



**Fall 2009 Board of Directors Meeting
August 31-September 1, 2009**

**Notes for the meeting are recorded by the CUAHSI secretary (Kevin Dressler) as representation of the discussion topics and point and are not the opinion of the secretary



Fall 2009 Board of Directors Meeting Minutes

Washington, DC
August 31 – September 1, 2009

Monday, August 31

Part 1. Corporate Business (SAC attendance optional)

Call to order and determination of quorum (Kevin Dressler)

Present

Term expires 12/31/2009

Efi Foufoula, University of Minnesota **X**
Larry Murdoch, Clemson University (Synthesis Liaison) **X**
Fred Ogden, University of Wyoming **X** (Via Teleconference)
John Selker, Oregon State University **X**
Juan Valdes, University of Arizona (HIS Liaison) **X**

Term expires 12/31/2010

David L. Freyberg, Stanford University **X**
Patricia Maurice, University of Notre Dame **X**
Jim McNamara, Boise State University **X**
Kenneth Potter, University of Wisconsin **X**
Claire Welty, University Maryland - Baltimore County **X**

Term expires 12/31/2011

Larry Band - University of North Carolina - Chapel Hill **X**
Jay Famiglietti, University of California – Irvine **X**
Tissa Illangasekare - Colorado School of Mines **X**
Jennifer Jacobs - University of New Hampshire **X**
Scott Tyler - University of Nevada - Reno **X**

Officers:

President: Rick Hooper, CUAHSI

Secretary: Kevin Dressler, Pennsylvania State University

Treasurer: Brian Waldron, University of Memphis

Others: CUAHSI – David Kirschtel, Yoori Choi; SAC – William Dietrick, Soroosh Sorooshian, Rafael Bras, George Hornberger, Jeff Dozier, Margaret Palmer

[Approval of minutes from April 2009 Board Meeting](#)

Motion to Approve: Welty

Second: Freyberg

Discussion: No

Approval: Yes

[Review of agenda, additions, alterations and approval of agenda](#)

- Suggestion to discuss management review first – Jacobs
- Need to discuss broad community engagement and BOD engagement – Selker

[Response to Management Review \(review and response in briefing book\)](#)

- This review is standard for ongoing projects such as CUAHSI
- Strategy and schedule for strategic plan
 - Example of UNAVCO is in the briefing book (it is an outline)
 - Need a mission, vision and bulleted points on enacting those goals
 - The plan is necessary but does not necessarily further help with community engagement
 - One point to consider is how the terrestrial hydrologic system interacts with climate
 - The outline is fine but the complete plan should be more detailed with science questions
 - Also need an implementation plan eventually
 - NSF was not concerned with the timeline but that the product was a strategic plan similar to UNAVCO
 - Timeline
 - Open to community for input at end of September
 - Second phase comment would be what is needed to accomplish these goals
 - The College of Exploration would be very useful in executing this report
 - Still need to resolve how to fund this service
- Engagement of community at Fall AGU and Membership Meeting
 - A 130 member community is encouraging but also need to find more effective ways of engaging them

- A question and answer session at AGU could be done
 - Standing committees need better and distinct charges to give clear tasks, reporting deadlines and the empowerment to do them
- Overall, be clear on the end users and their needs
 - Board should consider whether an annual meeting of members is needed
 - Suggestion to do a physical meeting at the CUAHESI Biennial meeting
- What is the community?
 - Broad definition. Certainly includes water and what it carries
 - Do the entities such as Biogeochemistry, environmental engineering feel like they are engaged?
 - If CUAHESI were to implement working groups in certain areas they could focus on what CUAHESI is doing and how that interacts with their community or does not interact
 - Such working groups could meet at the CUAHESI Biennial Meeting
 - In general in these working groups, workshops other similar activities it is better to have CUAHESI staff to help those activities keep momentum and to end them if they are not progressing
 - Getting junior faculty more involved in workshops is important to long-term involvement. Not only in writing reports for publication but also in ideas

Year 2 Budget

- Review of funded activities
 - Cooperative Agreement (In briefing book)
 - General discussion was held on a few items just for clarification
 - Discussion on HIS focused on the long-term business strategy on how to provide the service in the future
 - For example CUAHESI would manage the data service that was developed by a group of PIs
 - Year 2 budget runs from February 2010 through January 2011
 - Residual fund activities (Core, HMF, CHyMP)
 - Observatory Standing Committee
 - Have met physically and on the phone and are working on an intersite comparison study of existing watersheds to focus on stores
 - \$75K in residual funds
 - Need to save a little bit of this for editor and writing activities related to workshops or other reports
 - Could consider using some staff time to reach out to NGOs for other funding

- Suggestion to invite NGOs to next board meeting to give them presentation and offer them a point of contact

■ Proposed additional activities

- Need to prepare supporting documentation for NSF to consider the following activities in some form if they are board supported
 - HMF: Geophysics and HOW Workshop
 - Service for geophysics information and for coordinating geophysical studies with hydrology in the sense of how they can work together and what the techniques are
 - NSF requested more information on how it would be implemented
 - For the proposal, need to develop the science need, address the intersite comparison work and provide a niche for geophysics to explore new research methods beyond those needed to apply for storage experiments, for example
 - Could ask Nick Woodward at DOE if there could be some joint funding for the workshop
 - NCAR/CUAHSI Post-Doctoral Fellowships
 - Need to review the details with NSF
 - Efi Foufoula to draft a document that outlines the approach in the NCAR/CUAHSI collaboration
 - Neon Workshop (Hooper to lead)
 - The context is that they completed their preliminary design review
 - They have stream sites (STREON) and at a subset of these have stream manipulation studies planned (they do not have funding to properly understand the hydrology and the stream-aquifer interactions)
 - NEON is approaching a final definition of their sites and instrumentation. We propose a workshop for the hydrologic community to both understand what NEON will be and to identify opportunities to leverage the investment in NEON through either individual or community proposals.
 - There also needs to be several talks at the workshop where hydrologists talk about the science of how hydrology is involved
 - CHyMP Activities

- A third workshop is proposed. Do we still hold that workshop or redirect these resources?
 - Workshop in late 2010
 - Famiglietti to provide Hooper some language on what that workshop could address/accomplish
- Selker suggests to reconsider a national level workshop on synthesis to recapture the synthesis activities to date
 - Foufoula, suggests that CUAHSI should at least recap the activities and summarize to present at a meta-level to NSF in terms of what has worked, gone well, etc
 - Could consider using the Dahlem conference for this (year 3)
 - OR do it at the Biennial meeting so that it does not cost extra money – Larry Band to gather a committee to address this for the upcoming biennial meeting
- Board authorization of Year 2 Budget request

Motion to develop a request document for supplemental funding (to the year 2 cooperative agreement) for an HMF Geophysics Node and additional workshop, a NEON workshop and the NCAR/CUAHSI Post-doctoral Fellowships: Freyberg

Second: Selker

Discussion: Refer to synthesis discussion above

Approval: Yes

Old Business

- Corporate Affiliate and By-Laws review
 - Draft document was in briefing book
 - Key point is that the affiliates would be on a case by case basis
 - There would be a corporate advisory board.
 - The benefits to them would be advertising space and reduced registration fees at CUAHSI meetings.
 - Set initiation fee and then a sliding scale of annual fees
 - Propose a sponsorship level
 - Maurice suggests that the subject go back to a committee to review the document and the issues with this type of membership, in general

Motion to form an ad hoc committee to explore this issue, consult with the Senior Advisory Council, and bring back findings to next Board Meeting. Committee to be organized by Jay Famiglietti: Tyler

Second: Maurice

Discussion: No

Approval: Yes

Part 2. Senior Advisory Committee Meeting

Relationship between CUAHSI and NSF

- Cooperative agreement and Management Review
- Defining CUAHSI Role in face of NSF management turnover
 - Breadth of community
 - Representation of scientific aspirations vs. facility development and management
- Community representation
- Effective documents: science plan, strategic plan, implementation plan

The above bullet points were not addressed specifically but generally. The discussion focused more poignantly on CUAHSI's role overall. Discussion centered on advocacy versus running services and a combination of the two.

Relationship between CUAHSI and other Federal Agencies

NWS/ACE/USGS initiative

- Don Cline gave a talk regarding this initiative
 - NOAA-led initiative that has already begun
- IBM/Heinz Center initiative
 - Discussion centered around the fact that these types of relationships must be considered seriously
 - Further consideration for policy on how to respond to these types of interactions must be undertaken.
 - At this time, the discussion with Heinz is very preliminary
- Developing other ties (DOE, NASA)
 - Developing these ties should be more than invitations to meetings
 - The ties should include membership on boards and committees where collaborative work can be done during decision processes

Tuesday, September 1

Part 3. Open meeting with NSF, other Federal Agencies, SAC

Agency Present: Gary Carter (NWS), Jack Kaye (NASA), Jared Entin (NASA), Mark Sudol (USACE), Pedro Restrepo (NOAA), Lina Patino (NSF), Deborah Hayes (USFS), Mark Hamilton (EPA), Jun Abrajano (NSF), Bob Detrick (NSF), Doug James (NSF), Mark Walbridge (ARS), Ming Zhu (DOE), Pierre Glynn (USGS)

CUAHSI Present: Scott Tyler, Brian Waldron, Kevin Dressler, Jay Famiglietti, David Freyberg, John Selker, Tissa Illangasekare, Jennifer Jacobs, Ken Potter, Richard Hooper, David Kirschtel, Larry Murdoch, Efi Foufoula, Juan Valdes, Larry Band, Yoori Choi, Claire Welty, Jim McNamara, Patricia Maurice

SAC Present: Rafael Bras, George Hornberger, William Dietrich, Margaret Palmer, Jeff Dozier, Soroosh Sorooshian

Gary Carter, Director of Office of Hydrologic Development, NWS – Improving Water Services

- New program called Integrated Water Forecasting
- Water Resources problems are significant and getting bigger
 - Seamless integration of information and capabilities at enhanced levels of collaboration is needed to address these problems
 - Development of the Integrated Water Resources Science and Services Consortium (IWRSS) – Collaboration of NOAA, USACE, USGS
 - Covers three Main Areas (Rivers and Floods – AHPS; Coasts, Lakes and Estuaries – CERIS; Water Resources – IWRSS)
 - Increased emphasis on climate-related impacts for arid and coastal watershed

Jack Kaye, Associate Director, Earth Science Division, NASA on modeling initiatives

- Observations – drive the modeling effort
- Majority of stimulus funds have gone to the Satellite missions
- Focus on data assimilation in models
- Important to have organized intercomparisons

Bob Detrick (NSF)

- HS program is making investments in Hydrologic Data System, modeling through CHyMP, increasing investments in observations and instrumentation, and synthesis
- FY09 core budget for hydrology is ~\$12M
 - With Stimulus funds added in, HS has spent ~\$8M more this year than in FY08

Open Discussion on potential contributions of CUAHSI and academic research community. CHyMP, HydroHUB, Water Data Services.

Restrepo

- Working with David Maidment on the data needs as it relates to forecasts
- Community Hydrologic Prediction System (CHPS)
 - Includes calibration
 - Considering models where the parameters are physically-based so that if there is a watershed modification, it can be accounted for

Walbridge

- Must solve our water problems and still be able to support the population
- Entering a new era in agriculture
 - Dr. Shaw is the new undersecretary
 - Refers to collaborating with other agencies
- Need to start by gathering the GIS coverages for the ARS watershed

Hayes

- Working on recovering the analog and shelved historical data
- USFS has been instructed to take a large landscape scale view of things
 - Working on how the small watershed scale fits into this
 - Looking to CUAHSI for advice on this subject

What has CUAHSI done to capture the HMT data?

- Calibrated models run with additional data are evaluated to see what the influence of that data is. Some of the additional data has been invaluable such as snow line
- Data will probably be available in the standard NESDIS data system but Restrepo will be get back to CUAHSI regarding the data

Glynn

- Chair of interagency group on environmental modeling
 - Four working groups, adding a fifth in ecosystems
 - Will send a link about an upcoming workshop to CUAHSI

Hamilton

- Making tremendous steps in collaboration
- Federal agencies do have pools of research money and coordinating that to common goals is imperative
 - The NOAA-led initiative is a great example

Ming Zhu (DOE)

- Working on a toolbox for next generation modeling
 - Coupling models

- Adding HPC capabilities and landscape complexities such as landfills, for example

HydroHUB

- Proposes to make models available (repository) and executable over the web
- Need for a data catalog to search for and acquire data
- Data resources
 - Could CUAHSI coordinate this?

General discussion was held on how to best collaborate in the general water arena

- The discussion began to center around some sort of synthesis activity that may include something like a center where the collaborations could happen naturally and ideas could bubble up.
 - NCEAS was mentioned

[Senior Advisory Committee meeting with Tim Killeen at NSF, Arlington, VA](#)

- Details of the meeting to follow

Adjourned: 12:30 pm