



The California State University
WATER RESOURCES AND POLICY INITIATIVE

www.calstate.edu/water

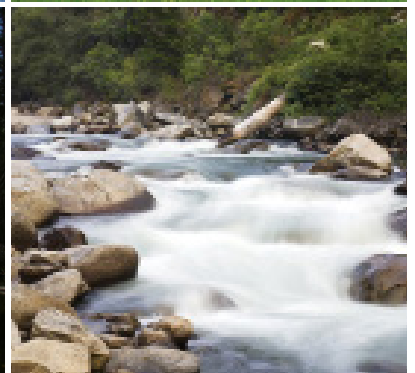
WRPI 9th Annual Conference April 4-6, 2017 San José, CA



URBAN



ENVIRONMENTAL



AGRICULTURAL



The first part of the document discusses the importance of maintaining accurate records of all transactions. This includes not only sales and purchases but also any other financial activities that may occur. It is essential to ensure that all entries are properly documented and supported by appropriate evidence.

In addition, the document emphasizes the need for regular reconciliation of accounts. This process involves comparing the company's internal records with the bank statements to identify any discrepancies. By doing so, the company can ensure that its financial statements are accurate and reliable.

Another key aspect of financial management is the timely payment of bills and invoices. This helps to maintain good relationships with suppliers and creditors, and it also ensures that the company's cash flow remains healthy.

Finally, the document highlights the importance of reviewing financial statements regularly. This allows the company to monitor its performance and identify any areas where it may need to adjust its strategy or operations.

Vision

Water Resources and Policy Initiatives (WRPI) will be a resource for education, research, and policy development to help state agencies, regulators, and lawmakers achieve a long-term, sustainable water supply for California based on good science. The WRPI aims to convene and organize the vast knowledge and expertise related to water within the CSU and will help foster collaborations to demonstrate this capacity as a resource in California for information and solutions regarding the state's water resources.

Mission

The Water Resources and Policy Initiatives is designed to target the capabilities and resources within the 23 California State University Campuses to provide academic preparation, applied research, and partnerships with stakeholders, addressing all aspects of water use. WRPI serves to focus synergistically with the many centers and programs of excellence within the CSU on water issues.

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 to:

- Develop partnerships with water resource stakeholders to advance technology, support economic development, and create public awareness and support concerning water-related resources and issues for sustainable, reliable water with fair and equitable access.
- Support WRPI and expansion of CSU research and external funding through systemwide and multiple campus coalitions.
- Promote career awareness through high-impact practices in education, training, and professional capacity building.

WRPI Annual Conference Agenda

April 6, 2017

San José State University, Student Union Ballroom

"Water Management in a Changing Climate"

8:00 am	Conference Registration and Continental Breakfast	
8:45 am	Conference Overview	Boykin Witherspoon
9:00 am	Welcome	Carl Kemnitz, SJSU Deputy Provost Pam Stacks, SJSU Associate Vice President
9:15 am	Quick Introductions	All
9:40 am	Video Presentations: Run Dry - "Groundwater & Contamination Animation" - "Delia Martinez, But How Do We Know?"	Kristine Diekman, CSU San Marcos
9:50 am	Climate Change	Moderator: Sen Chiao, San José State
	- <i>California Water: What can we see from space?</i>	Michael Gunson, Jet Propulsion Laboratory
	- <i>Atmospheric Rivers and the Forecast-Informed Reservoir Operations Concept</i>	Marty Ralph, CW3E at Scripps
	- <i>The U.S. Climate Explorer: Increasing Access to Climate Data for Climate Resilience Planning</i>	Forrest Melton, NASA Ames Research Center
10:50 am	Network	Lobby/Ballroom
11:05 am	Water Management	Moderator: Phillip Miller, Napa County Flood Control and Water Conservation District
	- <i>Turbulence and Leadership in California's Dynamic Hydrology</i>	Jennifer Morales, Dept of Water Resources
	- <i>Water Supply Portfolio Expansion through Advanced Water Treatment</i>	Saied Delagah, Bureau of Reclamation
	- <i>Sustainable, Reliable Future Water Supply</i>	Hossein Ashktorab, Santa Clara Valley Water Dist
12:05 pm	Lunch	
1:00 pm	Student Poster Session	Ballroom B
1:45 pm	CSU Faculty/Student Presentations	Moderator: David Zoldoske, CSU Fresno
	- <i>Climate Change Effects in Recharge Headwater Catchments</i>	Jean Moran, CSU East Bay
	- <i>Capturing Storm Water in Semi-Arid Climate</i>	Rebeka Sultana and Nathaniel Summerville (student), CSU Long Beach
	- <i>Decentralized Renewable Off-grid Wastewater Treatment (DROWT)</i>	Ali Sharbat and Reza Baghaei Lakeh, Cal Poly Pomona
	- <i>Retrofitting Sacramento State Campus with Low Impact Development Stormwater Control Measures: A Local Project with Regional Intent</i>	Kevin Murphy and Joel Shinneman (student), Sacramento State

- continued -

2:45 pm	Network	Lobby/Ballroom
3:00 pm	- <i>ARI Funding Opportunities at the Water/Agricultural Interface</i>	David Still, Agricultural Research Institute
3:15 pm	- <i>State Water Board DAC Grants Update</i>	Boykin Witherspoon, WRPI Julianna Delgado, Cal Poly Pomona Roger Shintaku, WRPI Debbie Whaley, Sacramento State
3:40 pm	Network	Lobby/Ballroom
3:50 pm	Wrap up and Comments	Boykin Witherspoon
4:15 pm	Conference Adjourn	
5-6 pm	Networking Reception (optional) No host bar; Dinner on your own	San Fresco Restaurant* inside Holiday Inn Silicon Valley 1350 N 1 st St, San Jose, CA 95112

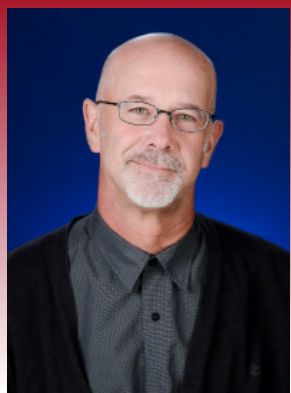
*4:30 & 5:00 pm buses available from SJSU to Holiday Inn

Tour

April 7, 2017

- 7:45 am Load bus at Holiday Inn Silicon Valley
- 8:00 am Bus departs Holiday Inn Silicon Valley
- 8:30 am **Martial Cottle Park**
- 9:15 am Load bus
- 10:00 am **Silicon Valley Advanced Water Purification Center**
- 12:00 pm Lunch on bus
- 1:00 pm **Clos LaChance Winery Tour** (optional tasting \$15)
- 2:30 pm Load bus
- Approx. 3:00 Bus drops off at Holiday Inn Silicon Valley

WELCOME MESSAGE



Boykin Witherspoon III
Executive Director, WRPI

Dear Conference Attendees:

Welcome to the 9th 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 and EPA internship programs, as well as further developments on the Disadvantaged Communities Center, a statewide entity providing hands-on learning experience to students through paid internships.

Proposition 1 has opened the door for many more opportunities. Funds are being utilized in various ways to improve the future for the entire state of California, which continues to be affected by drought, climate change, and water management issues. The State Water Resources Control Board (SWRCB) has funded WRPI as we currently work with five disadvantaged communities, providing technical assistance that will allow these communities to prepare grant proposals for construction funding. We are looking for more communities who may need help. If you know of any disadvantaged communities in your area, please let me know as there are opportunities to fund related faculty work and provide paid internships for students.

I am pleased to see more collaboration among the CSU campuses in our efforts toward water-related projects. Dr. Ganesh Raman, Assistant Vice Chancellor for Research for the CSU Office of the Chancellor, has been a great supporter of coordinating with other affinity groups. For example, WRPI often works in collaboration with COAST and ARI. The California Energy Commission (CEC) Los Angeles Regional Energy Innovation Cluster project brings together the Los Angeles Cleantech Incubator (LACI) and the CSU5 (five CSUs in LA County). Similarly, Fresno State partners with five other CSUs, forming the Central Valley Energy Innovation Cluster, which was awarded a \$5 million CEC grant.

For our conference this year, we've brought together CSU faculty, students, government agencies, and industry to share unique perspectives on "Water Management in a Changing Climate." We'll learn about projects that focus on solving California's water problems, leading us to a sustainable future.

One of the most important aspects of our conferences is the opportunity for networking and collaboration. I encourage you to take advantage of this time and join us for the networking reception tonight. I hope you enjoy the conference, and I look forward to meeting you.

Sincerely,

A handwritten signature in black ink, appearing to read "Boykin Witherspoon III", written over a horizontal line.

Boykin Witherspoon III

Special thanks to the WRPI Conference Planning Committee:

Pitiporn Asvapathanagul
Nicole Barnhart
Matt Becker
David Brown
Sen Chiao
Michael Clemson
Julianna Delgado
Jesse Dizard
Horacio Ferriz

Kathleen Firstenberg
Nancy Gutierrez
Arlene Haffa
Steven Kerns
Saad Merayyan
Phoolendra Mishra
Carolyn Perez
Laura Ramos
Nathan Rank
Christina Romero

Maryam Shafahi
Ali Sharbat
Alan Styles
Rebeka Sultana
William (Bill) Trush
Dessie Underwood
William Wright
Dilruba Yeasmin
David Zoldoske

WRPI Presidential Oversight Committee

WRPI appreciates the continued support of the Presidential Oversight Committee.
Without your support, our work would not be possible. Thank you!



Tomás D. Morales*
San Bernardino
*WRPI Advisory Board Chair



Jeffrey D. Armstrong
San Luis Obispo



Joseph I. Castro
Fresno



Soraya M. Coley
Pomona



Dianne F. Harrison
Northridge



Robert S. Nelsen
Sacramento



Lisa Rossbacher
Humboldt

Welcome from San José State



**Carl Kemnitz, Deputy Provost
San José State University**

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Dr. Carl Kemnitz serves as the Deputy Provost for San José State University, an urban comprehensive regional university in the heart of Silicon Valley. About 35,000 students seek degrees at SJSU. The Deputy Provost advises and represents the Provost for a broad spectrum of academic initiatives and oversees the work of the academic associate vice presidents. Prior to joining SJSU, Kemnitz served in a variety of faculty and administrative roles at California State University, Bakersfield, including Associate Vice President for academic programs, Dean of undergraduate and graduate studies, Accreditation Liaison Officer, Associate Dean of Natural Sciences and Mathematics, Director for successful STEM diversity programs, academic senate leadership, Chemistry Department Chair, and faculty member.



**Pamela C. Stacks, Associate Vice President
Office of Research, San José State University**

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Dr. Stacks has served as AVP of Research at SJSU since 2014 and AVP of Graduate Studies & Research since 2003. She came to SJSU in 1983 as an Assistant Professor in the Department of Chemistry, received tenure and promotion, and was Chair of the Chemistry Department for seven years. She is active in the California State University system, currently serving on the Council of Chief Research Officers. She was one of the founding members of CSUPERB (CSU Program in Education and Research in Biotechnology) and won its Andreoli Service Award. Dr. Stacks' research and teaching activities have been in the area of physical biochemistry, DNA-protein interactions, and recombinant DNA methodologies. She obtained external funding from NIH and National Science Foundation grants to support her research activities, as well as curricular development in biochemistry. She received a PhD in Biochemistry from UCLA and an BA degree in Biology from UC San Diego, Revelle College. She is a native of California and grew up in California and Hawai'i.

GUEST SPEAKERS

Video Presentation



Kristine Diekman, CSU San Marcos

Professor, Art and Technology; Director, Video in the Community

333 S. Twin Oaks Valley Rd

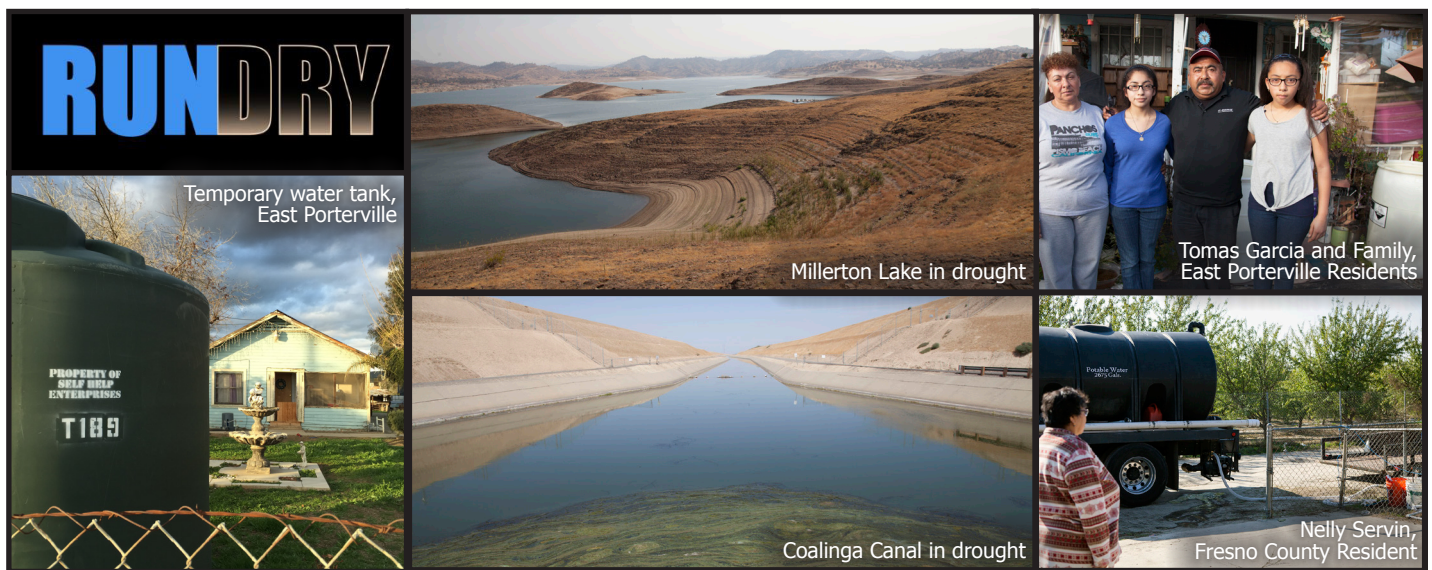
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Diekman is a Professor of Media in the School of Arts at California State University San Marcos. She has over 40 years of experience producing and directing experimental and documentary socially-engaged media projects. She has won awards and grants for her internationally screened media from California Arts Council, California Humanities Community Stories, Paul Robeson Foundation, ZKM, New York State Council on the Arts, New York Foundation for Art, The Keck Foundation and others. Her work is in such esteemed collections as the Getty Center, CA; Fales Library, NYC; Video Out, Vancouver; The Kitchen, NY; and the Lux Center, London. In 2016 she was awarded the CSU Wang Family Excellence Award for her

contributions to the California State University where she is a Professor of Media. Diekman is Director of Video in the Community, a program that collaborates with organizations and individuals to enact social change through media production. At California State University San Marcos, she is the Co-Director of the W.F. Keck funded American Indian Digital Media and Culture Project. Her project, Run Dry, is funded by the California Humanities Community Stories.



Temporary water tank,
East Porterville

Millerton Lake in drought

Tomas Garcia and Family,
East Porterville Residents

Coalinga Canal in drought

Nelly Servin,
Fresno County Resident

Run Dry, multi-media project, 2015 - 2016 Funded by the California Humanities Community Stories

What does clean water bring us and why should we tell the story of its loss? Functionally, without water, we cannot drink, bathe, cook, or clean. Essentially, it is indispensable for empowerment, health, dignity, and economic security.

Water is a human right, yet 10% of the world's population, mostly living in rural areas, lives without safe water.

While globally we use 70% of our water resources for agriculture and 10% for domestic use, catastrophic droughts are devastating parts of North and South America, Africa, China, and Southeast Asia, worsening universal access to water. Run Dry, through personal stories, investigates the significance of water and reveals the systems of power that govern water management. The project addresses how water is accessed and resourced, what systems govern water resources, how they have developed over decades, and how they impact human well-being today. Audiences will learn specifically about the water crisis in Central California as a model for understanding how race, class, migration, water policy, hydrology, and agricultural history combine to create this crisis.

Diekman's signature program, Video in the Community, was founded in 2007 to engage students, faculty, and the community in the collaborative process of creating media for social change. Through this program, she, along with students and community partners, completed more than 50 films and videos that serve non-profit organizations.

To view more videos, please visit: <https://vimeo.com/rundryca>

Facebook: <https://www.facebook.com/rundryca/>

Diekman website: <http://www.kristinediekman.net/current-projects/#/run-dry-1/>

GUEST SPEAKERS

Climate Change

Moderator:



Sen Chiao, San José State University

Associate Professor / Faculty Athletics Representative /
Director, Center for Applied Atmospheric Research and Education (CAARE)
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Dr. Sen Chiao is an Associate Professor in the Department of Meteorology and Climate Science at San José State University (SJSU). Prior to joining SJSU in 2011, he was an Associate Professor at Florida Institute of Technology. Currently he is serving as the Director of the NASA MIRO Center for Applied Atmospheric Research and Education (<https://sites.google.com/a/sjsu.edu/caare/>). Dr. Chiao has more than 15 years of experience in numerical modeling and data analysis with emphasis on meso-tropical research, including quantitative precipitation forecasts, spatial and temporal variability of orographic precipitation, cloud microphysics, as well as dust outbreak with tropical cyclogenesis. The overarching goals are to advance our understanding of fundamental science in the areas of weather and climate change, and their linkages to our environment, as well as societal impacts.



Michael Gunson, Jet Propulsion Laboratory

Global Change & Energy Program Manager; OCO-2 Project Scientist
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Mike Gunson obtained both his BS and PhD in chemistry at Bristol University. Since joining the Jet Propulsion Laboratory in 1987, he has worked on a number of space-borne remote sensing instruments that have flown either on the Space Shuttle or as free-flying observatories. They have spanned measuring the detailed chemical composition of the stratosphere (around the ozone layer), the next generation of weather instruments and air-quality related measurements. Currently, he is splitting his time between helping bring JPL's expertise to address emerging California's needs and the Orbiting Carbon Observatory (OCO-2) satellite, measuring the distribution of carbon dioxide in the Earth's atmosphere.



Marty Ralph, Center for Western Weather and Water Extremes (CW3E) University of California San Diego/Scripps Institution of Oceanography

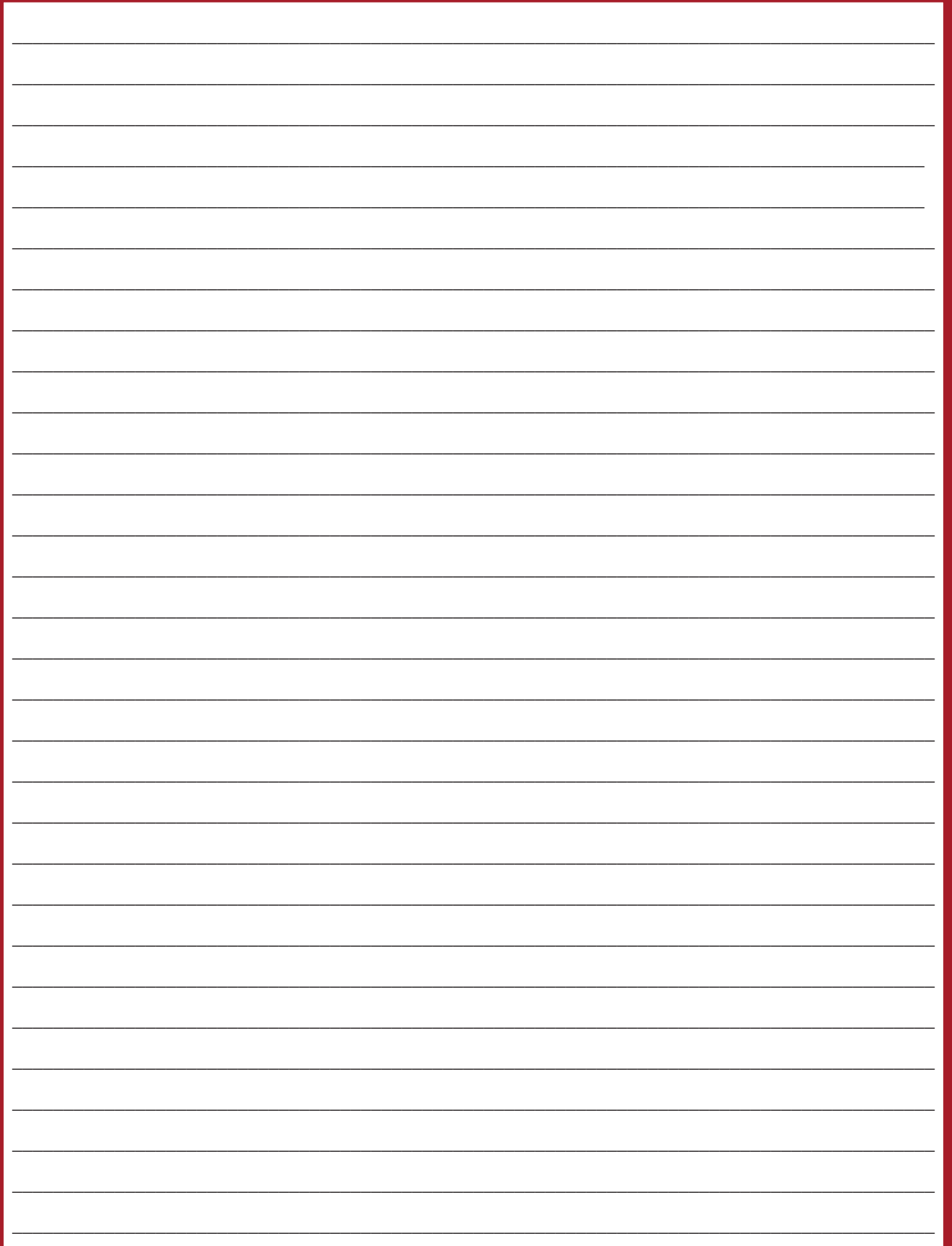
Director
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Dr. F. Martin Ralph is a Researcher at UC San Diego's Scripps Institution of Oceanography, and is the founding Director of the "Center for Western Weather and Water Extremes" (cw3e.ucsd.edu). He is a scientist, manager, and program developer who focuses on developing and carrying out programs that bridge science and its applications to practical problems, especially related to information on extreme weather events and associated issues in precipitation, drought and flood. He has published over 100 scientific articles, received several awards and is a Fellow of the American Meteorological Society. His technical background is in atmospheric science (PhD From UCLA, 1992; BS from Univ. of Arizona, 1984) focused on understanding the physical processes that create extremes in precipitation ranging from flood to drought, and on advancing associated observations, predictions, climate projections, and decision support tools. A primary topic has been atmospheric rivers and their role in mid latitude precipitation.

Forrest Melton, NASA Ames Research Center Cooperative for Research in Earth Science & Technology (ARC-CREST) and CSU Monterey Bay

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Forrest Melton is a Senior Research Scientist with the NASA Ames Cooperative for Research in Earth Science and Technology (ARC-CREST) and with California State University, Monterey Bay. Forrest currently serves as an Associate Program Manager for Water Resources with the NASA Applied Sciences Program. Since 2003, he has worked in the Ecological Forecasting Lab at NASA Ames Research Center on the development of modeling and data assimilation frameworks including the Terrestrial Observation and Prediction System (TOPS) and the NASA Earth Exchange (NEX). His research interests include applications of satellite data and ecosystem models to improve management of natural resources, remote sensing of evapotranspiration and agricultural water requirements, and ecosystem and carbon cycle modeling. Forrest holds BS and MS degrees in Earth Systems Science from Stanford University, and has authored over thirty-six papers and book chapters on applications of remote sensing. He is the recipient of honor awards from NASA for his contributions to TOPS and NEX, and has been recognized for his work on applications of satellite data for water management with awards from the California Department of Water Resources, the Federal Labs Consortium, and NASA.



GUEST SPEAKERS

Water Management

Moderator:



Phillip Miller, Napa County Flood Control and Water Conservation District

District Engineer, PE
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Mr. Miller is a graduate of the University of Southern California and a licensed Civil Engineer with over 40 years of water resources experience. He is currently a Deputy Director of Public Works for Napa County and serves as the District Engineer for the Napa County Flood Control and Water Conservation District amongst others. His areas of responsibility include flood risk management, storm water, groundwater, and imported water supplies.



Jennifer Morales, Department of Water Resources

Environmental Scientist, Climate Change Program
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Jennifer Morales is an Environmental Scientist with the California Department of Water Resources Climate Change Program, specializing in agricultural greenhouse gas mitigation. She started with the Department in 2009 working on the San Joaquin River Restoration Project and Environmental Compliance Monitoring. With the Climate Change Program, Jennifer works on the AB32 Scoping Plan, California Water Plan, the Healthy Soils Initiative, and Prop 1 implementation. She has received multiple Unit Citation awards from the Department for her work on Climate Change. Jennifer attended California State University, Fresno and holds a Bachelor's degree in Biology, and recently graduated from the Water Education Foundation's Water Leaders Program.

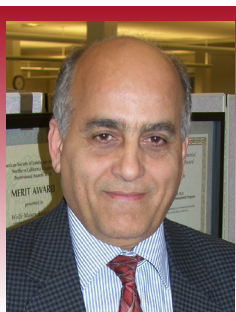


Saied Delagah, Bureau of Reclamation, Denver Federal Center

Chemical Engineer, PE
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Saied Delagah is a Research Engineer at the Bureau of Reclamation having graduated from the University of Colorado with an MS in Environmental Engineering and a BS in Chemical Engineering. He also has an MS in Technology Commercialization from UT Austin. He has been in the field of water treatment for 15 years and has worked in various design and research capacities, along with program management of the desal grant program. He has been involved in technology transfer and prize competitions having led the Desal Prize for Reclamation. He is also a Country Technical Representative to Middle East Desalination Research Center.



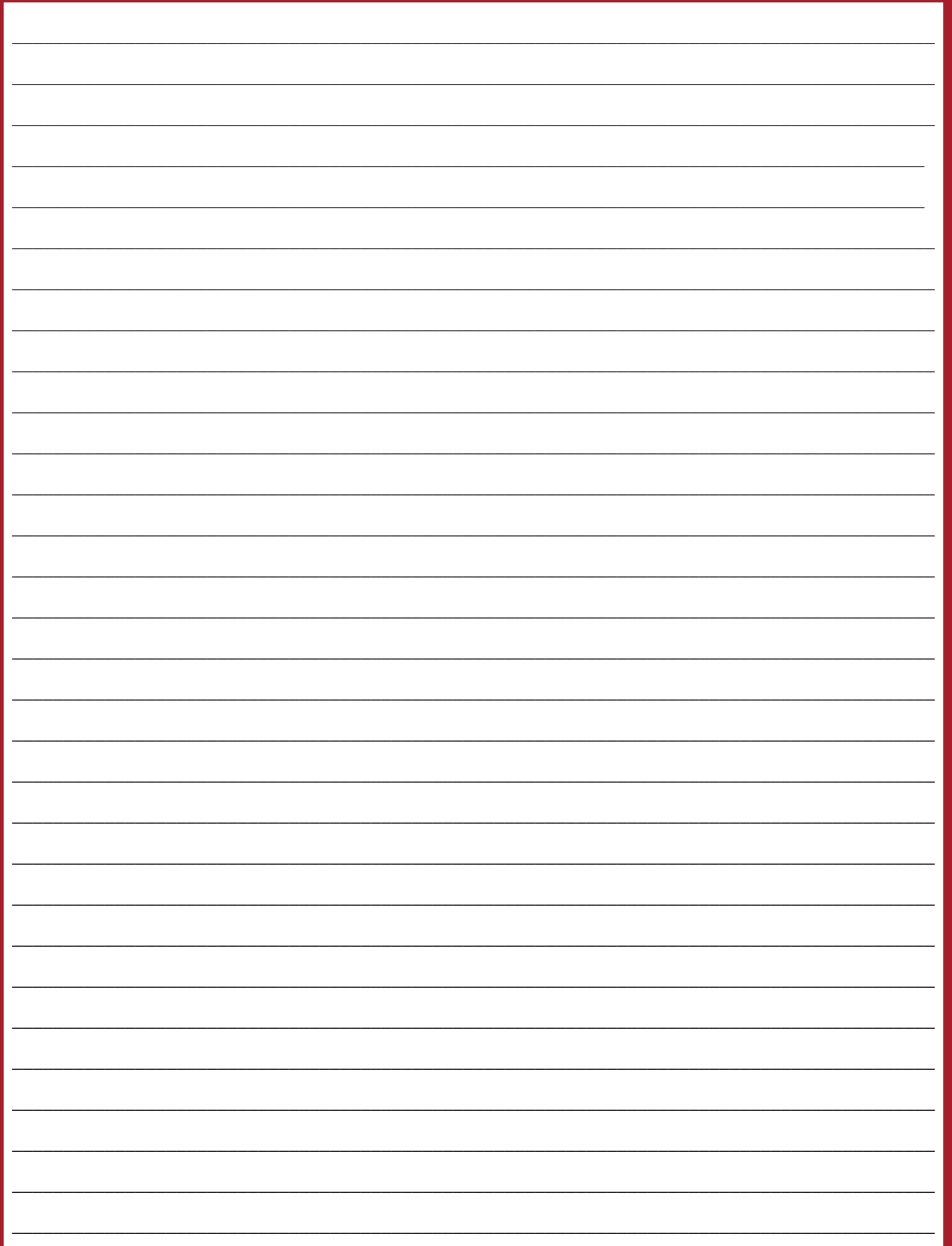
Hossein Ashktorab, Santa Clara Valley Water District

Recycled and Purified Water Manager
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Dr. Hossein Ashktorab has been a Unit Manager of Recycled and Purified Water at the Santa Clara Valley Water District for 20 years. He is currently the Chair of the WaterReuse International Advisory Group. He has a PhD in Soil and Water Science from the University of California, Davis, a Master of Science in Irrigation System Design, and a Bachelor of Science in Agricultural Engineering. He has been responsible for all of the district's Water Recycling programs and played a key role in the implementation of the Silicon Valley Water Purified Water Center. Prior to working for the district, Dr. Ashktorab worked at the California Department of Water Resources for seven years in urban and agricultural water

management. He also taught and performed research at the University of California, Davis and as an Assistant Professor at the Shiraz University, Shiraz, Iran. He has published a scientific book and technical papers on water management.



GUEST SPEAKERS

CSU Faculty/Students

Moderator:



David Zoldoske, WRPI Associate Director

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Dr. David Zoldoske serves as the Director of the Center for Irrigation Technology (CIT) and Executive Director of Water Initiatives at CSU Fresno, where he has been actively working on "water use efficiency" issues for over 30 years. 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).



Jean E. Moran, CSU East Bay

Professor, Dept. of Earth and Environmental Sciences
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Dr. Jean Moran is Professor and Chair of the Department of Earth and Environmental Sciences at California State University East Bay. Her research focuses on using naturally occurring and introduced isotopes to examine geochemical and transport processes in the vadose zone and in groundwater. Dr. Moran has a PhD in Geochemistry from the University of Rochester. She has been an author on more than 50 peer-reviewed publications and has been research advisor to more than twenty students since joining CSUEB in 2008.



Rebeka Sultana, CSU Long Beach

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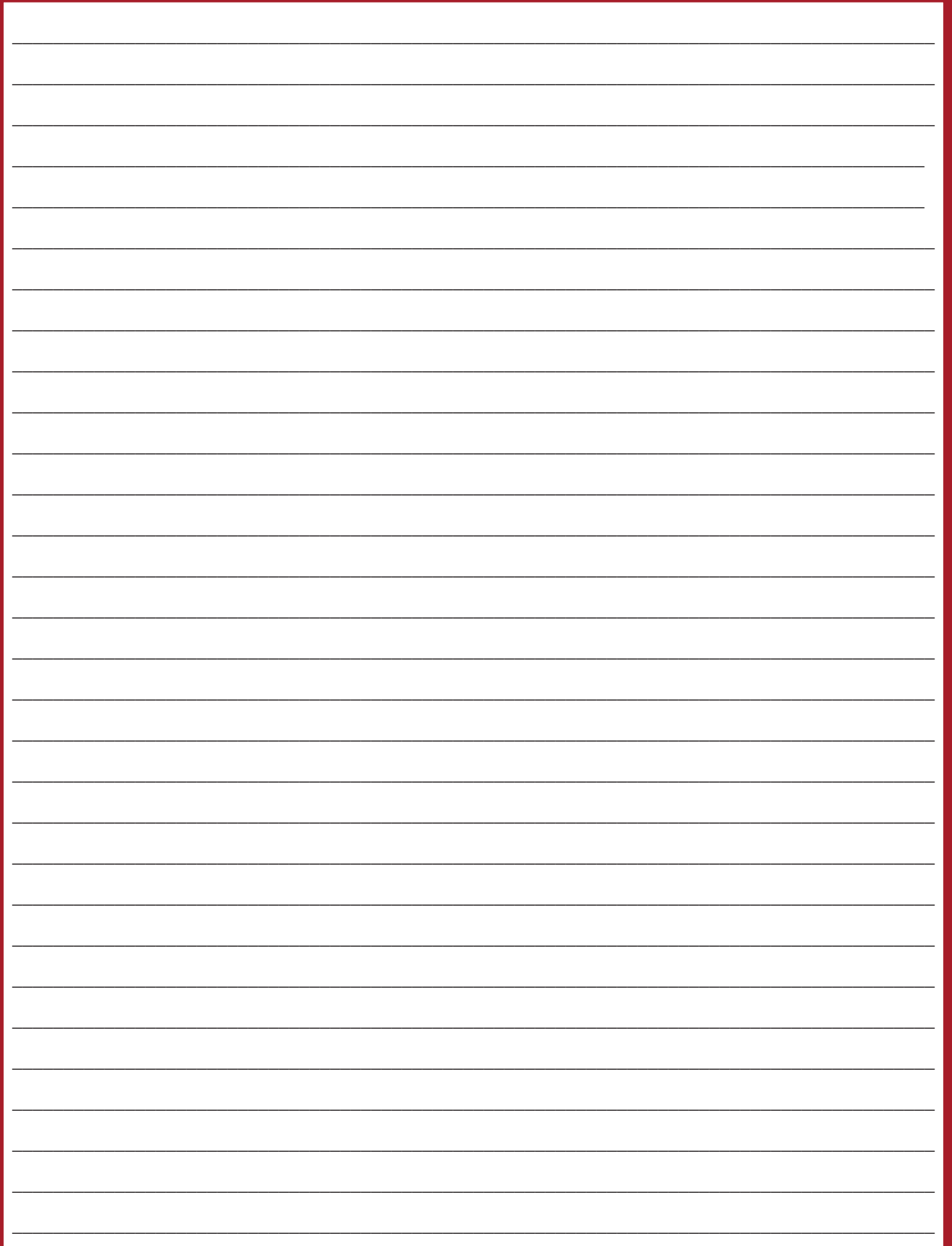
Dr. Rebeka Sultana joined the Department of Civil Engineering and Construction Engineering Management at California State University, Long Beach as an Assistant Professor in 2011. She obtained her PhD degree in Water Resources from the University of California, Irvine; MS degree in Civil Engineering from Purdue University, West Lafayette; and BS degree in Civil Engineering from Bangladesh University of Engineering and Technology, Bangladesh. Her research focuses on hydrologic modeling, land surface modeling, and application of remote sensing data in hydrology.



Nathan Summerville, CSU Long Beach

Grad Student
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Nathaniel Summerville is a graduate student in the department of Civil Engineering and Construction Engineering Management (CECEM). Nathaniel has received his degree at California State Polytechnic University, Pomona with a GPA of 3.92 and was the Valedictorian of the College of Engineering. As an undergrad, he was also a member of ASCE, CWEA, and captain of steel bridge team 2011 for ASCE Student Chapter Competition. He also received Julian McPhee Award for Student Excellence. After graduation, Nathaniel started working at CH2M, a full service environmental consulting firm. His work experience ranges from hydrologic modeling for large planning studies to detailed engineering and design for storm water treatment and conveyance systems. At CH2M, he is also involved in organizing local outreach activities. In his graduate studies, he wants to focus on water resources engineering with the passion for solving storm water quality, flood protection, and water scarcity issues. He is a California Professional Civil Engineer (Lic. 84246). Finally, he is student project manager of the project "Capturing Urban Residential Storm Water: what we can save in semi-arid climate" funded by the Metropolitan Water District of Southern California.



GUEST SPEAKERS

CSU Faculty/Students

(cont.)



Reza B. Lakeh, Cal Poly Pomona

Assistant Professor, Mechanical Engineering
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Dr. Reza B. Lakeh is an Assistant Professor in the Mechanical Engineering Department at Cal Poly Pomona and a visiting faculty in the Mechanical and Aerospace Engineering Department at the University of California, Los Angeles. His expertise includes renewable energy systems, energy storage, and water desalination. Dr. Lakeh has published more than 30 articles in technical journals and conference proceedings in the field of water and energy. He leads a team of researchers at Cal Poly Pomona to explore decentralized greywater reuse. Dr. Lakeh is the principal investigator of a research grant received from the Metropolitan Water District of Southern California under Innovative Conservation Program (ICP) to develop a decentralized greywater treatment system using solar energy for residential homes. Before joining Cal Poly Pomona, Dr. Lakeh worked as a postdoctoral fellow at UCLA for three years and explored Thermal and Compressed Air Energy Storage Systems.



Ali Sharbat, Cal Poly Pomona

Assistant Professor, Civil Engineering
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Ali Sharbat is an Assistant Professor in the Civil Engineering Department at California State Polytechnic University, Pomona (Cal Poly Pomona). His background is in desalination and membrane treatment processes used in water and wastewater treatment, and also environmental remediation. His current research is focused on renewable energy membrane technology development and commercialization, concentrate management, and development of emerging technologies on concentrate disposal in RO processes. In addition, he is actively working with disadvantaged communities (DAC) in California in providing technical assistance in the area of drinking water and desalination.



Kevin Murphy, Sacramento State

Engineering Manager, Office of Water Programs
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Kevin Murphy is the Engineering Manager for Office of Water Programs at Sacramento State, where he has worked on stormwater applied research and management projects for the past 17 years. Prior to working at OWP, he was a project engineer for Radian Corporation for eight years, working mostly on remedial investigation and design projects. He has a Bachelor of Science degree in Civil Engineering from California State Polytechnic University, Pomona and a Master of Science degree in Environmental Engineering from Stanford University. His main areas of interest are stormwater treatment, monitoring, and training.

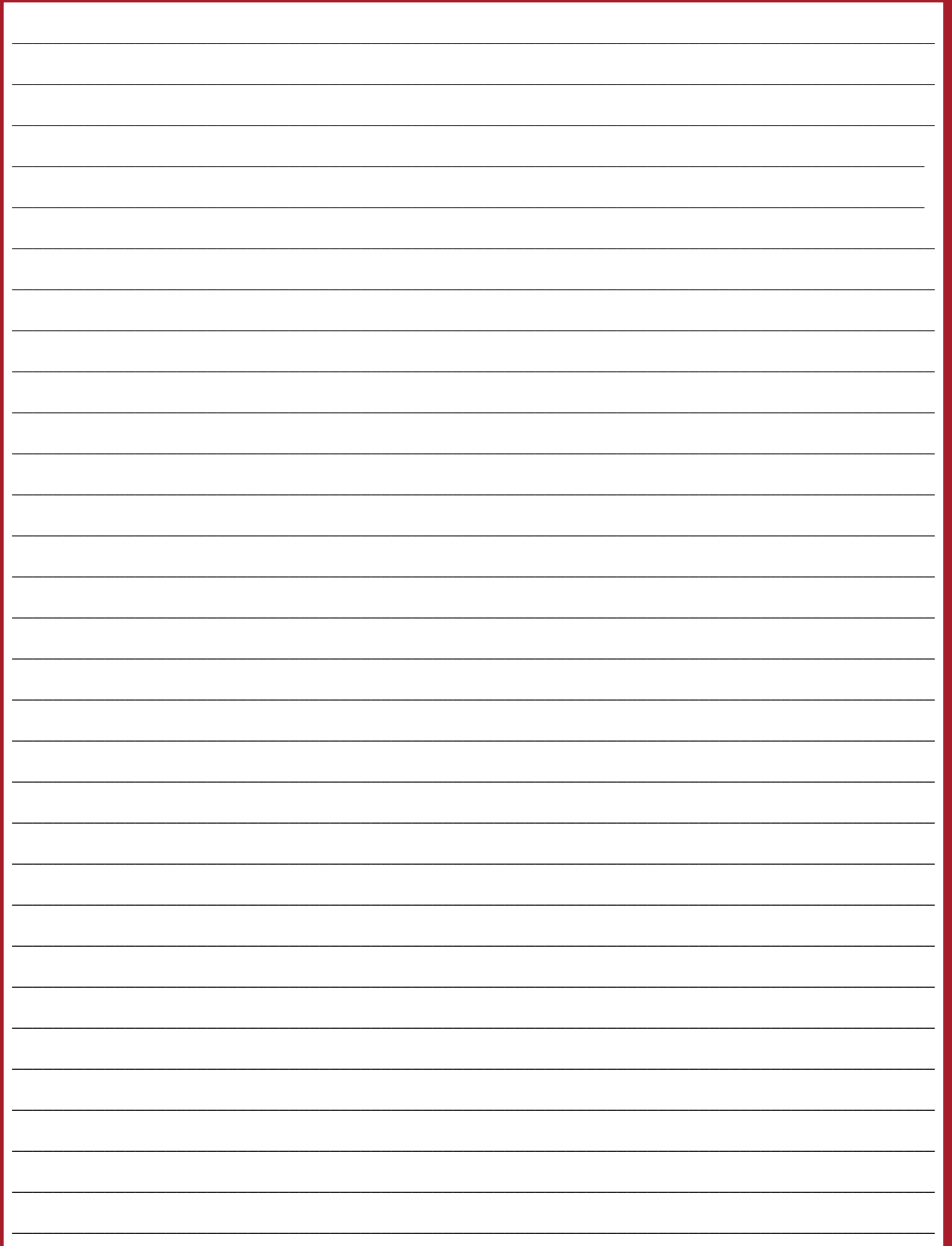


Joel Shinneman, Sacramento State

Research Engineer, Office of Water Programs
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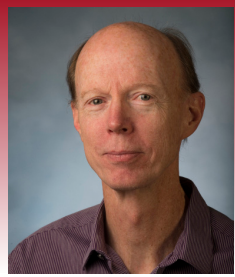
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Joel Shinneman is a Research Engineer for the Office of Water Programs at Sacramento State and a graduate student in Environmental Engineering also at Sacramento State. His professional interests include stormwater monitoring and BMP effectiveness evaluation, as well as low-impact development retrofitting.



GUEST SPEAKERS

CSU Presentations



David Still, Cal Poly Pomona

Executive Director, Agricultural Research Institute
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David Still is the Executive Director of the California State University Agricultural Research Institute, an applied research program supporting research on high priority issues facing California agriculture. In addition, he is a Professor in the Department of Plant Sciences at Cal Poly Pomona. His research focuses on plant improvement through breeding, physiological genetics, and genomics. The Still lab is interested in adapting lettuce to produce a marketable crop when grown at higher temperatures. To mitigate the environmental impacts of growing lettuce, his lab has been developing lettuce that uses less water and less nitrogen, while maintaining or enriching its nutritional content to improve human health. David has studied plant biology and genetics beginning as a Postdoc at UC Davis, he then joined the University of Arizona as an Assistant Research Scientist, and finally at Cal Poly Pomona, where he has taught classes in seed biology, plant breeding, and proposal writing.



Boykin Witherspoon III, WRPI

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Mr. Witherspoon's experience includes the administration of all aspects of the management for the Water Resources and Policy Initiatives 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 Geographic Information System (GIS) applications and software for sustainable landscape architectural planning and design. Mr. Witherspoon's professional experience includes managing interdisciplinary teams of designers, scientists, and software developers creating innovative and sustainable land use and land planning solutions with an emphasis on programmatic suitability and capability analysis. Mr. Witherspoon is dedicated to ingraining GIS and geographic information science into the teaching, legal, and regulatory frameworks that direct development and use of the Earth's resources.



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Julianna Delgado, MArch, PhD, AICP is a Professor in the Department of Urban and Regional Planning at California State Polytechnic University, Pomona, where she teaches land use, urban design, and community planning studios with an emphasis on sustainability, affordable housing, and transit-oriented development. She has also served as the Associate Dean of the College of Environmental Design and is a Founder and Co-Director of the California Center for Land and Water Stewardship. She has presented numerous papers on her research interests at national and international conferences. Dr. Delgado is also a practicing planner and former municipal planning director, a member of the American Institute of Certified Planners (AICP), and the current President of the Southern California Planning Congress. She has served as Chair of both the City of Pasadena's Design Commission and its Transportation Advisory Commission, and represented Council District 5 on the General Plan Update Advisory Committee. Dr. Delgado holds the professional Master of Architecture and PhD from UC Berkeley, as well as a Master of Design from the University of Paris, France, and a Bachelor of Arts from UCLA.



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Mr. Shintaku is a Registered Civil Engineer with over 40 years of public agency and private sector experience in water resources planning, implementation, and management.

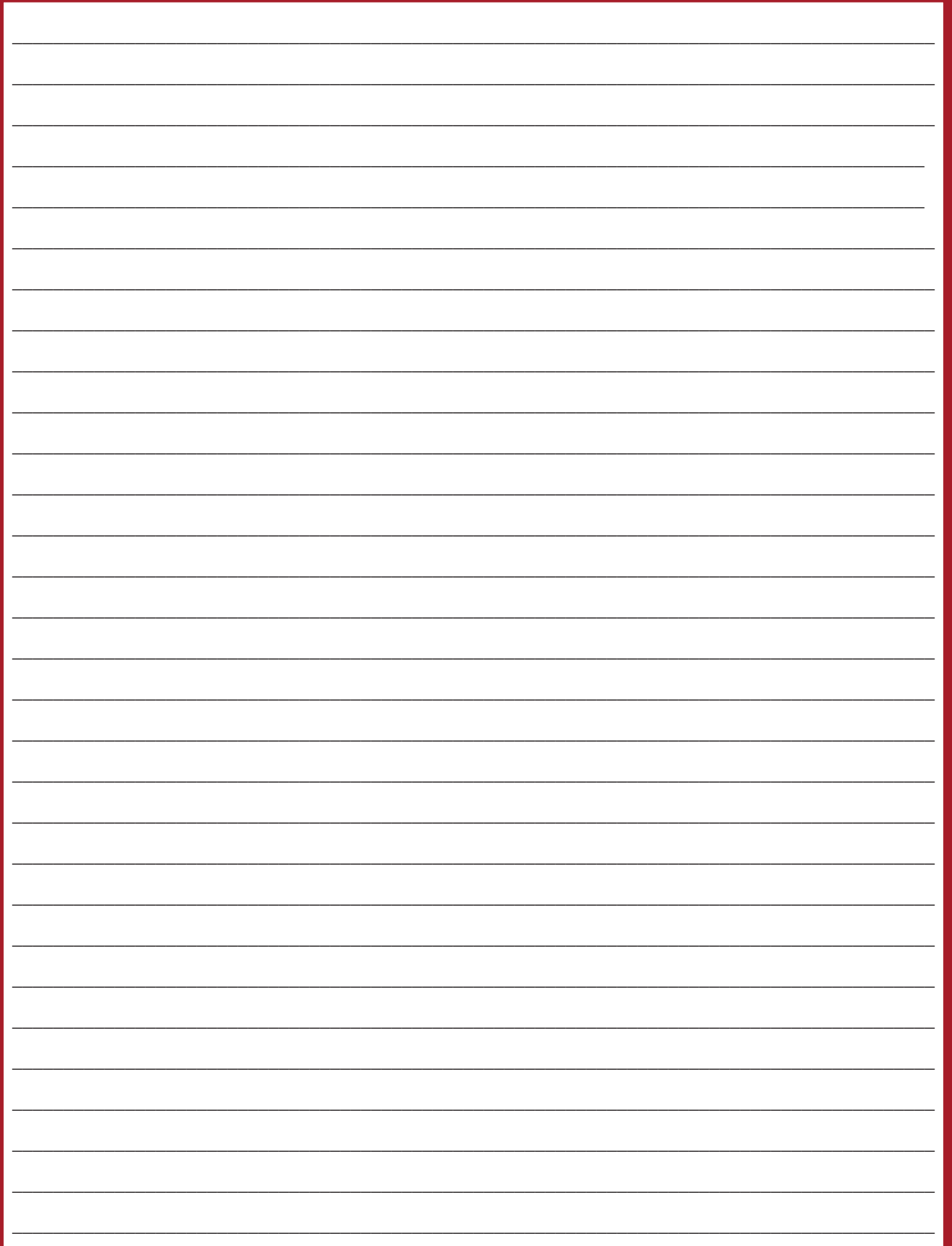


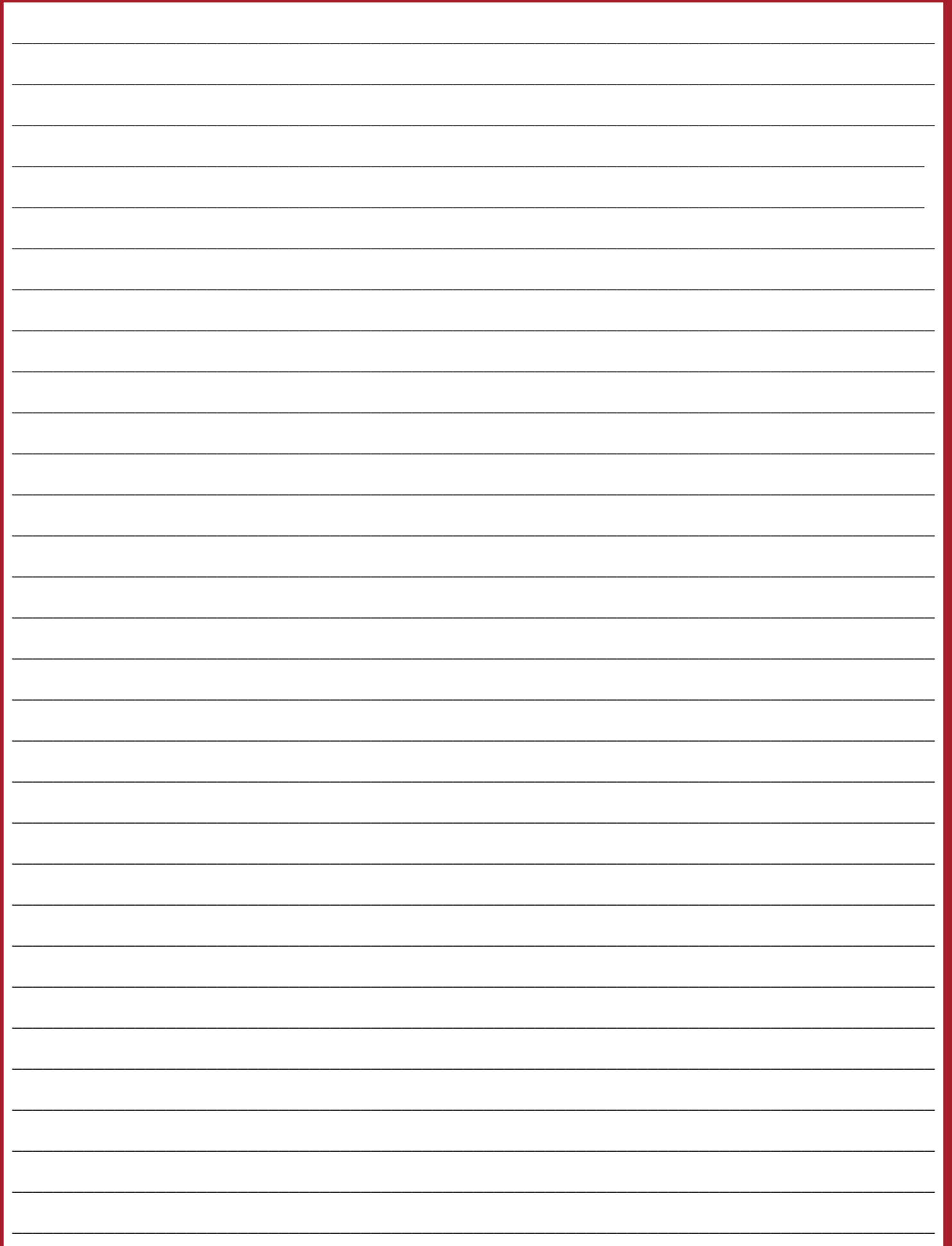
Debbie Whaley, Sacramento State

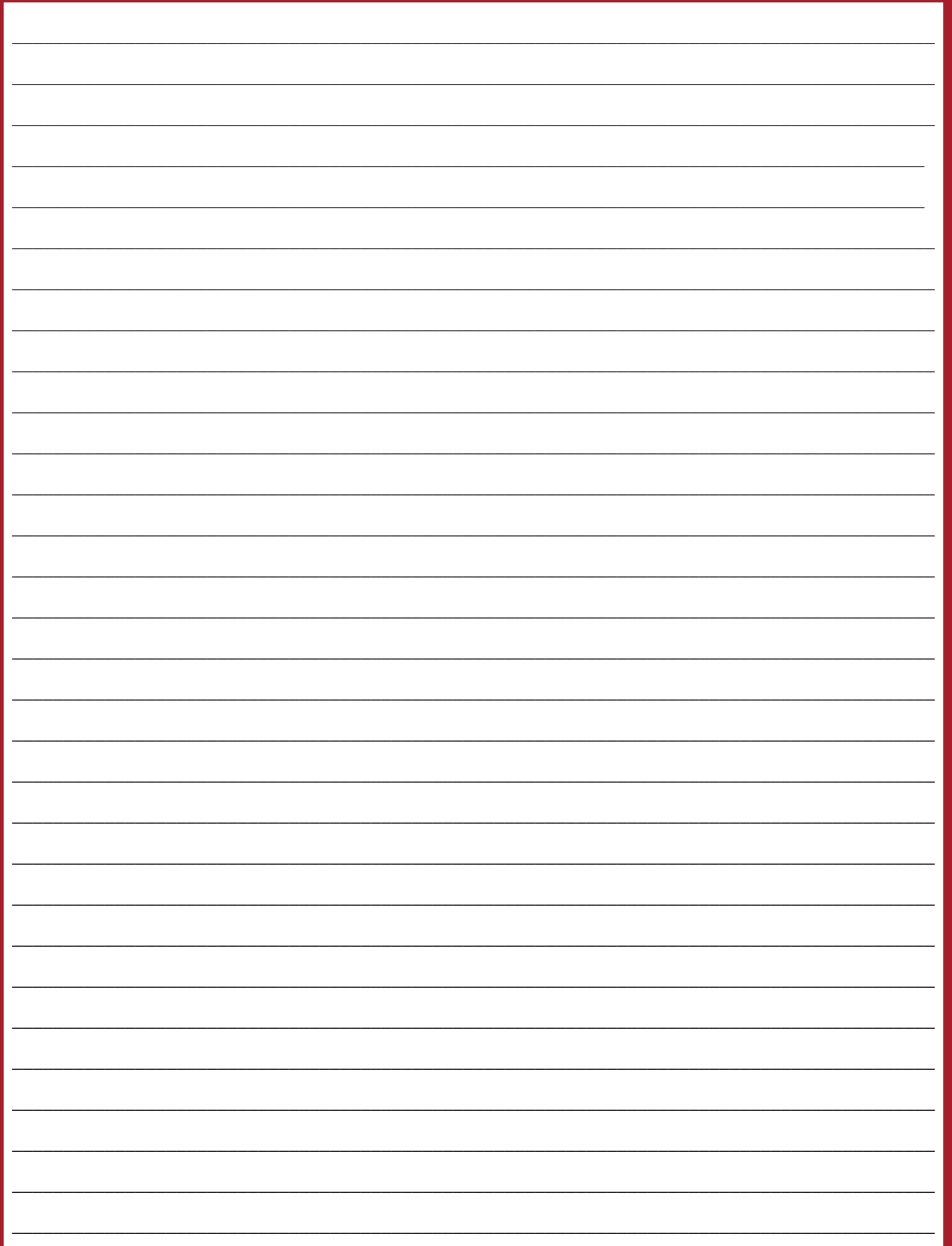
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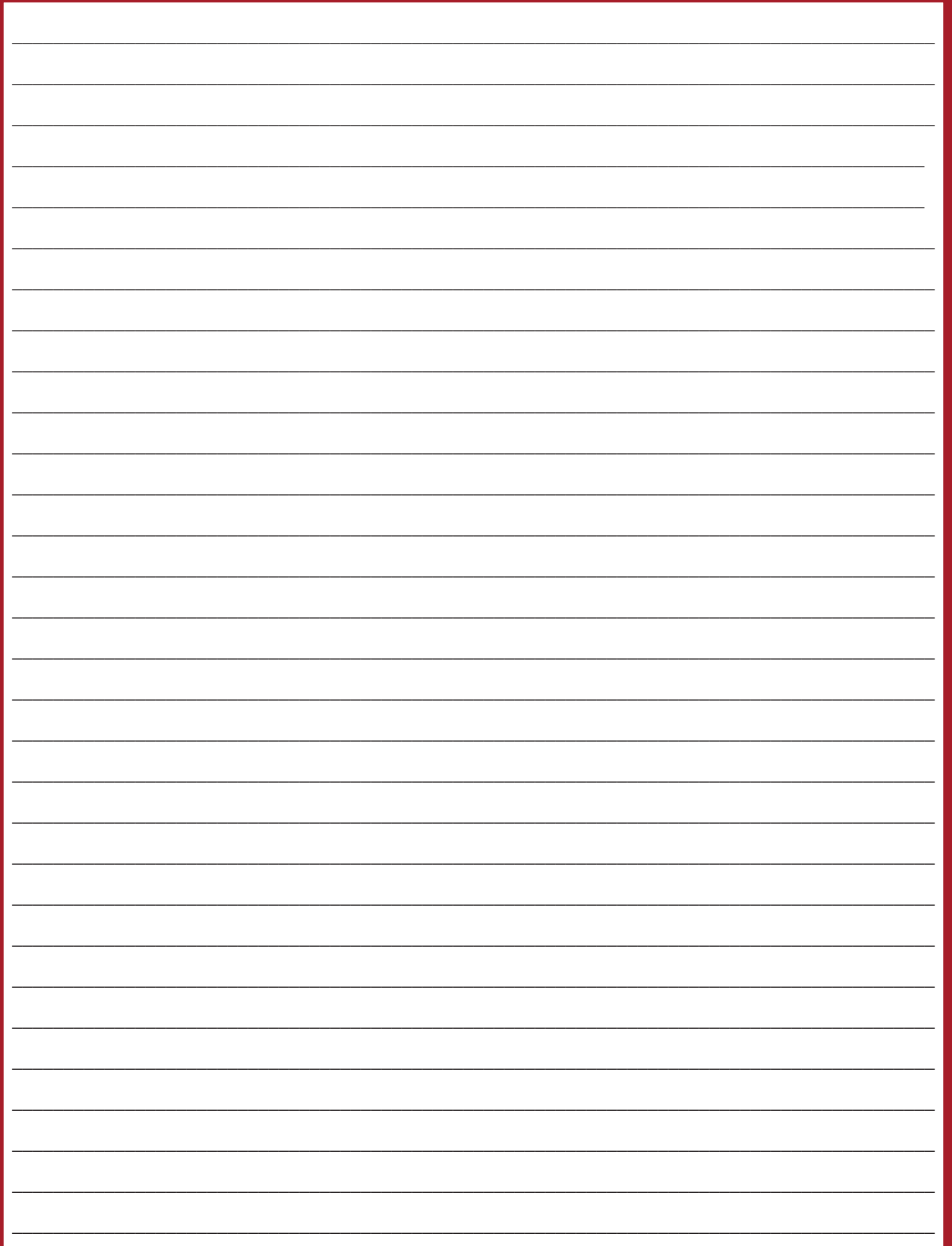
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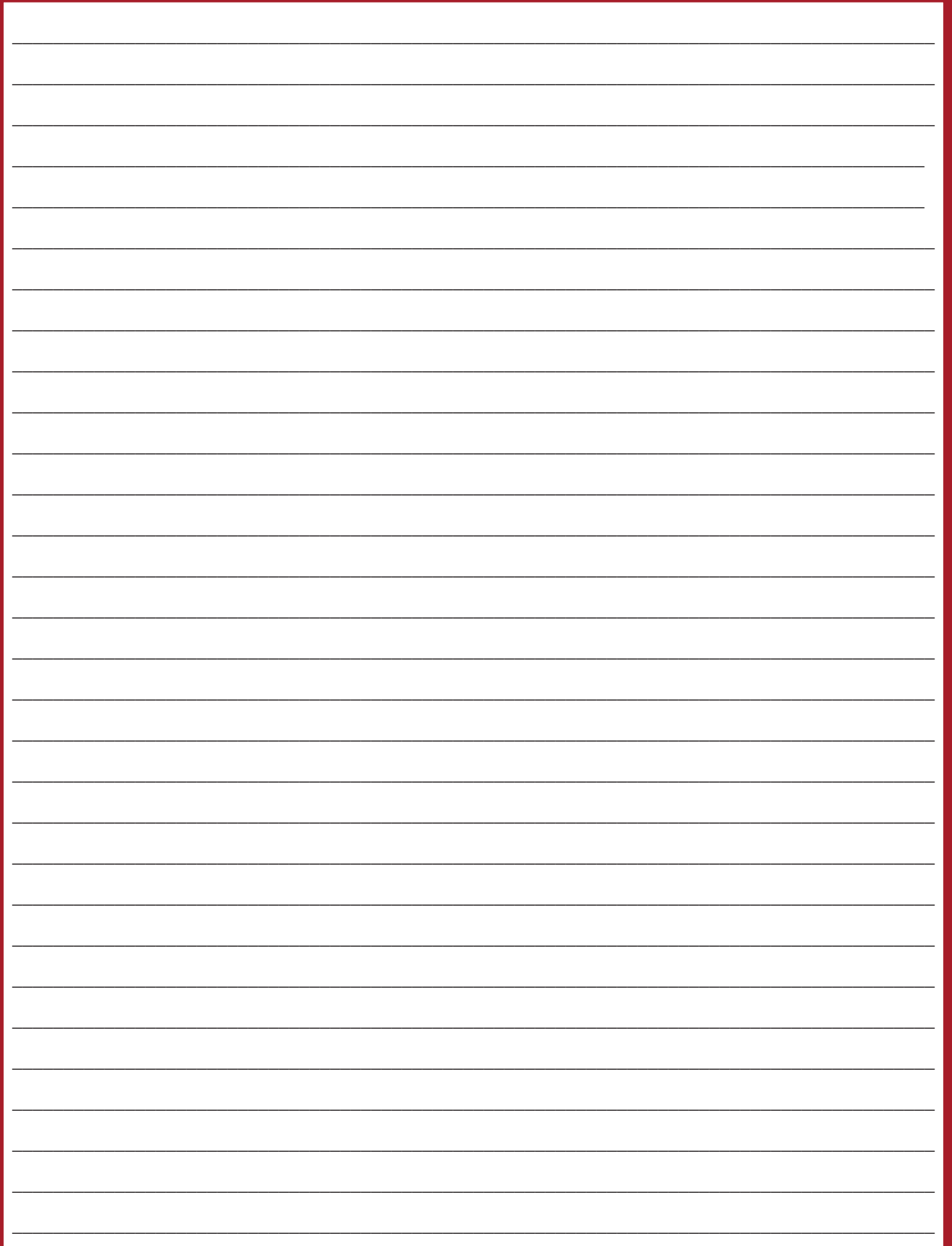
Debbie Whaley is the founding Executive Director of Sacramento State's Institute of Water, Energy, Sustainability and Technology (iWEST). In her over 30 years of experience as a groundwater hydrologist, she has worked on water management challenges in California and around the world. Under her leadership, iWEST will be a platform to facilitate faculty and student interdisciplinary, practical research, and outreach that advance the sustainability of our lifestyle and environment through our water, energy, and food systems.

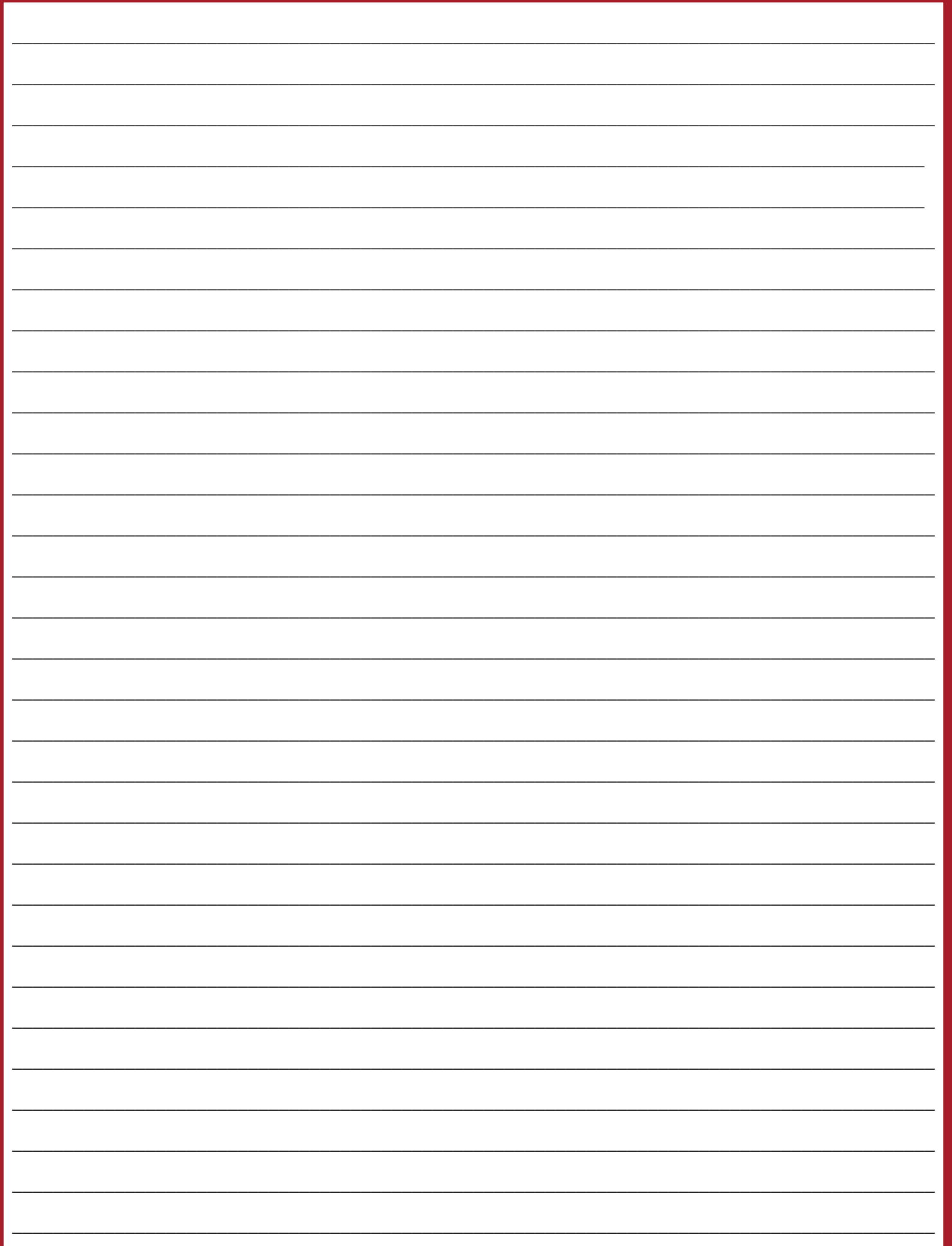












ATTENDEES

Nikolas Adler

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Nikolas Adler is a recent graduate of the California State University, Northridge with a major in Geography. His main area of study is Geographic Information Systems with a focus in natural resource management and digital cartography. He is interested in opportunities to gain real-world experience in the fields of geography and spatial analysis through the use of GIS programs and currently serves as a research assistant and project supervisor for the Center for Geographical Studies.

Rick Bacon

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Rick Bacon is the CEO of Aqua Metrology Systems, a Silicon Valley based start-up that is a leader in online, real-time monitoring of water borne contaminants (Arsenic, Chrome VI, Lead, Copper, Selenium, Disinfection By-Products.)

Bezait Ali

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Bezait Ali is a graduate student in Civil and Environmental Engineering at California State University, Fullerton, working on a master's degree in Water Resources Engineering.

Daniel Andrade

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Daniel Andrade is a senior Mechanical Engineering student at California State Polytechnic University, Pomona, currently working with Dr. Reza Baghaei Lakeh, Assistant Professor in Mechanical Engineering, to design and build a Decentralized Renewable Off-Grid Wastewater Treatment system (DROWT). His previous work experience and training has been in industrial plumbing systems, and he attended Los Angeles Trade Technical College to obtain his certificate and associate degree in plumbing. Daniel's formal education in mechanical engineering and working knowledge of plumbing systems will help contribute towards the realization of the DROWT system.

Pitiporn Asvathanagul

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Dr. Pitiporn Asvathanagul is an Assistant Professor in Environmental Engineering at CSULB. Her expertise is molecular biology in water and wastewater treatment processes. Her research is related to (i) micro-pollutants in groundwater and wastewater combined with soil aquifer treatment, (ii) solids separation problems (foaming/bulking) in full-scale nitrification/denitrification water reclamation plants, (iii) aeration diffuser biofilm fouling associated with energy consumption, (iv) trends of sewage spill overflow in California, (v) nutrient removal in biological treatment processes, (vi) pathogens in drinking water and wastewater, (vii) microbial source tracking in Los Angeles and Coyote Creek rivers, and (viii) biocementation.

Jennifer Bahramian

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Jennifer Bahramian is attending California State University, East Bay, Department of Geology with a major in Environmental Geology. Throughout her undergrad years, she has earned analytical as well as technical abilities to deal with and manage present and future daily problems. She has a strong background in chemistry and knowledge of geology, and is also skilled in field and laboratory research. Jennifer was honored to receive one of the Outstanding Student Awards, presented by the Association for Women Geoscientists - San Francisco Bay Area Chapter in May of 2016.

Nicole Barnhart

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Nicole Barnhart is the Administrative Coordinator for CSU San Bernardino's Water Resources Institute (WRI), as well as the WRPI. Mrs. Barnhart is responsible for overseeing office activities, reimbursement and payroll processing, creating marketing material, and event planning. Her true passion is in vocal performance, but she has also enjoyed her 14+ years in the administrative field in addition to running two businesses in skincare and music education.

Dirk Baron

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Dr. Dirk Baron is a Professor of Geology at CSU Bakersfield. He currently serves as the Chair of the Department of Geological Sciences and the Interim Director of the CSUB's California Energy Research Center. His expertise is in Hydrogeology and Environmental Geochemistry. Current research projects include the occurrence of arsenic in groundwater in the San Joaquin Valley and geochemical aspects of geological carbon sequestration.

Diana Bautista

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Diana Bautista is a California State University San Marcos student, majoring in Environmental Studies and minoring in Political Science and Sociology. She is an ASI Student Representative at Large for Sustainability.

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Dr. Steve Blumenshine is a Professor of Biology and has been at Fresno State since 2001. He leads an active lab with funded research mainly focused on the San Joaquin River Restoration Project and the ecology of juvenile Chinook Salmon.

Mikaela Bogdan

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Mikaela Bogdan is a junior at CSU Monterey Bay, majoring in Environmental Science. As current manager of the CSUMB Post-Soberanes Fire Water Quality Research Project, she is an active water quality researcher at CSUMB. She has recently begun work as a field assistant in CSUMB's Watershed Geology Lab, and looks forward to expanding her knowledge and experience in the field of water quality research through upcoming future projects.

Alison Bridger

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Dr. Alison Bridger is Professor and Chair of the SJSU Meteorology & Climate Science Department. She is currently investigating the rain shadow effect in San José and how well we can forecast it.

Yvette Castellanos

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Yvette Castellanos is an Administrative Assistant for the WRPI. She works alongside the Intern Manager, Christina Rodriguez, coordinating and executing all the necessary requirements, projects, and internships for the USDA grant. She helps manage students from all 23 CSU campuses, faculty, and project managers, as well as from the California Community Colleges. Yvette is currently a graduate student at The University of Redlands, working on her master's degree in Higher Education. She also performs field work at the Mentoring Advising Center at California State University, San Bernardino. Her goal is to further her career in higher education, advising and advocating for education. Yvette is grateful for the opportunity to work at the WRPI/WRI with great staff who share common values such as excellence and making a difference.

Daniella Cazares

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Daniella Cazares is a CSU East Bay graduate student in the Department of Geography, whose areas of study include water resources and computer cartography. She is a returned Peace Corps Volunteer (country of service Togo) from 2013-2015 in the Environmental Action and Food Security sector. Daniella earned her BA from CSU Long Beach in Environmental Science and Policy with a minor in Geography.

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Daniel Chafey is a Materials Engineering Lecturer at San José State University and has been teaching Materials Engineering courses for ten years. He is also a Materials and Processes Engineering Senior Staff at Lockheed Martin Space Systems.

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Tiffany Chao is a graduate student at San José State University. She is a MUP Candidate in Environmental Planning.

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Danielle De Mello is Project Manager at the Center for Geographical Studies (CGS), California State University, Northridge. She has been working in the field of Geographical Information Systems (GIS) since 2010. She graduated from California State University, Northridge with a degree in Geography and a Certificate in Geographic Information Science in 2009 and is currently working towards an MA in Geography. Ms. De Mello's work at CGS has focused on contemporary and historical wetlands mapping, health GIS, municipal GIS, and transportation mapping.

Jordan Deramo-de Silva

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Jordan Deramo-de Silva is a senior at Sonoma State, studying Conservation and Restoration with a minor in Biology. Water resource management is a great combination of his field of interest and he hopes to learn more about ongoing projects.

Frank Dittrich

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Frank Dittrich is a junior at Sonoma State University studying water resources management. He is from the Modesto area and the importance of water management has been made clear over the years. He has experience working on irrigation projects for Van Ryn Brothers, a custom farming business in the valley. Last summer, Frank interned for the Sonoma Resource Conservation District analyzing irrigation systems in vineyards. He has a lot of experience in agriculture and would like to learn more about city utilities and water/wastewater management.

Lizzy Eichorn

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Lizzy Eichorn is a first year graduate student in the Applied Marine and Watershed Science master's degree program at California State University, Monterey Bay. Her WRPI internship will be with the Santa Cruz Resource Conservation District, where she will serve as a Watershed and Agricultural Resources Management Intern during the summer of 2017. Lizzy grew up in Big Sur, CA and is committed to finding innovative, low-technology solutions to water pollution problems across the state. She earned her BA from Colorado College in Biology, and has held numerous positions in natural resource conservation.

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Arthur Eiserloh is a Research Associate and Adjunct Lecturer with the Department of Meteorology and Climate Science, Center for Applied Atmospheric Research and Education at SJSU. His research topics include rainfall forecasting and mesoscale modeling.

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Claudia Espinosa works as a part-time lecturer at Cal State LA. She is a graduate student in the Department of Geosciences and Environment, where she is double majoring in an MA in Geography and an MS in Geology. Claudia is interested in how Geographic Information Systems (GIS) can help study and solve issues in water resource management, primarily water quality and sedimentation concerns. She has collaborated with the Arroyo Seco Foundation and the Urban Water Federal Partnership on the Los Angeles River Restoration Project. Her WRPI-USDA project is on evaluating the sediment management project of Devil's Gate Dam.

Horacio Ferriz

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Dr. Horacio Ferriz is a Professor of Applied Geology at Stanislaus State. He teaches courses in development and management of water resources and in hydrogeology. His research focuses on water transfers and levee stability in the Sacramento-San Joaquin estuary.

Robert Fulton

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Rob Fulton is the site manager for the CSU Desert Studies Center at Zzyzx, CA. He has broad interests in Mojave Desert ecosystems, including water resources, and is responsible for all DSC water quality and treatment requirements.

Jerry Gao

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Jerry Gao is an SJSU Professor and the Director of The Research Center on Smart Technology, Computing and Complex Systems. Dr. Gao is interested in research projects on big data water analysis and prediction and evaluation.

Philip Garone

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Dr. Philip Garone is Professor of History at Stanislaus State. He teaches Environmental History, and his research focuses on 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. In 2015, he completed an environmental history of the Sacramento-San Joaquin Delta, titled *Managing the Garden: Agriculture, Reclamation, and Restoration in the Sacramento-San Joaquin Delta*, for the California Delta Protection Commission.

Francisco Gonzalez

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Francisco Gonzalez is a student at CSU Dominguez Hills in the Earth Science Program. He has taken a groundwater class at the university and is planning on doing his senior seminar project in a hydrogeology topic.

Todd Greene

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Dr. Todd Greene is an Associate Professor at CSU Chico within the Department of Geological and Environmental Sciences, who specializes in sedimentology and stratigraphy of aquifers. He is also the Science Director for the Center for Water and the Environment (CWE). CWE is a hub for research and educational activities related to water and environmental issues consisting of faculty and staff from diverse fields throughout the campus.

Jackie Guilford

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Jackie Guilford is a lecturer in the Departments of Biology and Environmental Studies and Planning at Sonoma State University. For the past two years, she has collaborated with the Sonoma County Water Agency and Sonoma State's WATERS Collaborative to offer an internship in water research to undergraduates. Through this program, students work with community partners in Santa Rosa and Rohnert Park to develop questions and gather data in order to inform decisions on water management in our local community.

Ismael Herrera

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Ismael Diaz Herrera is the Director of the San Joaquin Valley Rural Development Center (SJVRC) and Associate Director, Office of Community & Economic Development at Fresno State. The SJVRC connects disadvantaged communities within the eight-county region of the San Joaquin Valley to a wide range of services, resources, expertise, and training to ensure their needs are met efficiently, effectively, and affordably. It responds to the needs of rural communities by leveraging the assets of university and regional partners. In September 2015, the SJVRC received the 2015 Community Connected Campus Award of Excellence from the University Economic Development Association.

Juan Herrera

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Juan Herrera currently serves as the Campus Relations Manager for the CSU Chancellor's Office of Advocacy and State Relations. In this role, he serves as the legislative liaison with the 23 CSU campuses and develops advocacy and communication strategies to support the CSU's efforts in Sacramento. Prior to joining the CSU Chancellor's Office, Juan was at CSU San Bernardino as the Assistant Director of Government and Community Relations. A first-generation college student from the Inland Empire, Juan received a bachelor's degree in Political Science from CSU San Bernardino.

Kerri Hickenbottom

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Kerri Hickenbottom is a second-year Assistant Professor in the Department of Environmental Resources Engineering at Humboldt State University. Her research is centered on the development of novel membrane processes for resource recovery from waste streams. Her graduate research, funded by NSF COAMP-BD and EPA-STAR fellowships, focused on investigating a hybrid, membrane-based process for energy generation from low-grade heat. Her research also extended to advanced treatment processes for recovery of drilling wastewater from hydraulic fracturing and management of concentrate streams. She enjoys taking her research outside of the laboratory by presenting at professional conferences and participating in K-12 outreach initiatives.

Ghazal Hooshmand

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Ghazal Hooshmand is an Urban Planning student at California State University, Northridge, with a minor in GIS. She has worked on a WRI LA-Riverworks project on safe access points to the Los Angeles River and is currently using her GIS skills, working on an archaeological project.

Eric Houk

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Eric Houk earned his PhD in Agricultural & Resource Economics from Colorado State University. Dr. Houk is a Professor of Agricultural Economics at CSU Chico and serves as the Program Lead in Agricultural Business. His research primarily focuses upon issues relating to efficient water resource allocation. Some examples include research examining the economic impacts of water transfers from agriculture, the impact of groundwater decline, the effects of irrigation induced waterlogging and soil salinization, and examining residential water demand.

Emmanuel Iyiegboniwe

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Dr. Emmanuel Iyiegboniwe is Director of Public Health/Associate Professor at CSUSM. Professor Iyiegboniwe has over 25 years of academic, administrative, and consulting experiences, and currently provides vision and leadership for the new MPH program. He received both MSPH and PhD degrees in Environmental & Occupational Health Sciences from the University of Illinois at Chicago. He teaches courses in environmental health and global public health. He has published many peer-reviewed journal articles and book chapters. Professor Iyiegboniwe is a Thomas Jefferson scholar and fellow of AIHA's Future Leaders Institute, CDC's Environmental Public Health Leadership Institute, and Nippon Foundation Fellowship/AASCU's Japan Studies Institute.

Sarah Johnson

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Sarah Johnson is an Environmental Studies and Indigenous Anthropology major. She is President of the Environmental Studies Club and hopes to work within the Geographical Information System (GIS). Sarah has received Dean's List recognition for three semesters, and received the Scott Fippenger travel fellowship for her study abroad in the Andes Highlands of Ecuador.

Cher Jones

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As a member of the SJSU Sustainability Board, Cher Jones is interested in a healthy environmental community for generations to come.

Steve Karp

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Steve Karp has served as the Interim Dean for Research and Sponsored Programs since July 2016. Prior to this, Steve was the Executive Director of the Sponsored Programs Foundation since January of 2011, and continues to lead SPF in serving the pre-award and post-award needs of HSU. From 2005-2010, Steve served as the Associate Director of the Northern California Small Business Development Center at Humboldt State University. Steve possesses a rich background in the technology industry, where he worked in finance for several high tech firms, including Apple and Viacom. Steve received his BS in Economics from California Polytechnic State University and his MS in Systems Management from the University of Southern California. In addition, Steve has been involved with the Auxiliary Organizations Association for the past few years, including serving as 2016 Chair of the Research Administrators Committee.

Andrew Kennedy

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Andrew Kennedy is a senior Biotechnology student at California State Polytechnic University, Pomona, researching under the advisement of Ali Sharbat, a professor of Civil Engineering at Cal Poly Pomona.

Maria Kennedy

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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 through complex regulatory, political, and policy arenas. Currently, Maria is working with the WRPI as an advisor on disadvantaged communities.

John Keyantash

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Dr. John Keyantash is an Associate Professor in the Department of Earth Science & Geography, with specialization in Hydroclimatology. He researches the hydrography of large waterfalls around the world and has expertise in quantifying drought severity.

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Dr. Leila Khatib is currently serving as the Associate Director for the Biotechnology program at SJSU. Prior to academia, she was a consultant to various cities, municipalities, and government entities for water quality and resource management including RWQCB Region 5. She specialized in molecular methodologies for water quality and resource management.

Kenneth Knoblock

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Kenneth Knoblock is a graduate student in the Interdisciplinary MA program at CSUSB, focusing on Conservation Biology. He is developing a conservation plan for the Vaquita Marino (the world's most highly endangered marine mammal) and it is his hypothesis that the restoration of the Colorado River Delta is essential for this animal's survival. Kenneth also holds a BS in Zoology from SDSU and a JD in law.

Sudarshan Kurwadkar

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Dr. Sudarshan Kurwadkar is an Assistant Professor of Civil and Environmental Engineering at California State University, Fullerton. He is a Board Certified Environmental Engineer and a licensed Professional Engineer. Dr. Kurwadkar's research interests are in the broadly defined area of physical and chemical processes in environmental engineering. Specific examples are fate and transport of emerging contaminants such as pharmaceuticals, and insecticides in the environment; sorption and degradation kinetics of organic contaminants. Besides the teaching excellence award, he is also a recipient of John and Susan Mathes Doctoral Fellowship and Summer Faculty Fellowship at the Air Force Institute of Technology.

Robin López

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Robin D. López has an academic and research background invested locally within the San Francisco Bay Area, as he was raised in Richmond, California. Mr. López graduated from Contra Costa College ('12) with AS degrees in Math, Physics, and Sociology. He later transferred and graduated from San Francisco State University ('15) with a degree in Civil Engineering (BS). Mr. López is currently in graduate school at San José State University for Water Resources Engineering. In the scope of research, he works at the Lawrence Berkeley National Lab in the Hydrogeology Department investigating climate change impact in the Arctic environment.

Kaylie Low

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As an undergraduate researcher for California State University, Monterey Bay and under the mentorship of John Silveus, Kaylie Low's research focuses on water quality in Monterey County. She has participated in multiple research projects that have focused on different aspects of water quality. Her team has looked at post-fire water quality, ephemeral pools on a popular beach, and agriculture pollutants in waterways. Attending this conference will allow her to have deliverables on her projects.

Sami Maalouf

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Dr. Sami Maalouf is an Assistant Professor at CSU Northridge. His research interests are centered on environmental fluid mechanics (water quality models, turbulence, transport phenomena, stratified flow, surface and groundwater flow, and contamination) and sustainable development. Current research focuses on modeling of the fate and transport of constituents and contaminants in coastal zones. The ongoing work addresses techniques to deal with brine effluent from seawater reverse osmosis desalination plants. Additional research includes groundwater contamination and solute transport. Dr. Maalouf is also interested in researching engineering education and finding ways to enhance and optimize the teaching/learning experience.

Joshua Mackie

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Joshua Mackie's research is in effects of pollutants in aquatic ecosystems and invertebrate biodiversity. He currently coordinates the SJSU Green-Talk series, a forum for Environmental Science and Sustainability talks for all SJSU Engineering students (<https://engineering.sjsu.edu/our-college/events/greentalks>.) His driving interest is in cross disciplinary communication to incorporate ecologically and technologically informed approaches in project planning.

Tanisha Martin

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Tanisha-Jean Martin is a graduate student at University of San Diego and has a research partnership with San Diego State University. She was a featured presenter at the WRPI's 2016 Annual Conference; her powerpoint on GIS-usage in the category of Drought and Climate Change was entitled, "Managing Water During Times of Drought." Tanisha-Jean's work was a tremendous contribution in the reduction of the City of San Diego's water usage; she was also a legislative aide-intern at the California State Capitol, where she assisted environmental issues and continues researching creative innovations with potential to be developed into policies that create water-stability.

Sandrine Matiasek

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Dr. Sandrine Matiasek is an Assistant Professor in the Department of Geological and Environmental Sciences at California State University, Chico. She is an aqueous geochemist studying how land use impacts the chemical composition of terrestrial waters. She mentors undergraduate and graduate students on projects ranging from the effects of urban and agricultural land uses on water quality to contamination from historic mining and past industrial practices. Her current EPA People, Prosperity, and the Planet (P3) grant focuses on identifying key design criteria for building high-performing and resilient stormwater biofiltration systems.

Matt Mazzini

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Matt Mazzini is a junior at Sonoma State, majoring in Environmental Studies with a concentration in Water Resources Management and a minor in Biology. He is interested in water treatment, but unsure about what he would like to do; he is considering nonprofit work.

Luis Mendez

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Luis Mendez is a senior at San Diego State University, majoring in Sustainability.

Kyle Miller

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Kyle Miller is a student at California State Polytechnic University, Pomona studying Mechanical Engineering and is most interested in energy and control systems. He is currently involved as a team member in an undergraduate research program to design, build, and market a decentralized solar powered greywater reuse system. This project's goal is to provide a small, easily implemented, and affordable unit to an average consumer in order to save water. The first version of the system has been designed, built, and is currently being tested to be able to optimize the design of the final version.

Danny Miranda

Student
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Danny Miranda is a graduate student in the Department of Geological Sciences at Cal Poly Pomona, whose area of study includes environmental sciences with an emphasis on surface and groundwater hydrology. He is currently working towards completing a master's thesis project involving water resource management in a mountain watershed setting. The project site lies within the eastern San Gabriel Mountains in a natural region known as Icehouse Canyon. Research in this study area has been conducted over the past several years by Cal Poly Pomona in order to obtain a hydrologic record during drought conditions in southern California.

Phoolendra Mishra

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Dr. Mishra joined as Assistant Professor of Civil and Environmental Engineering at CSU Fullerton in 2012. He received his PhD in Hydrology from the University of Arizona. His research interests include 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.

Mohammad Masoud Modabernia

Student
California State Polytechnic University, Pomona
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Mohammad Masoud Modabernia is a California State Polytechnic University, Pomona student pursuing his bachelor's degree in Mechanical Engineering, and he is interested in the field of energy, HVAC systems, and fluid fields. He is currently part of a project of desalination of greywater, building a green energy system which will filter the greywater by using an RO membrane system to produce potable water. The system is running by solar power. The estimated cost of a unit is very affordable, and the team has already designed and built the first version, which is performing perfectly as it was expected. Mohammad Masoud has been learning a lot in the field of design and drafting 3D models, besides gaining hands on experiences.

Amanda Monaco

Policy Advocate
Leadership Counsel for Justice and Accountability
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Amanda Monaco works as a Policy Advocate for Leadership Counsel for Justice and Accountability, supporting rural Fresno County communities' advocacy for their right to a healthy environment and basic infrastructure and services such as clean drinking water. She also advocates for equitable development, investment, and land use policies at the county and state level. She is from Gainesville, Florida, and attended the University of Florida and later attended Georgetown University Law Center in Washington, DC. Before working with Leadership Counsel, she worked in DC and Mexico as an ally for communities fighting environmental injustice.

Theary Monh

Student
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Theary Monh is a graduate student in Civil Engineering with an emphasis in Environmental Water Resources at Cal Poly Pomona. He participated in the 2016 WRI/WRPI internship with the Angeles National Forest as an Engineering Intern. The opportunity has given him experience in working with the agency in protecting the urban forest of Los Angeles County, while ensuring the forest is accessible and preserved for its residents. Theary hopes to use his academic and professional expertise in doing his part in environmental protection in engineering solutions to preserving our precious resources.

Jovana Morales

Student
San Diego State University
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Jovana Morales is a student at San Diego State University, majoring in Public Administration. She is interested in working with the United States Department of Agriculture and is attending the WRPI conference to gain knowledge of the environmental field.

Zane H. Mortensen

Undergraduate Researcher
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As project manager of the Undergraduate Research Opportunities Center's (UROC) bioremediation project at California State University, Monterey Bay, Zane Mortensen was tasked with the responsibility of designing a system and developing a protocol that would allow the team to measure variables that may influence the denitrification potential of woodchip bioreactors. Through examining these variables in a controlled environment where possible confounding variables could be manipulated, he was able to create optimal conditions that promoted productivity among cultivated microbial populations, as well as study different substrates and woodchip size that allowed him to maintain hydraulic efficiency throughout the system. While working on this project, Zane had the opportunity to disseminate the findings at several conferences, as well as the planned publication of two journal articles entitled, "An analysis of the hydraulic performance of woodchip bioreactors containing varying substrate grades" and "Hydraulic modeling of the CSUMB bioreactors: examining media efficiencies."

Michael Parrish

Dean, College of Science
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Michael Parrish has been Dean of the College of Science at San José State University since 2006.

Vannia Pena

Student
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Vannia Pena is a Microbiology undergraduate student attending Humboldt State University, who completed a WRPI internship in the summer of 2016.

Megan Pentecost

Undergraduate Researcher
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Megan Pentecost is an undergraduate research student majoring in Environmental Science at CSUMB. She manages the Salinas Valley water quality project under UROC that measures the effects of nutrients along waterways in the Salinas and Moss Landing area to address agricultural runoff and its connections to algal blooms. She is also a lead researcher on the Soberanes water quality project that studies the Soberanes wildfire influence on the Big Sur region's watershed. Megan values the opportunity to do meaningful work in her field as an undergraduate student.

Ashleen Rai

Student
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Ashleen Rai is a fourth-year student at Sonoma State University, majoring in Environmental Studies with a Business minor. She is currently working on creating a rainwater catchment system on campus which will help make the campus more sustainable. Ashleen just received a \$3,000 project grant and is working with a professional engineer to help further advance this project.

Laura Ramos

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Laura Ramos is a Program Coordinator for the International Center for Water Technology (ICWT) at Fresno State. She is responsible for the 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.

Marya Robinson

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Marya Robinson is a junior at Sonoma State University, majoring in Environmental Studies Water Resource Management

Nichol Roe

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Nichol Roe is the Program Director for the Water Management Certificate at California State University San Marcos.

Ju-Mee Ryoo

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Ju-Mee Ryoo is a Research Scientist with the NASA Ames Research Center, San José State University. Her areas of expertise include climate dynamics and hydrological cycle, air pollution, and transport/trajectory modeling.

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Dr. Maryam Shafahi is an Assistant Professor in Mechanical Engineering Department at California State Polytechnic University, Pomona. She is currently working on water conservation through aquaponics.

John Silveus

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John Silveus is an instructor of Environmental and Biological Sciences at CSU Monterey Bay. He teaches Introduction to Environmental Science, Environmental Biology, and Water Quality Research Methods. He oversees the Water Quality Research Group, as well as the Bioremediation Research Group with Dr. Arlene Haffa, working on the bioremediation of agricultural runoff containing nitrates, phosphates, and pesticides using bacterial strains within bioreactors.

Michelle Stevens

Associate Professor
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Dr. Michelle Stevens works on ecological restoration of riparian wetlands and mountain meadows in the Sierra Nevada, using both historic ecology and ethnoecology for a reference template, as well as a novel ecosystem approach accounting for ecosystem services. Her team is evaluating restoration success on two project sites; one long-term 25-year restoration site contrasting with a second "novel" restoration site subjected to frequent wildfires. They are estimating carbon sequestered in soils and vegetation to quantify carbon sequestration to assess adaptations to climate change. The California Rapid Assessment Method (CRAM) is used to establish a baseline to determine wetland health and condition over time.

Samantha Stevens

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Samantha Stevens is a junior at Sonoma State University. Her major is Environmental Studies with a focus on Water Resources Management.

Garrett Struckhoff

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Dr. Garrett Struckhoff is an Associate Professor at CSU Fullerton. His research specializes in contaminant uptake into plants and biostimulation of contaminant-degrading bacteria. Dr. Struckhoff was recently published in *Chemosphere* and the *Journal of Phytoremediation*.

Stuart Styles

Professor
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Stuart Styles is the Director of the Irrigation Training and Research Center (ITRC) at California Polytechnic State University, San Luis Obispo (Cal Poly) and also a Professor in the Cal Poly BioResource and Agricultural Engineering Department. He teaches university classes as well as numerous short courses for irrigation professionals. His current research interests include irrigation system design/performance, irrigation modernization, and emerging electronic flow measurement technologies. He has over 30 years of field experience in irrigation as a consultant and engineer. He is a Registered Civil Engineer in California with BS and MBA degrees from Cal Poly San Luis Obispo and a doctorate from UC Davis.

Ellen Suryadi

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

Gregory Thomas

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Gregory Thomas is the General Manager at Rincon del Diablo Municipal Water District, as well as an instructor in the Water Certificate program at CSU San Marcos.

Daryl Trudeau

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Daryl Trudeau is an Engineering Science student at CSU Bakersfield. He conducts research for the Engineering Department under Dr. Yiannis Ampatzidis and will be presenting a poster on SMART systems in irrigation.

Rachael Urbano

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Rachael Urbano is a junior at California State University, Dominguez Hills, pursuing a BS degree in Earth Science. Her interests include land use, sustainable water practices, the effect of climate change on natural resources, and alternatives to imported water in southern California. Experience includes internships at West Basin Municipal Water District and City of Carson, where the use of GIS is employed for public planning.

Kaomine Vang

Research Project Manager
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Dr. Kaomine Vang is the Hydraulics Laboratory manager for the Center for Irrigation Technology (CIT) at California State University, Fresno. He teaches courses in Irrigation Systems Technology and performs water-related research. His research includes the application of Soil Moisture Sensor technology, nitrate management, and monitoring in vegetables. Additionally, Dr. Vang coordinates education seminars and workshops, which focus on new irrigation and water technology.

Amelia Vankeuren

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Dr. Amelia Vankeuren is an Assistant Professor of Hydrogeology in the Geology Department at Sacramento State. Her specialty is groundwater-rock interaction, with a focus on the water-energy nexus and sustainable groundwater use. Previous and ongoing research includes geological carbon dioxide storage to combat climate change by turning carbon dioxide into rocks, the impact of hydraulic fracturing (fracking) for oil and gas production on groundwater chemistry and reservoir permeability, and determination of recharge source and timing to Central Valley aquifers.

John Woolley

Chief Investment Officer
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John Woolley is the Chief Investment Officer of Caritas, a nonprofit organization, whose mission is to provide and maintain quality and affordable housing. Many of the communities that the group looks to purchase have substandard water systems for the residents. Mr. Woolley's goal is to learn as much as possible about how to improve the quality of life for these residents.

William Wright

Professor of Civil Engineering
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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 and is currently at the rank of Professor. 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 biofiltration.

Charlie Wyatt

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Charlie Wyatt is a registered California Professional Engineer with over 27 years of experience as a consulting engineer. Mr. Wyatt's consulting background includes civil/environmental engineering, water resources, environmental permitting, stormwater management and control development, environmental permitting, groundwater remediation, modeling, and capital project development, permitting, and construction management. He has worked on water development projects in the United States, South and Central America, Nepal, and India. Mr. Wyatt graduated from North Carolina State University in Civil Engineering and is an active member of Engineers Without Borders.

Alexandra Yost

Student
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Ali Yost is a senior at San Diego State University, graduating in May 2017 with a Bachelor of Arts in Sustainability and minors in Business Management and Physical Geography. She is interested in pursuing career opportunities related to conservation planning, watershed protection, and landscape ecology. She has been recognized on the Dean's List throughout her entire undergraduate career at SDSU and maintains a 3.75 GPA while also gaining various internship and work experience. Outside of class and work, she enjoys hiking, going to the beach, volunteering, and cooking.

San José State University

■ Main Conference Location:
Student Union, Ballrooms A & B

■ Parking (North Parking Garage)

■ Bus drop off / pick up
(near Student Services Center)

■ Parking Services

If driving:

Park in the North Parking Garage.

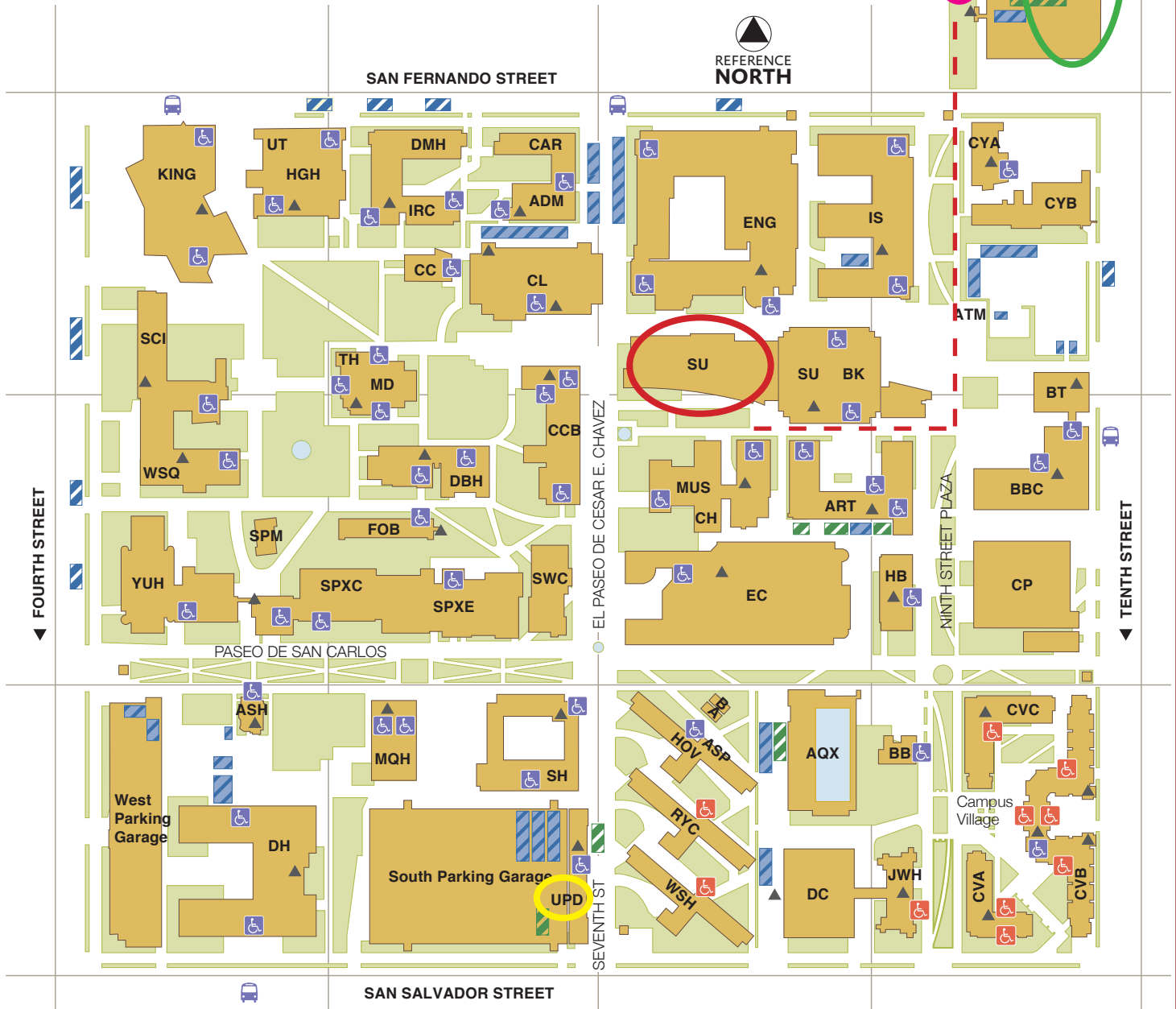
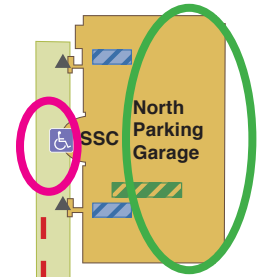
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- 1) have a valid expiration date and
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Employees whose permits don't meet both conditions can obtain a courtesy permit from the Parking Services office located in the 1st floor of the University Police building with proof of CSU employee status.

-Students and/or non-CSU employees, park and locate the closest paystation (North Parking Garage - along west wall near elevator lobbies on levels 3 and above).

- 1) Scroll to (using MORE CHOICES option) and select REDEEM ePERMIT CODE.
- 2) Enter code **1973138** and select OK to redeem and print your permit.
- 3) Return to your vehicle and display the permit face-up on the front driver side dashboard.



the 1990s, the number of people in the UK who are employed in the public sector has increased from 10.5 million to 12.5 million, and the number of people in the public sector who are employed in the health sector has increased from 2.5 million to 3.5 million (Department of Health 2000).

There are a number of reasons for this increase in the number of people employed in the public sector. One reason is that the public sector has become a major employer in the UK. Another reason is that the public sector has become a major employer in the health sector. This is due to a number of factors, including the increasing demand for health services, the need for more staff to provide these services, and the need for more staff to manage the health services.

The increase in the number of people employed in the public sector has led to a number of challenges for the public sector. One challenge is the need to manage a larger workforce. Another challenge is the need to provide training and development for the workforce. A third challenge is the need to ensure that the workforce is motivated and engaged.

There are a number of ways in which the public sector can address these challenges. One way is to invest in training and development. Another way is to improve the working conditions of the workforce. A third way is to improve the management of the workforce.

The public sector has a number of advantages over the private sector. One advantage is that the public sector is not driven by profit. Another advantage is that the public sector is more likely to provide services that are in the public interest. A third advantage is that the public sector is more likely to be held accountable to the public.

There are a number of disadvantages to the public sector. One disadvantage is that the public sector is often more bureaucratic. Another disadvantage is that the public sector is often more expensive. A third disadvantage is that the public sector is often less innovative.

The public sector has a number of opportunities. One opportunity is to improve the efficiency of the public sector. Another opportunity is to improve the quality of the services provided by the public sector. A third opportunity is to improve the transparency of the public sector.

The public sector has a number of challenges. One challenge is to manage a larger workforce. Another challenge is to provide training and development for the workforce. A third challenge is to ensure that the workforce is motivated and engaged.

The public sector has a number of ways in which it can address these challenges. One way is to invest in training and development. Another way is to improve the working conditions of the workforce. A third way is to improve the management of the workforce.

Water Resources and Policy Initiatives

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