always take a consistent, long term approach to dealing with those issues - because nobody else will. By not treating our infrastructure as the valuable assets they are, and taking them for granted, we are only creating bigger problems for ourselves in the long run.

In the developing world, countries are having to dedicate a large part of their national budget to providing fairly basic human needs, like access to water and sanitation, electricity and roads; yet many of their citizens are still left wanting.

Did you know that more than 1 billion people around the world lack access to roads; 1.2 billion don't have safe drinking water; 2.3 billion have no reliable sources of energy; 2.4 billion lack sanitation facilities; and 4 billion are without modern digital communication services. We know that a lack of adequate infrastructure denies possibilities.

A lack of infrastructure means that companies and businesses won't invest in building a factory in an area with failing roads, electricity or water supply. And therefore, that community would suffer whereas it would have benefited from the resulting job creation,

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# Responding to California's Drought and Beyond

by Mark R. Norton, P.E., F.ASCE Chair, ASCE Region 9 (California) Water Committee



On Saturday, March 1st the media announced the signing by the governor of new Emergency Drought Legislation SB 103 and SB 104, as California grapples with one of the driest periods in its recent history. This legislation received broad, bipartisan support and provides \$687.4 million to support drought relief, money for housing and food for workers directly impacted by the drought, bond funds for projects to help local communities more efficiently

capture and manage water and funding for securing emergency drinking water supplies for drought impacted communities.

To support our State's long term water portfolio and serve as a voice for water infrastructure, the ASCE Region 9 Board of Governors established a Water Committee back in March 2009. The Committee is composed of ASCE water management professionals from each of the ASCE Sections across the State. Our main role is to actively participate in monitoring and development of legislative bills and policies that affect water infrastructure. We conduct this work by working closely with our ASCE Region 9 lobbyist, Richard Markuson, to review new legislation and policies each year and provide recommendations to the ASCE Region 9 Board of Governors to take action. This action may be in the form of letters of support, opposition, or suggestions for new text to legislators to better reflect the needs of water infrastructure for the State of California.

The Water Committee conducts this work through monthly conference calls as well as visits each year to the State Capitol with the key legislators and Administration staff who oversee water and natural resource legislative committees and departments. The work that the Committee conducts is often done in tandem with other California water associations on an issue so that resources can be maximized to greater effect and action.

Our Committee is supportive of the recent legislative action that authorizes expedited funding for projects and programs to address the dire water needs of communities hit so hard by the drought across the State. Still we recognize that more, much more needs to be done. The \$11.1 billion California Water Bond originally proposed for the State ballot back in 2010 has been postponed twice and will again be considered for Nov. 2014. Legislators are hard at work to see if it can be modified to reach electorate approval levels. If passed, such an influx of funding would go a long way to boost water infrastructure. As pointed out by the 2012 ASCE California Infrastructure Report Card, significant investments are still needed to conserve water, build storage, capture storm flow, recycle water and better use the water we have.

With the extreme drought conditions that we are experiencing and concerns arising over adequate water supplies to meet demands, one may well ask "Aren't there drought contingency plans in place to deal with this crisis?" In 2010, the State Department of Water Resources did release the California Drought Contingency Plan to address the possibility of continuing dry conditions as called for in the California Water Plan. This Plan contains strategies and actions that State agencies must take to prepare for, respond to, and recover from droughts or water shortages. On a regional and local basis, most major retail water agencies have been involved in integrated regional water management planning and have plans in place to deal with drought conditions. Further, legislation was passed back in 2009 that mandated that water demands of retail water agencies statewide be reduced by 20% by the Year 2020. Progress to achieve these goals is being made.

As civil engineers, we are entrusted by society to create sustainable conditions and enhance our quality of life. It is our role to be that advocate for water infrastructure but also to serve as a voice for the need to use water wisely. The public does not typically understand where their water comes from, how it is used - indoors and outdoors, and what happens after they use it. A greater awareness of this water use cycle needs to occur. We, as civil engineers, can be advocates of not just new water infrastructure but also for increased water demand reduction and water use efficiency which studies have shown as the most cost efficient and effective means to stretch the available water supplies. By working together through collaborative approaches, developing multi-beneficial and multi-jurisdictional water solutions that leverage available resources and maintaining the infrastructure that we currently use, we can be well on the path for sufficient water in dealing with our needs for today and tomorrow.



improving of living standards and reduced poverty. We have to help create intelligently planned and sustainable infrastructure which is targeted to communities' real needs.

We also need to "Communicate better". We're good at talking to each other, but we need to continue to improve our communications with those outside of our profession. Our communication takes many different forms, and has many different target audiences including: friends, neighbors, academia, policy makers, clients, and non-engineers. These different audiences need to be addressed in different ways; there's no one-size-fits-all solution to the issue of communication. So we must embrace 21st century communication tools. And your ability to communicate to the public what it is we do, will help change perceptions of civil engineers.

Remember, that pessimists think a glass is half empty, optimists think it's half full, but it's the engineer who knows that the glass is twice as big as it should be. Yes, we look at problems in a different, more constructive way, but we also need to overturn the mistaken idea that engineers aren't creative. Or that we only know how to relate to machines, not human beings. This is one of my favorite quotes by George Bernard Shaw; *"The single biggest problem with communication is the illusion it has taken place."* The following story illustrates my point:

A young engineer was leaving the office late one evening when he found the CEO standing in front of a shredder with a piece of paper in his hand. "Listen," said the CEO, "this is a very sensitive and important document here, and my secretary has gone for the night. Can you make this thing work?" "Certainly," said the young engineer. He turned the machine on, inserted the paper, and pressed the start button. "excellent, excellent!" said the CEO as his paper disappeared inside the machine. "I just need one copy."

Now, we talked about infrastructure earlier but in many ways, infrastructure becomes a lasting testament from civil engineers to society. It becomes part of our cultural connection to our entire existence. Much of the world around us has been formed around key pieces of infrastructure. Cities such as LA are a great example. Other cities just couldn't exist or have flourished without intelligent, sustainable infrastructure. Take New Orleans, which, of course, lies below sea level.

When infrastructure is found wanting, the consequences are, sadly, catastrophic, like New Orleans after Katrina. And New York, which didn't realize it was below sea level until Superstorm Sandy struck.

We as Civil engineers have a responsibility to **Communicate** these realities – and properly **Engage** people in showing how civil engineering and infrastructure are directly relevant to their lives. Governments around the world are witnessing rapid social and economic improvements to the lives of their citizens, as a result of civil engineers making the impossible possible.

In sub-Saharan Africa, infrastructure development has accounted for around half of the continent's acceleration in economic growth. From 1990-2005, China invested around \$800 to upgrade its road system and connect all of its larger cities. It's estimated that aggregate Chinese real income is now around 6% higher than it would have been if the expressway network hadn't been built. The road ahead may be long and difficult. But also filled with opportunity, at every turn. I'd like to leave you with a story that hopefully gives you a better perspective on life:

A professor of philosophy stood before his class with some items in front of him. When the class began, wordlessly he picked up a very large and empty glass mayonnaise jar and proceeded to fill it with golf balls. He then asked the students if the jar was full. They agreed that it was.

The professor then picked up a jar of pebbles and poured them into the jar. He shook the jar lightly. The pebbles, of course, rolled into the open spaces between the golf balls. He then asked the students again if the jar was full. They agreed it was.

The professor picked up a box of sand and poured it into the jar and of course the sand filled up everything else. He asked once more if the jar was full. The students responded with an unanimous yes. The professor then produced two cans of beer from under the table and then proceeded to pour the entire contents into the jar, effectively filling the empty space between the grains of sand. The students laughed.

"Now," said the professor, as the laughter subsided, "I want you to recognize that this jar represents your life. The golf balls are the important things – your family, your partner, your health, your children, your friends, your favorite passions – things that if everything else was lost and only they remained, your life would still be full. "The pebbles are the other things that matter, like your job, your house, your car. The sand is everything else – the small stuff.

"If you put the sand into the jar first," he continued, "there is no room for the pebbles or the golf balls. The same goes for your life. If you spend all your time and energy on the small stuff, you will never have room for the things that are important to you. Pay attention to the things that are critical to your happiness. Play with your children. Take time to get medical checkups. Take your partner out dancing. Play another 18.

"There will always be time to go to work, clean the house, give a dinner party and fix the disposal. Take care of the golf balls first, the things that really matter. Set your priorities. The rest is just sand."

One of the students raised her hand and inquired what the beer represented. The professor smiled. "I'm glad you asked. It just goes to show you that no matter how full your life may seem, there's always room for a couple of beers."

Have a Happy Spring and a Great Month!

# State Investments and Legislative Update

by Richard Markuson, CA Region 9 Legislative Advocate



## Five-Year Infrastructure Plan Update

In January the Brown administration released its Five-Year Infrastructure Plan, that reported statewide deferred maintenance need totaling \$64.6 billion. "By far, the largest deferred maintenance is for roads (\$59 billion). The Budget starts addressing critical deferred maintenance needs with an \$815 million support allocation for maintenance in state parks, highways, local streets and roads, K-12 schools, community colleges, courts, prisons, state hospitals, and other state facilities."

Subsequent to its release the Legislative Analyst reviewed the plan and concluded "the plan raises some important policy issues related to the financing and maintenance of state infrastructure and serves as a valuable starting point for legislative discussions." The Analyst noted "that the plan does not include some key information and suggest some changes that could make the plan more helpful to the Legislature." Finally he reiterated a Region 9 long-term goal, "[w]e further suggest that the Legislature consider how, as an institution, it addresses infrastructure issues—for example, by creating a joint infrastructure committee." The Assembly Budget Sub-committee #4 held a televised hearing on the plan – focused on deferred maintenance – on February 25.

## Legislative Update

February 21, 2014 was the "bill introduction deadline." The Legislature introduced 2,031 new bills in 2014 – down from 2013's 2,540. Last year Governor Brown signed 1,003 of the bills and vetoed 96 – leaving 2,181 bills active in 2014. ASCE Region 9 committees are reviewing 113 measures.

The Legislatures only civil engineer – Senator Anthony Cannella introduced SR 27 to commemorate National Engineers Week. Assembly member Nate Holden is the author of AB 1551 – sponsored by ACEC. It would prohibit a person from using an engineer's submittals without the written consent of the engineer. It would also prohibit a person from using a land surveyor's maps, plats, reports, descriptions, or other documentary evidence without the written consent of the land surveyor. The bill would prohibit an engineer or land surveyor from unreasonably withholding consent to use these documents.

Senator Jerry Hill introduced SB 1433 that expands the use of design-build for transit projects and deletes a sunset date for the existing authorization.

The Governor's Five Year Infrastructure plan has prompted a number of Legislators to introduce new measures.

AB 2290 by Assembly Speaker John A. Pérez would require the California Infrastructure and Economic Development Bank (iBank) 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 2729 by Assembly member Medina would create in the iBank the California Infrastructure Development Center as an appropriate means for partnering with private sector infrastructure developers in a way that ensures workers, residents, and small businesses are able to participate in the broader economy.

Senate Bill 969 by Senator DeSaulnier would amend his peer review bill from last year (Public Works Project Peer Review Act of 2013). It would rename the program the Public Works Project Overview Improvement Act and would define a "megaproject" as a transportation project with total estimated development and construction costs exceeding \$1,000,000,000. The bill would require the agency administering a megaproject to establish a peer review group and to take specified actions to manage the risks associated with a megaproject including establishing a comprehensive risk management plan, and regularly reassessing its reserves for potential claims and unknown risks.

AB 1855 by Assembly member Melendez would include in LS & PE Act determination of the the position of an easement as a engineering or surveying act.

## Appointments

Governor Edmund G. Brown Jr. made the following appointments. These appointments may require Senate confirmation.

To Building Standards Commission (all reappointed): **Erick Mitiken**, 50, Berkeley, Democrat, president of Mitiken Architects; **Cheryl Roberts**, 44, Alta Loma, Republican, has held multiple positions at the Rancho Cucamonga Fire Protection District including battalion chief; **Kent Sasaki**, 49, Walnut Creek, Democrat, unit manager and principal at Wiss Janney Elstner Associates Inc. (engineering and architectural consultants).

To California Transportation Commission (both reappointed): **Robert Alvarado**, 61, Pinole, Democrat, executive officer at the Northern California Carpenters Regional Council; **Frances Inman**, 67, Santa Ana, Republican, founding president of the Majestic Realty Foundation and senior VP at Majestic Realty Co.



To the Delta Stewardship Council: **Frank Damrell** (reappointed), 75, Sacramento, Democrat, has been of counsel at Cotchett Pitre and McCarthy LLP since 2012.

### Recent Reports

Caltrans has released its first issue of "The Mile Marker: A Caltrans Performance Report," findings include: Of the more than 13,000 bridges Caltrans inspects, the number of bridges that need repair has declined from 750 in fiscal year 2007-08 to 582 in fiscal year 2012-13.

High Speed Rail releases Draft 2014 Business Plan, finds that the "main components of this draft plan have changed little from the 2012 Business Plan, with capital costs effectively unchanged, down by 1%. Ridership projections are increasing and farebox revenue projections are decreasing, and continuing to cover operations and maintenance."

Legislative Analyst's Office has released its hearing handout "Financing the Bay Delta Conservation," presented to Assembly Accountability and Administrative Review Committee.

The Legislative Analyst's Office released its report, "The 2014-15 Budget: Resources and Environmental Protection," outlines the administration's proposals to shift the state's drinking water oversight program from the Dept. of Public Health to the State Water Resources Control Board and implement recent legislation related to hydraulic fracturing.

The Legislative Analyst's Office releases its report, "The 2014-15

Budget: Cap-and-Trade Auction Revenue Expenditure Plan," analyzes \$850 million in cap-and-trade auction revenue appropriated to various state programs.



## 15<sup>th</sup> Annual Complete Streets & Technology Conference

*Presented by: So. Ca. Chapter of American  
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**Wednesday, April 23<sup>rd</sup>, 2014**

8:00am – 3:30pm

Carson Community Center

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[srobles@santa-ana.org](mailto:srobles@santa-ana.org).

## Bi-Monthly Board Meetings



**Day:** 1st Friday of February, April, June, August, October, and December

**Time:** 7:30 am – 10:00 am

**Location:** ASCE LA Section Office, 1405 Warner Ave., Ste B., Tustin, CA 92780

Everyone is welcome

# ASCE – Los Angeles Section Honors New Life Members

by Joe Buley, P.E., F.ASCE & Garvin Pederson, P.E., M.ASCE



The Los Angeles Section of ASCE on March 1, 2014 was very pleased to honor the following professional engineers –listed at end of article- who had achieved Life Member status during 2014 and are currently assigned to the Los Angeles Section. The Section expressed its sincere appreciation to all for their continued support of ASCE, for their contributions to improve the profession and for their significant contributions to Civil Engineering projects that have benefited humanity. The Life Member Forum's "New Member Recognition Committee" chaired by Joe Buley, held the annual recognition brunch at the Monterey Hill Steakhouse in Monterey Park.

Yazdan Emrani, P.E. President of the Los Angeles Section and assisted by Larry Lewis, P.E., President of the Life Member Forum moderated the event. Jennifer Epp, Region 9 Director welcomed the honorees on behalf of the 18,000 California members. The LA Section Governor, Jay Higgins and Governor – At Large, Mark Norton also welcomed the honorees.

Of special significance was the introduction of Congressman, Ed Royce, representing the 39th District, by 1993 Hoover Medalist, M. Hasan Nouri. Congressman Royce is serving his eleventh term in Congress and is the current Chairman of the House Foreign Affairs Committee. Congressman Royce presented a Certificate of Congressional Recognition to three outstanding Civil Engineers, Bob Bein (Section President 1992 and Society President 2001), Dr. Robert Stevens (Society President-Elect) and in absentia William Carroll (Section President 1967 and Society President 1989). Mr. Carroll was also the first US President of the World Federation of Engineering Organizations and received the Hoover Medal in 1994. Congressman Royce stated that he was humbled to be in the presence of such noted professional and humanitarian civil engineers.



Dr. Robert Stevens, ASCE President-Elect

Robert D. Stevens, Ph.D, AICP, F.ASCE, ASCE President – Elect delivered the keynote address to the assemblage of life members, guests, Section members, Young Member Forum and CE Students. Dr. Stevens stated that ASCE was a global brand and that we need to attract a larger percentage of practicing civil engineers. He noted that of the 240,000 global civil engineers, approximately 100,000 reside in the US. An additional 20,000 work overseas and 20,000 are students. Referencing his own education, he stressed "Raising the Bar" to encourage civil engineers to continually learn. Dr. Stevens raised the bar with a B.S. degree in civil engineering and math, a Masters in City Planning, a Certificate in Traffic Engineering and a Masters and Doctorate with a major in transportation.

The body of Dr. Steven's remarks focused on the acronym, FIS. Civil Engineering is **Foundational**. The structures we build start with a good understanding of the soil conditions upon which we build. This understanding can be elusive because of the inconsistency of soils.

Efficiently building and maintaining **Infrastructure** is what sets civil engineers apart. As our population grows and our resources shrink, civil engineers must remain innovative in providing the most efficient and economical designs. The third pillar is **Sustainability**. Dr. Stevens introduced his audience to the Institute of Sustainable Infrastructure (ISI) and its launch in 2012 of its answer to LEEDS – Envision. Envision is the first rating system to gauge infrastructure sustainability. The full details can be found at [www.asce.org](http://www.asce.org). Dr. Stevens explained that the purpose of Envision is to encourage a necessary and dramatic improvement in the performance and resiliency of physical infrastructure across the full dimensions of sustainability; economic, social and environmental.

Dr. Donaldson, Dean, College of Engineering at California Baptist University briefly described their proposed new engineering facility and, Larry Lewis explained why Life Members matter.



Robert Bein, P.E. and Congressman Edward Royce





Robert Bein, P.E. and Jay Higgins, P.E.

Robert W. Bein, P.E. presented the “Robert W. Bein Annual Lifetime Achievement Award” to Jay Higgins, P.E. Jay is a Life Member, recently retired from URS. Jay holds a B.S. in Civil Engineering, M.S. in Environmental Engineering and MBA. Jay has served ASCE in many capacities, most recently as finance chairman of the Centennial Committee. He just completed his tenure as Region 9 Governor and is moving up to become Region 9 Director; representing Region 9 on the Society Board of Directors. Jay currently is a consultant,

specializing in construction dispute resolution and construction claims analysis. Jay plans to sail across the Atlantic in the next year with a friend on his 49 – foot sailboat.

Mark Norton, P.E. assisted by Larry Lewis, P.E. introduced each new life member with their bio highlights and presented each with their Career Achievement Award.

Robert W. Bein, P.E. brought the meeting and the Centennial Year to an appropriate conclusion by reviewing the highlights of a most successful Centennial Celebration. He noted with pride that a commemorative Centennial book is being produced under the guidance of Mark Norton, P.E. The book will highlight the historical significance of civil engineers in the LA Section. It will serve as a testament and legacy for future generations of how civil engineers of this generation served their fellow citizens to provide the quality of life they enjoy.

The following is the list of new Life Members. Note that some did not attend the event but were nevertheless honored: Michael A. Baudanza, Tom W. Bogard, Charles M. Burt, William Edgar Cameron III, Robert Jules Close, Nicolaas F. Coetzee, Samuel H. Fuller, Michael Philip Gigliotti, Robert H. Gregory, Gary E. Hackney, Paul Joseph Karp, Kana R. Kasdan, Jeffrey R. Keaton, Craig Lee Martin, Jon T. Moore, Kenneth B. Morrill, David A. Mosher, James A. Muenzer, Carlos A. Orellana, Douglas Charles Papay, Richard Walter Rauseo, Patrick J. Reeves, David Jonathan Ringel, Warren Averill Stewart, Lawrence E. Strahm, Robert Stephen Vessely, Philip H. Wong.



Life Member Honorees and Los Angeles Section Officers



**ACC-OC 2014 Infrastructure Summit:**

***STRATEGIC INNOVATION, RENEWED INVESTMENT***

**When**

**Thursday, May 29th  
7:15am to 2:30pm**

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The State of Orange County's Infrastructure  
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<b>Early Rate</b> (Until April 15)	\$109	\$139
<b>Regular Rate</b> (April 16-May 7)	\$129	\$169
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*Registration includes lunch and all  
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***Please return to an ACC-OC Staff Member when completed. We look forward to having you join us!***

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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 8½" × 11".

## A Great Idea from the Life Members

The ASCE Life Members' Public Image Committee request that members take their (to be discarded) Civil Engineering magazines to their doctor's office or barber shop and merge them with the stack of magazines. We feel that this will be an effective way to make the general public more aware of what civil engineers do.

### Reminder:

Copy deadline for the May 2014 issue is April 1, 2014; copy deadline for the June 2014 issue is May 1, 2014

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