

Panelist & Speaker Profiles

Emerging Climate Science Symposium



**Delta
Independent
Science Board**

DELTA STEWARDSHIP COUNCIL

Keynote Speakers



Dr. Daniel Swain is a climate scientist focused on the dynamics and impacts of extreme events—including droughts, floods, storms, and wildfires—on a warming planet. Daniel holds joint appointments as a climate scientist with University of California [Agriculture and Natural Resources \(UCANR\)](#) and as a research partner at the NSF National Center for Atmospheric Research. He engages extensively with journalists and other media partners, serving as a climate and weather science liaison to print, television, radio, and web-based outlets to facilitate accessible and accurate coverage and conversations surrounding climate change. Daniel is an alumnus of the University of California, Davis (B.S., Atmospheric Science) and of Stanford University (Ph.D., Earth System Science), and completed his postdoctoral work at UCLA. He also authors the widely-read Weather West blog (weatherwest.com), which provides real-time perspectives on California weather and climate, and can be found on Bluesky ([@WeatherWest](#)), YouTube ([@WeatherWest](#)), and Twitter/X ([@Weather West](#)).

Dr. Laurel Larsen is an Associate Professor of Hydrology at Uppsala University, Sweden and Adjunct Associate Professor of Civil and Environmental Engineering at the University of California, Berkeley. Her research focuses on watershed hydrology, streamflow forecasting, and dynamic flow, sediment transport, and vegetation dynamics in low-gradient environments. Dr. Larsen served as the Delta Lead Scientist



from 2020-2023 and launched multidisciplinary research initiatives for evaluating alternative futures for managing salinity in the Delta and water supply for the Sacramento-San Joaquin River system.

Panel: Emerging Climate Research

Dr. Paul Ullrich is a Professor of Regional and Global Climate Modeling at University of California, Davis and the Lead of Earth-Energy Systems Resilience at Lawrence Livermore National Laboratory. His work focuses on analysis of climate data and translation of data to meet practitioner needs.



Dr. Benjamin Hatchett is a Fire Meteorologist at Colorado State University's Cooperative Institute for Research in the Atmosphere supporting the User Needs Assessment Team of the NOAA Global Systems Laboratory's Fire Weather Testbed. Previously he was an Assistant Research Professor in Atmospheric Sciences at the Desert Research Institute and Regional Climatologist at the Western Regional Climate Center in Reno, Nevada. Since 2011, he has

taught Mountain Weather at Lake Tahoe Community College. Born and raised in Yolo County, he received his Ph.D., M.S., and B.S. degrees from the University of Nevada, Reno in Geography and Atmospheric Science with a minor in Hydrogeology. His research has focused on past, present, and projected weather and climate extremes and related natural hazards in mountain and dryland regions using observations, models, and in the last eight years, an increasing integration of social science through varied collaborations. He volunteers as a prescribed fire practitioner in Northern California and spends as much time as possible on ridgelines, preferably on skis.

Dr. Alan Rhoades is a Hydroclimate Research Scientist in Berkeley Lab's Earth and Environmental Sciences Area who uses climate models to assess how mountainous water cycle processes are influenced by climate change, how those changes might influence water resource management, and how the scientific community might better help water managers preemptively adapt to these changes. Alan was



born and raised in the California Sierra Nevada and received his Ph.D. in Atmospheric Science at the University of California, Davis. Outside of work hours, Alan enjoys hiking, bouldering, keeping up with his dog child, Luna, and nature photography. For more information on Dr. Rhoades' research, please visit www.alanrhoades.com.



Dr. Mike Hobbins received his Bachelor's in Civil Engineering from the University of Leeds (UK) and his M.S. and Ph.D. from Colorado State University. He has worked with NOAA since 2009, first at the National Weather Service-Colorado Basin River Forecast Center in Salt Lake City, UT, and then, since 2012, at NOAA's Physical Sciences Laboratory in Boulder, CO, through his position as a Senior Research Scientist at the University of Colorado-Cooperative Institute for Research in Environmental Sciences (CIRES). His overall research motivation is to improve

how the world engages with drought, which involves examining and exploiting physical processes that occur at the land/atmosphere interface to generate early warning and improved monitoring of drought, resulting in the development of new decision-support tools, such as the Evaporative Demand Drought Index (EDDI).

Dr. Carrie Levine is a research scientist specializing in climate change and wildfire resilience and the Director of Sustainable Forests and Agriculture Management at Spatial Informatics Group. She partners with agencies, communities, and research institutions to develop strategies that reduce wildfire risk while promoting ecological health. Her work bridges climate policy, applied science, and landscape planning, including leadership in developing Planscape, a free and open-source decision-support tool for wildfire resilience and land management. Carrie is committed to building collaborative approaches that prepare people and ecosystems for the challenges of a changing climate.



Panel: State of Science to Support Long-range Planning



Dr. Dan Cayan* is a Research Meteorologist at the Scripps Institution of Oceanography, University of California, San Diego. He has a lengthy career of research aiming to better understand how climate variability and changes operate over western North America, Cayan is one of the lead scientists involved in the ongoing series of climate change assessments for California.

Cayan received an undergraduate degree from the University of Michigan School of Engineering. He went on to the University of California, San Diego where he earned a PhD in Oceanography. He has been employed by Scripps since 1977. Cayan is a Fellow of the American Geophysical Union.

*Dr. Cayan is also part of the Emerging Climate Research Panel.

Dr. Michael Dettinger is a visiting researcher for Scripps Institution of Oceanography's Center for Western Weather and Water Extremes, although he now lives in Carson City at the foot of the eastern Sierra. He retired from being a senior scientist for the U.S. Geological Survey in 2019 after 38 yrs of studies of climate and water resources in California and the rest of the West. He still researches hydro-climatic variability and extremes (including atmospheric rivers and droughts), and climate-change impacts and adaptations. He is a Fellow of the American Geophysical Union and the American Association for the Advancement of Science, and a member of the National Academy of Engineering. He co-edited the State of Bay-Delta Science reports in 2008 and 2016, and led the California Fourth Climate Assessment Sierra Nevada Report in 2018.



Dr. Stefan Talke is a professor of Civil and Environmental Engineering at Cal-Poly San Luis Obispo, CA, and a graduate of UC Berkeley (PhD 2005). His research focuses on improving our understanding of hydrodynamic processes and climate change in estuaries and deltas. Recent research has focused on long-term shifts in mean water levels, tides and flood risk caused by dredging, land reclamation, channel modification,

shifting river flow, vertical land motion, and relative sea-level rise, in particular using long-forgotten water level records from the 1800s and 1900s. He is particularly fond of finding and evaluating the longest sea-level rise record in the US (Boston, 1826-present). By improving our understanding of the past, Talke hopes to improve our planning for the future. A 5th generation Californian, Dr. Talke has roots in CA and the Delta, where his mother was born (in Rio Vista).

Romain Maendly is a Supervising Water Resources Engineer and the Climate Action Coordinator in the Executive Division at the California Department of Water Resources (DWR). With over 16 years at DWR, he has helped integrate climate change into statewide water management planning through contributions to the Central Valley Flood Protection Plan Updates, California Water Plans, and watershed assessments. He also helped launch DWR's Flood-Managed Aquifer Recharge (Flood-MAR) initiative and co-chaired its Research Advisory Committee.



Romain played a key role in institutionalizing DWR's Climate Action Plan Phase II, which strengthens the scientific foundation of climate change analysis and guides adaptation across programs and infrastructure. He also serves as a senior policy advisor to the Deputy Director of the Division of Planning, aligning DWR's strategies with evolving climate science and state policy. His work emphasizes enhancing decision-support tools, embedding climate science in operations, and advancing interagency coordination.

Originally from Switzerland, Romain earned a technical certificate in land surveying before earning degrees from UC Berkeley (B.Sc.) and UC Davis (M.Sc.).

Liz Crosson is the Chief Sustainability, Resilience, and Innovation Officer for the Metropolitan Water District of Southern California. She leads the District's climate adaptation and mitigation efforts and works to embed sustainability and innovation metrics into water and power operations and planning, land and facilities management, and agency-wide policies and programs. Previously, Liz served as Los Angeles Mayor Eric Garcetti's Director of Infrastructure and Deputy Chief Sustainability Officer. She was the Executive Director of Los Angeles Waterkeeper from 2010 to 2015. Liz earned a BS from UC Berkeley; an MS in biology from Southern Oregon University; and a JD from Lewis & Clark Law School, with a certificate in environmental law. She previously taught Urban Sustainability Methodologies at USC's Price School of Public Policy and served on the Federal

Advisory Committee on Climate Adaptation Science under the U.S. Dept of Interior until January 2025.

Panel: Integrating Science for Decision Support in the Delta

Ryan Lucas is Hydrologist and Acting Division lead of the USBR Bay-Delta Office in Sacramento. Dr. Lucas's team works on the Long-Term Planning operational and other models for the Central Valley Project. He received a PhD from UC Merced in Environmental Systems and a BS in Hydrologic Sciences from UC Santa Barbara.



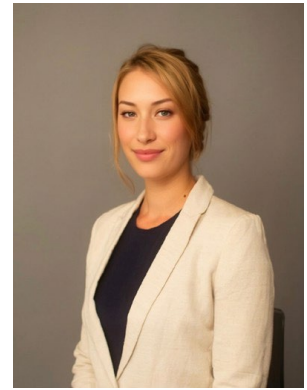
Michelle Jespersen is an Environmental Program Manager with DWR's Division of Multibenefit Initiatives. Michelle currently manages over \$600 million in program funding and projects under the State's Healthy Rivers and Landscapes Program. She also supports integration of climate change considerations across the Division's programs and project implementation activities.

Michelle has over 20 years of experience working on environmental policy and resource management issues in the public sector, including at the California Coastal Commission and White House Office of Management and Budget. She holds an MS and BS in Earth Systems from Stanford University. Outside of work, she enjoys many water-related activities like downhill skiing and swimming and shuttling her two young boys to and from baseball practice.



Dan Constable is an environmental program manager in the Council's planning and performance Division. He leads the ecosystem restoration, land use, and science integration unit at the Council and is involved in a range of projects focused on these topics, including ecosystem restoration policy, climate change adaptation planning, and water resources. Prior to State government, Dan worked in transboundary water governance, biodiversity conservation, and policy in Southeast Asia.

Elea Becker Lowe is California's Climate Assessment Program Manager at the Governor's Office of Land Use and Climate Innovation (LCI - formerly OPR). At LCI, she leads an interagency team, alongside diverse partners in academia, government, and across tribal and local communities to provide the best available science and information about California's climate future and uplift adaptive solutions that build long-term resilience. Elea brings over a decade of experience in local, federal and statewide climate adaptation policy and planning, including a five-year tenure with the California Natural Resources Agency and consulting on local sustainability efforts and national climate policy. She holds a masters degree in International Environmental Policy from the Middlebury Institute of International Studies.



Sydney Chamberlin is the Project Director for Climate & Nature-based Solutions at The Nature Conservancy (TNC) in California. Her work focuses on exploring policy and economic pathways to scale and accelerate the use of nature-based climate solutions, with an emphasis on wetland restoration in the Delta. Prior to her role at TNC, Sydney served as a Science & Technology Policy Fellow with the Senate Committee on Natural Resources & Water, where she analyzed legislation and served as an environmental advisor to Senator Henry Stern.

Before her transition to the climate sector, Sydney worked at Penn State University as an astrophysicist with the LIGO Scientific Collaboration, with whom she shared the 2016 Special Breakthrough Prize in Fundamental Physics. She holds BS degrees in physics and mathematics from Utah State University, a PhD in physics from the University of Wisconsin-Milwaukee, and a Project Management Certificate from Cornell University.



Brett Baker is the sixth generation of his family to live and grow up on Sutter Island. He was raised on his family's pear orchard and spent much of his youth working in production agriculture. He received his B.S. degree in Wildlife, Fish & Conservation Biology from UC Davis where he worked at the John Muir Institute of the Environment under his professor, Dr. Peter Moyle, doing field biology on mountain meadow systems throughout the Northern Sierras. From there, he moved onto the

Heritage and Wild Trout program with the then California Department of Fish and Game and continued sampling systems throughout the Sierras and balance of the State.

Brett was introduced to legislative policy making while working as an Agricultural and Water Policy analyst for then Lieutenant Governor John Garamendi. Following passage of the 2009 Delta Reform Act, he started Baker Advocacy & Consulting, Inc. and began assisting family, friends, and neighbors in complying with the newly mandated measuring, monitoring, and reporting regulations for diverters in the legal Delta.

In 2019, Brett became a licensed member of the California State Bar. He currently practices Water Law in Stockton representing the Central Delta Water Agency and various other clients. He lives in Lodi, CA with his wife, three children, one horse, seven cows, eighteen chickens, a black lab named "Storm" and a chihuahua named "Billy".