



CUAHSI Board Meeting Minutes

February 6, 2013, Washington, DC

Roll Call

- 14 members are present, needed 10 for quorum
- “X” indicates Director is present

Term expires 12/31/2013

David L. Freyberg, Stanford University (Education & Outreach Liaison) X

Brian McGlynn, Duke University X

Jim McNamara, Boise State University (Observations Liaison) X

Todd Rasmussen, University of Georgia X

Ying Fan Reinfelder, Rutgers University X

Term expires 12/31/2014

Diogo Bolster, University of Notre Dame X

Peter Troch, University of Arizona

Scott Tyler, University of Nevada, Reno X

Denice Wardrop, Pennsylvania State University X

David White, Murray State University X

Term expires 12/31/2015

Anne Carey, Ohio State University X

Robyn Hannigan, University of Massachusetts-Boston (Chair) X

Carol Johnston, South Dakota State University X

Witold Krajewski, University of Iowa (past-Chair) X

Brian Waldron, University of Memphis X

Officers & Staff Present: Rina Schumer (Treasurer, DRI), Rick Hooper (CUAHSI), Jennifer Arrigo (CUAHSI), Jonathan Pollak (CUAHSI), Adam Ward (Secretary)

Wednesday, February 6, 2013

16:03 EST Call to Order (Hannigan)

1. Announcements/ Updates
 - a. Update on Renewal Proposal (Hooper)
 - i. Hooper distributed a draft of the renewal proposal to the Board on Monday, 04-February-2013. He requested feedback from the group on the document's organization and content no later than the evening of Sunday, 10-February-2013. He is soliciting reviews from several colleagues outside of CUAHSI.
 - b. Update on July Board Meeting (Hannigan)
 - i. Hannigan is working to coordinate housing for the summer Board meeting.
2. **Approval of Minutes from 1/3-1/4/2013 (Hannigan)**
 - a. **Motion: Anne Carey**
 - b. **Second: Brian McGlynn**
 - c. **Discussion: None**
 - d. **Approval: Yes**
 - e. **Abstain: None**
3. Reinstatement of Dropped Members (Hooper)
 - a. Hooper introduced Draft Resolution #3, summarizing discussion from the January 2013 Board meeting.
 - b. **Motion to implement policy on waiving reinstatement fee of members dropped due to non-payment of dues (Draft Resolution 3)**
 - i. **Motion: Scott Tyler**
 - ii. **Second: Denise Wardrop**
 - iii. **Discussion: None**
 - iv. **Approval: Yes**
 - v. **Abstain: None**
4. Co-sponsorship of UCOWR 2014 Meeting (Hooper)
 - a. Hooper introduced CUAHSI co-sponsorship of a meeting with UCOWR. No financial commitment is being requested; CUAHSI would collaborate with UCOWR to advertise the meeting and explore joint sessions. The meeting is tentatively titled "WATER SYSTEMS, SCIENCE AND SOCIETY UNDER GLOBAL CHANGE". Hooper suggest a similar invitation could be extended to UCOWR in the future for the next CUAHSI Biennial Meeting.
 - b. **Motion for CUAHSI to co-sponsor UCOWR Water Conference (Draft Resolution 4)**
 - i. **Motion: Diogo Bolster**
 - ii. **Second: Witold Krajewski**
 - iii. **Discussion: None**
 - iv. **Approval: Yes**
 - v. **Abstain: None**
5. Establishing a Congressional Education Fund (Hooper)

- a. Hooper introduced a resolution to spend funds on staff time and member travel to participate in activities related to education of the U.S. Congress on hydrological science and issues. Hooper noted the membership fund balance ended at about \$142,000 at the end of 2012; this motion is to allocate \$10,000 to seed a fund that CUAHSI will control dedicated to this purpose. Hooper noted that donations to this fund are being solicited from private donors. Hooper stated a goal of raising \$50,000 to fund attendance of 2-4 people to participate in four one-day trips.
 - b. Waldron noted that the total goal of \$50,000 would help keep funds in this program to allow us to take advantage of future opportunities.
 - c. **Motion for CUAHSI to seek assistance with Congressional Education Fund (Draft Resolution 5)**
 - i. **Motion: Brian Waldron**
 - ii. **Second: Carol Johnston**
 - iii. **Discussion: None**
 - iv. **Abstain: None**
 - v. **Approved: Yes**
6. Communicating a Community Modeling Plan to NSF
- a. Two teams (Rasmussen et al. and Reinfelder et al.) drafted documents and presented an outlined vision for functional requirements for a Community Water Model.
 - b. Arrigo noted that the CUAHSI ChyMP initiative (2009-2011) identified the need for a National Water Model with the goal of modeling water at the continental scale to serve as a reference model. More consensus from community is needed on the platform and data needs. It was suggested the climate community is contributing more hydrology to the CLM; however, hydrology is not well represented in this effort overall.
 - c. It was suggested that CUAHSI should present a reference continental model that will couple with oceanic and atmospheric models to create an earth systems model. CUAHSI could engage a partner in this effort, such as UCAR, to develop such a model in order to couple with regional, continental, and global scales. Water Data Center programmers could be used to support this effort; to develop a community code similar to the NCAR model
 - d. It was suggested CUAHSI would take on the responsibility and role to develop a community earth system model, with an objective that is fundable from NSF, to better represent hydrology in these modeling efforts.
 - e. Tyler clarified that for this activity, the community is envisioning both a forecasting tool (short term) as well as long term climate modeling. Hooper confirms and adds that the question is about how governance of model evolves.
 - f. Hooper suggested that next steps could be the development of a first substantive collaborative proposal between science community (membership) and CUAHSI (governance, support), the organization of a workshop, and/or initial experiment.
 - i. Hooper emphasized the need to have a road map outlined with a clear product in mind. Initial experiments (tests, evaluation of models) should be done in near future and are vital to developing functionality statement.

- ii. Wardrop questioned the process by which the design parameters will be set.
- iii. Tyler and Krajewski advised that it is important that CUAHSI does not start from scratch with this effort and that we work to engage other communities in identifying what the needs are and where the gaps in data exist.
- iv. Arrigo stated that these activities could build off of the workshops completed by the ChyMP effort. A new, proposed workshop could be framed in the context of acting on recommendations from the third CHyMP workshop by establishing a benchmark working group.
 - 1. Tyler suggested that CUAHSI engage members who were involved in the last CHyMP effort with this new activity.
- g. Hooper clarified that based on discussion, the objective is to form a subcommittee who will then develop a road map and define the focus.
- h. Tyler sees confirmation of action by CUAHSI in this activity as a positive path forward, and additionally Krajewski sees this activity as a way to achieve the CHyMP modeling objective by bringing many models together to help the community with model development and model use.
 - i. Arrigo pointed out that this effort would advance a specific part of the CHyMP initiative, not the whole. As so, developing this new initiative would require data resources, digital crust, community governance structure to be built upon to benefit the broader community, rather than a few.
 - ii. Freyberg noted that many community members already self-identify themselves as working on this kind of work and we should be mindful that CUAHSI is in fact representing the community. He Suggested that Board should engage with members of the community to discuss this further.
 - iii. Krajewski will reach out to community members involved in modeling efforts who are also working to organize the IFLATS activity in Iowa. Krajewski encourages that the Board to contact individuals to inquire about their interest in participation building community model, as leaders of the AGU hydrologic community.
- i. **Motion to organize a subcommittee of the Board to develop a roadmap to achieve the Reference Continental Water Model (Draft Resolution 6)**
 - i. **Motion: Todd Rasmussen**
 - ii. **Second: Diogo Bolster**
 - iii. **Discussion: Board to contact individuals about this activity and their potential involvement.**
 - iv. **Abstain: None**
 - v. **Approval: Yes**

17:00 EST Adjourn

Resolution 3

Resolution: Policy on Waiving Reinstatement Fee of Members Dropped Due to Non-payment of Dues

The CUAHSI Board of Directors,

Noting:

1. CUAHSI began collecting annual dues in 2011 to stabilize the unrestricted funds of the Consortium
2. Ten universities failed to pay annual dues in 2011 and three additional universities failed to pay annual dues in 2012

Recognizing:

1. That the experience of the Board and Staff on contacting members in arrears has shown that there may be various reasons for non-payment
2. The need to maximize the number of university members belonging to the consortium

Decides:

To afford the Executive Director the discretion to waive the re-initiation fee as required in the Annual Dues Policy (Background Document 3.1) for a dropped member wishing to re-join the consortium within five years, if said member pays back dues to bring its account current. This waiver of the initiation fee may only occur once.

Requests

1. The Executive Director will inform the Board if such a waiver is granted.

Resolution 4

Resolution: Co-Sponsoring UCOWR - CUAHSI - Water Conference - June 18-20, 2014 : WATER SYSTEMS, SCIENCE AND SOCIETY UNDER GLOBAL CHANGE

The CUAHSI Board of Directors,

Noting:

3. The similarities between the missions of UCOWR and CUAHSI
4. The desire to engage a broader cross-section of the water science and engineering community in CUAHSI activities
5. The importance of the conference topic to a broad range of the CUAHSI community.

Recognizing:

3. That planning for the 2014 CUAHSI Biennial Meeting will continue, and will remain a separate event from this meeting.
4. That there is no financial commitment involved in the Co-sponsorship.
5. That the conference will be held at Tufts University, and CUAHSI staff will assist UCOWR staff in logistics.
6. Rich Vogel (Tufts University) is representing UCOWR and leading the program planning for this conference.

Decides:

To Co-sponsor the Water Conference - June 18-20, 2014 : WATER SYSTEMS, SCIENCE AND SOCIETY UNDER GLOBAL CHANGE with UCOWR.

Requests

2. Executive Director Rick Hooper to continue discussions with Rich Vogel on possible sessions, panels and other meeting events that would highlight the overlap between CUAHSI and UCOWR communities and issues.
3. One or more members of the Board of Directors to join the program planning committee for the meeting.

Resolution 5

Resolution: Establishing a Congressional Education Fund with CUAHSI Membership funds

The CUAHSI Board of Directors,

Noting:

6. That the CUAHSI Board has identified as a strategic objective to “Raise public awareness of water issues by communicating objective, scientific findings to non-academic audiences, including Congress, government agencies, citizen’s groups.”
7. That CUAHSI Executive Director Rick Hooper has been contacted by and engaging with Congressional Staffer David Wegner, who is organizing a series of water-related briefings for the 2013 Congress

Recognizing:

7. That a unique, time-sensitive opportunity exists due to Mr. Wegner’s initiative to organize Congressional briefings, and his invitation for CUAHSI members to participate.
8. That federal funding cannot be used to support CUAHSI’s participation in Congressional education activities.
9. The estimated staff time and associated costs necessary for CUAHSI engagement in this effort (Background document 5.1)

Decides:

To establish a Congressional Education Fund with \$10,000 in membership funds, to support CUAHSI staff in organizing this effort and CUAHSI members to participate in Congressional Briefings as organized by David Wegner.

Requests

4. Executive Director Rick Hooper will circulate a final version of Background document 5.1 to the Board and membership to solicit further donations to the CUAHSI Congressional Education Fund.

Resolution 6

Resolution: Communicating a Community Modeling Plan to NSF

The CUAHSI Board of Directors,

Noting:

8. That the CUAHSI CHyMP initiative (2009-2011) identified the need for a National Water Model with the goal of modeling water at the continental scale to serve as a reference model.
9. The need for leadership in developing such a model.

Recognizing:

10. That current Earth System Models have an overly simplistic representation of continental hydrologic processes compared with the current understanding of hydrology
11. That a vision for functional requirements for a Community Model (Background Document 6.1 – Rasmussen et al. report) and several approaches for advancing CUAHSI's community modeling effort (Background Document 6.2 – Reinfelder et al. report) have been developed
12. That the heterogeneous, poorly observable terrestrial environment presents unique challenges to community modeling efforts
13. The difficulty in achieving consensus on an approach even within a small subcommittee.
14. The need to develop a roadmap to achieve the recommendations of CHyMP

Decides:

To support the development of a Reference Continental Water Model that will couple with existing atmospheric and oceanic models to form a Global Earth System Model. This model also serves as a benchmark to measure progress in understanding of water processes.

Requests

5. A subcommittee of the Board to develop a roadmap to achieve the Reference Continental Water Model.
6. Chair Robyn Hannigan present this roadmap to NSF and request guidance for advancing this vision.

Implications

1. CUAHSI organizes the UCAR equivalent for continental hydrology.
2. Translation of processes across scale is a central question in this endeavor, but processes must be manifest at the regional to continental scale.
3. The effort leads from water and energy balance and involves other aspects (e.g., carbon or sulfur) in as much as they influence other components of the Earth System.
4. This effort could leverage the Water Data Center by employing software engineers to develop and maintain community code, in much the same way as NCAR serves the weather/climate community.
5. The decision to adapt existing code or develop code from scratch is a detail to be determined in the roadmap

BOARD OF DIRECTORS ACTION WITHOUT MEETING

The CUAHSI Board of Directors,

Noting:

1. The need to advance the development of a Continental Reference Model as part of a Earth Systems Model, as previously decided by this Board
2. The expertise of Dr. Ying Fan Reinfelder in Earth Systems Modeling

Decides

To include a subaward for one-month summer salary for the first year of the project period in the core funding proposal to Rutgers University for the support of Dr. Reinfelder.

Summary of Vote:

- Aye
 - a. **Hannigan, Johnston, Carey, Waldron, McNamara, Rasmussen, Krajewski, Bolster, McGlynn, Troch, White, Wardrop**
- Nay
 - a. **Tyler**
- Abstain
 - a. **Freyberg**
 - b. **Reinfelder**

Approved.