



## Stanford Experts on Freshwater Resources, Drought and Related Topics

*Stanford scholars with expertise on drought impacts, water resources, water quality and issues related to freshwater and climate change are available to comment for coverage of these issues in California and elsewhere.*

*For assistance locating scholars, contact:*

- Rob Jordan: [rjordan@stanford.edu](mailto:rjordan@stanford.edu), (415) 760-8058
- Christine H. Black: [christineblack@stanford.edu](mailto:christineblack@stanford.edu), (650) 725-8240

### Water Resources and Management

#### [Sarah Fletcher](#)

Sarah Fletcher is an expert on developing computational systems models to inform decision-making around critical water challenges. Her approach integrates hydrological science, data science and policy analysis. Her research examines planning water infrastructure under uncertainty, climate adaptation, the water-energy nexus, drought management and addressing equity and justice in water resources planning. She is an assistant professor of Civil & Environmental Engineering and the Lee and Kitty Price Center Fellow at the Stanford Woods Institute for the Environment.

**Contact:** [sfletcher@stanford.edu](mailto:sfletcher@stanford.edu)

#### [Richard Luthy](#)

Richard Luthy is an expert in environmental engineering and water quality with applications to water reuse, stormwater use and analysis of urban water challenges. His research addresses management of contaminants in natural systems that are engineered to improve water quality and protect the environment and human health. Luthy is the Silas H. Palmer Professor of Civil and Environmental Engineering and the director of the NSF Engineering Research Center for Re-inventing the Nation's Urban Water Infrastructure, a four-university consortium that seeks more sustainable solutions to urban water challenges in the arid west.

**Contact:** (650) 721-2615, [luthy@stanford.edu](mailto:luthy@stanford.edu)

### **Meagan Mauter**

Meagan Mauter directs Water and Energy Efficiency for the Environment Lab (WE3Lab) with the mission of providing sustainable water supply in a carbon-constrained world through innovation in water treatment technology, optimization of water management practices and redesign of water policies. Ongoing research efforts include desalination technologies, understanding water requirements for energy systems and water constraints on decarbonization, and supporting design and enforcement of California agricultural water policy. Mauter also serves as the research director for the National Alliance for Water Innovation, a \$100-million DOE Energy-Water Desalination Hub to address water security issues in the U.S. Mauter is a professor of Civil & Environmental Engineering and a center fellow at the Stanford Woods Institute for the Environment.

**Contact:** (650) 723-3074, [mauter@stanford.edu](mailto:mauter@stanford.edu)

### **Felicia Marcus**

Felicia Marcus is an attorney and water policy expert with over 35 years of water expertise in federal, state and local organizational management, policy development, program implementation and public engagement. Marcus serves as an Obama Administration appointee to the Commission on Environmental Cooperation-Joint Public Advisory Council, is a founding member of the Water Policy Group and recently served as chair of the California State Water Resources Control Board. She is the William C. Landreth Visiting Fellow at Stanford University's Water in the West Program.

**Contact:** [fmarcus@stanford.edu](mailto:fmarcus@stanford.edu)

## **Water Quality and Health**

### **Jenna Davis**

Jennifer "Jenna" Davis is an expert focused on the nexus of water, economic development and public health, particularly in low- and middle-income countries. Davis is the director of Stanford's Program on Water, Health & Development, which works to improve the health and well-being of communities by creating the knowledge, skills and solutions needed to support effective management of water and wastes, and ensure sustained, equitable access to water supply and sanitation services. Davis is also a professor of Civil and Environmental Engineering and the Higgins-Magid Senior Fellow at the Woods Institute for the Environment.

**Contact:** (650) 725-9170, [jennadavis@stanford.edu](mailto:jennadavis@stanford.edu)

### **Alexandra Boehm**

Alexandra Boehm is an expert on pathogens in the environment, their sources and how they are transmitted to humans in natural and engineered systems. Her research is focused on coastal water quality and on key problems in both developed and developing countries with the overarching goal of designing and testing novel interventions and technologies for reducing the burden of disease. Boehm is a professor of Civil and Environmental Engineering and a senior fellow at the Stanford Woods Institute for the Environment.

**Contact:** (650) 724-9128, [aboehm@stanford.edu](mailto:aboehm@stanford.edu)

## Climate and Drought

### Noah Diffenbaugh

Noah Diffenbaugh is an expert on the climate system and understanding the influence of climate change on extreme events, including droughts and extreme rainfall. He has served as a lead author for Working Group II of the Intergovernmental Panel on Climate Change and has provided testimony and scientific expertise to the White House, the governor of California and U.S. congressional offices. Diffenbaugh is a professor at Stanford's School of Earth, Energy & Environmental Sciences and the Kimmelman Family Senior Fellow at the Stanford Woods Institute for the Environment.

**Contact:** (650) 223-9425, [diffenbaugh@stanford.edu](mailto:diffenbaugh@stanford.edu)

### Chris Field

Chris Field is an expert on climate change impacts and ecological response to extreme events such as droughts and wildfire. He served from 2008 to 2015, as co-chair of Working Group II of the Intergovernmental Panel on Climate Change, which provided the scientific foundation for the Paris Climate Accord. He is the Perry L. McCarty Director of the Stanford Woods Institute for the Environment; founding director of the Carnegie Institution for Science's Department of Global Ecology; the Melvin and Joan Lane Professor for Interdisciplinary Environmental Studies at Stanford's School of Humanities and Sciences and School of Earth, Energy & Environmental Sciences.

**Contact:** (650) 736-4352, [cfield@stanford.edu](mailto:cfield@stanford.edu)

## Water Law and Policy

### Buzz Thompson

Barton "Buzz" Thompson, Jr., is a leading expert in environmental, water and natural resources law and policy ranging from the future of endangered species and fisheries to the use of economic techniques for regulating the environment. Thompson is chairman of the board of the Resources Legacy Fund and the Resources Legacy Fund Foundation, a California trustee for The Nature Conservancy, and a board member of both the American Farmland Trust and the Sonoran Institute. He previously served as a member of the Science Advisory Board for the U.S. Environmental Protection Agency. He is a professor at Stanford Law School, faculty director for Stanford's Water in the West program, founding director of the law school's Environmental and Natural Resources Program, founding co-director and senior fellow of the Stanford Woods Institute for the Environment, and a senior fellow at the Freeman Spogli Institute for International Studies.

**Contact:** (650) 723-2518, [buzzt@stanford.edu](mailto:buzzt@stanford.edu)

### Philip Womble

Philip Womble is an attorney and a hydrologist specializing in water policy and water markets. He is a legal/postdoctoral fellow with the Woods Institute for the Environment at Stanford University. Philip received his Ph.D. in Environment and Resources from Stanford and his J.D. from Stanford Law School, where his research evaluated optimal environmental water rights marketing in the Upper Colorado River Basin, barriers to water marketing in the state of Colorado and Native American groundwater claims across the western United States. During graduate school, Philip worked for the Special Master in the U.S. Supreme Court interstate water dispute Montana v. Wyoming, The Nature Conservancy's Colorado River Program and a water law firm. Before graduate school, he worked for the Environmental Law Institute in Washington, DC, where he analyzed the most established market for freshwater ecosystem services in the United States – wetland and stream compensatory mitigation under the Clean Water Act.

**Contact:** [pjwomble@stanford.edu](mailto:pjwomble@stanford.edu)

## Hydropower, Energy and Dams

### [Dan Reicher](#)

Dan Reicher is an expert on renewable energy, including hydropower and formerly served as assistant secretary of energy for energy efficiency and renewable energy, and as the chief of staff of the Department of Energy under the Clinton Administration. He was a member of the U.S. Secretary of Energy Advisory Board and the National Academy of Sciences Board on Energy and Environmental Systems, as well as co-chairman of the Board of the American Council on Renewable Energy. He has served as executive director of the Stanford's Steyer-Taylor Center for Energy Policy & Finance, a lecturer at Stanford Law School and director of climate change and energy initiatives at Google. Reicher is a senior research scholar at the Stanford Woods Institute for Environment.

**Contact:** (802) 377-9138, [dreicher@stanford.edu](mailto:dreicher@stanford.edu)

### [David Freyberg](#)

David Freyberg is a hydrologist and water resources engineer who studies sediment and water balances in reservoirs, hydrologic ecosystem services, water surface-subsurface interactions and related topics. He is also an expert on the costs and benefits of dams and dam removal. Freyberg is an associate professor of Civil and Environmental Engineering and a senior fellow at the Stanford Woods Institute for the Environment.

**Contact:** (650) 723-3234, [freyberg@stanford.edu](mailto:freyberg@stanford.edu)

## Groundwater

### [Rosemary Knight](#)

Rosemary Knight is a geophysicist and expert on groundwater evaluation and management, remote sensing and hydrology. Knight works in partnership with groundwater managers in the western U.S. using laboratory and field experiments and computer modeling to develop new methods for acquiring, processing and interpreting groundwater data. Knight is the George L. Harrington Professor in the School of Earth Sciences and an affiliate of the Stanford Woods Institute for the Environment.

**Contact:** (650) 736-1487, [rknight@stanford.edu](mailto:rknight@stanford.edu)

### [Steven Gorelick](#)

Steven Gorelick directs the Global Freshwater Initiative with past and active projects in India, Mexico, Vietnam and Jordan. Gorelick has published extensively in the areas of groundwater management, water security, water resources vulnerability in developing regions, optimal remediation design, hydrogeophysics, ecohydrology and global oil supply and demand. Gorelick is the Cyrus F. Tolman Professor in the Department of Earth System Science and a senior fellow at the Stanford Woods Institute for the Environment.

**Contact:** (650) 725-2950, [gorelick@stanford.edu](mailto:gorelick@stanford.edu)

## **Wastewater and Treatment**

### **[Will Tarpeh](#)**

Will Tarpeh is an expert on wastewater treatment, water contaminants and developing and evaluating novel approaches to resource recovery from municipal wastewater such as energy, metals and nutrients. Tarpeh is a member of the Bouchet Honor Society, NBCBLK's "28 Under 28" African-American Innovators and Forbes' "30 Under 30" 2019 Science List. Tarpeh is an assistant professor of Chemical Engineering and a center fellow at the Stanford Woods Institute for the Environment.

**Contact:** (240) 713-7512, [wtarpeh@stanford.edu](mailto:wtarpeh@stanford.edu)

### **[Craig Criddle](#)**

Craig Criddle is an expert on microbial biotechnology for recovery of clean water, renewable energy and renewable materials from wastewater. He directs the Codiga Resource Recovery Center at Stanford which seeks to accelerate development and adoption of promising resource recovery technologies. Criddle is a professor of Civil and Environmental Engineering and senior fellow at the Stanford Woods Institute for the Environment.

**Contact:** (650) 723-9032, [criddle@stanford.edu](mailto:criddle@stanford.edu)

**Additional Stanford experts can be found at**  
<https://experts.stanford.edu>

