

Los Angeles Section

Monthly: Est. 1913

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PRESIDENT'S MESSAGE

Kenneth H. Rosenfield, P.E., F.ASCE
Los Angeles Section President

VOL. LV NO. 4

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Leading on Local Infrastructure

In late February, I attended the ASCE Multi-Region Leadership Conference (MRLC) in Bellevue, Washington, along with the many leaders of Sections, Branches, Younger Member Forums and Students in both Regions 8 and 9. This annual event rotates locations within the Regions and is an annual training program offered by ASCE and their staff to train the officers of our local groups. The staff of ASCE does a great job of providing information on the vast ASCE resources available to support our operations, the ASCE Initiatives, leadership education and best practices. The ASCE initiatives include Sustainability, Raise the Bar and Infrastructure. The details of these initiatives can be reviewed on the ASCE web site (ASCE.org). During this conference, I was honored with the opportunity to lead two 45-minute discussion sessions on the topic of "Leading on Local Infrastructure."

When preparing for my flight to Bellevue, I collected the various magazines that come to my office as industry reading material. Of the six magazines I took, three of them had prominent articles about Infrastructure. Two of these magazines were trade journals (Public Works magazine and ITE Journal) within which articles about infrastructure are common. The third magazine, however, Western City magazine, is a publication of the League of California Cities and is issued to every elected official and many staff in most cities in the State. It is not focused on Civil Engineering and provides a variety of people insights on issues of concern to communities. The article in that issue of Western City discussed the challenging landscape and funding menagerie facing Transportation Infrastructure in the State. It was a great primer for the topic and an informative discussion piece for elected officials.

The public's and elected official's awareness of the importance of maintaining our infrastructure has dramatically increased and much of this is the result of the work of ASCE and the Report Card program. Even the President of the United States and the Governor of California each has made public statements on the need to improve our infrastructure and its funding model. This provided me with the first talking point for the sessions that I directed about the need for all of us to be aware of current infrastructure issues and to educate ourselves on the factual and political discussions taking place around us. Further, it is my position that as Civil Engineers and members of ASCE, we are collectively experts on infrastructure. Therefore, we are in a unique position to discuss, comment upon and advocate for infrastructure. We are the best suited for this task and I encourage you to adopt this stance.

Multiple studies and position papers on infrastructure are readily available. A key source of this information is the result of the ASCE national Report Card. In addition, in California, all four Sections have completed regional Report Cards and many Branches have completed local Report Cards. The State Report Card has also been issued on two occasions. Report Cards are not a one and done activity, rather they should be updated on a regular return cycle. It would be great to have Report Cards available for each four-year election cycle but I recognize that this is not reasonable for such a significant undertaking by volunteers. However, I suggest that Report Cards should be updated

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ASCE Orange County Branch Sustainability Seminar: Greenroads & the City of Santa Ana's Bristol Street Bronze-Certified Project

**Tuesday, April 14, 2015
11:30 AM – 1:00 PM**

ASCE American Society
of Civil Engineers



The American Society of Civil Engineers Orange County Branch Sustainability Committee invites you to attend our upcoming seminar.

Speakers

Mindy Ly, P.E. | Senior Civil Engineer / Project Manager, City of Santa Ana
Ehab Elias, P.E. | Assistant Civil Engineer II, City of Santa Ana

Abstract

The Bristol Street Improvements and Widening in the City of Santa Ana is a multi-phased \$225 million project that updates the existing Bristol Street corridor from a 4-lane to a 6-lane arterial. The project also adds bike-lanes, bus pullouts, vegetated median, widened and upgraded sidewalk facilities. Phase II—which was awarded a Greenroads Bronze certification—includes the portion of the corridor from 3rd Street to Civic Center Drive. The project emphasized stormwater management improvements using low impact development (LID) with 15-foot wide vegetated rock swales and drought tolerant and similar dry climate species planted along the corridor. This is the first Greenroads project that demonstrates LID features in an arid climate.

This presentation will provide an overview of this pioneering project and how it achieved the required points for Greenroads certification. The speakers will also share lessons learned and suggestions for improvements on future projects. Attendees will learn about the value of pursuing Greenroads certification in the planning, design, and construction of roadway projects and how to achieve higher levels of certification. An update will also be provided on new/potential Greenroads projects in Southern California and the latest developments in the Greenroads rating system.

Location:

University of California-Irvine
UCI University Club
801 E. Peltason Dr.
Irvine, CA 92697

Lunch will be served.

Contact Sam with any questions:
Sam Ali, PE, LEED AP, ENV SP
Chair of Sustainability Committee, ASCE-OC
sam.ali@ocpw.ocgov.com
714-245-4585

Registration:

via Eventbrite at
<http://goo.gl/zRCvG7>

Cost:

\$20 - Students
\$30 - Public Agencies
\$35 - ASCE Members
\$40 - Non-Members and
door fee



Greenroads® Summary	
Bronze Certified	
Bristol Street Widening Phase II	
Santa Ana, CA	
Total Score*	35
Project Requirements	11/11
Environment & Water	6/21
Access & Equity	14/30
Construction Activities	0/14
Materials & Resources	8/23
Pavement Technologies	7/20
Custom Credits	0/10

*Score does not include Project Requirements



Visit us on the web: www.asceoc.org/committees/sustainability_committee

at least every six years. If you have not had a chance to participate in a Report Card development effort, it is a worthwhile and very satisfying experience. In addition to the Report Cards, a few years ago, ASCE retained a group of consulting Economists to evaluate the cost impact to every person of not acting to improve the nation's infrastructure. Four studies were completed covering Transportation, Water, Ports and Energy and were entitled "Failure to Act" to explain the cost of not investing in our infrastructure. The title of these studies is brilliant and is a very effective catch phrase when speaking to elected officials about this issue. There are plenty of other ASCE resources and independent publications from other interest groups from which to educate ourselves about the infrastructure issues adversely impacting the quality of life of our population.

The second primary point of my presentation involved a discussion of advocacy to elected officials. We have a duty to communicate our knowledge on infrastructure to our elected officials and to the public at large. You have to add your voice to this discussion and be willing to engage anyone on the significant lack of infrastructure investment occurring in our State and Nation. There are dire consequences to not acting to rectify the funding shortfall in all manner of infrastructure. An easy way to begin to learn to speak to elected officials and to communicate with them is through the Key Contact Program. I invite

you, this very minute, to stop reading this article and go to ASCE.org/keycontacts and sign up today for this service. The fine staff in the ASCE Washington DC office will facilitate your communication with elected officials by informing you of a pertinent ASCE issue and providing you with an email correspondence, already addressed to your legislator, which, by a push of the "send" button will convey your support or opposition to an issue. You have the opportunity to customize the message and I encourage you to do so. There is also an ASCE publication describing the "105 Ways to Speak to your Legislator" and another publication on "How to Start a Government Relations Program." These publications and others are available to you to learn to advocate and to express your expert opinion to elected officials.

Overall, about 35 attendees at the MRLC participated in these sessions and many participants shared their personal experiences about leading on local infrastructure issues. We have a duty to utilize our expertise as Civil Engineers and members of ASCE to convey the information and recommendations on how to improve the current state of affairs of infrastructure financing, maintenance and improvement. Please contact your local Government Relations Committee or work with your local Branch to start a Government Relations Program today and become an advocate for Infrastructure!

ARTICLE

Board for Professional Engineers, Land Surveyors, and Geologists

by Oscar Serrano, P.E., M.ASCE, ASCE Region 9 Governor (Sacramento Section)



Have you ever wondered why early in your career as an engineer you took the day off work to sit in a room with a pile of books next to you to take an eight hour exam? Then, most of us go back the next day to take the State of California specific exams – Surveying and Seismic Principles.

Well the reason is that in 1929, the Board for Professional Engineers, Land Surveyors (and as of 2009 Geologists (BPELSG)) was created after the St. Francis Dam in Northern Los Angeles

County failed. According to the BPELSG website: "the Legislature determined that the unregulated design of construction projects constituted a hazard to the public and passed laws to regulate civil engineering and to create the Board."

The BPELSG Board is composed of 15 members including eight members of the public and seven licensed professional engineers including one licensed civil engineer. Most of the BPELSG Board members are appointed by the Governor. In addition to providing licenses to professionals in the State, the BPELSG Board also tracks legislation, considers changes to regulations, hears complaints, takes enforcement actions, considers delinquent reinstatements, etc.

One of the things the BPELSG Board is currently working on is implementing a fingerprinting requirement for all Professional

Engineer exam takers in California beginning in July 2015. The entire infrastructure is in place to begin implementation of the fingerprinting program but the BPELSG Board will give applicants some time before implementation. There are numerous locations throughout the State that offer digital fingerprinting for a nominal fee.

The BPELSG Board meetings always offer interesting discussions and are open to the public. For instance, at the last meeting a BPELSG Board member asked if it should be a requirement for engineers to pass the Professional Engineer exam in order to practice much like lawyers have to pass the bar exam before they can practice law? The BPELSG Board holds its meetings throughout the State but the majority of the meetings are held in Sacramento. The next BPELSG Board meeting was scheduled for March 26th and 27th at a yet to be determined location.

So the answer to the question of why we spend hours studying, sitting in YMF PE review courses, paying \$897 for first time takers (which is usually not reimbursed by your employer) is as members of society who plan and design projects for public benefit we need to provide competent and ethical professional services and be responsible for what we do to try to prevent accidents like the failure of the St. Francis Dam and the BPELSG Board is the governing body that provides the licensure; and regulates the many professions which it encompasses and grants licensure to.

State Investments and Legislative Update

by Richard Markuson, CA Region 9 Legislative Advocate



California Transportation Condition and Funding

Two hearings held last week provided transportation advocates the opportunity to bring attention to the deteriorating condition of the state's local streets, roads and other vital transportation infrastructure.

During the hearings, the League of California Cities presented the results of the 2014 California Statewide Local Streets and Roads Needs Assessment. The report represents a collaborative effort between the League, the California Association of Counties and other transportation stakeholders to provide critical analysis and information on the condition of the state's local transportation networks.

Key findings from the report, including:

- The investment in pavement maintenance would need to be increased by more than four-fold to bring the average pavement condition of the state's local streets and roads into a state of good repair.
- To keep conditions from deteriorating further, investment needs to be more than double in street and road maintenance funding.
- It costs 12 times more to replace pavement that is at the end of its service life than to maintain a pavement in very good condition.
- By 2024, 25 percent of the state's local streets and roads will be in failed condition.
- Under the existing maintenance investment level, the state's average local street and road Pavement Condition Index is projected to drop from 66 to 55 by 2024.
- The maintenance investment needs for local street and road "essential components" — such as curb ramps, storm drains, streetlights and signals — is \$31 billion over the next 10 years, and there is an estimated funding shortfall of \$21 billion.
- The total statewide local bridge needs are estimated at \$4.4 billion over the next 10 years.

Video of both hearings is available online via the California Channel.

- Assembly Informational Hearing on The Basics of Transportation Funding
- Senate Information Hearing on Funding the Transportation Maintenance Backlog.

Indicative of the confusing mess of California transportation funding, the State Board of Equalization **reduced** the state's gasoline excise tax rate by 6 cents, from 36 cents to 30 cents, effective July 1st of this year. The vote was unanimous. Prior to the meeting, based on estimates provided by the Board's consultants and staff, the initial recommendation was to adjust the tax rate by 7.5 cents. Board members reconsidered the recommended adjustment factors, and reduced the anticipated "cut" from 7.5 cents to 6 cents per gallon, saving approximately \$200 million in tax revenues for important highway and roadway maintenance. The Board action taken today

triggers the adopted reduction to commence on July 1, 2015, and to apply throughout the Fiscal Year. The action is required by the gas-tax "swap" of a couple years ago and will reduce transportation funding by about \$1.0 billion a year!

Transportation California released a new video produced by former Director Will Kempton: Fix The Roads!

Legislation

The 2015 Legislative session is underway and the bill introduction deadline has passed. The State Assembly introduced 1,569 bills and the Senate – 839.

Assembly Bill 320 by Assembly member Jim Wood (D-Sonoma) would create a title act registration for environmental engineer. The bill would provide legislative findings and declarations in support of the licensure of environmental engineers in California. The engineers' board would be responsible for defining environmental engineering through rulemaking and the board would adopt standardized examination materials applicable to environmental engineering.

Assembly Member Adrin Nazarian (D-Sherman Oaks) has introduced AB 428 that would create a tax credit under both the Personal Income Tax Law and the Corporation Tax Law in an amount equal to 30% of the qualified costs for any seismic retrofit construction on a qualified building.

Assembly Bill 1358 by Assembly member Matt Dababneh (D-Encino) will recast California Design/build law for schools.

Senate Bill 284 by State Senator Anthony Cannella (R-Ceres) would make permanent the authority of engineering and land surveying firms to operate as Limited Liability Partnerships.

Recent Reports

The National Center for Education Statistics released Gender Differences in Science, Technology, Engineering and Mathematics (STEM) Interest, Credits Earned, and NAEP Performance in the 12th Grade. Drawing from the 2009 National Assessment of Educational Progress (NAEP) Transcript Study and Mathematics and Science Student Questionnaires, this report summarizes the interest level in STEM courses, credits earned in science and math courses, and NAEP science and math performance across gender lines.

The Victoria Transport Policy Institute released Autonomous Vehicle Implementation Predictions: Implications for Transport Planning. This report explores the impacts that autonomous (also called self-driving, driverless or robotic) vehicles are likely to have on travel demands and transportation planning. It discusses autonomous vehicle benefits and costs, predicts their likely development and implementation based on experience with previous vehicle technologies, and explores how they will affect planning decisions such as optimal road, parking and public transit supply.

The Greenlining Institute released Electric Carsharing in Underserved Communities: Considerations for Program Success. "The U.S. has

seen tremendous growth in shared-use mobility services over the past decade. This expansion, however, has not yet reached underserved communities. Low-income households could greatly benefit from the cost-savings of sharing otherwise underused assets, as these communities lack sufficient access to public transit and “first-last mile” solutions.”

The U.S. Federal Trade Commission released Internet of Things: Privacy & Security in a Connected World: Staff Report. “[T]here still isn’t a widely accepted definition of what the IoT (Internet of Things) actually is, according to a report released last month by the Federal Trade Commission. A working definition may be that it is the rapidly growing network of physical devices—from cable TV boxes and refrigerators to wearable medical devices and traffic lights—that can connect to the Internet.... The FTC report said that experts estimate there will be 25 billion such devices in operation this year and twice that number by 2020.” A rival estimate places this number at between 50 and 75 billion devices, which would create 13 quadrillion connections to the Internet and generate 200 exabytes of data a year. “To put that into perspective ... the Library of Congress houses 5 exabytes of data.” The report, based on a Nov. 2013 workshop, looks at the potential misuse of information collected by these plethora of devices and invasion of people’s privacy.

The California Council on Science and Technology released An Independent Scientific Assessment of Well Stimulation in California, Volume 1, Well Stimulation Technologies and their Past, Present, and Potential Future Use in California. “The California Council on Science and Technology (CCST) released the first volume of an independent scientific assessment today on well stimulation in California, including hydraulic fracturing. This volume describes how and where operators deploy these technologies for oil and gas production in the state, and where the technologies might enable production in the future.” The assessment was prepared in response to Senate Bill 4 (Pavley). It is the first in a three-volume study that will assess current and potential future practices of well stimulation technologies in the state. This study builds on the findings of the CCST report “Advanced Well Stimulation Technologies in California” of August 2014, commissioned by the Federal Bureau of Land Management.

The U.S. PIRG Education Fund released Innovative Transportation Index: The Cities Where New Technologies and Tools Can Reduce Your Need to Own a Car. “This report reviews the availability of 11 technology-enabled transportation services—including online ridesourcing, carsharing, ridesharing, taxi hailing, static and real-time transit information, multi-modal apps, and virtual transit ticketing—in 70 U.S. cities. It finds that residents of 19 cities, with a combined population of nearly 28 million people, have access to eight or more of these services, with other cities catching up rapidly.” San Francisco, Los Angeles and San Diego rank among the top cities for abundant alternative transportation choices.

The U.S. Department of Transportation released Beyond Traffic 2045: Trends and Choices. “This report is structured in three parts. The first part discusses the major trends shaping our changing transportation system. These include both trends originating from the transportation

sector, such as improvements in freight logistics, and external trends impacting the transportation sector, such as population growth and climate change. The second part discusses the implications of these trends for each mode of transportation: highways, transit, pedestrian and bicycle, aviation, intercity and freight rail, maritime and pipeline. The third part presents a description of a baseline future scenario—a future that may emerge from the trends analyzed previously. It concludes with a discussion of policy options based on the implications of these trends.”

The California Department of Conservation has completed their draft environmental impact report (EIR) on hydraulic fracturing (“fracking”). This report looks at the likely impacts of future fracking operation under the new regulations put forward by the Division of Oil, Gas and Geothermal Resources (DOGGR). The EIR finds that fracking will—among other things—likely have significant negative impacts on air quality, greenhouse gas emissions, wildlife habitat, and cultural resources.

Hyperloop Transportation Technologies, Inc. released Hyperloop Alpha. “Existing conventional modes of transportation of people consists of four unique types: rail, road, water, and air. These modes of transport tend to be either relatively slow (e.g., road and water), expensive (e.g., air), or a combination of relatively slow and expensive (i.e., rail). Hyperloop is a new mode of transport that seeks to change this paradigm by being both fast and inexpensive for people and goods.... In this study, the initial route, preliminary design, and logistics of the Hyperloop transportation system have been derived. The system consists of capsules that travel between Los Angeles, California and San Francisco, California. The total one-way trip time is 35 minutes from county line to county line.” No word if CHSRA will modify their business model to embrace this technology.

The State Water Resources Control Board has released its Dry Year Program Report, a review of its handling of water rights during the drought year of 2014, says it curtailed the rights of 5,063 water users during the year and will soon start notifying rights holders of new curtailments if the drought continues, also notes several problems facing efforts to improve water rights management, including infrequent reports of usage by rights holders and poor quality of data on the usage.

The CA State Auditor has released “California’s Alternative Energy and Efficiency Initiatives: Two Programs Are Meeting Some Goals, but Several Improvements Are Needed.”

The LAO has also released its report, “The 2015-16 Budget: Rethinking How the State Funds School Facilities,” recommends replacing current system for financing school facilities with new one that would require recipients of state funds to adopt a five-year accountability plan.

The Senate Office of Research has released its report, “The Water We Drink, Part 1: What Is California Doing to Ensure Its Water Is Safe?” outlines state’s drinking water monitoring, finds in past five years 6,327 sanitary surveys of treatment facilities have been conducted.

Los Angeles Section Honors 2015 New Life Members

by Garvin Pederson, P.E. LMF



Ken H. Rosenfield, P.E., Los Angeles Section President, welcomed the Section's 2015 new Life Members and guests at a brunch held in Monterey Park, CA on March 7, 2015. The L A Section's Life Member Forum (LMF) continued the tradition to formally recognize these new Life Members for their accomplishments in the civil engineering profession and their continual support of

ASCE. There were 38 new Life Members this year in the Section. Those new Life Members in attendance at the brunch were given their "Life Member Diploma" by Larry Lewis, P.E., LMF President. Mark Norton, P.E., Governor, ASCE Region 9 summarized the many accomplishments of the new Life Members. These accomplishments in such fields as water resources, transportation, geotechnical, structural, land development and other areas of civil engineering, have been instrumental in protecting the public throughout Southern California and other areas of the country. Again this year it was a very impressive list of accomplishments and well deserved recognition for these new Life Members. Also each new Life Member was given a copy of the L.A. Section's Centennial book: "100 Years of Civil Engineering Excellence".

William Lawson, P.E. an active member of the LMF was awarded the "Robert W. Bein Annual Lifetime Achievement Award", which was presented in person to Bill by Robert Bein. Bill's 46 year career in civil engineering included employment by such organizations as So. California Edison Co., Boyle Engineering Corp., Bechtel Power Corp.

and a number of other engineering firms in So. California. Bill has also been very active in ASCE throughout his career such as in the Hydraulics & Hydrology Technical Group and the History & Heritage Committees in both the LA Section and Region 9. In addition Bill served his country in the U.S. Marine Corps Reserves.

Jay Higgins, P.E., Director of ASCE, Region 9 also welcomed the new Life Members. Jay encouraged these new Life Members to stay involved with meaningful activities as their experiences and expertise are an invaluable resource to the public. He also recommended creating "Life Member Champions" throughout Region 9 that would help to setup informal groups in various locations to promote Life Member activities.

The Life Member Forum was honored to have Mark W. Woodson, P.E., President Elect ASCE National as the keynote speaker. In addition to congratulating the new Life Members, Mr. Woodson discussed some of ASCE's current initiatives such as "Sustainability" and upgrading the nation's infrastructure to keep the Society in the forefront of civil engineering in future years.

The Life Member Forum also welcomed a large contingent of civil engineering students from local Universities. Dr. Anthony Donaldson, Dean of Engineering at California Baptist University in Riverside was also in attendance and briefed us on the current and future expansion of their facilities.

Ken Rosenfield and Larry Lewis encouraged the new life members to remain involved with ASCE. The LMF provides a number of opportunities to remain active and serve local communities.



Los Angeles Section Honors 2015 New Life Members

by Garvin Pederson, P.E. LMF



New Technical Division Will Advance Infrastructure Resilience

by Doug Scott, from ASCE News



The critical infrastructure systems that are the mainstay of our nation's economy, security, and health are interdependent – for example, the water supply system of a community is dependent on the pumping stations and they, in turn, are dependent on electric supply. Cascading failures among these critical infrastructure systems can be eased, or even avoided, when the systems are resilient.

In March 2014, ASCE's Committee on Technical Advancement (CTA) formed a Working Group to begin development of a new technical division focused on infrastructure resilience. Formally approved by the ASCE Board of Direction at its January meeting in Miami, the Infrastructure Resilience Division (IRD) merges 3 existing ASCE units that have synergistic activities in this arena – the Committee on Critical Infrastructure (CCI), the Council on Disaster Risk Management (CDRM), and the Technical Council on Lifeline Earthquake Engineering (TCLEE).



(California) Department of Water and Power. "You need to be [cognizant of resilience] through this whole design process."

"Among the things we are looking at," says Davis, "are wastewater, portable water systems, transportation systems, solid waste management systems, liquid fuels, natural gas, inundation protection systems, information technology, electric power systems, communications systems, and the performance of building systems, and how civil engineering relates and pulls all of this together."



The primary role of the IRD is to develop a common approach to advance the concepts of resilience in our nation's civil infrastructure and lifeline systems, foster cross-communication and develop collaborations around the impacts of natural hazards on civil infrastructure, facilitate the development of guidelines and standards, and disseminate knowledge throughout the civil engineering community. In addition, it will actively coordinate with other ASCE entities as well as allied associations and other stakeholders on resilience concepts.

Achieving Infrastructure Resiliency

"When a hazard actually strikes a community, how do you respond, how do you recover, and how do you rebuild?" asks Craig A. Davis, Ph.D., P.E., GE, M.ASCE, chair of the new 6-member IRD executive committee and trunk line design manager for the Los Angeles



Members of the IRD executive committee. (Front row from left), Craig A. Davis, Bilal M. Ayyub, and Chris D. Poland. (Back row from left), Forrest James Masters, Marsha D. Anderson Bomar, and Kent Yu. Photo Credit: ASCE

"IRD will provide ASCE members with resources and tools for a comprehensive coverage of risk and safety concerns by striving for resilient infrastructures and systems," added Bilal M. Ayyub, Ph.D., P.E., F.ASCE, a member of the IRD executive committee, and professor of Civil and Environmental Engineering and director of the Center for Technology and Systems Management in the Department of Civil and Environmental Engineering at University of Maryland. "For example, current practices lack the explicit consideration of recovery in system design. The IRD offers ASCE members a focal point for what we anticipate will be an increased need for addressing resilience.

"Absolute safety is unachievable without expending considerable resources. This means that failures could happen despite high reliability targets since projects are designed for finite capacities. If limiting potential failures is a design consideration, we should expect engineers to additionally design for postfailure states. IRD will lead the advancement of current planning and design practices to address

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not only performance and failures, but also postfailure recovery. IRD has the vision in this case to address failures beyond the reactive mode of emergency management to the deliberate design for recovery."



What Civil Engineers Should Expect to See from the IRD

As stated in the Presidential Policy Directive on Critical Infrastructure Security and Resilience, the term resilience is defined as "the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions." Both Davis and Ayyub stress that the primary need for the IRD within ASCE is to develop a consensus approach to advance the concepts of resilience in our nation's civil infrastructure and lifeline systems. In addition, the IRD will serve to actively and strategically coordinate with other ASCE entities as well as allied associations and other stakeholders who focus on resilience, such as FEMA, the NSF, and the National Institute of Standards and Technology. Also, the IRD will provide leadership to units internal and external to ASCE, as well as communities nationally and globally, for civil infrastructure and lifeline system engineering resilience.

Among the products that Davis and Ayyub anticipate will come out of the IRD are new codes and standards, guidelines, manuals of practice, webinars, seminars, pamphlets, and general information. The ASCE journal *Natural Hazards Review* will continue to be published by ASCE but now under the purview of the IRD.

Key to the functionality and organization of the IRD is the creation of 5 technical committees, which are the following:

- The Civil Infrastructure and Lifeline Systems Committee will address

physical and operational hazard-related problems of civil infrastructure and lifeline systems and develop standardized performance metrics, practical applications, guides, and tools useful for each lifeline.

- The Emerging Technologies Committee will provide a forum to explore technologies and advancements in the practice that increase the resilience of civil infrastructure and lifeline systems in hazard-prone areas.
- The Risk and Resilience Measurements Committee will address how risk is used in the civil infrastructure and lifeline systems resilience context and build overarching risk-based lifeline resilience standards.
- The Disaster Response and Recovery Committee will address disaster response and recovery phases for designing resilient infrastructure.
- The Social Science, Policy, Economics, Education, and Decision (SPEED) for Community Resilience Committee will address these aspects of resilience as related to civil infrastructure and lifeline systems to support overall community resilience.

There will also be an Awards Subcommittee which will administer ASCE/IRD awards, including the C. Martin Duke Lifeline Earthquake Engineering Award and the Le Val Lund Award for Practicing Lifeline Risk Reduction. Other subcommittees under the 5 technical committees will be developed in the future as needed.

"I am very impressed with how quickly the new IRD came together to work on ASCE's strategically important mission of resilience of infrastructure," says John E. Durrant, P.E., F.ASCE, ASCE's senior managing director of Engineering and Lifelong Learning. "We have seen with events like Hurricane Katrina and Superstorm Sandy the consequences of not renewing our critical infrastructure to make it resilient.

"What the IRD will achieve within ASCE and our membership is a uniform understanding of resilience, including the accepted procedures, design processes, and standards, so [that] when someone says that something must be resilient, a civil engineer will know what it means, and how to make it so."

The LAO released its analysis of \$9.3 billion in general fund expenditures for resources and environmental programs proposed within Governor's budget, findings include Governor's \$1 billion estimate for revenues from carbon-emission auctions was low, "perhaps by \$1 billion or more," and while 60% of auction revenues are dedicated to specific programs, such as high speed rail, "the Legislature will have options for how to allocate the remaining 40%."

The CA Energy Commission released its 2014 Integrated Energy Policy Report Update, the state's main energy planning document that is produced every two years and updated every other year; outlines how the state is working to transform the transportation system to zero- and near-zero technologies and fuels to meet climate and clean air goals.

Appointments

The Governor made the following appointment:

To California Board for Professional Engineers, Land Surveyors, and Geologists: **Elizabeth Mathieson**, Alameda, licensed expert in the Examination Development Unit, same board; **William Jerry Silva** (reappointed), Upland, reliability compliance manager at Southern California Edison.

Reappointed as state architect, California Department of General Services, Division of the State Architect: **Chet Widom**, Los Angeles, has served since 2011.

As assistant secretary for natural resources climate issues at the California Natural Resources Agency: **Claire Jahns**, San Francisco, project director at the Nature Conservancy.

To California Building Standards Commission: **Steve Winkel** (reappointed), Berkeley, partner at The Preview Group.

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