



Board Nominees

Holly Barnard

I have served as one of the University of Colorado – Boulder CUAHSI representatives over the past 10 years and I would like to make a larger contribution to CUAHSI and the hydrology community by serving on the Board of Directors. My past service to the broad hydrology community has included serving on the catchment science technical committee and the diversity, equity, and inclusion task force for the hydrology section of AGU, as an Associate Editor for *Water Resources Research*, as well as, serving as a “rotator” program officer for the hydrologic sciences program at the National Science Foundation. From these experiences, I feel I have a strong understanding of the community’s expectations and needs of CUAHSI and I can bring that perspective to the wealth of experience of the existing board members. I have been impressed by CUAHSI’s education and outreach efforts and have found them to be critical to bringing in new researchers to the community and providing opportunities for all to build their skills, knowledge, and professional networks. I would like to contribute these efforts as a board member especially as CUAHSI expands its membership and scope to Primarily Undergraduate Institutions. I hope to see CUAHSI continue to make a positive impact for the next generation of hydrologic scientists.



Ali Fares



Professor Dr. Fares is an internationally reputed expert in soil, water, crop, and natural resources management. He contributed significantly to Florida citrus nitrogen best management practices, Hawaii's water allocation, bioenergy mandate, erosion control, and water quality improvement. He is widely known for his contributions to soil water sensing technologies for best irrigation management to enhance sustainability and environmental protection. He developed the water allocation software, IWREDSS, for Hawaii Commission on Water Resources Management to determine irrigation water allocation for different users. He headed a multi-disciplinary team that used different tools to predict agricultural irrigation water demands for Hawaii for 25 years (2005-30).

His research grants totaling over \$28 million. Dr. Fares advised and mentored 86 undergraduates, 34 graduate students, and 13 postdoctoral fellows. Dr. Fares edited/co-edited four books, e.g., [Climate Change and Extreme Events](#), [Advances in Water Security Book Series](#). He is a fellow of [the American Society of Agronomy](#) and [the Soil Science Society of America](#) and the co-recipient of several national awards. Prof. Fares received his Ph.D. and MS Degrees from [the University of Florida](#) and B.S. in Engineering from Tunisia.

Dr. Fares has been exercising national leadership on educational and policy issues. Currently, he is serving as an author on the Fifth National Climate Assessment. Also, Dr. Fares has chaired the Diversity Catalyst Committee of the Experiment Station Committee on Organization and Policy to explore the topic of Diversity in Research Leadership in the Land Grant Institutions. He served on several working groups of the Association of Public and Land Grant Universities, e.g., Board on Natural Resources-Working Group on Forest Health and Water Quantity and Quality.

Dr. Fares served/has been serving in different capacities at his current and previous institutions, including Interim Vice President for Research, Interim Dean and Director of the Land Grant Programs (LGPs), and Associate Director for Research of the LGPs.

I want to join the Board of Directors of CUAHSI to promote its mission among Prairie View A&M University and other Historically Black Colleges and Universities. My participation will expose PVAMU's newly approved M.S. Degree in Natural Resources and Environmental Sciences, which has a strong hydrology focus, to potential students and fellow hydrologists and water scientists' colleagues across the nation. This effort fits very well with one of CUAHSI's strategic goals, to expand the outreach and education opportunities to be accessible to all interested in hydrology. If elected, I plan to work with other fellow board members and the CUAHSI community to advocate for the interdisciplinary research in the Water-Energy-Food Nexus, climate change, extreme events, and their impacts on water security across different societal sectors.

Lejo Flores

I am an Associate Professor in the Department of Geosciences at Boise State University in Boise, Idaho. My research focuses on improving understanding of the processes underlying coupled water, energy, and carbon cycling – particularly in snow-dominated mountain watersheds of the world – through a computational- and data-oriented lens. My research group uses community modeling platforms, including the Weather Research and Forecasting (WRF), WRF-Hydro, and Community Land Model (CLM) to design, conduct, and analyze numerical experiments that examine how perturbations move through the coupled land-atmosphere system and assess how these models can be improved in the context of available data. Our research group – the Lab for Ecohydrologic Applications and Forecasting (LEAF) – is supported through funding from NSF, DOE, USDA, among others. I received my PhD in Hydrology from MIT in 2009, and MS and BS degrees in Civil Engineering from Colorado State University in 2003 and 2001, respectively.



I am passionate about CUAHSI and its role in supporting the water and critical zone science communities. Over the last three years, I've been honored to serve the water science community as a member of the Board of Directors. I'm exceptionally proud of the Diversity, Equity, and Inclusion (DEI) plan we created and our first step in its implementation – broadening CUAHSI to welcome primarily undergraduate institutions, intentionally focus on recruiting member institutions from among Historically Black Colleges and Universities, Hispanic Serving Institutions, and Minority Serving Institutions. I was also thrilled to help CUAHSI search for and hire a new Deputy Director who has been an outstanding addition to the organization in supporting initiatives like the CUAHSI Virtual University. I am also very proud of our role in reflecting on the disruptions caused by the COVID-19 pandemic to ask

what our higher education community values as scholarly contributions. I hope this is part of a broader conversation in higher education that ultimately cultivates a more holistic vision of creative activity.

I'm privileged and honored to ask for your vote for a second term on CUAHSI's Board of Directors. If elected, I will be serving as the Chair of the Board of Directors in 2022. I hope to help lead CUAHSI to better integrate its data services and community support missions. I believe CUAHSI offers a uniquely important value to our community: it provides data services that makes our science more accessible, reproducible, and open, while supporting our community by providing skill-building, knowledge-building and networking opportunities. CUAHSI has an opportunity to ensure the water science community is a leader in implementing FAIR data standards while also helping its members, particularly career researchers, develop open science knowledge and skills that will benefit their careers and our science as a whole. As we broaden our community by welcoming undergraduate institutions, I believe CUAHSI opens itself to opportunities to transform the educational experiences and career trajectories of future generations of water scientists, engineers, and managers.

I'm excited for the opportunity to continue to serve CUAHSI and you!

Steven Loheide



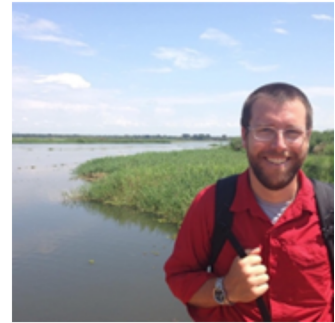
Steven Loheide is a Professor of Civil and Environmental Engineering, Geological Engineering, and Freshwater and Marine Sciences at the University of Wisconsin – Madison. He received his BS in Environmental Chemistry and Geology from the University of Northern Iowa (1999), his MS in Geology from Indiana University (2001), and his PhD in Hydrogeology from Stanford University (2006). Loheide's research focuses on the interactions between ecological and hydrological processes in natural and built systems with special attention to the role of groundwater. His approaches use a combination of field data, remote sensing, and numerical modeling to understand the feedbacks between vegetation patterning, vegetative water use, soil moisture availability, groundwater regimes, and stream-aquifer interactions. This work is focused on improving the scientific basis for stream, floodplain, meadow, and wetland restoration efforts; quantifying the provisioning of hydrologic ecosystem services under current and future scenarios; and evaluating interactions among groundwater and urban, agricultural, and natural environments.

CUAHSI has championed the hydrologic sciences for the past 20 years by strengthening collaboration, developing research infrastructure, and promoting education. Through CUAHSI we project a unified voice, which better positions our community to effectively and efficiently share, leverage, and develop new resources.

It has been my pleasure to serve on the CUAHSI board of directors, including as chair in 2020. I have worked with CUAHSI to both further develop our organizational capacity for inter-institutional collaboration in graduate education through development of CUAHSI Virtual University and to make CUAHSI more inclusive, in part through enabling primarily undergraduate institutions to become more involved in CUAHSI. If re-elected, I would work to create educational opportunities for undergraduates that leverage the strong connections that CUAHSI fosters within the hydrologic community.

Chris Lowry

I am an associate professor in the department of Geology at the University at Buffalo. My research focuses on water supply and groundwater dependent ecosystems using a combination of field methods and numerical modeling. I am particularly excited about developing numerical models using novel methods to collect hydrologic data; this endeavor most recently includes collaborating with citizen scientists. I have always been drawn to CUAHSI programs owing to their ability to advance hydrologic sciences through community building. Over the last eighteen months, I have been thinking a lot about how we engage with the general public regarding hydrologic science and how we can improve understandings of the importance of water resources in a changing climate. I believe that CUAHSI is an important partner in advancing this sort of informal education in addition to all they do connecting universities and therefore would like to play a larger role in supporting the organization.



I value CUAHSI because of the opportunities it provides to the hydrologic community and especially to our students. Through CUAHSI's Virtual University program, I have taught an inter-university online course on quantifying groundwater-surface water interactions. I had the opportunity to spend a summer as a faculty mentor in the joint CUAHSI and National Water Center Summer Institute. There is tremendous value in both the Virtual University and Summer Institute programs and I would like to continue to be involved in supporting and developing multi-institutional training programs through CUAHSI. As a CUAHSI board member, I would also like to help in the development of strong pipelines for new hydrologic scientists through increased engagement at CUAHSI with undergraduate and masters level students. This would include developing an undergraduate research assistant portal on CUAHSI's webpage, where research labs could post research opportunities for students. CUAHSI already a strong tradition through the HydroShare platform to be a data hub for member universities, why not become a hub for students interested in research. There is also an opportunity to build on this data expertise by connecting to citizen science networks to engage next generation scientists and to provide broader impact opportunities for member institutions. CUAHSI has amazing programs and I would like to help further that tradition by becoming a board member.

Gretchen Miller



As the current Chair of the Board of Directors, I am asking you for the opportunity to continue serving the hydrology community as part of the CUAHSI leadership. My tenure on the board has been focused on helping the organization thrive in the rapidly changing times. This started with my initial role as the Co-Chair of the 2020 Biennial Colloquium Committee (postponed), and continued again with the 2021 Biennial Colloquium Committee (virtual). Here, I lead the adaptation of our signature conference to major travel disruptions in a way that promoted meaningful interactions between the participants.

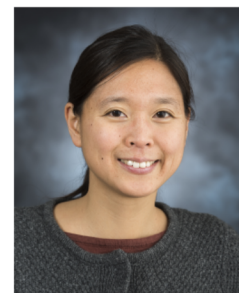
This commitment to change continued through my work on the committee to create our first strategic plan for increasing the diversity, equity, and inclusion (DEI) within the organization and the wider hydrology community. I am proud of the way the current board has guided

CUAHSI to take concrete, meaningful actions towards DEI: expanding full membership privileges to primarily undergraduate institutions (PUIs) and welcoming two new such organizations; authoring a statement on the holistic evaluation of research in the hydrologic sciences; and developing standards for the collection and analysis of DEI metrics for all CUAHSI programs.

Looking forward to the coming term, I am most excited to see CUAHSI through our first Frontiers in Hydrology Meeting (#FIHM) with AGU. In this, and in its relatively new role as the coordinating hub for the NSF CZO program, CUAHSI has a tremendous opportunity to enhance interdisciplinary research and education. If reelected, I will work to develop and promote such initiatives, in addition to continue to press forward with our critical DEI work.

G.-H Crystal Ng

I have been a CUAHSI representative for University of Minnesota-Twin Cities since 2016. As an integrated hydrological modeler, I focus on how shallow groundwater systems interact with surface waters, the climate, vegetation, and biogeochemical cycling, and I am particularly interested in how these interactions respond to climate change, land-use and cover change, and contamination. While my work has always been motivated by issues relevant to society, I have recently delved into the complex role of human and social dimensions within the physical environment. My interdisciplinary project on wild rice – an ecologically threatened aquatic plant that is profoundly important to American Indian tribes throughout the Upper Great Lakes region – has been demonstrating the need for collaboration with tribes, inclusion of other knowledge systems, and research for environmental justice.



As a CUAHSI board member, I will share my experiences of learning from tribal partners and conducting community-engaged research that prioritizes marginalized peoples and their needs. At a time of heightened awareness about the need to be antiracist, I believe that CUAHSI should and can serve as a platform for promoting research and education that includes and benefits minoritized students and community partners. Not only can this ensure that our work positively impacts society, but bringing together and valuing diverse collaborators and perspectives is powerful for tackling challenging and unresolved problems in the hydrological sciences.

Gigi Richard



I am currently the Director of the Four Corners Water Center and Instructor of Geosciences at Fort Lewis College (FLC), a Primarily Undergraduate Institution (PUI) located in Durango, Colorado. Prior to moving to FLC in 2018, I was a full-tenured professor of Geology and Director of the Ruth Powell Hutchins Water Center at Colorado Mesa University in Grand Junction, CO. Despite teaching in geoscience departments for nearly 20 years, I am a civil engineer (BS, MS & PhD) with a surface-water hydrology and fluvial geomorphology focus. I am excited for the opportunity to become more involved with CUAHSI and to serve as a Director to contribute to enhancing inclusion of PUIs in CUAHSI's programs and activities. I bring 20 years of experience in hydrology education at small state PUIs with diverse student bodies.

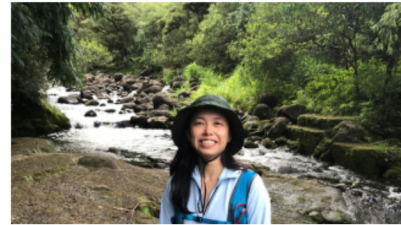
In my current position, I have the opportunity to engage with a tremendously diverse student body and am excited to contribute to CUAHSI's equity, diversity and inclusion efforts. Fort Lewis College is a small (~3,400 students) state liberal-arts college with a mission to serve Native American students and offers the Native American tuition waiver. FLC's student population is comprised of 45% Native American or Native Alaska Village students from over 180 different Tribes and Native Alaska Villages and over 50% students of color. We are in the process of leveraging FLC's water-related expertise across disciplines into a more consolidated water-focused program that prepares our diverse students for graduate school and careers in water.

In 2020, I served on a CUAHSI sub-committee to explore options for inclusion of PUIs in CUAHSI's membership structure. As part of the process, we interviewed faculty at PUIs to better understand the potential interest of PUIs in CUAHSI membership and in participation in CUAHSI programs and activities. FLC is now one of the inaugural PUI members of CUAHSI and we have a strong cohort of faculty who are excited to take advantage of CUAHSI's member benefits and connections.

CUAHSI already has a lot to offer to PUIs and as a Director, I will contribute to supporting and enhancing CUAHSI's communication with and opportunities for PUIs. I also look forward to supporting existing equity, diversity and inclusion efforts. Thank you very much for the opportunity to submit my nomination to serve on CUAHSI's Board of Directors.

Yinphan Tsang

I am an Associate Professor in surface hydrology in the Department of Natural Resources and Environmental Management at the University of Hawai'i at Mānoa (UHM). My research interests include island hydrology, streamflow generation processes and extreme events, ecological modeling, and hydrological application to fluvial ecosystems. Currently, this involves projects investigating trends and processes of extreme rainfall and floods, their implication in the connectivity of fluvial ecosystems, and building the resilience of local communities upon extreme weather. I use statistical and modeling techniques to combine spatial and geoinformatics datasets, validated with field measurements, to describe interaction patterns between biotic and abiotic processes contributing to ecosystem services. My research's current funding sources include the National Science Foundation, U.S. Geological Survey Pacific Island Climate Adaptation Science Center, National Institute of Food and Agriculture, and U.S. Fish and Wildlife. I received my Ph.D. in Biological Resources Engineering from the University of Maryland, College Park, M.S. in Bioenvironmental Systems Engineering at National Taiwan University, and B.A. in Agricultural Engineering at National Taiwan University. Before joining UHM, I was a postdoctoral researcher at Stroud Water Research Center and Michigan State University.



I have benefited from CUAHSI Biennial Meetings, workshops, conference social mixers, and virtual webinars. I have been actively promoting CUAHSI's mission through various activities. I petitioned for the University of Hawai'i (UH) to become a CUAHSI member in 2017. Since then, many students and postdocs in UH have benefited from CUAHSI research and travel fellowship to advance their careers. The University of Hawai'i is a minority-serving institution and a Native-Hawaiian and Pacific Islander serving institution, with a core faculty in many aspects of water sciences. My goal as a CUAHSI Board member is to advance the agenda described in CUAHSI Strategic Plan (2018-2023) and the recent CUAHSI Diversity, Equity, and Inclusion (DEI) Strategic Plan, including:

- A. Foster and facilitate the integration of hydrologic science research and data services into innovative, multi-disciplinary educational and community building activities.
- B. Grow and diversify CUAHSI partners and funding sources to ensure sustainability of services through a multi-disciplinary approach.
- C. Increase inclusion and equity in CUAHSI programming.
- D. Raise awareness of DEI issues in the CUAHSI community.

It would be an honor to serve as a Board member. I plan to leverage my experiences and position to communicate the value of CUAHSI services to other aquatic communities not always represented in the hydrologic sciences, especially ecology and social sciences. I like to expand the involvement of broader science disciplines and build a community in all aspects of water sciences. To know more about me, please visit <https://tsangstreamlab.org/>.