

# CONNECTION

 SPRING 2011 | ISSUE NO. 4

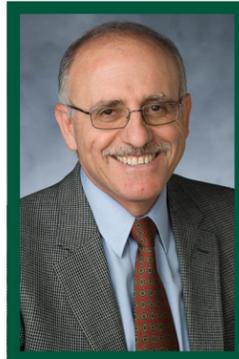
*Your Link to the Department of Civil Engineering*



## INSIDE

- ➔ Mid-Pac to the Max!
- ➔ Kerri Funding Goes Live
- ➔ H2O Boot Camp

# CHAIR'S MESSAGE



*Dear Friends and Colleagues,*

The Spring semester is underway, signaling reflection, renewal, and appreciation. That is particularly appropriate for the exit interview process with graduating seniors, which I have been conducting since 2003. Our graduating seniors have been very thoughtful and interested in giving their feedback on the program.

The exit interview process has been a much more valuable experience for me as an educator than I ever imagined. I hear repeatedly that Civil Engineering students appreciate their experience here at Sacramento State. They like the fact that faculty members are interested and willing to help them. I appreciate the faculty's dedication to helping students succeed.

Spring semester also brings us together with the professional community through the Ken Kerri Endowment Luncheon. This event is becoming a great venue to connect with each other and be energized with wonderful keynote speakers. This year, Phil Isenberg, former Sacramento mayor and state legislator and now a leader in efforts to resolve California's water problems, has agreed to be our keynote speaker. I am looking forward to seeing you again – I encourage you to bring along a friend!

Our ASCE students are working very hard to prepare for hosting (and competing in) the Mid-Pacific Conference. They are also planning a Crab Feed event on March 31 at the Dante Club (please see story on Page 5 for details). This event is part of their effort to raise funds to be able to manage the conference effectively.

Last December, I was invited by the Iraqi Ministry of Higher Education to attend two conferences. My counterparts in Iraq work under very tough conditions and have limited resources (e.g., no Internet access). I admire their hard work and dedication to the students, especially under such difficult circumstances. After spending almost a month in Iraq, I have a renewed appreciation for the contributions of Civil Engineers to society here in the United States. As a matter of fact, Civil Engineers do their jobs so well that most people do not notice our tremendous infrastructure and take its existence for granted.

On behalf of faculty, staff, and the students, I want to thank you for your continued support and efforts in making the Department well rooted in the community. I am looking forward seeing you at the Mid-Pac Conference, during Alumni Week and at the Ken Kerri luncheon on April 20.

Sincerely,

*Ramzi J. Mahmood*



**Team Work: Students in the Spring Senior Project class take part in a team-building exercise. This semester's project: designing a Chico freeway interchange.**

On the cover: Students build their entry for the Mid-Pac concrete canoe competition.

## Annual Event Draws Students, Professionals

More than 165 participants came out for the annual "An Evening with Industry" event last fall.

The audience, which included Civil Engineering students and representatives from 14 local companies, heard an update on the \$420 million Caldecott Fourth Bore Project from keynote speaker Randy Iwasaki, Contra Costa Transportation Authority (CCTA) Executive Director.

In addition to a social hour for interaction between students and company representatives, a panel of industry professionals answered student questions. Panelists included Myriam Fausto, P.E., Sacramento County Department of Transportation; Ruben Robles (B.S.'91, M.S.'93), P.E., Sacramento Regional County Sanitation District; Stacey Bennett (B.S.'08), Bennett Engineering Services; Mark Stanley, P.E., G.E., Kleinfelder, Inc.; and Michael Keever, P.E., Caltrans.



## 50+ Employers at Job Fair

Civil Engineer students, along with other engineering majors, have the opportunity to meet this week with more than 50 employers on campus.

Career Day 2011 is set for Friday, March 11 from 8 a.m. to 3 p.m. in the University Union Ballroom.

Employers will share information about more than 1,000 job openings. A complete list of participants can be found at [www.ecs.csus.edu/career/career-day](http://www.ecs.csus.edu/career/career-day).

# FACULTY

## UP CLOSE



### Professor Saad Merayyan

When Professor Saad Merayyan recently nailed down a two-year \$300,000 contract with the California Department of Water Resources (DWR), it was exactly the kind of opportunity he had come to Sacramento State to pursue. The contract will allow DWR to connect with a broad range of experts, with the Civil Engineering Department as the lead contractor.

At Cal Poly, San Luis Obispo, where Professor Merayyan previously taught, the civil engineering program was strong but local resources were much more limited.

"In Sacramento, there is so much opportunity to interact with professionals and stay abreast of what is going on in the field," he says. "There are a multitude of private sector companies and state agencies here – the Department of Water Resources is a short drive, and I can even walk to Caltrans from campus. In terms of professional growth and opportunity, Sacramento State is a great place to be."

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# STUDENT FOCUS

## Mid-Pac to the Max!

Some universities that host the annual Mid-Pacific Regional Conference keep it simple, with the traditional three project challenges and the essay contest. And some hosts struggle to attract more than a handful of contestants.

Sacramento State is raising the bar this year, planning not only to shine in the competitions but also as a host campus that knows how to stage a big-time event, according to Jeremy Herbert, the student who is handling the role of Mid-Pac coordinator.

It's already working. More than 400 contestants from 13 schools have confirmed they will be attending, including schools like Stanford that have sometimes skipped the conference in the past. Humboldt State, a smaller school with the farthest to travel, has also accepted the Mid-Pac invitation.

"We have a full round of schools participating," Jeremy says. "We got some help in reaching out to the different campuses from ASCE chapters, and we got lucky – teams are very enthusiastic about coming to Mid-Pac this year."

In addition to the concrete canoe, steel bridge, and water treatment competitions, participants will find two new challenges on the agenda:

- The Geotechnical Challenge will involve mechanically stabilizing an earthen wall that meets a set of specifications.
- The Transportation Challenge will serve as a mixer, with students from different schools assigned to a single team. The exact details of the challenge will be secret until the time of the competition.

Jeremy and his team of event chairs have also extended the event for an additional day, with events planned from Friday, April 15 through Sunday, April 17.

Team captains will meet with head judges on the evening of Thursday, April 14. The serious work will begin the next morning at 5 a.m. off-campus at the Aquatics Center at Lake Natoma. The canoe races, the water treatment competition, and the transportation mixer are all slated to be completed by 6 p.m. Participants will adjourn to Old Sacramento for a social evening at the end of the day.

Saturday, April 16 brings the competition to campus, with the steel bridge and geotechnical challenges, as well as the presentation of the ASCE National Daniel W. Mead Student Contest essays. A banquet that evening will feature awards for the winners.

On Sunday, participants are invited to take one or more tours, including an up-close look at the Folsom Dam spillway and a trip to the downtown railyards that are currently in the beginning stages of redevelopment.

Jeremy credits a full roster of student event chairs for each competition with working out all of the details for a successful Mid-Pac. They include Sean DeGuzman, Erin Marquis, Jaimie Davis, Kevan Forbes, Mohammad Hajeer and Jesse Ogren. In addition, Professors Matt Salveson and Benjamin Fell are providing faculty support for the effort. The practitioner adviser is Sacramento State alumnus Josh Wagner (B.S. '09) of the Army Corps of Engineers.



## HOW YOU CAN HELP!

An event for students run by students – Jeremy Herbert says that's the strength of Mid-Pac. Nonetheless, there are plenty of opportunities for alumni and industry supporters to help make Mid-Pac a success.

- ▶ A crab feed fund-raiser will be held at 6 p.m. on Thursday, March 31 at the Dante Club (2330 Fair Oaks Boulevard). Tickets are \$50 per person, with drinks priced at \$5. The event includes a silent auction, music, dancing – and a ballroom dance lesson for the brave and willing! Contact Jaimie Davis at [fundraising.chair@ascemidpac.org](mailto:fundraising.chair@ascemidpac.org) to offer help (funding or serving at the event) or to buy tickets.
- ▶ Judges are already lined up for the Mid-Pac contests. However, the students need volunteers to help on one or more days of Mid-Pac to keep logistics on track. Contact Jeremy at [info@ascemidpac.org](mailto:info@ascemidpac.org) to offer assistance.

# KEN KERRI

Endowment Fund

## Endowment Already Enhancing Department Efforts

The Ken Kerri Endowment Fund is still in the active phase of raising \$250,000 or more to create a permanent source of support for the Civil Engineering Department. That hasn't stopped the steering committee, however, from putting the fund to work even before the goal is reached.

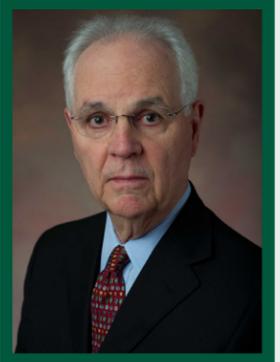
"This is the first year we've funded projects," explains Bill Busath (B.S. '91), chair of the steering committee. "While we are busy building the endowment, our business plan calls for spending 10 percent of the fund on projects each year. We don't want the Department to have to wait to see the benefits from this fund."

The first grant covered the costs of two faculty members attending a conference to present the findings of their research. Professors Ben Fell and Matt Salvesson will present at the Structures 2011 Congress in Las Vegas, an event sponsored by ASCE's Structural Engineering Institute (SEI). A second grant will be awarded this spring, bringing the total spending to about \$5,500.

The grants are one more step toward the Ken Kerri Endowment Fund meeting the multiple purposes envisioned two years ago when the fundraising began. One goal is to honor a much-beloved professor emeritus who pioneered the Office of Water Programs at Sacramento State and who is recognized internationally as a leader in water management issues.

Another central purpose of the endowment is to build a stronger foundation for the education of

future engineers by giving the Civil Engineering Department resources to improve teaching and learning, support faculty research, purchase equipment, and support the development of new and specialty courses.



Phil Isenberg

The endowment fund will be front and center at the Third Annual Ken Kerri Endowment Fund Luncheon on April 20. This year's keynote speaker is Phil Isenberg, former state legislator and Sacramento mayor, and currently a leader in the effort to resolve Delta and statewide water issues.

The luncheon coincides with this year's Alumni Week, an expansion of last year's inaugural Alumni Day. This event brings alumni back to campus to talk to students in classes about the demands and opportunities of today's civil engineering profession.

Although participants in Alumni Week and at the lunch will not be asked for donations, Busath hopes alumni will be reminded how important it is to give back to the program that helped them in their careers.

Busath, himself a 1991 graduate of the Sacramento State program, says Ken Kerri was one of his most influential professors. He credits the program with opening the doors that led to his current position as manager of the Engineering Services Division in the City of Sacramento's Department of Utilities.

"Our hope is for the endowment fund to assist the Civil Engineering Department to become the premier engineering program in Northern California," Busath says.

## HOW TO DONATE

Those who wish to contribute to the Ken Kerri Endowment Fund have two options:

Send a check made out to the Ken Kerri Endowment Fund to:  
University Foundation at Sacramento State  
6000 J Street, Sacramento Hall, Room 118  
Sacramento, CA 95819-6029

Go online to [www.ecs.csus.edu/ce](http://www.ecs.csus.edu/ce), click on Support the Department, and use a credit card. (This page will redirect you to a secure website where you must designate your donation be dedicated to the "Ken Kerri Endowment.")

Since the University Foundation is a federally certified charity, donations to the fund are tax deductible to the extent provided by law.

### Ken Kerri Luncheon

Keynote Speaker: Phil Isenberg on Water Issues  
When: 11:30 a.m. to 1:30 p.m., Wednesday, April 20  
Where: Sacramento State Alumni Center  
Cost: \$25  
**RSVP to Neysa Bush by April 13**  
[nbush@ecs.csus.edu](mailto:nbush@ecs.csus.edu) or 916-278-6982

## Saad Merayyan continued:

Last year, Professor Merayyan was promoted to Associate Professor and granted tenure, another professionally satisfying step on the journey that began in Jordan, where he was born, grew up and received his bachelor's degree in civil engineering at the Jordan University of Science and Technology. He came to the United States in 1993 for his graduate studies, earning his master's degree at the University of Missouri at Columbia in 1995 and his doctorate at Wayne State University in Michigan in 2001.

From the beginning, his interest was in water resource engineering. Before becoming a professor, he worked for Tetra Tech Inc., an international engineering firm that specializes in water and wastewater management. He left the private sector in 2004 to teach at Cal Poly, where he was the lead faculty in water resources and worked to enhance the curriculum and hydraulics lab.



In 2006, Professor Merayyan made the move to Sacramento State, continuing his dedication to water resources. Currently, he is mentoring students who are building a rainfall-runoff simulator for the hydraulics lab. He is also the faculty advisor for the

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# ALUMNI SPOTLIGHT

## Raphael Torres: Focusing on Water Issues

When Raphael Torres joined the California Department of Water Resources (DWR) as a Sacramento State student assistant in 1977, he didn't know he had found a home for his career. What he did know was that the work involved was a perfect fit for his interests.



Two years later, he joined DWR full time after earning his bachelor's degree in Civil Engineering. Today, he is the DWR Deputy Director responsible for the State Water Project – the nation's largest state-owned water and power utility.

In addition to his work for the State, Mr. Torres is an effective advocate for finding ways to promote interaction between the academic and professional worlds of civil engineering. He sees the cross-fertilization of ideas as extremely valuable for both sides.

"The exchange of information in both directions is important," he says. "Professors can get a better handle on what the industry needs with regard to curriculum content. Those in the field can stay abreast of the latest academic developments. And students benefit because they are better prepared for what they will find in the work world after they graduate."

Mr. Torres is particularly excited about a recent interagency contract that will make it easy for DWR engineers to reach out to the Civil Engineering Department for expertise. He hopes that part of

the contract will be used to embed professors in the department, perhaps for a summer program of consulting and collaboration.

In the meantime, he is playing his part in the information exchange, serving on the university's Civil Engineering Program Industrial Advisory Committee (CEPIAC) and talking to different student groups, such as the student chapters of the Society of Hispanic Professional Engineers (SHPE) and the American Society of Civil Engineers (ASCE).

While he recognizes the Civil Engineering curriculum is already crowded with essential information and skills, Mr. Torres would like to see students learn more about some of the critical water management issues that California faces. It's a topic he has been invited to lecture about in several classes over the years.

"For example, in California levees are extremely important, yet I don't recall any coursework that actually addresses levee design and function," he says. "And then there are dams – overall, there are about 4,000 dams in the state, so their design, construction and management are extremely important."

Despite his inclination to push for more water management education, Mr. Torres is quick to make it clear he believes Sacramento State already is doing an outstanding job of preparing students to be civil engineers.

“Sacramento State has one of the premier programs in Civil Engineering.”

— Raphael Torres

"Sacramento State has one of the premier programs in Civil Engineering," he says. "I have had the opportunity to work with engineers from all over the world, so I know what I'm talking about. It's important for students to know that when they graduate from Sacramento State in Civil Engineering, it opens the door for just about anything they want to do."

## Water Treatment Boot Camp Puts Students on the Spot

Dr. John Johnston gave students a chance to demonstrate what they learned in his class by staging a Water Treatment Boot Camp competition last semester.

Kristen Martin, project manager for the 2011 Sacramento State ASCE Water Treatment team, reports that students were "exposed to principles of water treatment and testing methods" in class and then participated in a mini-water treatment competition to apply what they had learned.

"The event was very successful, and our design process for Mid-Pac this year is more sophisticated because our team members have more background," Kristen says. "We are planning on making the Water Treatment Boot Camp an annual fall event for the ASCE Water Treatment team."



## Saad Merayyan continued:

student chapter of Engineers Without Borders (EWB), an organization that supports projects in 45 developing nations around the world.



His research interests include watershed management and modeling, hydraulics, and the impact of climate change on water resources. These interests are reflected in a number of his activities outside of the campus. He is a member of the State Mitigation Assessment Response Team (SMART), a task force that looks at investments in hazard mitigation projects to determine their effectiveness. He is also on the groundwater monitoring advisory group for the California Regional Water Quality Control Board, Central Valley Region, participating in the effort to develop guidelines for water monitoring and contamination containment.

Professor Merayyan has a busy home life as well, with soccer serving as a focal point. His wife, Amani Younis, teaches in the Kinesiology and Health Science Department at Sacramento State. They have two children, 8-year-old Zayd and 4-year-old Noor.

# CEPIAC

## CEPIAC: Inviting Industry Back to School

Talk to the people who sit on the Civil Engineering Program Industrial Advisory Committee (CEPIAC), and a pattern quickly emerges. They became involved because the quality of civil engineering education is important to them – but they stuck around because they could see their input turning into action.

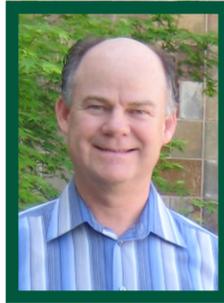


Take John Baker, P.E., Senior Vice President for Kleinfelder, Inc. The program at Sacramento State is a top source for the many civil engineering graduates hired by his company, which operates in 23 states. He has been a member of CEPIAC for

more than 15 years.

“More than most departments at other universities, the Sacramento State Civil Engineering Department recognizes that having input about curriculum from industry is very important,” he says. “You can get lost, being isolated in academia. At Sacramento State, they haven’t gotten lost; they are very attuned to what is happening in the industry.”

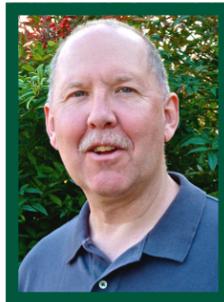
Several years ago, Mr. Baker suggested that the Civil Engineering Department try bringing students and engineers together in a social setting – an idea modeled after an event at UC Berkeley, where he earned his degrees. The result is the highly successful fall event, “An Evening with Industry,” which features a keynote speaker, an industry panel, and time for networking between students and professionals.



Rick Liptak, P.E., President of Dokken Engineering, has seen his own suggestions come to life. A graduate of Chico State where he stays involved in alumni activities, he suggested and then co-organized a highly successful Alumni Day for Sacramento State last year. The event, which will be repeated this year as Alumni Week, brings professionals into classrooms

so students can talk to them directly about career realities.

“I got involved in CEPIAC when I was invited to speak on campus,” he says. “I made some observations, offered some ideas – and I noticed they acted on them. That impressed me, so I wanted to become more involved. It’s a great program that just keeps getting stronger.”



Phil Brozek, P.E. (B.S. ‘79), who retired last year from the U.S. Army Corps of Engineers and now operates Brozek & Associates, is another long-time CEPIAC participant. As a Sacramento State graduate, he has strong personal reasons for being involved.

“Some people donate blood, or give to their church, or feed people at a homeless shelter,” he explains. “The ability to get an engineering degree with affordable tuition at Sacramento State made a tremendous difference in my life, so that’s where I donate my time and resources.”

Mr. Brozek sees the program as a strong nexus of theory and practice, and he credits the involvement of professionals in building that strength.

“The theory part is easy – the professors have that down solid,” he says. “The practitioners are able to work with the professors through CEPIAC and help provide balance to the program. It makes the program much more powerful than if it were a theory-only program.”

# NEWS & NOTES

## Students

### SEAOCC Wins for Students...

For the third year in a row, Sacramento State Civil Engineering students won the Structural Engineers Association of Central California (SEAOCC) Student Design Competition. The students were given specifications to design and build a wood structure. Judges then considered the maximum load (70 percent of the total score) and student presentations (30 percent) to reach their final decision. The first-place team was awarded \$1,000, which will help fund future SEAOCC activities on campus. The team members were Jesse Ogren (captain), Oak Bastian, Joseph Forbis, Yoputra Lang, Vanessa Morones, Andrei Sapun, and Adam Youngson. In addition, Jeffrey Riley received a \$750 SEAOCC scholarship in recognition of his outstanding academic and extracurricular record.



### The December Walk...

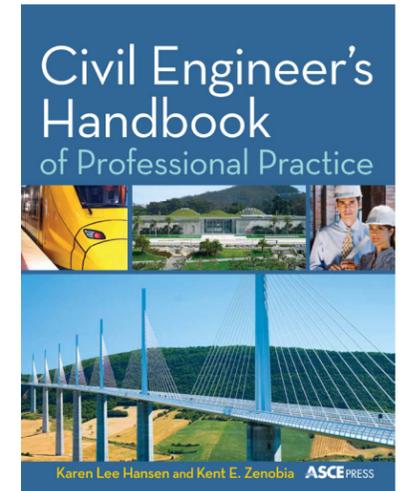
Forty-nine students completed degrees in December 2010. Six students earned MS degrees, 38 received their bachelor degrees in Civil Engineering, three received bachelor degrees in Construction Management, and two students earned second bachelor degrees in Civil Engineering.

Sac State Alumni Kit Miyamoto and his company, Miyamoto International, are helping Haiti recover.

## Faculty

### Book Coming Soon...

In April, a new book by Professor Karen Lee Hansen and Adjunct Professor Ken Zenobia will be published. Civil Engineer’s Handbook of Professional Practice builds on the essential skills and knowledge identified in the American Society of Civil Engineers (ASCE) landmark publication, Civil Engineering Body of Knowledge for the 21st Century, known as BOK2. The handbook is the first single-source guide to take the practical skills defined in BOK2 and provide techniques, quotes, case examples, problems and information to assist the reader in addressing the many challenges facing civil engineers in the real world. The book will be published by John Wiley & Sons in conjunction with ASCE.



## Alumni

CE Connection shares news about alumni from across the years. If you would like to be included in the next issue, send information to [ceconnect@ecs.csus.edu](mailto:ceconnect@ecs.csus.edu). [Note: Unless otherwise indicated, graduates received bachelor degrees in Civil Engineering at the end of the academic year specified.]





# NEWS & NOTES

## Alumni

Send news to: [ceconnect@ecs.csus.edu](mailto:ceconnect@ecs.csus.edu)

### 2009

David Barth, a Fall 2009 graduate, is working for the California Department of Water Resources as a Water Resource Engineer in the North Central Regional Office. His current assignment is to study the effects temporary barriers have on sedimentation in the South Delta. He reports, "The classes that I took that I find most useful: all of my water-related classes, CE 101 (I use VBA almost every day), and CE 190 (report writing and presentation). I found the classes with memo assignments (Enviro with Dr. Johnston and distribution system design with Dr. Ohlinger) were very helpful in developing an understanding of the material and conveying information to others, skills I use daily at work." David and his wife were expecting their first child as CE Connection was being published; they anticipated having a daughter they plan to name Haley.

### 1997

H. Kit Miyamoto, PhD, P.E., S.E. (MS '97) is CEO of Miyamoto International, a global earthquake and structural engineering firm based on the West Coast. "I currently spend 50 percent of my time in Haiti," he reports. "We are working with the Haitian government, the United Nations and NGOs [non-governmental organizations] to strategize and implement reconstruction efforts following the 2010 earthquake. We trained over 600 Haitian engineers and 1,000 contractors. In conjunction with Haitian Ministry of Public Works, we assessed over 400,000 buildings and have started repairing 100,000 damaged buildings." He earned his Ph.D. from Tokyo Institute of Technology, was elected as an ASCE Fellow and was named a 2011 Distinct Alumni by California State University, Chico.

### 1991

Ruben R. Robles, a Fall 1991 graduate who completed his MS in Civil Engineering in Fall 1993 and his MBA in

June 1999, was recently promoted to Director of Sacramento Regional County Sanitation District Operations. He manages almost 400 staff at the Sacramento Regional Wastewater Treatment Plant, which provides wastewater treatment and conveyance for 1.3 million people in the greater Sacramento region. He began his career with the district in 1992.

### 1974

Raymond Yep, who graduated with an MS in civil/environmental engineering and who notes that Professor Ken Kerri was his advisor, has worked for the past 10 years for the Santa Clara Valley Water District in San Jose as the Water Utility Operations and Maintenance Division Manager. Prior to that, he worked for CH2M Hill for 22 years and shorter times at other companies. He is a registered PE in California.

### 1966

Bob Douglass, a January 1966 graduate, is a registered civil engineer who received his MSCE from San Jose State in 1972. He is the former manager of property for Cargill Salt in the San Francisco Bay Area, including being the lead negotiator for Cargill's 16,100-acre sale of salt pond to the federal and state government. He is currently a consultant to Cargill and other clients on wetlands restoration. In addition, he is Chairman of the Ohlone College Foundation, the charitable arm for the community college in Fremont and Newark. He was campaign chair for Ohlone's November 2010 bond issue election, a \$349 million dollar bond that was the largest education bond passed in California in the recent election cycle. He is also assistant track coach at American High in Fremont and a retired United States Marine Colonel.

### 1964

W. Martin Roche followed his bachelor's degree in Civil Engineering with an MS in Water Resources in 1972 and an MS from Stanford University in 1965 in Engineering Economic Systems. After 27 years with the U.S. Bureau of Reclamation and more than five years with Turlock Irrigation District, he has spent the last 16 years as a consultant in water resources and disaster recovery work for Federal Emergency Management Agency (FEMA).