



Board Nominees

Amy Burgin

Affiliation and Position: University of Kansas and Kansas Biological Survey – Center for Ecological Research; Professor and Senior Scientist

Why are you interested in serving as an elected member of the CUAHSI Board of Directors?

I am excited to apply for the CUAHSI BoD because I strongly align with the organization's mission and vision, which emphasizes community, collaboration, and connection, as outlined in the 2023-2028 Strategic Plan. Although I am relatively new to the CUAHSI community, my experience at the 2023 Biennial left a lasting impression. I was impressed by the organization's dedication to community building, collaborative spirit, research support platforms, and engaging scientific programming. Attending the Biennial increased my interests in deepening my involvement with CUAHSI.

My academic background and research expertise are rooted in aquatic ecosystem ecology and biogeochemistry, and I have a long history of collaborating with hydrologists, ecologists, microbiologists, and fellow biogeochemists who specialize in diverse aquatic ecosystems. Through these partnerships, I have gained a deep understanding of the challenges faced by collaborative research, as well as the remarkable opportunities and complex questions that can only be effectively addressed by interdisciplinary scientific teams. I believe that CUAHSI is well-positioned to support collaborative science, thereby helping scientists confront and resolve our most pressing water-related challenges. Therefore, I'm enthusiastic about the possibility of serving on the CUAHSI BoD, bringing my passion, experience, and commitment to further the organization's mission and enhance its impact within the scientific community.



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What experience (e.g., research, service, teaching leadership) qualifies you for this position?

My leadership experience spans collaboration, research administration, and non-profit service. I lead the Aquatic Intermittency effects on Microbiomes in Streams (AIMS) project, an interdisciplinary research collaboration involving ~60 individuals across eight institutions. Through AIMS, I've honed my skills in team dynamics, strategic planning, and effective execution. AIMS has been an invaluable teacher, emphasizing the significance of inclusion, active listening, and the cultivation of trust in team development. It has also equipped me with experience in personnel management, policy creation, and strategic planning. My administrative proficiency extends beyond AIMS, as I've engaged in committees and leadership roles, advocating for diversity, equity, and inclusion at various levels within KU. Additionally, I lead an NIH-funded training grant aimed at broadening participation in STEM. Within the Society for Freshwater Science (SFS), I hold multiple positions, including Chair of the Publications Committee and participation in the SFS Board of Directors, Finance Committee, and Journal Endowment Committee. These roles grant me valuable insights into the inner workings of a non-profit organization, encompassing financial management, strategic development, personnel oversight, and the role of endowment. I also serve as Vice-President and an eight-year board member for Friends of the Kaw, a local watershed non-profit. These diverse experiences have equipped me with a well-rounded skill set that I believe can be a significant asset to the CUAHSI Board of Directors.

As one of the elected Board of Directors, how would you foresee contributing to CUAHSI's strategic plan, including its mission and vision?

My involvement with CUAHSI, particularly through service on the Board of Directors, would significantly contribute to the organization's first goal of expanding the water community. I am actively engaged in different water-focused scientific societies and would seek opportunities to foster connections and collaboration between CUAHSI and other water organizations to enhance membership growth. Additionally, my close collaboration with primarily undergraduate institutions and minority-serving institutions, including the local Tribal University (Haskell), positions me to facilitate discussions on promoting and supporting research at PUIs and MSIs.

I am confident that I can make a substantial impact on the second goal of creating infrastructure and resources for advancing water science. My experience in developing standardized protocols, data management systems, and training modules for the AIMS project aligns well with the objectives of Goal 2. Furthermore, my familiarity with HydroShare, the primary data repository for AIMS, can inform future improvements and adoption of the platform for similar initiatives, also enhancing the resources available for research support, as well as aligning with Goal 3, which aims to expand CUAHSI's influence in the water community. Lastly, my extensive experience in designing processes and protocols for large group operations positions me to

contribute to the refinement of governance and the business model, which constitutes the organization's fourth goal.

Darren Ficklin

Affiliation and Position: Associate Professor, Department of Geography, Indiana University



Why are you interested in serving as an elected member of the CUAHSI Board of Directors?

For over 20 years, CUAHSI has been engrained in the hydrologic community by providing opportunities for students, practitioners, and faculty. CUAHSI has provided many resources, such as CUAHSI Virtual University and the Instrumentation Discovery Travel Grant, to graduate and undergraduate students that I have mentored. Additionally, the

Findable, Accessible, Interoperable, and Reusable data services that CUAHSI provides have been invaluable instructional tools in my research lab and have aided in student learning. I have witnessed how these resources have benefited many students beyond those I have mentored and taught during my 10 years as a CUAHSI representative at Indiana University (IU). This position offers me unique and valuable insight into the programs and resources available to students. Moreover, my role as the Director of Graduate Studies in the Department of Geography gives me the opportunity to listen and learn from graduate students with diverse backgrounds and research interests. One thing is clear from these discussions: graduate students are struggling right now. Given this, it is imperative that CUAHSI continues to offer opportunities for graduate students, and expand these opportunities if resources are available. I would like to contribute to and expand these efforts by becoming a CUAHSI board member.

What experience (e.g., research, service, teaching leadership) qualifies you for this position?

My research interests lie at the intersection of climate and hydrology, with a focus on how recent and projected changes in climate affect freshwater resources. My goal is to produce results that enable informed decisions for future watershed management, risk assessment, and policy

planning. This work has been funded by the NSF, USGS, and Army Corps of Engineers. Recently, my research group has published on a variety of topics including the effects of the Brood X cicada emergence on infiltration rates, the effects of tile drainage on Midwestern streamflows, and the use of citizen science in hydrological models. A current project collaborates with indigenous peoples in the Great Lakes Basin to understand how climate change is projected to affect freshwater resources in this region. At IU, I teach courses such as physical hydrology, climate change impacts, and field methods in physical geography. I lean on CUAHSI resources heavily in these classes. Additionally, my role as a CUAHSI representative gives me valuable insight into the programs that already exist and gaps that could be filled. Based on this, I feel like I have the experience and expertise to help CUAHSI achieve the goals laid out in the 2023-2028 strategic plan.

As one of the elected Board of Directors, how would you foresee contributing to CUAHSI's strategic plan, including its mission and vision?

Being in the Department of Geography at IU, I have unique experience in working across the physical science – social science spectrum and realize its value in advancing the hydrologic sciences. Humans have clearly influenced the hydrologic cycle in a myriad of ways, making communication between physical and social scientists sorely needed. If I were elected to the CUAHSI Board of Directors, I would be interested in broadening the scope of CUAHSI to include more individuals that work at the intersection of hydrology and social sciences. This would fulfill CUAHSI's initiative to "expand and diversify the community and strengthen connections across constituencies" as well as to "nurture collaborations." I am also a computational hydrologist with a deep understanding of the importance of data in the hydrologic sciences. I realize that the volume and types of data will continue to expand as more CUAHSI members are added and informed of CUAHSI's water data collection. If I were elected, ensuring the accessibility of this data would be a priority. Lastly, as previously mentioned, students are struggling right now and need support. I would ensure that opportunities for these students will continue to exist (e.g., collaborations with AGU H3S on DEI initiatives) and expand.

Safeeq Khan

Affiliation and Position: Associate Professor, Department of Civil and Environmental Engineering, University of California, Merced

Why are you interested in serving as an elected member of the CUAHSI Board of Directors?

I see CUAHSI as a connector and enabler for the diverse water science community, and there is no better way to give back and have an impact than getting involved with this great organization. CUAHSI is relatively a small organization, but has made a significant impact in terms of empowering the water science community through its programs and services. Obviously, many individuals have worked tirelessly to bring this organization to this level and it's now our responsibility to carry the baton forward. In my brief career, I have heard many stories from students and other colleagues on how CUAHSI events and programs have helped reshape their career. As an elected member of the CUAHSI Board of Directors, I was fortunate enough to play my part in advancing CUAHSI's mission and vision, and got the opportunity to witness and hear many success stories. However, more needs to be done to ensure that this great organization is thriving, transparent, accessible, and serving each and every one of us. This last bit is super important for me. As a part of the current board, I have strived towards increasing the accessibility of CUAHSI's programs and improving communications with member organizations. If elected, I will continue to work towards making this great organization thrive and serve the needs of the greater water science community.



What experience (e.g., research, service, teaching leadership) qualifies you for this position?

I have been serving CUAHSI as an elected member of the board since 2020 and as one of the members of CUAHSI executive committee since 2022. During this tenure, a big part of my effort was directed towards increasing the representation of PUIs in CUAHSI programs and activities. I have closely worked with the CUAHSI staff and the standing committee on diversity, equity, and inclusion on developing the CUAHSI's code of conduct along with advancing DEI within the CUAHSI's activities and programs. Much of this is reflected in the CUAHSI's 2023-2028 strategic plan, which I helped develop along with other board members. As a member of the

CUAHSI executive committee, I have worked towards increasing organizational efficiency and transparency. Organizing the 2022 CUASHI biennial, the first major CUAHSI event after the pandemic, was a major milestone and I was fortunate enough to help co-lead the organizing committee. At the institute level, I direct the forest ecosystem and watershed sciences lab and lead the water program for the University of California Cooperative Extension. I am also serving in the science advisory committee for the California Wildfire and Forest Resilience Task Force.

As one of the elected Board of Directors, how would you foresee contributing to CUAHSI's strategic plan, including its mission and vision?

As a current member of the CUAHSI's Board of Directors, I was not only instrumental in developing the 2023-2028 strategic plan, but have taken an active role in implementing some of the goals. Engaging PUIs and MSIs and working towards creating programs and services that are responsive to their needs will be a key focus in the coming years. Also, taking a data driven approach to ensure CUAHSI members are informed and CUAHSI programs and services are equitable will be key for CUAHSI's growth. Also, making sure CUAHSI is engaging the end-users and getting buy-in as it continues to create infrastructure and resources with end-to-end capability. As the current member of the ExCom standing committee, I have already taken an active role in information gathering and developing a roadmap for refining CUAHSI's governance and business model. If re-elected, I will bring the institutional continuity and produce needed change to ensure a successful execution of the CUAHSI's 2023-2028 strategic plan.

Sarah Ledford

Affiliation and Position: Assistant Professor, Georgia State University



Why are you interested in serving as an elected member of the CUAHSI Board of Directors?

CUAHSI is a vital link between the many fields that fall under the broad umbrella of water sciences, and as the institution and Board of Directors work to reimagine and look towards the future, I look forward to helping expand the reach and services of CUAHSI to the wider community. Over the past three years serving on the Board, I have come to understand the many projects CUAHSI helps with, some of which are public facing and many of which are not. However, to continue to function effectively, CUAHSI needs to have strong and dedicated governance and fiscal

policies. If re-elected, I am especially interested in investigating how we could adapt CUAHSI's existing governance structure to incorporate more of the water science community, and to function more efficiently. While these tasks are not 'flashy', they are key to making sure CUAHSI has a strong basis to continue for many years to come. In addition, in large part because of its data services, CUAHSI provides key benefits to our quantitative community, but there are many other research and teaching areas that additional funding would allow CUAHSI to support.

What experience (e.g., research, service, teaching leadership) qualifies you for this position?

I have been on the Board for the past three years. I was the liaison to the Diversity, Equity, and Inclusion committee during my first year, and I have been on the Executive Committee for the past two years. During this time, CUAHSI has navigated changing the bylaws, hiring a new Executive Director, and working to address issues that arose with its quick growth over the recent past. Being a member of ExCom, I have participated in decision making around these changes. In addition, I have been working to brainstorm and draft the renewal proposal, specifically sections thinking about how we can adapt the governance structure to be more inclusive, to cover talents within and beyond water sciences. Beyond my experience directly on the Board, I research and teach at a minority serving institution that does not have a PhD program, so I am specifically interested in bringing my experience from such an institution to the

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Board and continuing to push CUAHSI to better serve teachers and researchers at the undergraduate and M.S. level.

As one of the elected Board of Directors, how would you foresee contributing to CUAHSI's strategic plan, including its mission and vision?

I am particularly interested in contributing to goal 1 (grow our water community) and goal 4 (refine our governance and business model for sustainability) in the strategic plan. As someone whose students typically cannot benefit from CUAHSI workshops or grants, either because of timing or the career-stage target, I feel strongly that CUAHSI should continue to increase its support beyond R1-research faculty and PhD students. Along with working with CUAHSI staff to apply for funding opportunities for such programs, I also want to continue my work on ExCom and with the new Executive Director to think through CUAHSI's governance structure. Member institutions pay annual member dues but that is only a tiny fraction of our funding, creating confusion about the 'benefit' CUAHSI membership brings, which needs to be clarified. In addition, as we work to build a more inclusive water science community, how does the current membership model exclude parts of our community and are there ways we can overcome those issues? While these goals are of great interest to me, I also look forward to contributing to goals 2 and 3 with CUAHSI staff.

Ricardo Sanchez-Murillo

Affiliation and Position: Associate Professor, Department of Earth and Environmental Sciences, University of Texas-Arlington



Why are you interested in serving as an elected member of the CUAHSI Board of Directors?

As a water scientist who has worked in the Global North and South, I deeply believe we can advance our understanding of the hydrological cycle and nature-based solutions through inter-, multi-, and transdisciplinary collaboration, open data access, and inclusive education. Since these pillars/values are also part of CUAHSI's Mission/Vision, I consider that being part of the Board of Directors (and standing committees) will allow me to continue advancing water-earth-ecosystem science through innovative research tackling pressing climate change issues, mentoring early career scientists, fostering global

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(North-South) collaboration, supporting initiatives of data sharing platforms, and increasing inclusion of women and underrepresented groups in water science.

What experience (e.g., research, service, teaching leadership) qualifies you for this position?

I have ten years of research experience in isotope hydrology across tropical and sub-tropical environments. My research utilizes tracers to evaluate groundwater processes, rainfall dynamics, tropical cyclones, and watershed connectivity in data-scarce regions and urban landscapes. I have published over 70 peer-reviewed papers, served as a guest and associate editor for international journals, obtained extramural funding, and mentored numerous students. My leadership experience includes serving as a Graduate Advisor, coordinating multi-institutional research teams and workshops across Latin America, and leading the establishment of monitoring networks as an expert for the International Atomic Energy Agency. Before joining (2022) the Department of Earth and Environmental Sciences at UTA, I served as the coordinator of the Stable Isotopes Research Group and Water Resources Management Laboratory at the National University of Costa Rica, where I obtained (2018) the World Academy of Sciences award for the advancement of tracer hydrology in the Central America region. I am a National Academy of Sciences/Gulf Research Program Early Career Fellow.

As one of the elected Board of Directors, how would you foresee contributing to CUAHSI's strategic plan, including its mission and vision?

If elected, I can contribute to CUAHSI's strategic plan (2023-2028) by:

- A. Providing, stimulating, and sharing an extensive collaboration network with water scientists and managers across The Americas;
- B. offering new ideas for productive and inclusive research collaborations. I have worked on this topic during my career, particularly across Latin America's complex cultural and academic/institutional (public and private) settings. Similarly, since UTA is a Hispanic-serving institution (34% of Hispanic demographics but only 6% of Hispanic/Latino faculty), I have been working at the class and faculty level to promote DEI concepts.
- C. As a user of HydroShare, I will support the collection and management of open water data under FAIR principles and supported by CUAHSI infrastructure.