

*Board of Director Meeting Minutes  
September 07, 2012*

**Present:** Diogo Bolster, David Freyberg, Robyn Hannigan, Carol Johnston, Witold Krajewski, Brian McGlynn, Jim McNamara, Larry Murdoch, Aaron Packman, Todd Rasmussen, Ying Fan Reinfelder, Denice Wardrop, David White, Rick Hooper, Jennifer Arrigo, Chris Graham, Kayla Berry

**QUORUM**

Meeting opens 12:30PM

- 1) Announcements
  - a. Planned launch of new CUAHSI website
    - i. Fully functional website expected by end of September
    - ii. Draft of website available online
      1. [cuahsi.bostonwebdeveloper.com](http://cuahsi.bostonwebdeveloper.com)
      2. Link will be sent to Board at end of meeting
    - iii. Board comments
      1. Develop unique 404 message
      2. Aqua text is difficult to read on blue background
  - b. Fall meetings: AGU and GSA
    - i. Board members should let Arrigo, Berry know if they are attending either meeting
- 2) Approval of Minutes from 8/1/2012 tabled to next meeting
- 3) Appointment of Pathfinder Selection Committee
  - a. Solicitation will be released next week
  - b. New Selection committee needs to be appointed
    - i. Select advisors of previous awardees have agreed to serve on committee
      1. Martin Doyle
      2. Eric Wood
      3. Roy Haggerty
    - ii. Board Member will serve as chair of committee
      1. Rasmussen
  - c. **Motion to appoint Martin Doyle, Eric Wood, Roy Haggerty and Todd Rasmussen as Pathfinder Selection Committee, with Rasmussen as Chair**
    - i. **Motion: Johnston**
    - ii. **Second: Hannigan**
    - iii. **Discussion: None**
    - iv. **Approval: Yes**
- 4) Election of Secretary of the Corporation
  - a. Candidates:

- i. Thomas Darrah
  - 1. Research Scientist, Nicholas School, Duke University
  - 2. VP GSA – Geology and Health Division
- ii. Adam Ward
  - 1. Assistant Professor, University of Iowa
  - 2. Involved in CUAHSI as student and young scientist
- iii. Kevin Dressler
  - 1. Penn State University
  - 2. Former CUAHSI Secretary

**b. Election conducted via CUAHSI Adobe Meeting website**

**i. Adam Ward elected as Secretary of CUAHSI**

5) Reports from Standing Committees

- a. Committee reports available in  
<https://cuahsi.centraldesktop.com/bod/folder/2660671/>
- b. Defer discussion of E/O, Informatics, Observations and Research Applications to Executive Committee
- c. Short summary of reports
  - i. Informatics
    - 1. May 29/30 in person meeting; report is minutes of meeting
    - 2. Discussion items
      - a. Interfacing between CUAHSI and Federal Agencies discussed
      - b. HydroShare
      - c. Data Net
      - d. Data Center
      - e. Hydro - Nexrad
    - 3. Hooper has written multiple letters of support for NSF proposals where Informatics Committee will serve as external evaluator
  - ii. Education and Outreach
    - 1. Report on in – person meeting
      - a. Committee supports current activities
      - b. Recommendations
        - i. Broader Pathfinder advertising
        - ii. Affiliate EO status
      - c. Proposed new activities
        - i. Committee requires additional discussion regarding new proposed activities
  - iii. Observations
    - 1. Meeting by email to review documents from Hooper or Board
    - 2. Committee membership participation has been spotty, new committee members requested
      - a. All committees will be restocked this year
  - iv. Research Applications
    - 1. June 25 teleconference

2. Survey of practitioners (Potter) continues
  - 6) Instrumentation Report and Year 5 Activities
    - a. Instrumentation activities (especially workshops), while successful, are thought to be opportunistic
      - i. A more comprehensive strategy is requested
        1. <https://cuahsi.centraldesktop.com/bod/discussion/20333943/>
      - ii. Proposed way forward
        1. Year 5: Proceed with current workshops as initiated (optical sensors) with increased funding
        2. After Year 5: Develop field techniques curricula based on phenomena / problems rather than specific instruments / instructors.
          - a. i.e. biogeochemistry, the water cycle
          - b. Move beyond individual instructor workshops
          - c. Gooseff / Singha workshop as model
            - i. Multiple techniques investigating hyporheic exchange
          - d. Course coordinators needed for more extensive workshops
            - i. Likely costs \$40k rather than \$15k for larger time commitment
            - ii. Will require additional justification with NSF
        3. Wardrop and McGlynn volunteered to help develop plan for CUAHSI workshop curriculum
    - b. Appointment of new Liaison to Committee
      - i. Hannigan is incoming Board Chair
      - ii. Wardrop volunteers to serve as Liaison to Instrumentation Committee
- 7) Discussion of Nominations Committee
  - a. Four or five candidates sought in addition to Hannigan, Johnston and Krajewski, who will be rerunning
  - b. Potential candidates were discussed
- 8) Discussion of SEES Fellow Solicitation - Advertising the opportunity for CUAHSI to serve as a host and/or partner institution
  - a. Points of Discussion will be available on CDT: <https://cuahsi.centraldesktop.com/bod/discussion/20308065/>
  - b. SEES Sustainability Fellow
    - i. Two mentors required, one at host, one at partner institution
    - ii. CUAHSI can act as host for applicants without primary affiliations
    - iii. CUAHSI can act as partner institution (i.e. Data Center)
    - iv. Post – doc would be PI in either case
    - v. CUAHSI could also act as matchmaker
  - c. CUAHSI will send out informational statement to membership with CUAHSI’s potential role in Fellowship program, as detailed above

- i. Staff will develop for evaluation by ExCom
- 9) Discussion of CUAHSI approach to CZO National Office solicitation
  - a. Points of Discussion available on CDT:  
<https://cuahsi.centraldesktop.com/bod/discussion/20301683/>
  - b. Deadline is not soon (June 2013), though solicitation has been released
    - i. Proposal will be submitted before additional CZOs / renewals are announced
  - c. CUAHSI has been considering applying for CZO Network Office
    - i. If CUAHSI decides to apply, will provide draft proposal to current CZOs
  - d. Board is encouraged to read background document assembled by Hooper for discussion at October Board Meeting
    - i. Troch will be asked to help with discussion

Meeting closed 2:05 PM

## Amendments

### 1) NSF SEES Fellows Solicitation:

- NSF has announced a solicitation for SEES Fellows ([12-601](#)).
- There is a potential opportunity for CUAHSI and/or the CUAHSI Data Center to advertise the possibility of **Hosting** or **Partnering** with potential fellows.
- Some relevant details of the solicitation include:
  - There is a critical need to develop the workforce in the area of sustainability science and engineering. Through SEES Fellows, NSF seeks to advance science, engineering, and education to inform the societal actions needed for environmental and economic sustainability and sustainable human well-being while creating the necessary workforce to address these challenges. **The program's emphasis is to facilitate investigations that cross traditional disciplinary boundaries** and address issues of sustainability through a systems approach, building bridges between academic inquiry, economic growth, and societal needs. **The Fellow's proposed investigation must be interdisciplinary and allow him/her to obtain research experience beyond his/her current core disciplinary expertise.**
  - A goal of the SEES Fellows Program is to support research that would not fit neatly into a single NSF disciplinary research program.
  - **Fellows are required to develop a partnership(s)** that will advance and broaden the impact/scope of the proposed research. **Partners may include, but are not limited to, a NSF Research Coordination Network (RCN), center or facility;** industry; National Laboratory; state, regional, or local resource management agency; Non-Government Organization (NGO); foreign institution; or international organization.
  - **Fellows are required to have two mentors, one for the proposed research at the host institution (the institution that will administer the award) and the other for the partnership. The host mentor and partner mentor must be from different institutions, and must provide different disciplinary expertise.**

### Board Decision: Does CUAHSI Advertise the opportunity to HOST and/or PARTNER with Proposed SEES Fellows?

- **The proposed fellow is the PI. Thus, CUAHSI would not be directly competing with member universities, even as a host.** CUAHSI could agree to serve as the host institution and administer the award to unaffiliated PIs and/or in cases where universities do not allow Post-Docs to serve as PIs. In this case the PI would be housed at the Data Center, mentored by Rick, Alva, or Jennifer, and would need to find a partner institution. This may be the most workable model as CUAHSI could host hydrology/water science PIs and the disciplinary breadth could be found through the partner institution. This may also be an opportunity to build broader impacts/outreach programs of the data center.

- **If CUAHSI serves as the partner institution, we must provide "different disciplinary expertise" than the host institution.** This could be more problematic for our "core community" (i.e. the fellows interested in working with us likely are from water science) but this could be addressed by the choice of mentor - Jennifer has a geography background (and has worked on some applied geography and social science projects), Alva could mentor from the computer science side. However, as the partner, we could partner with multiple fellows and build more relationships.

## 2) Discussion Points on CZO Network Office

The establishment of the CZO Network Office present an important opportunity for CUAHSI. There are many uncertainties that impact the tactics CUAHSI should take, but we need to make decisions despite those uncertainties. The purpose of this document is to lay out some questions and decisions points to organize the Board's discussion of the approach CUAHSI should take.

Background:

The link to the solicitation is <http://www.nsf.gov/pubs/2012/nsf12595/nsf12595.htm>. Here are some key excerpts from the solicitation:

Through the Critical Zone Observatories (CZO) solicitation, [NSF 12-575](#), NSF will create a network of observatories that will be fully coordinated in terms of observations, data management, modeling, and educational and outreach activities. Key to this networked approach is a CZO National Office (CZO-NO). The CZO-NO will facilitate coordination of research and educational programs of the CZO network and provide a centralized entity that represents the CZO network with the scientific community and the public.

This solicitation requests proposals for the creation of the CZO-NO. The Principal Investigator (PI) will serve as Director of the CZO-NO and will work closely alongside all CZO PIs and co-PIs to achieve the following goals:

- Facilitate communication among CZOs;
- Negotiate and implement common protocols for sensing, analyzing, and reporting of common measurements amongst CZOs;
- Promote dissemination of information and resources both among the CZOs and to additional stakeholder communities beyond the reach of individual CZOs;
- Identify common CZO concerns and needs;
- Identify opportunities to leverage resources or develop synergistic activities;
- Plan the development of and implement agendas for annual CZO PI meetings in coordination with the CZO site hosting the meeting;
- Coordinate implementation of data publication.

The solicitation continues with a long list of support activities (monthly phone calls, etc.) and how the CZO-NO should represent the program to other NSF programs and the outside world.

The following paragraph is also instructive:

### **Critical Zone Observatories National Office Structure**

NSF anticipates that successful operations and management of the CZO-NO will require a senior-level scientist (the proposal PI) on a part-time appointment who will serve as the CZO-NO Director and manage the activities of the office; a full-time office manager at the postdoctoral level or equivalent that would assist the PI with scientific issues; an Education & Outreach (E&O) Coordinator; and additional full-time support staff who will perform other functions of the office, including maintaining Web content, providing

logistical and other support for workshops and meetings, supporting the CZO advisory structure, and administrative functions. The CZO-NO may hire appropriate staff, students, and postdoctoral associates to assist in scientific, education and outreach activities.

Finally, the additional review criteria are as follows

**Additional Solicitation Specific Review Criteria**

- Does the proposal PI, team, and institution, have demonstrated expertise in management of large, diverse projects and networks of scientists?
- Does the PI have a knowledge and familiarity of the CZO program and CZ science?
- Does the PI demonstrate leadership experience?
- How well would the proposed plan foster continued development of the broad CZ community?
- How well would the proposed plan create and foster synergy among the various CZO sites and activities?
- Does the PI and team demonstrate experience of communicating with broad audiences?
- How well would the proposed plan foster innovative use of traditional and new media?
- Is there sufficient institutional support and capacity for the proposed effort?
- Is there a clear management plan for the proposed effort?

NSF staff also will give careful consideration to the following in making funding decisions:

***Integration of Research and Education***

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

***Integrating Diversity into NSF Programs, Projects, and Activities***

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports. Discussions with Tom in Boulder and later indicates that NSF sees the PI as a "senior scientist" who commands the respect of the CZO PI's and is able to work with them to achieve these network goals. There was some consideration given to making the PI ineligible to serve as the PI on successive proposals. NSF would clearly be more comfortable with a science leader that shapes (and perhaps defines) the "network", but this requirement is not explicitly stated in the solicitation.

There are political sensitivities around this solicitation as well. CUAHSI is viewed as representing only the hydrologists and not the broader CZ community, but we are credited with having infrastructure to support community and data publication capabilities. Hooper, in particular, is probably viewed by some as a polarizing figure having been closely associated with HO development (and shooting his mouth off too much). Note the criteria statements about the "broad CZ community."

Point 1.

NSF envisions a senior scientist providing scientific leadership. Hooper believes this is a fundamentally flawed approach. In particular, the CZO-NO should not have an intrinsic science mission but rather enable *any* scientist to more easily carry out network-level research through data access, site access, data comparability and on-site support to execute data collection for network-level projects. Central to this vision is moving towards a CZO funding structure where facility support is separated from science support. This would need to be an evolutionary process given how sites are selected based upon the scientific merits of the proposed at-site research and not on how sites fit together to make a network.

**Does CUAHSI conform to the NSF vision or does it present an alternative approach?**

Point 2.

Tom has stated that the PI should be a university scientist and that CUAHSI should be a sub-contractor to provide support. CUAHSI would not provide any intellectual leadership.

**Should CUAHSI serve only as a subcontractor to a university on this solicitation or should CUAHSI find a PI (e.g., Jake Peters) to serve as lead scientist as a CUAHSI employee?**

Point 3.

**If CUAHSI does serve as a subcontractor, do we subcontract to only 1 PI or to any who ask for it? How do we determine which PI or PI's we are willing to sub for or do we provide these services to any who ask?**