CSU The California State University WATER RESOURCES AND POLICY INITIATIVES

www.calstate.edu/water

WRPI 7th Annual Conference April 9-10, 2015 Fresno, CA





Water Resources and Policy Initiatives

5500 University Pkwy, San Bernardino, CA 92407 + 909-537-7681 + FAX 909-537-7682 + www.calstate.edu/water

Vision

The Water Resources and Policy Initiatives (WRPI) will help achieve a long-term, sustainable water supply for California through education, research, and policy development while balancing the needs of urban, agricultural, and environmental concerns.

Mission

The Water Resources and Policy Initiatives will link the capabilities and resources within the 23 California State University campuses to provide academic preparation, applied research, and policy development that addresses all aspects of water use. WRPI optimizes and links the many centers and programs of excellence within CSU on water issues. The scope of WRPI activities include:

- Provide critical faculty- and staff-based expertise to support California's need for appropriate and sustainable water resources in the 21st century.
- Promote education, training, and professional capacity development with the water industry, governmental agencies, and the wider community.
- Develop new and advanced water technologies and services to help drive economic development and job creation.

WRPI will also enhance the universities' ability to attract exceptional students and faculty by providing a culture of collaboration and innovation within a multidisciplinary water curriculum.

Key Goals

The goals listed below support the key elements in the WRPI mission. The goals reflect the CSU comparative advantage in addressing current and emerging statewide water issues. WRPI will be a leading resource for:

Partnerships with the water industry and government agencies – WRPI will engage a broad group of water industry stakeholders and government agencies to leverage university resources to pursue the development of "good science" from which to base decision making and emerging water policy.

Education, training, and professional capacity building – WRPI will raise awareness of careers in water and develop academic pathways for the next generation of professionals to meet the needs of businesses, government officials, tribal nations, water professionals, and the general public through outreach and training programs, professional capacity building, university curriculum development, and formal post-secondary and graduate education.

Technology and economic development – WRPI will provide a strong science base and business development support to help commercialize new ideas in water industries, services, and professions in California. The outcome will be a creative climate of innovation, furthering economic growth in water technology.

WRPI Annual Conference Agenda

April 9, 2015 California State University Fresno, Alice Peters Auditorium

"Three Years into the Drought: Assessing California's Agriculture"

8:00 am	Conference Registration and Continental Breakfast	
8:45 am	Welcome President Joe Castro, Provost Lynnette Zel	
9:00 am	Conference Overview	Boykin Witherspoon
9:15 am	Quick Introductions All	
9:45 am	Bay Delta PanelMeredith McKenzie (moderator), Charles Gardner, Jim Beck, Curt Sc	
10:45 am	Network Gottschalks Gallery or Duncan Patio	
11:00 am	Imagining a New Water Future Charles Fishman	
11:45 pm	Lunch Gottschalks Gallery	
12:30 pm	Student Poster Session	PB-194
1:15 pm	CSU Presentations <u>FACULTY</u> -Application of Microbial Fuel Cells for Recycling Distillery and Winery Wastewaters -Water Transfers From Agriculture: Estimating the	Michael Cohen, Sonoma Eric Houk, Chico
	Impact of Foregone Production and Aquifer Decline in Northern California	Life Houk, Chico
	<u>STUDENT</u> -California State University Bakersfield Campus Water Audit	Lilian Rubi and Gurleen Kaur, Bakersfield
2:05 pm	Network	Gottschalks Gallery or Duncan Patio
2:25 pm	Fresno State Faculty PanelProvost Zelezny (moderator), Antonio AEconomic Impact of the Drought for the San Joaquin ValleyChih-Hao Wang, Samendra Sherchan Neil Chowdhury, Matt Jendian, Fayzul Jes Therkelsen	
3:15 pm	Network	Gottschalks Gallery or Duncan Patio
3:30 pm	Water-Wise Farming	Valerie Mellano
4:15 pm	Wrap up and Comments	Boykin Witherspoon
4:30 pm	Conference Adjourn	
4:45 pm	Wine and Cheese Reception	Fresno State Wet Lab*
6:30 pm	Public Forum with Charles Fishman (optional)	Peters Education Center Auditorium

*CSUF vans available to transport to/from the Wet Lab; bus available to transport to/from the Holiday Inn Express Clovis

Fresno Agriculture Tour

April 10, 2015

8:15 am	Load bus
8:30 am	Bus departs Holiday Inn Express Clovis
9:00 am	Friant Dam
10:45 am	City of Fresno Surface Water Treatment Plant
11:30 am	Wawona Frozen Foods
12:30 pm	Lunch provided on bus
1:30 pm	Meyers Farm
Approx. 3:30 pm	Bus arrives at Holiday Inn Express Clovis



WELCOME MESSAGE



Boykin Witherspoon III Executive Director, WRPI

Dear Conference Attendees:

Welcome to the 7th Annual WRPI Conference! Thank you for taking the time out of your busy schedules to spend the day with us. I am looking forward to updating you on WRPI's activities over the past year, which include the continuation of our successful USDA internship program as well as a few new ventures such as a partnership with the EPA, the creation of our Disadvantaged Communities Center, and our research and webinars related to funding opportunities though Proposition 1. These endeavors benefit not just our students and campuses, but also the state as a whole.

As the California drought continues and conditions worsen, we thought it was critical to explore our state's agricultural resources and innovations. CSU faculty and students are conducting research to monitor water use, while creating new practices to lessen the impact of the drought on crops and communities throughout the state. Although the majority of agriculture is rooted in Central California, the consequences of the drought on agriculture and food supplies spread to the entire state and country. It is imperative that academia, industry, and agriculture create partnerships to preserve water, which is why the Conference Planning Committee and I have selected our theme: **"Three Years into the Drought: Assessing California's Agriculture."**

I encourage you to take advantage of this event by networking and looking for ways to collaborate with old and new colleagues as we work together as the CSU system to solve California's water problems and help lead us to a sustainable future.

I hope you enjoy the Conference, and I look forward to meeting you.

Sincerely,

Boykin Witherspoon II

Special thanks to the WRPI Conference Planning Committee:

Pitiporn Asvapathanagul Nicole Barnhart John Crockett Julianna Delgado Kathleen Firstenberg Sandra Jimenez Julie Lappin Saad Merayyan Phoolendra Mishra Laura Ramos Elise Rodriguez Monica Santander Maryam Shafahi Ali Sharbat Alan Styles William (Bill) Trush Dessie Underwood Dilruba Yeasmin Lynnette Zelezny David Zoldoske

Welcome from Fresno State



President Joe Castro

5200 N. Barton Avenue, M/S ML48 Fresno, CA 93740 559-278-2324 josephcastro@csufresno.edu

Joseph I. Castro was appointed as the eighth president of California State University, Fresno on August 1, 2013. He is the first Central Valley native to serve in this leadership position. Dr. Castro also serves as Professor of Educational Research and Administration in the Kremen School of Education and Human Development.

Prior to his appointment at Fresno State, he served as Vice Chancellor, Student Academic Affairs at the University of California, San Francisco (UCSF) from 2006-13. During that time, he led an array of

departments that served the academic needs of UCSF's talented and diverse student body.

Dr. Castro served as Professor of Family and Community Medicine in the UCSF School of Medicine, where he conducted research and taught courses on policy, leadership and diversity issues. Over a 23-year period, Dr. Castro served in a variety of faculty and administrative positions within the UC system at the Berkeley, Davis, Merced, and Santa Barbara campuses, as well as at the Office of the President.

He received a B.A. in political science and M.P.P. in public policy from University of California, Berkeley and Ph.D. in higher education policy and leadership from Stanford University.

Dr. Castro was recently selected as the 2014 Alumnus of the Year by the University of California, Berkeley Richard and Rhoda Goldman School of Public Policy. He is also the recipient of the 2010 Martin Luther King, Jr. Award at UCSF and the 2010 University of California Student Association's Administrator of the Year Award. In 2011, he was awarded the prestigious International Cooperation Dedication Award from the Beijing Municipal Education Commission. In 2012, the UCSF Council of Minority Organizations recognized Dr. Castro for his extraordinary contributions to advancing diversity at UCSF.

Dr. Castro is the grandson of farmworkers from Mexico and members of the San Carlos Apache Tribe. He was born and raised in Hanford, CA and is the first person in his family to graduate from a university. He and his wife, Mary, have three children, Isaac, Lauren, and Jess.



Provost Lynnette Zelezny, Ph.D., M.B.A.

5200 N. Barton Avenue, M/S ML54 Fresno, CA 93740 559-278-2636 lynnette@csufresno.edu

Dr. Lynnette Zelezny serves as the Provost and Vice President of Academic Affairs at California State University, Fresno. As the Chief Academic Officer at Fresno State, she serves over 23,000 students. Dr. Zelezny serves on the President's Cabinet and oversees 1,500 faculty, 8 academic colleges including the College of Arts and Humanities, College of Health and Human Services, College of Science and Math, College of Social Sciences, Craig School of Business, Jordan College of Agricultural Sciences and Technology, Kremen School of Education and Human Development, Lyles College of Engineering, as well as the Division of Continuing and Global Education and the Henry Madden Library.

Dr. Zelezny earned her Ph.D. (1998) in Psychology from the Claremont Graduate University and her M.B.A., with distinction, from Fresno State (2005). She earned a B.A. (1979) and M.A. (1981) in Psychology from Humboldt State University. Dr. Zelezny has published research related to the environment, health, and leadership. As a Professor of Psychology, she taught Statistics, Research Methods, Environmental Psychology, and Social Psychology at Fresno State for more than 20 years. Dr. Zelezny was also a visiting professor at the University of Stockholm, Sweden in 2001, and received a Fulbright International Education Administrator grant (2012) in Germany.

Dr. Zelezny has professional certificates in Management from Harvard University, and in Executive Leadership from the Wharton School of Business. In 2009, she served as an American Council of Education (ACE) Fellow.

GUEST SPEAKERS

Bay Delta Panel



Meredith McKenzie

Lecturer, Urban & Regional Planing Department, Cal Poly Pomona 3801 West Temple Avenue Pomona, CA 91768

805-455-3955 mcmckenzie@csupomona.edu

Since 2008, Meredith McKenzie, JD, has been a lecturer in the Urban and Regional Planning Department and a Fellow of the John T. Lyle Center for Regenerative Studies at Cal Poly Pomona. Raised in a midwestern farming community, Meredith has served as a 4-H Leader and, as a 4-H member, won the top Public Speaking/Demonstration Award at the Ohio State Fair. An expert in California water law and policy, McKenzie's research focuses primarily on ecosystem integrity and urban stream restoration. She has worked on a variety of river restoration projects along the Upper Kern River, Lower Ventura River, and Los Angeles River Watersheds, including producing/directing a video documentary about the 2008 award-winning Central Arroyo Stream Restoration Project in Pasadena, which reintroduced native fish into an urban waterway. A licensed

California real estate broker, McKenzie has managed a number of sustainable urban land use projects for such clients as Los Angeles Eco-Village, Los Angeles Bicycle Kitchen, and Panther Ridge Urban Farm. In addition, she and her students have produced more than ten river's edge urban neighborhood designs for communities along the Los Angeles River, including the Canoga Park High School Headwaters Park, currently under consideration for inclusion as an official LA River Revitalization project.



Jim Beck

General Manager, Kern County Water Agency 3200 Rio Mirada Drive Bakersfield, CA 93308

661-634-1400 jbeck@kcwa.com

Jim Beck is the General Manager of the Kern County Water Agency and oversees a wide range of water management activities in Kern County that include coordinating local participation in the State Water Project, developing and operating groundwater banking programs, and operation of the Cross Valley Canal. Jim received his master's degree from the University of Pittsburgh Graduate School of Public Health, Bachelor Degrees in Biology and History from the University of Pittsburgh, and is a certified water treatment operator, water distribution operator, and water quality analyst. He has worked for the Agency for over 30 years. Jim and his wife, Diane, have been married for over 33 years and they have two sons, Chandler and Braden.



Charles Robert Gardner, Jr.

President and CEO, Hallmark Group, Inc. 1901 Royal Oaks Drive Suite 200 Sacramento, CA 95815

916-923-1500 cgardner@hgcpm.com

With over 30 years of organizational leadership and strategic planning experience, Mr. Gardner's projects include a wide range of complex and politically sensitive programs requiring creative collaboration with influential stakeholders. Since 1998, he has worked closely with public and private entities on innovative projects that are significant to the state of California. Mr. Gardner's deliverable-based approach encourages accountability and efficient organization of multiple stakeholders to enable projects to move through seemingly intractable issues. Mr. Gardner's most recent project is the Bay Delta Conservation Plan; a program designed to provide a more reliable water supply to California residents and

restore habitat in the Delta. Education and professional affiliations include: Harvard Business School, Leading Professional Service Firms Certificate; Member of the Society for Mining, Metallurgy & Exploration; Strategic Leadership and Management Certificate; Construction & Design Build in California Certificate; CM at Risk Contracting Strategies Certificate; BS, Economics, North Carolina State University.



Curt Schmutte, PE

Engineering Consultant, Metropolitan Water District of Southern California 530-219-9369 schmutte@me.com

Mr. Schmutte is a civil engineer and manager specializing in water resources and environmental planning. He is currently a consultant for the Metropolitan Water District of Southern California. Prior to his association with MWD that began in 2006, he worked for the California Department of Water Resources for 21 years. Mr. Schmutte has led multiple programs and projects involving the Sacramento - San Joaquin River Delta and Suisun Marsh, including levee improvement programs, land subsidence research, economic risk analyses, dredged material reuse projects, water quality studies, and environmental restoration projects. Since joining the MWD effort, he has been managing large scale ecosystem

restoration projects, planning emergency drought actions to protect Delta water quality, implementing seismic flood risk mitigation strategies, planning actions to protect Delta smelt, and advancing new conceptual water conveyance alternatives to achieve a sustainable Delta for both water supplies and the ecosystem. He also served as a lead expert witness for DWR on the Jones Tract levee failure litigation.

GUEST SPEAKER

Charles Fishman

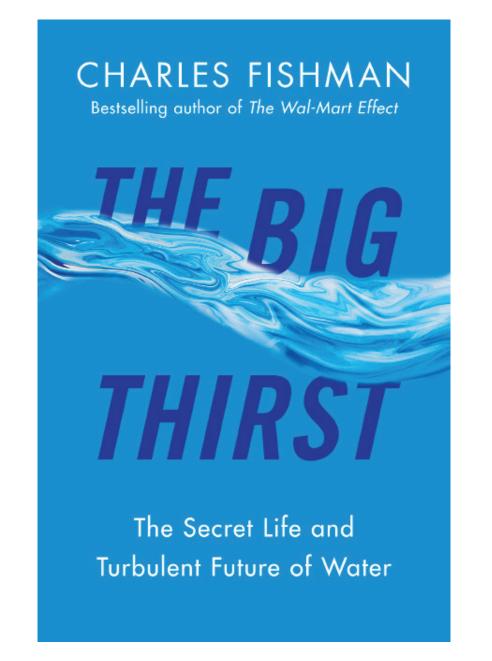


Charles Fishman Author, *The Big Thirst* and *A Curious Mind* http://www.thelavinagency.com/speaker-charles-fishman.html

Charles Fishman is the author of *The Big Thirst: The Secret Life and Turbulent Future of Water*, the bestselling book on water in America in the past 25 years. An award-winning senior writer for *Fast Company*, Fishman is a celebrated investigative journalist. His new book, *A Curious Mind* (co-authored with Hollywood producer Brian Grazer), examines the power of curiosity.

Charles Fishman's book, The Big Thirst, examines how water resources will come to define this century; a year into its release, the book is a popular common read on college campuses and a must-read in boardrooms. In The Big Thirst, Fishman helps redefine how we look at water, our most essential but, in many ways, misunderstood resource.

Fishman highlights water's vital role in the business sector (especially to businesses who seemingly have nothing to do with water!) and points to the many contradictions of water in the developing world, leaving audiences with a hopeful vision of how current wasteful ways can be curbed through ingenuity and conscientious stewardship. Extending his coverage, Fishman now also blogs about water for National Geographic.



GUEST SPEAKERS



Michael Cohen, Sonoma State University

Associate Professor http://cohenlab.pbworks.com/ 1801 East Cotati Ave, Darwin Hall, Room 222 Rohnert Park, CA 94928

707-664-3413 cohenm@sonoma.edu

Michael Cohen is an Associate Professor for the Department of Biology at Sonoma State University. Subjects include environmental microbiology, microbial fuel cells, anaerobic digestion, and constructed wetlands. Michael holds a Ph.D. from the University of California Davis. Postdoctoral experience includes Veterans Administration Hospital (Sepulveda, CA), University of Ryukyus (Okinawa, Japan), and USDA-Agricultural Research Service (Wenatchee, WA). His laboratory's research program includes studies on a diverse array of environmental microbes as well as the development of affordable systems for concomitant bioremediation and bioenergy production.



Eric Houk, CSU Chico

Professor of Agriculture and Science Director, Center for Water and the Environment 400 West First Street, PLMS 317 Chico, CA 95929 ehouk@csuchico.edu

CSU Presentations

Dr. Eric Houk is a Professor of Agricultural Business and the Science Director for the Center for Water and the Environment (CWE) at CSU Chico. Dr. Houk's research has primarily focused upon issues relating to efficient water resource allocation. He has estimated the economic impacts associated with water transfers from agriculture to instream flows for endangered species, the effect of irrigation induced waterlogging and soil salinization on agricultural production, and the response of residential water users to water conservation materials. Dr. Houk is currently examining the impact of water transfers in northern California.

Gurleen Kaur, CSU Bakersfield Graduate Student

9001 Stockdale Highway Bakersfield, CA 93311

gkaur1355@gmail.com

Gurleen Kaur is a graduate student in the Department of Geological Sciences at California State University, Bakersfield. She is currently working on a water audit on campus to determine ways to efficiently conserve water. Her thesis itself is on determining geochemical and geophysical parameters of soil that supports the growth of *Coccidioides immitis*, which causes Valley Fever in the southwestern United States.

Lilian Rubi, CSU Bakersfield

Graduate Student 9001 Stockdale Highway Bakersfield, CA 93311

951-805-0587 Irubi08@csu.fullerton.edu

Lilian Rubi is currently a master's candidate for the geology department at California State University, Bakersfield. Her current research concentrates on constructing a paleoclimate record that likely spans a 5-10 kyr period around the end of the Pleistocene for Tulare Lake in the San Joaquin Valley. She is attempting to present the record in a way that accounts for the impact of hemisphere-wide, millennial-scale climate change on precipitation in the Sierra Nevada. Her research is being supported by the USDA WRPI and the NSF CREST grant at CSUB.



Valerie Mellano, Cal Poly Pomona

Chair/Professor, Plant Sciences Department Interim Chair Agribusiness & Food Industry Management 3801 W Temple Ave 909-869-2809 Pomona, CA 91768 vjmellano@csupomona.edu

Valerie J. Mellano, Ph.D., has been the Department Chair of the Plant Science Department at Cal Poly Pomona since September of 2012. Prior to that time, she was the County Director and Cooperative Extension Advisor for University of California Cooperative Extension in San Diego County, primarily working on water quality issues at they pertain to agriculture. Dr. Mellano has a Ph.D. in Plant Pathology from UC Riverside, a B.S. in Animal Science, and M.S. in Plant Pathology from Montana State University.

Fresno State Faculty Panel

Antonio Avalos, Associate Professor and Chair

5245 N. Backer, M/S PB20 Fresno, CA 93740

Dr. Antonio Avalos holds a Ph.D. in Economics from Oklahoma State University, specializing in economic development and regional economics. In the past, Dr. Avalos has worked as Herman Kahn Fellow at the Hudson Institute in Indianapolis. He was also a visiting scholar at the Andean Corporation of Development in Caracas, Venezuela, where he conducted applied research in economic development and labor markets in Latin American economies. Dr. Avalos has an extensive research and publication record in economic and fiscal impact analysis, as well as public policy analysis. Currently, he is an associate professor of economics at Fresno State.

Neil Chowdhury, Assistant Professor

5225 N. Backer, M/S CA65 Fresno, CA 93740

Mr. Chowdhury is an Assistant Professor of Photography at CSU Fresno. He was Assistant Professor and Director of the photography program at Cazenovia College, Cazenovia, New York from 2006-2013. He has taught a study abroad course to India through the University of Connecticut; was full time Assistant Professor of Photography at Zaved University. Dubai, The United Arab Emirates; and has taught classes at Light Work Community Darkrooms, Syracuse, NY; the College for Creative Studies, Detroit, Michigan; and at the University of Washington, Seattle, where he earned an M.F.A. in Photography.

Matt Jendian, Professor, Chair

5340 N. Campus Drive, M/S SS97 Fresno, CA 93740

Matthew Ari Jendian was born and raised in Fresno and received his B.A. in sociology and minor degrees in psychology and Armenian Studies from Fresno State (1991) and his Ph.D. from USC (2001). Dr. Jendian is founding director of the Humanics Program in Community Benefit Administration at Fresno State and serves as a tenured Full Professor and Chair of sociology.

Fayzul Pasha, Assistant Professor

2320 E. San Ramon, M/S EE94 Fresno, CA 93740

As a professional engineer and Assistant Professor in Water Resources Engineering, Dr. Pasha's work focuses on the energy-water nexus. Energy efficiency and conservation, efficient use of water in energy generation and distribution, water conservation, and above all the development of water resources are his research interests. Dr. Pasha is experienced in quantitative analysis, modeling, and tool development in energy-water resources planning and management using statistical methods, numerical techniques, optimization theories, geospatial processing (GIS), and machine learning approaches.

Samendra Sherchan, Assistant Professor of Public Health

2345 E. San Ramon, M/S MH30 Fresno, CA 93740

Dr. Sherchan's specific areas of expertise include environmental health, water quality, and water reuse. He teaches undergraduate courses in Environmental Health Concepts, Environmental and Human Health, Water Quality and Health, Public Health Microbiology, Vector Control, and Water Reuse. Research interests include: water and wastewater treatment; indirect and direct potable reuse: water quality, public health, and public perception; advanced oxidation processes; trace organic contaminants; environmental microbiology (disinfection and methods); occurrence, fate, and transport of emerging contaminants in water; emerging technologies for water management, treatment, and reuse; remediation of contaminated sites, land application of biosolids; microbial source tracking, TMDL projects; advanced molecular techniques for quantifying microbial infectivity.

Jes Therkelsen, Assistant Professor

2225 E. San Ramon, M/S MF10 Fresno, CA 93740

Jes Therkelsen teaches documentary production and storytelling in the Department of Mass Communication and Journalism at CSU Fresno, and is also a member of the Water Cohort on campus.

Chih-Hao Wang, Assistant Professor

2555 E. San Ramon, M/S SB69 Fresno, CA 93740

559-278-6041 cwana@csufresno.edu

Dr. Chih-Hao Wang received his Ph.D. (2013) and Master (2010) degrees in City and Regional Planning at The Ohio State University. Before joining the department in 2014. he was a Visiting Assistant Professor in the City and Regional Planning Section of the Austin E. Knowlton School of Architecture at The Ohio State University. Dr. Wang's research focuses on environmental planning from the perspective of natural hazard mitigation. Another of his research interest is to apply spatial statistics to analyze spatial or social interactions in earthquake process, transportation planning, and water management.

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ATTENDEES

Andres Aguilar

Assistant Professor California State University, Los Angeles 5151 State University Drive Los Angeles, CA 90032 323-343-2078 aaguil67@calstatela.edu

Andres Aguilar studies conservation and evolutionary genetics, and has worked on a number of systems including native freshwater fish in California, terrestrial amphibians, and vernal pool crustaceans. Relevant publications include: Complex phylogeography and historical hybridization between sister taxa of freshwater sculpin (Cottus); Impact of dams on distribution and hybridization of two species of California freshwater sculpin (Cottus); Elevated genetic structure in the coastal tailed frog (Ascaphus truei) in managed redwood forests; Life history and biogeographic diversification of an endemic Western North American freshwater fish clade using a comparative species tree approach; and more.

Samantha Aguirre

Student San Diego State University San Diego, CA samantha_aguirre@live.com

Samantha Aguirre is a Senior at SDSU-IVC. She will be graduating this May with a Bachelor's degree in Criminal Justice. She plans to pursue a Master's degree in Public Administration at SDSU upon graduation. She has a 3.80 GPA and has been on the dean's list since her sophomore year of college. She participated in the Watershed Management Experiential Learning for the USDA internship program in the summer of 2014, where she was selected as a Rangeland Management Intern for the USDA's Forest Service in northern California's Klamath National Forest.

Dirk Baron

Professor of Geology; Chair Department of Geological Sciences California State University, Bakersfield 9001 Stockdale Highway Bakersfield, CA 93311-1099 661-654-3044 dbaron@csub.edu

Dirk Baron is a Professor of Geology and the Chair of the Department of Geological Sciences at CSU Bakersfield. His expertise is in hydrogeology and environmental geochemistry. His research is on the behavior of trace elements in soils and groundwater and on geochemical implications of proposed geologic carbon sequestration projects. He also has a long-standing engagement in outreach to K-12 schools.

Mike Mustafa Berber

Assistant Professor California State University, Fresno 2320 E. San Ramon Fresno, CA 93740 559-278-2974 muberber@csufresno.edu

Mr. Berber is an Assistant Professor of Geomatics Engineering in the Department of Civil and Geomatics Engineering at CSU Fresno. His area of expertise is in Geodesy, GPS, Geodetic Surveying, and Hydrographic Surveying.

Eric Boime

Associate Professor, History San Diego State University 5500 Campanile Dr. San Diego, CA 92182 760-768-5535 eboime@mail.sdsu.edu

Mr. Boime is an Associate Professor at San Diego State University-Imperial Valley Campus. As an environmental historian, he is currently writing a history about the Colorado River Delta and the international competition for Colorado River Resources. The manuscript looks at the intersection of race, citizenship, and nature on the irrigated borderlands of Mexicali (Mexico) and Imperial (USA). He has published three articles on this subject. The future livelihood of San Diego and Los Angeles entirely depends on water transfers from the Imperial Valley, prompting many to ask how such small desert communities were able to commandeer so much of the region's most critical resource.

Noel Briseno

Student San Diego State University San Diego, CA briseno.noel@gmail.com

Noel Briseno is a student at San Diego State University. He is a civil engineering major and plans to graduate this semester.

David Brown

Professor California State University, Chico 400 West First Street Chico, CA 95929 530-898-4035 dlbrown@csuchico.edu

David L. Brown, Ph.D., Professor, joined the Department of Geological and Environmental Sciences at CSU, Chico in August 1997. He teaches courses in hydrology and environmental science with an emphasis on interdisciplinary studies such as ecohydrology, ecosystem science, energy, and sustainability. He involves undergraduate and graduate students in a broad range of research efforts, including mined land reclamation, agricultural water quality protection, riparian restoration, and watershed hydrology. Dr. Brown has received more than 1.5 million dollars for funded projects. He has reviewed grant proposals for the National Science Foundation, and has served on several national grant program review panels.

Hunter Burnham

Student California State University, Monterey Bay Seaside, CA 93955 hburnham@csumb.edu

Hunter Burnham attends CSU Monterey Bay as a marine science major. For the past six months, he has been working on a project with the school on denitrification using wood chip bioreactors. He is planning on continuing into grad school and hopes to continue working on water projects.

Abigail Campos

Student San Diego State University San Diego, CA abbycampos06@yahoo.com

Abigail Campos is a recent MPA Graduate from San Diego State University and past WRPI Intern with the USDA. Her experience and education have led her to realize that agriculture is the leading field in our country. Agriculture plays a large role in development, research, innovation, and diversity. She believes that attending and participating in the 7th Annual WRPI Conference will allow her to further expand her network, knowledge, and interest in the policies and strategies that are being implemented to address the current drought issue within California. She desires to seek a PhD program in Agriculture Education and Leadership Policies.

Florence Cassel

Assistant Professor & Assistant Director of Research California State University, Fresno 2415 E. San Ramon Fresno, CA 93740 fcasselss@csufresno.edu

Dr. Florence Cassel is an Assistant Professor of Irrigation/Water Management in the Department of Plant Science at CSU Fresno. She teaches courses in Soil-Water Management and Irrigation Systems. Dr. Cassel also serves as Assistant Director of Research of the Center for Irrigation Technology. Her research focuses on improving irrigation scheduling and water use efficiency through development of new crop coefficients, deficit irrigation, and remote sensing techniques. She is a member of the Interdisciplinary Water Cohort at CSU Fresno. She has authored over 50 articles on soil-water management, including two books on the electromagnetic induction technology for salinity assessment in California soils.

Cindy Castaneda

Student California State University, Los Angeles Los Angeles, CA ccastaneda2510@gmail.com

Cindy Castaneda is currently a second year graduate student at CSU Los Angeles, where her major is Biology. Her areas of expertise include geographic information system (GIS), conservation, population genetics, ecology, and molecular genetics. She has received the university fund Research, Scholarship, and Creative Activity Award (RSCA) from CSULA, the Watershed Management Experiential Learning for USDA Careers Award from WRPI, and the Graduate Equity Fellowship Award (GEF) from CSULA. Among her potential career paths is a career with the USDA.

Sen Chiao

Associate Professor of Meteorology and Climate Science San José State University 1 Washington Square San Jose, CA 95192 408-924-5204 sen.chiao@sjsu.edu

Sen Chiao has over 10 years of experience in regional scale weather and climate modeling with emphasis on atmospheric rivers, severe weather, land-sea breeze convection, and orographic precipitation. His goal is to advance the understanding of fundamental science in the areas of weather and regional climate change, and their linkages to our environment as well as societal impacts. A recent (2015) publication by Sen and his student entitled "Modeling studies of landfalling atmospheric rivers and orographic precipitation over northern California" doi: 10.1007/s00703-014-0350-4 is directly related to water resources in California.

Roxana Coreas Student California State University, Northridge Northridge, CA coreas.roxana@gmail.com

Roxana Coreas is an undergraduate student at CSU Northridge, studying Environmental and Occupational Health with a minor in Chemistry and is currently working in a biochemistry lab as a research assistant. Last summer, she participated in a WRPI-funded research project with the USDA Forest Service studying the effects of vegetation on impaired watersheds. She presented a poster of this preliminary work at the Agri-Science Education Conference in Florida last year. She feels that this conference is an opportunity to expand her professional and educational career towards a doctorate degree in Environmental Sciences.

Lucas De Buren

Student California State Polytechnic University, Pomona Pomona, CA Imdeburen@csupomona.edu

Lucas De Buren is currently a senior in the Civil Engineering Department at California State Polytechnic University, Pomona. His field of research is concentrate control in brackish water desalination and wastewater treatment using reverse osmosis systems. His research will be published in the conference proceedings for this year's EWRI conference.

Julianna Delgado

Interim Associate Dean/Professor California State Polytechnic University, Pomona 3801 W. Temple Ave. Pomona, CA 91768 909-869-2663 jdelgado@csupomona.edu

Dr. Julianna Delgado serves as the Interim Associate Dean of the College of Environmental Design, is a Professor of Urban and Regional Planning, and a Founder and Co-Director of the California Center for Land and Water Stewardship at Cal Poly Pomona. She is a member of Cal Poly's Water Initiative and President of the Southern California Planning Congress.

Jesse Dizard

Associate Professor of Anthropology California State University, Chico 400 West First Street Chico, CA 95929 530-898-6192 jdizard@csuchico.edu

Jesse Dizard, PhD (2003 UC Berkeley). Areas of specialization include natural resource management, Native North Americans, Tourism, the Islamic world, and North African studies. Current research projects include local ecological knowledge in Northern California, the history and politics of water in California, and the history and politics of natural resource management. To date he has completed three films, "California Indian Voices" (2012), "Someone You Know" (2012), and "Treading Water" (2013). He is currently in the final stages of completing a fourth film about water and the Owens Valley, CA. To view short trailers for his films see: http://www.csuchico.edu/alva/

Ellen Doudna

Student San Francisco State University San Francisco, CA erdoudna@mail.sfsu.edu

Ellen Doudna is pursuing a Master's Degree in Geography with a concentration in resource management. Her research interests include water resources, the future of agriculture, and economic geography. She is interested in how agricultural communities in California are planning to meet present and future water needs given the uncertainties of climate variability.

David Drexler

Digital Initiatives Librarian California State University, Fresno 5200 N. Barton Fresno, CA 93740 ddrexler@csufresno.edu

David Drexler is Digital Initiatives Librarian at The Henry Madden Library at California State University, Fresno. He received his MLIS at the University of Wisconsin–Madison School of Library & Information Studies in 2008 and served previously as Systems Librarian at Eastern Oregon University. He is the library liaison to Fresno State's Music Department and a member of the Interdisciplinary Water Cohort. He is involved with a number of projects related to library technology, most notably the Waterways project, a spatially-enabled web portal for information about California's Central Valley.

Jamie Duggan-Lara

Student San Diego State University San Diego, CA jamiedugganlara@att.net

Jamie Duggan-Lara is a senior pursuing a Bachelor's degree in Public Administration at the San Diego State University. She aides the public sector by working for the Farm Service Agency which helps farmers, ranchers, and agricultural partners to stay in business. She also assisted with the Emergency Conservation Program and Emergency Assistance for Livestock, Honeybees Program, authorized by the 2014 Farm Bill. Jamie aspires to become a professional leader in the area involving agriculture, and believes this conference will help her to further understand current events that make an impact on our agriculture.

Kathleen Firstenberg

Program Support Assistant, WRI/WRPI California State University, San Bernardino 5500 University Parkway San Bernardino, CA 92407 909-537-7681 kfirstenberg@csusb.edu

Kathleen Firstenberg graduated from California State University, San Bernardino with a BA in Psychology and minor in Women's Studies, and since that time has worked in social services and higher education. She also attended the University of Washington in Seattle and completed a certificate in editing. In addition to working for the WRPI, Kathleen has a freelance editing and writing business.

Philip Garone

Associate Professor of History California State University, Stanislaus 1 University Circle Turlock, CA 95382 209-667-3319 pgarone@csustan.edu

Philip Garone is Associate Professor of History at CSU Stanislaus. He teaches environmental history and his research specialty is the history of California water issues. His book, *The Fall and Rise of the Wetlands of California's Great Central Valley* (University of California Press, 2011), analyzes the ecological transformation of the Central Valley from wetlands, riparian forests, and native grasslands to agriculture, as well as efforts to restore part of the valley's natural habitat. He is currently preparing a narrative of the environmental history of the Sacramento-San Joaquin Delta as part of a collaborative grant from the California Delta Protection Commission.

Emily Gorrie

Student California State University, Sacramento Sacramento, CA eg838@csus.edu

Emily graduated cum laude, with honors with her Bachelor of Science in Chemistry from CSU Sacramento in 2014. She is currently pursuing her Master of Science in Chemistry, and is pursuing research in physical chemistry focusing on dynamic phenomena in environmentally and catalytically important aluminosilicate materials under the guidance of Dr. Susan Crawford. Research project: "Use of long range metal cation migration through porous zeolitic materials for potential agricultural soil remediation."

Walter Griffiths

Student California State University, Fresno Fresno, CA kylegriffithsband@gmail.com

Walter Griffiths is a two-time student awardee of the Watershed Management Experiential Learning for USDA Careers internship through WRPI.

Nancy Gutierrez

Ag Projects Coordinator Reedley College 995 N Reed Avenue Reedley, CA 93654 559-637-2530 nancy.gutierrez@reedleycollege.edu

Nancy Gutierrez is Sector Navigator for Agriculture, Water, and Environmental Technology through the Doing What Matters initiative of the CA Community College Chancellor's Office. This is hosted through the agriculture and natural resources department at Reedley College. She serves statewide faculty, students, and industry to advance education and training in agriculture and natural resources.

Arlene Haffa

Assistant Professor California State University, Monterey Bay 100 Campus Center Seaside, CA 93955 831-582-4695 ahaffa@csumb.edu

Arlene Haffa, Assistant Professor at CSU Monterey Bay, has been studying microbial bioremediation of pesticides and nitrates in a constructed treatment wetland and has begun looking at the optimization of biodigestors for similar processes. She is also interested in biogeochemistry, and her most recent paper (http://journals.plos.org/plosone/article?id=10.1371/ journal.pone.0107690) demonstrates the need to include fish and human activity in the ocean iron cycle. Iron is necessary for carbon sequestration and thus directly linked to climate change. She has begun working with others at CSUMB to study how fertilizer use correlates with the release of the greenhouse gas nitrous oxide, and soil microbiota.

Don Hankins

Associate Professor California State University, Chico 400 West First Street Chico, CA 95929 530-898-4104 dhankins@csuchico.edu

Don Hankins is an Associate Professor in the Department of Geography and Planning at California State University, Chico. His areas of expertise are pyrogeography, water resources, and conservation biogeography. He is particularly interested in the application of indigenous land management practices as a keystone process to aid in conservation and management of resources. He is currently engaged in fire and water research involving indigenous California and Aboriginal Australian communities including meadow management. Don has been involved in various aspects of land management and conservation for a variety of organizations and agencies including federal and tribal governments.

Fraka Harmsen

Provost and Vice President, Academic Affairs California State University, Sacramento 6000 J Street Sacramento, CA 95819 916-278-6331 fraka.harmsen@csus.edu

Dr. Fraka Harmsen was appointed as the Provost and Vice President of Academic Affairs at CSU Sacramento in February 2014. Born in Amsterdam, the Netherlands, and raised in New Zealand, she attended Victoria University receiving her Ph.D. in Geology in 1984. Dr. Harmsen has a wide Senior Research Scientist range of administrative and academic experiences in higher education gained during 29 years of service within the CSU System. A professor of geology, she has also served as the Dean of the College of Natural Sciences at CSU Chico, and Associate Dean of the College of Science and Mathematics and the Chair of Earth and Environmental Sciences at Fresno State. In 1989/90, Dr. Harmsen was the visiting scientist at San Jose State University's Moss Landing Marine Laboratory.

Aaron Hegde

Associate Professor California State University, Bakersfield 9001 Stockdale Highway Bakersfield, CA 93311 661-654-2495 aaronhegde@gmail.com

Aaron Hegde is Director of the Environment Resources program with over 80 majors, and head of AgBusiness program with over 50 students. He is co-chair of campus sustainability committee; leader of sustainability faculty interest group. Given the positions Mr. Hegde holds across campus and his professional and personal interests, he has worked with people to try to get the campus to be carbon neutral. The sustainability committee works with administration to reduce the campus' water footprint, as well as other climate goals. His doctoral training is as an agriculture economist and water usage is one of the areas that he is currently researching.

Lynne Higgins Mendillo

Student California State University, Fullerton Fullerton, CA lynne_higgins@csu.fullerton.edu

Lynne Higgins Mendillo B.A is a graduate student at CSU Fullerton in the department of Geography. She is currently completing her thesis entitled "The Discourse of Drought and Water Conservation Policy in the Los Angeles Metropolitan Area." In 2013, Lynne was awarded a Graduate Fellowship. Lynne has also won several service awards through the department of Geography. Water conservation has become her passion, and she has plans to work in the field of Water Resource Management upon completion of her Master's degree in August 2015.

Sandra Jimenez

Administrative Assistant, WRI/WRPI California State University, San Bernardino 5500 University Parkway San Bernardino, CA 92407 909-537-7681

Sandra Jimenez joined Water Resources Policy Initiatives (WRPI) as an intern for Watershed Management with the US Forest Service. Upon completion, she was assigned to Administrative Assistant with WRPI in September 2014. She recently obtained a dual B.A. in Psychology and Criminal Justice from CSU San Bernardino.

Lee Johnson

California State University, Monterey Bay MS232-21 Moffett Field, CA 94035 650-604-3331 Lee.F.Johnson@nasa.gov

Lee Johnson is a Senior Research Scientist at CSU Monterey Bay. He is active in agricultural application of remote sensing research in California, under federal and state funding including ARI, DWR, CDFA, and NASA. His project was recently selected by NASA/Spinoff as one of the leading technology transfer projects funded by the agency. Lee has approximately 35 peer-reviewed publications, and has students employed at CSUMB.

Andrew Kennedy

Student California State Polytechnic University, Pomona Pomona, CA 909 289-4503 agkennedy75@gmail.com

Andrew Kennedy is a sophomore student majoring in Biotechnology at Cal Poly Pomona. He is a member of the Kellogg Honors College, and is working under Dr. Ali Sharbat through a USDA Experiential Learning internship. This project entails performing library research to investigate bioremediation techniques to address nitrate and perchlorate contamination in groundwater in disadvantaged communities. The second phase of this project will be to look for funding to initiate further investigations as to the viability of the processes identified in Phase I. Andrew's educational plans are to obtain his BS in Biotechnology and pursue a doctorate.

Maria Elena Kennedy

Consultant, WRPI California State University, San Bernardino 5500 University Pkwy San Bernardino, CA 92407 626-374-8910 mariaelenakennedy@icloud.com

Maria Elena Kennedy has worked on behalf of disadvantaged communities for many years. Maria's work encompasses helping disadvantaged communities find the resources they need to improve their lives. These resources can include helping these communities navigate the often-complex systems of financial assistance that are available to them as well as helping them steer though complex regulatory, political, and policy arenas. Currently, Maria is working with the WRPI as an advisor on disadvantaged communities.

John Keyantash

Associate Professor California State University, Dominguez Hills 1000 E. Victoria Street Carson, CA 90747 310-243-2363 jkeyantash@csudh.edu

John Keyantash is an Associate Professor in the Department of Earth Science and Geography, with specialization in hydroclimatology. He is interested in quantifying drought severity using indices for meteorological and hydrological drought. He is also interested in stream discharge statistics including the timing and volume of spring runoff—and has utilized neural network models to estimate the potential effects of climatically-altered runoff on California salmon populations. Furthermore, he researches the hydrography of large rivers and waterfalls.

Charles Krauter

Professor Emeritus of Plant Science California State University, Fresno 2380 E. San Ramon Fresno, CA 93740 559-278-2066 charles_krauter@csufresno.edu

Charles Krauter began at CSU Fresno in 1979, teaching irrigation courses in the Plant Science Department and conducting research related to water management, leaching of pesticides from the root zone, and air quality. He retired from the full time position in 2010 but continues to teach one course and conduct research projects.

Julie Lappin

Program Manager, WRPI California State University, San Bernardino 5500 University Pkwy San Bernardino, CA 92407 909-537-3687 jlappin@csusb.edu

Ms. Lappin serves as the Program Manager for the WRPI. She manages multiple internship programs, including acting as the Project Director on the existing multi-year, multi-million dollar NIFA HSI funded projects. She holds a Bachelor's of Science in Biology from the University of California Riverside and a Juris Doctorate from Franklin Pierce Law Center, at which she focused on intellectual property law. Ms. Lappin has served as the Assistant Director for another CSUSB project, the Office of Technology Transfer and Commercialization, which was a 9 year, multi-million dollar Department of Defense-funded program. She has many successful years of experience in planning, managing, and executing federally funded programs, including working specifically on programs targeting underrepresented students.

Michael Lee

Professor & Director of International Studies California State University, East Bay 25800 Carlos Bee Boulevard Hayward, CA 94542 510-885-3155 michael.lee@csueastbay.edu

Michael Lee was trained as a hydrologist in the UK and has worked as a water resources consultant in California and around the world. His main interest is the sustainability of water resources - their quantity, quality, and reliability - at a variety of scales and development levels from developing nations to CA cities, and he teaches classes on water resources and management, watershed management and sustainable development, among other topics, at Cal State East Bay. He has worked on projects in California, Israel, Honduras, Australia, and Kenya; principally in water-short areas where sustainability is a key issue.

Claudia Luke

Director SSU Preserves, WATERS Collaborative Coordinator Sonoma State University 1801 E Cotati Avenue Rohnert Park, CA 94928 707-664-3416 lukec@sonoma.edu

Claudia Luke has 20 years of experience directing field stations for the University of California and California State University. At Sonoma State University, she serves as Director for three SSU Preserves (Fairfield Osborn Preserve, Galbreath Wildlands Preserve, and Los Guilicos Preserve) which support academic excellence in the liberal arts and sciences by providing education and research experiences in place-based learning. She has worked extensively with partners and collaborators to build regional research and management collaborations. She currently serves as the Coordinator for the WATERS Collaborative, a collaboration between SSU and the Sonoma County Water Agency that promotes research on watershed management issues.

Ramzi Mahmood

Professor and Director California State University, Sacramento 6000 J Street Sacramento, CA 95819 9162787974 mahmood@csus.edu

Ramzi Mahmood has served as the Director of Office of Water Programs (OWP) since 1997. He is a Professor of Civil Engineering and leads the largest self-funded center with 40 research and support staff. OWP is the largest training provider for managers and operators of water and wastewater treatment systems in the nation.

Zed Mason

Assistant Vice Chancellor of Research Initiatives & Partnerships CSU Office of the Chancellor 401 Golden Shore Long Beach, CA 90802 562-951-4513 ZMason@calstate.edu

Zed Mason's areas of expertise include research and molecular toxicology. Publications include:

-Mason, A.Z., A. Cabrera, E. Alonzo, E. Sauble, Y. Chu, M. Linder and D.S. Sato. 2008. Copper binding components of serum and cytoplasm, copper turnover and excretion, and their responses to influx of large doses of 65Cu, in the mouse. BioMetals ISSN 0966-0844 (Print) 1572-8773 (Online). DOI10.1007/s10534-008-9139-6.

-Mason, A.Z., R. Moeller, Thrippleton and D. Lloyd. 2007. The use of stable-isotopically labeled proteins and directly coupled HPLC-ICP-MS for quantitatively monitoring the transfer of metals between proteins. Anal. Biochem 369: 87-104.

-Mason, A.Z., T. Potter, J. Webster and R.F. Meraz. 2005. Metalloprotein Crosstalk: Quantifying Zn atom exchange between isotopically labeled proteins using directly coupled HPLC-ICPMS. In: Plasma Source Mass Spectrometry, Current Trends and Future Developments. The Royal Society of Chemistry Special Publication 301: 3-27.

Peter McDonald

Dean of Library Services California State University, Fresno 5200 N. Barton Fresno, CA 93740 pmcdonald@csufresno.edu

Peter McDonald is Dean of Library Services at Fresno State. The library is involved in numerous projects related to its growing water archive.

Saad Merayyan

Associate Professor California State University, Sacramento 6000 J Street Sacramento, CA 95819 916-278-5349 merayyan@csus.edu

Saad Merayyan, Ph.D. received his BS in Civil Engineering (Water Resources) from Jordan University of Science & Technology, and his MS in Civil Engineering (Hydraulics) from the University of Missouri Columbia. He received a Fellowship from Wayne State University in Detroit to pursue his Ph.D. in Civil Engineering (Water Resources), which he received in 2001. Dr. Merayyan then worked for 3 years as a Water Resources Engineer at Tetra Tech, Inc. In 2004, he began working at Cal Poly SLO, and then joined CSU Sacramento in 2006. Dr. Merayyan is the recipient of the College of Engineering and Computer Science 2014-2015 Outstanding Scholarly and Creative Activities Award, has an extensive publication record, and served as the Water Advisor to the Executive Office of the California Department of Food and Agriculture.

Gwen Miller

Student California State University, Monterey Bay Seaside, CA 93955 gmiller@csumb.edu

Gwen Miller is a recent graduate from CSU Monterey Bay and currently intern for the NASA Jet Propulsion Lab (JPL). While at CSUMB she conducted her thesis on seasonal changes in denitrification within a treatment wetland. She also helped the NASA-Ames CSUMB cooperative analyze how evapotranspiration data can help improve irrigation efficiently. While with Ames, Gwen also helped with their fallow area mapping project, using remote sensing and modeling to map crop type within California's agriculture fields. While at JPL, she worked on modeling sea level rise within marshes and modeled mangrove productivity.

Phoolendra Mishra

Assistant Professor Water Resources Engineering California State University, Fullerton 800 N. State College Blvd Fullerton, CA 92834 657-278-8808 pkmishra@fullerton.edu

Dr. Mishra joined as Assistant Professor of Civil and Environmental Engineering at CSU Fullerton in 2012. He received his Ph.D. in Hydrology from the University of Arizona. His research interests span the areas of modeling flow and transport in subsurface, well hydraulics, coupled processes modeling, contaminant source identification, parameter estimation, and uncertainty quantification. Dr. Mishra has published numerous research articles in these areas and recently received an exceptional teaching effectiveness award from CSU Fullerton.

Dennis Nef

Vice Provost California State University, Fresno 5200 N. Barton Fresno, CA 93740 559-278-4468 dennisn@csufresno.edu

Dennis Nef is a Professor of Agricultural Economics with a specialty in resource economics. He is also co-chair of the President's Water Task Force.

Frederick Nelson

Assistant Professor California State University, Fresno 5005 N. Maple Fresno, CA 93740 fnelson@csufresno.edu 559 278-0261

Frederick L. Nelson, Ph.D. is Assistant Professor of Science Education in the Department of Curriculum & Instruction at California State University, Fresno. He received his Ph.D. in Science Education from the University of Florida, and his Master's and Bachelor's from Kansas State University. Dr. Nelson was a high school science teacher for nine years before moving into teacher education. He teaches courses in science methods and curriculum, instruction, and technology. He is a member of the Interdisciplinary Water Cohort at Fresno State and Project Director of the Strategic Teacher Education Partnership. He has expertise in naturalistic inquiry, reflective practice, and inquiry-oriented instruction.

James Noblet

Professor of Chemistry & Director, Water Quality Laboratory California State University, San Bernardino 5500 University Pkwy San Bernardino, CA 92407 (909) 537-5194 inoblet@csusb.edu

James Noblet is a Professor of Environmental and Analytical Chemistry at CSU San Bernardino, and Director of the CSUSB Water Quality Laboratory. He has over 20 years of experience in water quality, trace organic and trace metal analyses.

Velia Nunez

Student California State University, Monterey Bay Seaside, CA 93955 vnunez@csumb.edu

Velia Nunez is a senior at CSU Monterey Bay, majoring in Biology. She has received a USDA grant.

Carolina Perez

Student Humboldt State University Arcata, CA cp56@humboldt.edu

As an Environmental Resource Engineering student at Humboldt State University and a Drafting Technology student at College of the Redwoods, Carolina Perez recognizes that California's agricultural issues are a pressing concern. She is a California resident who has experienced water, fish, and local agricultural concerns with members of her local community. Carolina would like to take the time to listen and learn from experts at the WRPI conference who will share what they have started, and thus be inspired to seek or present information easily understood to set forth creative ideas for an efficient sustainable design, plan or strategy.

Kevin Piper

Director, Agricultural Operations California Polytechnic State University, San Luis Obispo San Luis Obispo, CA 93407 805-756-6440 klpiper@calpoly.edu

Kevin Piper is the Director of Agricultural Operations for the College of Agriculture, Food and Environmental Sciences. He holds a B.S. in Natural Resources Management and an M.S. in General Agriculture from Cal Poly State University. Current responsibilities focus on the management of agricultural resources and facilities associated with Cal Poly's 6,000 acres of agricultural land. Prior to working at Cal Poly he was Assistant Director for the Nevada Agricultural Experiment Station, University of Nevada, Reno; Manager for the Dayton Valley Conservation District, Lyon County Nevada; Partner with Smith and Smith Farms, Dayton, Nevada; and Ranch Supervisor for Cal Poly's Swanton Pacific Ranch.

Laura Ramos

Program Coordinator California State University, Fresno 5370 N. Chestnut M/S OF 18 Fresno, CA 93740 Iramos@csufresno.edu

Laura Ramos is a Program Coordinator for the International Center for Water Technology at Fresno State. She is responsible for completion of deliverables of several grants, monitoring budgets, and event planning. She is also the lead event planning manager for the Water Centers at Fresno State.

Nathan Rank

Professor Sonoma State University 1801 E Cotati Avenue Rohnert Park, CA 94928 707-664-3053 rank@sonoma.edu

Nathan Rannk is a Professor of Biology at Sonoma State University. Areas of expertise include population and evolutionary genetics, evolutionary ecology, plant-herbivore enemy interactions, and plant-pathogen interactions. Publications include: Inferring past and present connectivity across the range of a North American leaf beetle from multi-locus sequence data: combining ecological-niche modeling and a geographically explicit model of coalescence.; The diversity and identity of predators drive interaction strengths and trophic cascades in a montane food web.; and Influence of land-cover change on the spread of an invasive forest pathogen.

Mahesh Rao, Ph.D.

Research Associate, Forestry and Wildland Resources Humboldt State University 1 Harpst Street Arcata, CA 95521 707-826-3208 mahesh.rao@humboldt.edu

Mahesh Rao's professional interests are focused on applications of GIS and Remote Sensing technologies for sustainable management of agro-forested ecosystems. Much of his work experience has involved working with USDA-ARS/NRCS/FSA in mapping and evaluating ecological benefits of conservation programs, particularly related to soil and water quality. More recently, he is involved with USFS in mapping serpentine soils, snags, and evaluating biomass using LiDAR remote sensing data. Currently, he is involved with mapping the spatio-temporal changes associated with the drought in the Central Valley/Sierra Nevada region in California using Landsat data. Additional interests include outreach activities such as conducting geospatial workshops and training sessions.

Andrew Renshaw

Student California State University, East Bay Hayward, CA arenshaw06@gmail.com

Andrew Renshaw is a graduate student at CSU East Bay, obtaining a Master of Science in Geology. In addition, he is a student employee at the Lawrence Livermore National Laboratory, assisting the Environmental Radiochemistry Group. His research involves aqueous geochemistry and isotope hydrogeology. In October 2014, he was a technical session presenter at the Geological Society of America's Annual meeting in Vancouver, BC and he received the best student poster award at the Groundwater Resources Association's annual meeting in Sacramento, CA.

Nichol Roe

Program Director, Business Programs, Extended Learning California State University San Marcos 333 S Twin Oaks Valley Road San Marcos, CA 92078 760-750-8729 ndroe@csusm.edu

As the new Program Director for Business Programs in Extended Learning, Nichol Roe manages the development, launch, and operations of California State University San Marcos's certificate programs in Water Leadership and Management.

Jose de Jesus Ruvalcaba

Student California State University, Chico Chico, CA jruvalcaba5@mail.csuchico.edu

Jose de Jesus Ruvalcaba is a student at Chico State University and will be receiving a B.S. in Agricultural Science and Education this May. He is currently an intern through the WRPI program with the USDA NRCS office in Oroville as a rangeland specialist.

Antonio Saldivar

Student California State University, Fresno Fresno, CA antoniosaldivar@mail.fresnostate.edu

Antonio Saldivar is a junior in the Geomatics Engineering program at CSUF. He has been introduced to a couple of key topics in the program such as land surveying, photogrammetry, and GIS. He has been professionally involved with MEP and CLSA groups. Overall, he has been trying to develop a career in rural land surveying.

Elvyra F. San Juan

Assistant Vice Chancellor, Capital Planning, Design and Construction CSU Office of the Chancellor 401 Golden Shore Long Beach, CA 90802 562-951-4090 esanjuan@calstate.edu

Elvyra F. San Juan leads the Capital Planning, Design, and Construction department in providing system-wide management, administration, and long range planning of the physical development aspects of CSU. This includes preparation and administration of an annual state and non-state capital outlay program. Ms. San Juan provides systemwide policy leadership for development of the campuses and provides training, utilizing campus model practices and lessons learned, to improve the twenty-three campuses. Her responsibilities also include land use and environmental planning, sustainability, public/private partnerships, utility management, and maintenance of system-wide physical plants.

Monica Santander

Program Support Assistant, WRI/WRPI California State University, San Bernardino 5500 University Parkway San Bernardino, CA 92407 909-537-7681 msantander@csusb.edu

Monica Santander joined CSU San Bernardino's Water Resources Institute in fall 2014. She recently obtained her B.S. in Environmental Biology from Cal Poly Pomona and will be pursuing a Master of Public Policy (MPP) degree at either USC or UCLA in fall 2015. Currently, one of the main projects she has been assisting the WRPI with is the CSU Disadvantaged Community Center, which will eventually support water-related technical assistance and capacity building in disadvantaged communities in California, as well as provide valuable student participation opportunities.

Claire Sarraillé

Student California State University, Stanislaus Turlock, CA csarraille@gmail.com

Claire Sarraillé is a graduate student at CSU Stanislaus, earning an M.S. in the "Geospatial Analysis of Human-Environmental Change" concentration. For her thesis project, she is creating visualizations of Tulare Basin drinking water quality data. As a student at UC Berkeley, she contributed maps to the "Mission: Possible" atlas as well as designed map brochures for the Living New Deal Project. Her interest in water issues began as a child growing up in the Central Valley, where canals a few blocks from her home provided irrigation of the remnant walnut orchard in her backyard.

Ali Sharbat

Assistant Professor California State Polytechnic University, Pomona 3801 W. Temple Ave. Pomona, CA 91768 909-869-2175 sharbat@cpp.edu

Ali Sharbat is an Assistant Professor in the Civil Engineering Department at California State Polytechnic University, Pomona. His research is mostly focused on drinking water quality, desalination, concentrate management, and water issues in disadvantaged communities.

Mark Shelton

Associate Dean California Polytechnic State University, San Luis Obispo San Luis Obispo, CA 93407 805-756-2161 mshelton@calpoly.edu

Mark Shelton is an Associate Dean of the College of Agriculture, Food & Environmental Sciences, and an entomologist by training. He also serves as Executive Director of the CSU Agricultural Research Institute, a 6-campus consortium dedicated to agricultural research in California.

Alan Styles

Director, Certificate in Water Leadership & Management California State University San Marcos 333 S Twin Oaks Valley Road San Marcos, CA 92078 760-750-4251 astyles@csusm.edu

Alan Styles is the Director of Certificate in Water Leadership & Management at California State University San Marcos. This certificate program was offered for the first year in 2014-15. Spring 2015 marked the second year for the Survey of Water Management in Southern California course.

Stuart Styles

Professor California Polytechnic State University, San Luis Obispo San Luis Obispo, CA 93407 805-756-2429 sstyles@calpoly.edu

Stuart Styles is Director of the Irrigation Training and Research Center (ITRC) and Professor in BioResource and Ag Engineering at California Polytechnic State University, San Luis Obispo (Cal Poly) and is also a professor in the Cal Poly BioResource and Agricultural Engineering Department. He teaches water resources classes for Cal Poly and numerous short courses for irrigation professionals through the ITRC. His current research interests include flow measurement technologies, irrigation system performance and irrigation modernization. Dr. Styles has three decades of field experience in irrigation as a consultant and engineer. He has a Doctorate in Engineering from UC Davis.

Ellen Suryadi

Program Coordinator California State University, Fresno 5370 N. Chestnut M/S OF 18 Fresno, CA 93740 esuryadi@csufresno.edu

Ellen Suryadi is a Program Coordinator for the Center for Irrigation Technology (CIT) and California Water Institute (CWI) at Fresno State. She is responsible for compiling budgets for proposals and managing budgets for all incoming grants for CIT, CWI, Plant Science, and Industrial Technology departments.

Jeffrey Thompson

Associate Provost for Research California State University, San Bernardino 5500 University Parkway San Bernardino CA 92407 909-537-5315 jthompso@csusb.edu

Dr. Thompson received his B.S. in physics from Michigan State University and his Ph.D. in molecular biophysics from Florida State University. After spending six years at the National Institutes of Health, and six years at the University of Illinois, Urbana-Champaign, he moved to the Department of Biology at California State University, San Bernardino. He served as Chair of the Biology Department from 1998 to 2005. He is currently the Associate Provost for Research and Dean of Graduate Studies at CSUSB. The Water Resource Institute (WRI) at CSUSB reports to him.

Kaomine Vang

Project Manager California State University, Fresno 5370 N. Chestnut M/S OF 18 Fresno, CA 93740 kaominev@csufresno.edu

Kaomine Vang is a Project Manager for the Center for Irrigation Technology (CIT) at Fresno State. He is involved in the development of water management plans, water-related research, and coordination of educational programs. Kaomine is responsible for the WATERIGHT program, a web-based irrigation scheduling tool free to growers and the public. He is involved in the San Joaquin River restoration project identifying regulatory issues and concerns that growers may have. He co-wrote chapter 16 Conservation and Environmental Protection in Irrigation, Sixth Edition published by the Irrigation Association and was involved in the agricultural water use report published by the CIT. Kaomine also works with the rural Development Center on campus to help disadvantaged communities with water-related issues.

Jorge Velasquez

Student California State University, Chico Chico, CA jvelasquez4@mail.csuchico.edu

Jorge Velasquez is currently in Senior standing at CSU Chico. He is graduating with his BS in Crop Science in May, 2015. He has also completed all classes to take the PCA exam. He am currently working as a Watershed intern for the NRCS office in Oroville, CA.

Marcelino Vialpando

Student California State Polytechnic University, East Bay 505-470-4226 mjvgeo@gmail.com

Marcelino Vialpando is researching surface/ground water interactions of Tuolumne Meadows in Yosemite. Using isotope data obtained by testing samples collected from wells and the Tuolumne River, he is trying to determine the interactions between surface water (primarily snow melt) and the subsurface reservoir. The data will give insight as to the residence time of the recharge waters as well as the elevation of the precipitation.

Emily Wieber

Student California State University, Fullerton Fullerton, CA phuongwieber@csu.fullerton.edu

Emily Wieber is a biology graduate student at CSU Fullerton. She is conducting a 2013 -2015 study on the Effect of Regulated Deficit Irrigation (RDI) on Smith's Early Navel Orange Tree Physiology and Yield at the Citrus Experiment Station at UC Riverside. Her research aims to determine a sensitive and continuous plant-based measure for irrigation scheduling in citrus trees. Her two research hypotheses: 1. Navel orange trees can withstand a moderate irrigation reduction below their full crop evapo-transpiration requirement (ETC); and 2. Sap flow (SF) will be the most sensitive continuous indicator of the onset of plant water stress.

Boykin Witherspoon III

Executive Director, WRPI California State University, San Bernardino 5500 University Pkwy San Bernardino, CA 92407 909-537-3685 bwithers@csusb.edu

Mr. Witherspoon serves as the Executive Director of the WRPI as well as the Director of Programs for the Water Resources Institute at CSU San Bernardino. His experience includes the administration of all aspects of management including: strategic planning and budgeting; promotion with community, universities and industry; liaison with advisory boards; program management; development and oversight of contracts and grants; hiring and supervision of staff; and training and publications efforts. Additionally, Mr. Witherspoon is a focused problem solver with international project management experience developing GIS applications and software for sustainable landscape architectural planning and design.

William Wright

Assistant Professor California State University, Fresno 2320 E. San Ramon Fresno, CA 93740 wfwright@csufresno.edu

Dr. William Wright began his career with Black & Veatch in 1986 after earning a BS degree in Civil Engineering from UC Berkeley. He began graduate school at UC Davis in the early 1990s, earning MS and PhD degrees in Civil and Environmental Engineering. Dr. Wright accepted a faculty position at Fresno State in 1999 in the Civil Engineering Program. His responsibilities include instruction in environmental and water resources engineering and coordination of the graduate program. His research interests include water and wastewater treatment, conversion of food wastes to marketable products, and vapor-phase biofiltration (an air pollution control technology).

Rosemarie Wrigley

Student California State University, Long Beach Long Beach, CA rosemariewrigley@gmail.com

Rosemarie Wrigley is a student at CSU Long Beach. She is completing her Master of Science degree in geology, with an emphasis on paleoclimate. She is participating in an internship with NASA and completing an applied science project entitled, "Monitoring Streamflow Regimes using NASA Sensor Data to Aid Classification-Based Decision Making for Streamwater Management in Los Angeles County."

Dilruba Yeasmin

Research Scientist California State University, Fresno 5370 N. Chestnut Fresno, CA 93740 559-278-1686 dyeasmin@csufresno.edu

Dr. Dilruba Yeasmin joined International Center for Water Technology (ICWT), Center for Irrigation Technology (CIT), and California Water Institute (CWI), CSU Fresno in June 2013 as a Research Scientist specialized in GIS and Natural Resources Studies. She is working on several projects including tree root study, Groundwater Recharge and Storage Opportunities in San Joaquin Valley, and Campus Farm Integrated Database Development. She also teaches in the Civil and Geomatics Engineering Department. She has worked as a Post-Doctoral Research Associate at Energy-Water-Ecosystem Engineering Group, Environmental Sciences Division, Oak Ridge National Laboratory (ORNL). She has published several conference papers, peer-reviewed journal papers, and reports. Dr. Yeasmin also achieved a significant event award for contributing in the National Hydro-power Asset Assessment Program at ORNL.

Maressah Ynfante-Corral

Student

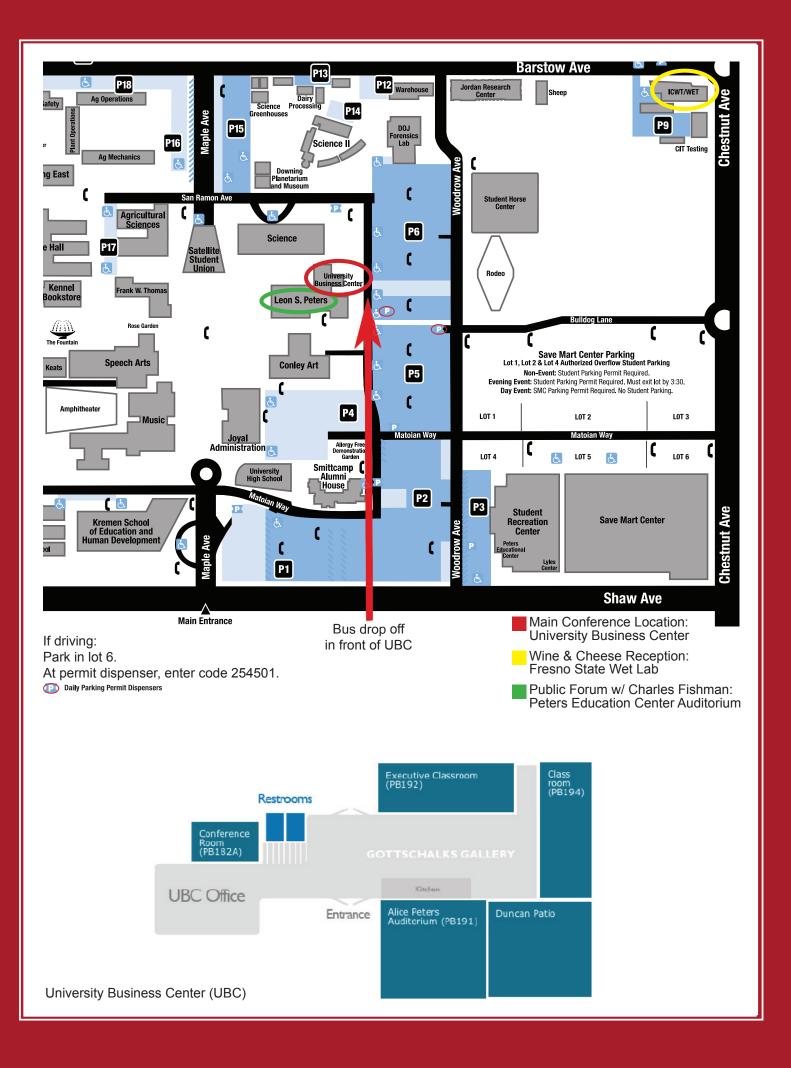
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Maressah Ynfante-Corral is a student at CSU San Bernardino. She is currently pursuing an ACS certified Chemistry degree. She has conducted biochemistry research on biosensors and has presented her work at the Southern California Conferences for Undergraduate Research. Maressah is currently conducting computational chemistry research on isodesmic reactions. She also has begun an internship with the Watershed Management Experiential Learning for USDA Careers program and will be evaluating the water quality in the Santa Ana River.

David Zoldoske Director

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Dr. David Zoldoske serves as the Director of the Center for Irrigation Technology (CIT) and California Water Institute (CWI) at CSU Fresno, where he has been actively working on "water use efficiency" issues for over 30 years. He recently served as vice-chair of the California Department of Water Resources strategic planning caucus for New Water Technology: Objective 11, an effort which became part of the California 2013 State Water Plan, served as a member of the California Department of Food and Agriculture Nitrogen Tracking and Reporting Task Force and served as a member of the A-2 subcommittee to the SBx7-Agriculture Stakeholders Committee. David was named "person of the year" in 2015 by the California Irrigation Institute, and received a similar award from the Irrigation Association in 2013. He is a Senior Fellow with the California Council on Science and Technology, and an Honorary Member of the American Society of Irrigation Consultants. He is also a past President of the Irrigation Association (2005), a member of the "SMART" Water Application Executive Committee, founding Executive Director for the WRPI (2008-2013) and past President of the American Society of Agronomy: California Chapter (2002).



Water Resources and Policy Initiatives

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