



CUAHSI

universities allied for water research

CUAHSI Board Meeting Minutes

January 11-13, 2021

Roll Call

15 members are present, 10 needed for quorum. “X” indicates present

Term expires 12/31/2021

Gordon Grant, Oregon State University X

Steve Loheide, University of Wisconsin-Madison (Chair) X

Jeanne VanBriesen, Carnegie Mellon University (Past Chair) X

Gretchen Miller, Texas A&M University X

Alejandro Flores, Boise State University X

Greg Characklis, University of North Carolina Chapel Hill X

Term expires 12/31/2022

Aditi Bhaskar, Colorado State University X

Anne Jefferson, Kent State University X

Anne Nolin, University of Nevada-Reno X

Ashok Mishra, Clemson University X

Jay Zarnetske, Michigan State University X

Term expires 12/31/2023

Jesus Gomez-Velez, Vanderbilt University X

Safeeq Khan, Univ. of California, Merced X

Sarah Ledford, Georgia State University X

Margaret Zimmer, Univ. of California, Santa Cruz X

Officers: (terms expire January 31, 2023)

Audrey Sawyer, Ohio State University (Treasurer through 11-Jan-2021)

Troy Gilmore, University of Nebraska (elected Treasurer on 11-Jan-2021)

Adam Ward, Indiana University (Secretary) X

CUAHSI Staff Present: Jerad Bales, Deanna McKay

Guests: Ingrid Padilla (NSF), Justin Lawrence (NSF), Laura Lautz (NSF), Troy Gilmore (Univ. of Nebraska)

Minutes prepared by Ward

2021-01-11

12:00 EST Call to Order

1. Call to order
 - a. Loheide called the meeting to order, and welcomed Miller as the incoming Chair of the Board of Directors.
2. Election of Officers
 - a. Miller introduced the slate of officers that have been nominated to fill the positions of Secretary (A. Ward) and Treasurer (T. Gilmore) for a term beginning today and extending through the January 2024 Board meeting. She noted that each was nominated through an open process and are running unopposed.
 - b. Miller called the question to elect the slate of candidates put forth. Voting was implemented via Zoom, with votes tallied by Miller and confirmed by Loheide. Both officers were unanimously elected.
3. Executive Director's Report
 - a. Bales presented a summary of activity for CUAHSI (presentation archived with the minutes).
 - b. Bales reviewed current CUAHSI staff including recent hires and the organizational chart. He specifically noted that CUAHSI audits are being prioritized to ensure the organization is up-to-date on all required financial documentations.
 - c. Bales provided a summary of CUAHSI's existing projects and pending proposals, both are documents archived with the meeting notes. Bales discussed the impact of COVID on the portfolio, noting the cancellation of in-person workshops and meetings was the largest impact. He also noted that delays in federal budgets challenge the timing of collaboration with federal agencies.
 - d. Miller asked about staff capacity at CUAHSI to take-on additional projects vs. overly committed with the current portfolio. Bales expressed the staff is sufficient to keep-up with current efforts, though the mix of staff talent and projects is constantly changing and responding as projects come and go. Bales also suggested there is a role for CUAHSI to support the mission of federal agencies with stable funding, which would lead to a known and predictable workload and obligations.
 - e. Grant asked how Bales considered if a new project is appropriate for the CUAHSI portfolio. Bales reported that the NSF Cooperative Agreement is, in his view, an opportunity for expanding services. He also indicated consideration must be given to expanding CUAHSI partners and diversifying the ways the organization supports the community.
 - f. Bales reviewed the strategic goals guiding CUAHSI for the 2018-2023 period, which include:
 - i. Promoting discovery in the water sciences through water data services. Bales highlighted the growth and stability of HydroShare and the CZ Hub proposal as key successes.

- ii. Fostering and facilitating the integration of hydrologic science with innovative, multidisciplinary educational and scientific communities. Bales reflected on the training partnerships with NOAA and NASA.
 - iii. Grow and diversify CUAHSI partnerships. Bales reflected on the current and pending activities just presenting, considering this a success in the number and diversity of programs, specifically noting the expansion to undergraduate institutions.
 - iv. Increase visibility, reach, and reputation of CUAHSI in the diverse water community. Bales reported investments in marketing and growing participation in CUAHSI programs as an indicator of success in this goal, as well as the setting and implementation of DEI goals for the organization.
- g. Bales reflected on 2020 priorities and those set for 2021 (see slides in presentation for enumerated activities).
 - i. In summary, 2021 priorities include (1) growth of CUAHSI computer services, (2) HydroShare enhancements, (3) implementing a data services communications and outreach plan, (4) implementing a strategy to grow engagement of undergraduate students, (5) implementation of the DEI plan, (6) the CZ Hub being fully operational, and (7) growth of CUAHSI's funding.
 - ii. Bales reported success becoming an approved data repository for several journals. Flores asked how much effort will be required to add this status for other journals, or if this is a 'given' now that CUAHSI is approved. Bales reported the CoreTrustSeal certification and status as a DataOne Node will make this process easier, and the application will be submitted in 2021. He is currently focused on the plan for continuity of operation that is required for this application, which will enable connections to DataOne and Web of Science. This will position CUAHSI as acceptable without requiring significant work after this is completed. Miller initiated discussion of DataOne and CoreTrustSeal, clarifying that these are external certifications that build trust in the data services.

4. NSF Report

- a. Lautz introduced herself, Lawrence, and Padilla from the NSF.
- b. Lautz discussed the Earth in Time report that was recently released by the National Academies. She noted this report is important to NSF as it helps identify challenges and set strategic directions for future investments. Lautz specifically noted the potential of a Near-surface Geophysics Center in the future and a call for continental critical zone science, both of which are related to past and present CUAHSI efforts. She also noted there is a call for a community-based standing committee to advise the GEO directorate on the future of cyberinfrastructure.
- c. Lautz initiated a discussion in the response to COVID-19 within the hydrologic science community. Lautz reported that NSF has been working to address the impacts of the pandemic on the community, noting a goal of maximizing community support when possible. She noted the CARES act supported research specifically on COVID-19, but this was limited in the geoscience directorate and

no additional funds have been made available. Lautz emphasized that writing about COVID impact in annual reports is important to the NSF and should be reported. She noted that no-cost extensions justified on the basis of COVID conflicts has been possible, and rebudgeting may also be allowable.

- d. Grant initiated a discussion of imagery available via the Polar Programs Division and accessibility of these data to the hydrologic sciences community. Lawrence reported that these should be available by request for individuals with a current NSF award.
 - e. Lautz initiated a discussion of the expansion of CUAHSI membership to undergraduate institutions. She noted the importance of engaging this community where they are, including meetings like regional GSA meetings and other meetings that would traditionally cater to undergraduate scholars.
 - f. Miller asked about the potential for expanding funding available to PIs who have continued to pay personnel without being able to have them execute their field- or lab-based research. Lautz noted that keeping personnel employed with consistency is important to the future of the discipline. She suggested rebudgeting for awards early in their lifecycle is possible. If support is limiting opportunities as awards reach closure, she encouraged the community to reach out to program officers.
 - g. The group discussed funds that are available for scientists who are struggling due to primary caregiving responsibilities, limited access to labs and field sites due to COVID, and other circumstances. Lautz indicated that -- across the board -- the best practice is to ask a program officer for advice and to learn what is possible. Bhaskar suggested that a CyberSeminar from the program officers would be helpful to ensure that the community is aware of what is available to PIs. Lautz indicated this discussion is ongoing at the NSF to ensure that the information is available to all PIs and not only those who specifically ask.
5. DEI Activities
- a. Miller introduced the draft DEI implementation plan that was circulated prior to the meeting. McCay provided a brief presentation summarizing the document.
 - b. The group discussed the collection of demographic data, with the Board broadly supporting collection to establish a baseline of diversity in existing programs. The issue of IRB approval and if it were required was discussed.
 - c. McCay and Miller initiated a discussion of forming a DEI standing committee to serve as a resource to the Board on any DEI-related initiatives. Bhaskar and Zarnetske noted that because DEI spans the organization's portfolio, this could readily become a huge scope of work if there is one committee taking primary responsibility. McCay suggested that a standing committee would not necessarily be responsible for the entirety of implementation activities, but would rather serve to consult on and contribute to other initiatives. For example, the biennial planning committee would write their own code of conduct, with input from and oversight by the DEI committee. Bales also indicated his view that the committee would help supplement efforts of staff and other standing committees, not serve as the sole party responsible to implement these activities across the organization.

- d. McCay shared a draft charge that would shape the role and function of the standing committee prior to the meeting, and initiated a discussion of this charge. Bhaskar suggested that proposing the creation of new activities should be explicitly within the standing committee charge, as this sort of input is welcome from other committees. Ledford suggested the charge be revisited to ensure that this charge is for the committee to provide input to other groups and giving them oversight, as opposed to being responsible for the implementation. Zarnetske expressed the challenge of writing the charge such that the committee not become a central clearinghouse for all DEI activity, but instead that the expectations are explicit and clear in terms of what the committee must do each year, and then the general charge of helping facilitate DEI advancement across the organization. Loheide suggested that the charge include ‘generating and evaluating new ideas’ to parallel the language used by other committees.
 - e. Miller summarized that the Board is in support of establishing this committee, with an updated or clarified charge to reflect the discussion above. She will make the document accessible for editing and commenting as a google doc for the Board to provide input. Miller anticipates a vote to finalize the charge and establish a committee at the February 2021 meeting.
 - f. **Action item: Miller to make editable, Board to review and edit prior to February 2021.**
 - g. **Action item: McCay to make implementation plan editable as a google doc for comment, Board to provide input.**
6. Miller opened the floor to other business for the day. Hearing none, the meeting was adjourned for the day.

15:02 EST Adjourned for the day

2021-01-12

Changes in attendance relative to 11-Jan-2021: Standing committee chairs N. Tague, E. Habib, D. Karway and CUAHSI Staff J. Pollak joined the meeting for the standing committee reports. L. Flores did not join the meeting 12-Jan-2021.

12:00 EST Call to Order

7. Standing committee reports
 - a. Hydroinformatics (Chair: N. Tague; Board Liaisons: Gomez-Velez, Mishra)
 - i. Tague summarized action by the committee over the past year. She highlighted the progress of the HydroInformatics Fellows, both of whom submitted manuscripts for publication. Tague reported a total of 5 awards were made in the most recent cycle based on 12 submitted applications, noting that two were fully supported and three partially supported. Tague discussed a CUAHSI-hosted community platform for sharing of tools and mutually supporting the community, which the committee will pursue in 2021. Pollak noted existing awardees used HydroShare to host their

software, and awarded proposals strategically link several existing services.

- ii. Bales encouraged the Standing Committee to consider how the HydroInformatics meeting could be integrated with the Joint Hydrologic Sciences meeting. Tague reported she would prioritize this on the agenda for the committee.
 - iii. Grant asked about trends Tague has seen. She responded that students' skillsets are growing exponentially, and there is a large pool of creativity to build upon existing tools. Pollak indicated excitement in seeing formal partnership between hydrologists and computer scientists.
 - iv. Padilla asked what engagement the committee has had with DEI activities, and about their plans moving forward. Tague noted there has been an informal focus on junior scholars and those who would not take on this work without the award, and the use of rubrics to minimize bias. She acknowledged the opportunity for the committee to more widely engage.
- b. Education and Outreach (Chair: E. Habib; Board Liaisons: Nolin, Zarnetske)
- i. Habib summarized committee activities. He noted that the committee decided to hold on travel awards in light of the pandemic. He reported that the committee postponed the Let's Talk About Water competition for similar reasons. The LTAW program is adding a track for production of short films about water resources, and the 2021 competition will require plans for virtual events in light of pandemic concerns. Habib highlighted additional efforts including the Virtual University, HydroShare learning collection, and HydroLearn platform. He specifically highlighted the focus on undergraduate education in the HydroShare and HydroLearn activities. Committee plans for the next year -- in addition to their annual fellowship and award responsibilities -- include expanding membership of the committee, particularly with a focus on undergraduate institutions. They are also considering a workshop focused on digital platforms for education, and efforts to make CZ Science more accessible to undergraduate scientists and considering how a pathfinder-like program can be constructed to engage a broader community with CZ efforts.
 - ii. Ledford suggested that virtual LTAW events could be recorded and distributed for virtual consumption. Pollak indicated that the event legacy was an explicit consideration, so applicants were required to include a plan for this sort of activity.
 - iii. Grant initiated a discussion of a film showcase. Pollak is working on aligning this sort of effort with World Water Day and in collaboration with the Global Water Futures center at U. of Saskatchewan.
 - iv. Nolin suggested an activity for the committee to update an inventory of skills required for student succession hydrology and water resources, including what knowledge and skills are essential. Habib indicated the committee has considered a standardized curriculum or body of knowledge in the past, but this was not pursued. The committee discussed the need to link hydrologic education fundamentals to societal benefits as

a way to engage undergraduates. The group discussed how other fields have done this (e.g., environmental engineering), other hydrology initiatives (e.g., AIH's list of courses), and opportunities to ensure a robust and consistent training.

- c. Instrumentation (Chair: D. Karwan; Board Liaisons: Flores, Jefferson)
 - i. Karwan reviewed activity by the committee in the last year, including successfully awarding instrumentation discovery travel grants modified for pandemic conditions. Key goals for 2021 include (1) expanding the IDTG, including an opportunity to expand the program to support diverse scholars; (2) expanding committee membership to diversity representation on the committee including a formal committee member rotation schedule; and (3) hosting workshops associated with the Joint Hydrologic Sciences meeting.
 - ii. Bales noted there is funding for programs like ITDG and Pathfinder programs as part of the CZ Hub project.
 - iii. Grant suggested the Joint Hydrologic Science meeting as an opportunity for all committees to generate new and innovative ways to engage the community at the conference, including building skills for attendees.
 - iv. Jefferson asked about feedback to IDTG applicants. Pollak reported feedback was provided in a more comprehensive way across all programs in 2020.
 - v. Loheide suggested assessment of community needs around instrumentation. Karwan indicated this is an issue the committee is aware of, and is working on, but the diversity of needs in the community is challenging. Lautz indicated the Earth in Time report includes a call for near-surface geophysics community capability (center). She also suggested that there is human infrastructure and cyberinfrastructure associated with centers that would need to be considered. She also indicated a need for articulation of how a center would enable new discoveries that would not be possible without the investment.
- d. Longitudinal survey results
 - i. Pollak reviewed results of a longitudinal survey focused on the impact of CUAHSI investments in students via grants and fellowships. The presentation is archived with the meeting materials.
 - ii. Miller asked about the frequency with which these data would be revisited and presented to the Board. Bales indicated there is an emphasis on data collection to make this easier in the future. Staff will be conducting a similar post-hoc assessment of educational training programs and meeting attendance, and will also focus on data collection concurrent with activities moving forward.
 - iii. Jefferson asked if there was a bias toward recent recipients. Pollak reported effort to track down awardees via a number of mechanisms, noting that the effort was comprehensive and moves across industries or institutions would not have caused a bias.
- e. Standing committee business

- i. Miller initiated a discussion of standing committee chairs and liaisons. Pollak reported that potential future chairs for E&O (B. Wemple) and HydroInformatics (Vidya Samadi) have been identified.
- ii. Pollack indicated some discussion has been ongoing about term limits on committee membership, possibly in 3-5 year durations with a staggered rotation. This would ensure members do not become stagnant and actively recommit to their term of participation. VanBriesen suggested the potential of limiting membership on a standing committee to two consecutive terms, where members could rejoin after having one year off, to ensure turnover will occur and new ideas and perspectives reach the committee.
- iii. The Board discussed the role of Liaisons for committees. Miller asked each person to reflect on where they could best contribute to CUAHSI and its mission, and she will seek volunteers for the positions tomorrow.

8. Biennial Meeting Planning

- a. Gomez-Velez reviewed planning status for the July 2021 Biennial Meeting. He made a brief presentation to the Board, archived with the meeting materials. The Board discussed the named lecturers, planned sessions, panels, and workshops. He shared a draft schedule with the Board, noting that it will be tentative as speakers and events are finalized.
- b. The group discussed plans for allowing a virtual option for the meeting, or for a fully virtual option if that is required. Gomez-Velez expressed a need for input on how to host the meeting in a hybrid format or online-only format.
- c. The group discussed how to assess participation intent from organizers, speakers, and attendees. This has not been initiated to-date, but will be important to understand how much travel will be possible for attendees.
- d. VanBriesen articulated key questions of (1) would we proceed with a fully virtual conference if public health considerations demand it, or postpone? and (2) would we want a virtual option for those not able to participate in person? The general response of the Board was that a hybrid model would be challenging and may require infrastructure that we do not currently have in place. Bales expressed concern about the logistical challenges of implementing a hybrid model given current staff, budgets, and timeline. Nolin suggested requesting a supplement and outsourcing the logistics to a private vendor.
- e. Grant voiced a preference to postpone rather than host a virtual meeting, citing virtual meeting fatigue and the lack of providing interpersonal interactions.
- f. VanBriesen and Ward suggested the convening of a series of presentations, panels, working meetings, discussions, or other activities spread over several weeks. This would use a format completely different from a traditional scientific meeting, but might reinforce the role of CUAHSI in the community.
- g. The group discussed the potential of fracturing the community along lines of will have had access to a vaccine or is not in a high-risk demographic being able to attend, while others are not able to travel. Gomez-Velez suggested an exciting and different format for the community would be a logical path forward.
- h. Characklis questioned the appetite for online events during what is traditionally a time reserved for field- and vacation-season.

- i. The Board discussed the costs and benefits of the conference, and what would be lost from the mission for the organization if the meeting were reimagined.
 - j. Bhaskar noted the importance of giving some platform and recognition to the keynote speakers and others who have already been invited.
9. CUAHSI Statement on COVID and P&T Impacts
- a. VanBriesen led a discussion of COVID-19 impacts on faculty work, productivity, and evaluations, and what role or opportunity exists for CUAHSI in these conversations.
 - b. The group discussed what role CUAHSI could play, and if universities would listen. Bhaskar proposed a statement from CUAHSI enumerating the possible impacts of COVID on hydrologic science that would help individuals articulate the impacts to their promotion and tenure committees.
 - c. The group discussed existing systems for promotion and tenure. The opportunity to use narrative sections to articulate your contributions relative to norms in their fields. Loheide suggested an opportunity here to help members articulate their progress and how the field was impacted would be one opportunity for CUAHSI.
 - d. The group was broadly supportive of a document that would help articulate the unique challenges faced by hydrologists in response to the pandemic.
 - e. Several board members endorsed the idea of a white paper that could accompany dossiers to help frame the pandemic impacts and responses.
 - f. The Board agreed this topic was important and additional discussion will be scheduled at a future meeting.
10. Miller opened the floor to other business for the day. Hearing none, the meeting was adjourned for the day.

15:00 EST Adjourned for the day

2021-01-13

Changes in attendance relative to 11-Jan-2021: Roxanne Beltran joined to present a study on accessible and equitable fieldwork and lead a discussion on the topic. A. Mishra was not in attendance for this day of the meeting.

12:00 EST Call to Order

11. DEI Training for the Board: Planning and Implementing Inclusive Field Activities
- a. R. Beltran presented her recent paper *How Field Courses Propel Inclusion and Collective Excellence* to the Board.
 - b. Flores initiated a discussion about best practices for CUAHSI, as a national organization, to engage in some of the preparatory work to ensure an inclusive field camp, and if it could be done remotely. The group discussed the need for engagement and norming of the experience in preparation.
 - c. Ledford discussed the costs and time commitments associated with traditional field camps in geologic science programs, asking if a day-trip approach is a plausible alternative. Beltran indicated important gains can be achieved with

online activities or short observational experiences (even in a distributed, individualized format delivered online).

- d. Miller asked about the role of the instructor in setting an inclusive tone for the course. Beltran reported this was not studied in their work, but agreed anecdotally that the instructor of a field experience and the way they interact with students and their experiences are critical in the success of a field program.
- e. Zimmer initiated a discussion of the timing of field experiences. Beltran noted that early drop-outs are a challenge, with most attrition during the first two years in a major. She suggested engaging field experiences early in the curriculum are important in retention within a major. Zarnetske noted that these experiences can also be important in 'capturing' majors, where students may not know what a career in hydrology might entail. Beltran noted that she had identified a retention issue, but these strategies may also be important for recruitment of undergraduates.

12. Vision for Undergraduate Student Engagement

- a. Bhaskar asked what we know about the demands or desires from undergraduate institutions. Zarnetske indicated a range of interests, including opening access to resources for their students. He suggested that making sure it was clear that these institutions are welcome to participate is critical, and that the committee report includes several suggestions. Zarnetske indicated key activities of (a) marketing to ensure PUIs know they are welcome, and (b) assessment of their specific needs, and (c) articulation of membership benefits to clarify why undergraduate institutions would join the organization.
- b. Nolin suggested strategic partnerships to build pipelines of undergraduates into research projects at graduate institutions (e.g., summer positions) may be a successful model for engagement.
- c. Grant suggested considering water resources issues as an 'onramp' to CUAHSI participation.
- d. Loheide indicated online education and training could be a possible onramp that would benefit a broad community. He noted that many on the Board view themselves more broadly than pure hydrologists, and it is important to make the breadth of the discipline accessible. He further noted that making it apparent that a community exists whose interests might parallel yours as a student is important, vs. a condition where undergraduates may only see one person associated with water resources. Loheide noted the 'onramp' is needed for hydrologic sciences as a discipline, not just in the narrow sense of graduate training and research.
- e. Bales noted that many comments have been focused on building pipelines to graduate school and research. He noted that meeting and serving the undergraduate community where they are is equally important.
- f. Jefferson suggested that pulling together and organizing resources for hydrology educators, particularly in introductory courses, is one way to serve instructors and undergraduate institutions. She gave the example of small programs where the instructor for undergraduate hydrology or hydrogeology

might be the ‘closest to a hydrologist’.

- g. Zarnetske and Miller noted there is a need for engagement with our colleagues at undergraduate institutions to understand exactly where they are and what CUAHSI can do to serve them.
 - h. Characklis emphasized the need to show a path from undergraduate training to careers in hydrology as a way to engage undergraduates. He noted the ability to link basic research to policy decisions and outcomes is presently lacking and would be a way to advertise the discipline and attract a different cohort of students.
 - i. Miller articulated a need to identify both short-term, quick-wins and a strategy with concrete actions for the organization to take in the longer term (as a Board, staff, or via committees).
 - j. Zarnetske emphasized the need to form an advisory panel with members from PUIs to help review current activities and identify needs and opportunities, as opposed to starting to build without an understanding of what is actually optimal. Miller initiated a discussion of an ad hoc committee focused on PUIs and broadening membership. The group also discussed the tangible step of revisiting the dues structure and requirements for joining.
 - k. Miller initiated a discussion of a CUAHSI-centric REU program or undergraduate fellowship program. Bhaskar indicated interest in developing a fellowship specifically targeting underrepresented minority students. Flores expressed interest in CUAHSI sending a request for community engagement, seeking partnerships with external stakeholders as opposed to initiating new, community-wide efforts. Zarnetske noted programs like INSTARTS and EMERGE at the Society for Freshwater Science as possible models for mentoring programs that include community partnerships. Miller suggested these might be appropriate roles for a future DEI committee.
 - l. Bhaskar suggested networking of students and faculty as a useful role for CUAHSI. Loheide suggested a pathfinder-like program that would have students moving between institutions as an objective, possibly with CUAHSI serving as a clearinghouse to connect opportunities and students to one another in a matchmaking role, which he likened to the way programs and residents are matched.
13. Joint Hydrologic Science Meeting
- a. Bales updated the Board on the planning for the JHSM. He reported a planning committee within CUAHSI includes Bales, VanBriesen, two early career representatives, noting a diverse representation in the group. Bales also formed two advisory panels to help keep members engaged and ensure early career and student perspectives are represented. Bales is also receiving input from the standing committees. Bales reported the program committee - both the CUAHSI and AGU representatives - will begin to meet monthly to prepare for the 2022 meeting. The meeting is anticipated to include about 1,000 attendees.
 - b. Bales anticipates a formal MOU in the coming weeks, which he will present to the Board for their consideration and approval. He continues to await a budget for CUAHSI staff time in planning and also an estimate of revenue generated.

- c. Bales initiated a broad discussion about what CUAHSI wants to get out of the meeting, to ensure the organization's goals are met, noting this is critical to represent CUAHSI in the planning process.
 - i. Miller indicated a need for visibility and awareness, with each attendee knowing who CUAHSI is and at least one service they could engage with.
 - ii. Gomes-Velez wants to ensure CUAHSI's awards and traditions are visible if this is replacing the Biennial meeting. Bales indicated the role of named lectures and awards would be part of the discussion. Miller suggested CUAHSI's named lectures could be integrated into the program.
 - iii. Ledford asked if and how related disciplines - such as biogeochemistry or geomorphology - would be represented at the meeting, in contrast to 'pure hydrology'. The multidisciplinary nature and extent of the participants should reflect CUAHSI's membership.
 - iv. Several members suggested tracks focused on education, policy, and DEI would be logical to highlight CUAHSI's strengths. Jefferson also noted CUAHSI's strengths in hydroinformatics and instrumentation should be featured. Bales envisions the standing committees as important in this effort.
 - v. Loheide underscored the need for creating a small meeting feel in terms of community events and opportunities for informal engagement, and more free-ranging discussions associated with scientific presentations. Bales also discussed longer talks and time for post-talk engagement.
 - vi. Flores suggested the creation of an action-oriented program, where people leave the meeting feeling motivated for a new project, collaboration, or proposal. Put another way, the meeting should catalyze efforts that initiate new products or projects. This could include spinning up working groups, or even activities in advance of the meeting to initiate these activities. Bhaskar noted this would be helpful if there were more focused themes to rally groups of scholars around smaller groups.
 - vii. Miller and Ward suggested removal of alcohol-themed events and open distribution of alcohol at the meeting to advance DEI objectives.
- d. Bales introduced the concept of a vice chair for one meeting becoming the chair of a future meeting, which was proposed recently.
 - i. VanBriesen asked if the Board likes this plan, or if CUAHSI would prefer a Board member be in that role in 2024, noting that she may not be a Board member at that time. Bales suggested that CUAHSI may not need to follow this rotation and could adjust as-needed.
 - ii. Loheide suggested possibly adding a second vice-chair to the present meeting as an 'understudy' in an effort to preserve institutional memory. VanBriesen noted the Board can establish advisory panels and committees, and a committee could exist.
 - iii. Miller asked about CUAHSI's Executive Director serving as the program chair. Bales reported that he would be on the steering committee in the future, but possibly not chairing the planning on behalf of CUAHSI.

- iv. Miller suggested the Board being represented, whether by a current Board member or someone who has been on the Board and would be an advisor to the Board, would be logical.

14. Board of Directors Business

- a. Election of future chair
 - i. Miller opened the floor to nominations for the next Chair of the Board of Directors. Flores and VanBriesen were nominated, each giving a brief overview of their vision for the organization.
 - ii. Votes were cast by secret ballot as direct messages to Ward via the meeting platform. Ward tallied the votes and shared screenshots with Miller to confirm the vote tally. Flores was elected as the future chair of the Board.
- b. Election of ExCom members-at-large
 - i. Miller opened the floor to nominations for at-large members of the Executive Committee. Jefferson and VanBriesen were nominated to serve as at-large members to the executive committee.
 - ii. Votes were cast by secret ballot as direct messages to Ward via the meeting platform. Ward tallied the votes and shared screenshots with Miller to confirm the vote tally. Both Jefferson and VanBriesen were elected as at-large representatives of the Board for the Executive Committee.
- c. Standing Committee Liaisons
 - i. The group discussed standing committee liaisons for 2021, and established the following commitment:
 - 1. Hydroinformatics: Mishra, Zimmer
 - 2. Education & Outreach: Nolin, Khan
 - 3. Instrumentation: Bhaskar, Jefferson
 - ii. Other Board roles and responsibilities include:
 - 1. Biennial Planning: Gomez-Velez and D. Scott are currently on the committee.
 - 2. **Action item: Miller to reach out to Characklis to gage his interest in serving on this committee.**
 - iii. Zarnetske and Ledford voiced willingness to serve as Board liaisons for a DEI committee if one were formed.
- d. Meeting dates and times for Spring 2021
 - i. Mondays, 12-1pm EST is open for all Board members except Grant. Miller tentatively scheduled ExCom meetings for the first Monday of each month, and Board meetings for the third Monday of each month from 12-1pm Eastern.
 - ii. Action item: Miller to ask Grant if the time can be made available or if his conflict is only partial (e.g., only booked the 2nd M of each month).
- e. Summer Board meeting scheduling
 - i. The biennial is tentatively scheduled for July 18-21, 2021. The Board should reserve those dates for attendance, and additionally reserve 22-23 July, 2021 for the Board meeting. Miller noted these dates may change

subject to travel limitations, but indicated the dates of 21-23 should be held for a virtual Board meeting if the in-person meeting is cancelled.

- f. ByLaws Vote follow-up and tracking
 - i. CUAHSI Staff will be tracking responses from the ByLaws votes. Ward reminded the group that a strong turnout is required to take action on a bylaws change. Consequently, Ward may reach out to the Board with a google spreadsheet of votes and request Board members volunteer to reach out to member representatives and encourage them to vote.
- 15. Any other business
 - a. Miller opened the floor to any other business. Hearing none, the meeting was adjourned.

14:58 EST Adjourned