

**October 28, 2011 10:10am PDT**

**BioEarth Steering Committee Meeting**

**Location:** Sloan 33

**Primary Option:** teleconferencing at 509-335-4700, Meeting ID 3728#

**Back-Up Plan:** Skype (with Video if you have a camera). My skype name is jennifer.c.adam (FYI, I have Skype Premium in case we would like to do a group video call. If so, please let me know if you'd like me to call you and provide me your skype name.)

**Steering Committee Members:** Adam, Brady, Chung, Evans, Kruger, Lamb, Stockle, Vaughan  
(all others invited as well)

**Agenda:**

1. Updates/status from working groups towards 2011 milestones
2. Reminder about Dec 2 All-Hand Meeting, and charge to leads of working groups to prepare for that meeting
3. Discussion of peer reviewers – please review the current list
  - a. Who?
    - i. Hydrology and land use: Keith Cherkauer and Laura Bowling (<http://www.agry.purdue.edu/hydrology/index.asp>) - accepted
    - ii. Biogeochemical cycling: Scott Ollinger (<http://www.eos.unh.edu/Faculty/Ollinger>) – need to invite
    - iii. Atmosphere/ecosystem interactions: Robin Dennis (<http://www.epa.gov/AMD/Staff/dennis.html>) - accepted
    - iv. Agricultural economics: Ronald Sands (<http://www.ers.usda.gov/AboutERS/Bios/view.asp?ID=rsands>) – need to invite
    - v. Integrated modeling: James Syvitski ([http://csdms.colorado.edu/wiki/Main\\_Page](http://csdms.colorado.edu/wiki/Main_Page); [http://hydrosciences.colorado.edu/people/person\\_details.php?person\\_ID=19](http://hydrosciences.colorado.edu/people/person_details.php?person_ID=19)) – need to invite  
**I READ HE IS NOW DIRECTOR OF IGBP, WHAT ABOUT WIESLAW MASLOWSKI INSTEAD??**  
([http://www.oc.nps.edu/NAME/Maslowski\\_CV.htm](http://www.oc.nps.edu/NAME/Maslowksi_CV.htm))
    - vi. Agriculture: who??? Perhaps somebody from AgMIP? Cynthia Rozensweig? (<http://www.giss.nasa.gov/staff/crosenzweig.html>) –  
**NOBODY FOR NOW, WILL INVITE SOMEBODY AS NEED ARISES**

- b. Approach – **I WILL BEGIN INVITING PEOPLE FOR SEMINARS SPRING SEMESTER AND LATER**
  - i. Bring them here individually during first 1-2 years for invited talks using BioEarth, NSPIRE, CEREO seminar funds. 1 or 2 per semester - **YES**
  - ii. Follow –up by conference calls - **YES**
  - iii. How often to bring back peer reviewers? Years 1, 3, 5 or less often? **UNRESOLVED, but probably not necessary to be too formal**
  - iv. Decide later about whether or not to bring all reviewers together at one time, whether or not we want such a formal review process – **PROBABLY NOT**
  - v. Periodically, will prepare and submit progress reports as well as written responses to reviewer comments – **UNRESOLVED**
  - vi. Need to decide on whether or not to provide honorariums and how much, although if brought here for seminar, honorarium is generally provided. – **PROVIDE HONORARIUM ASSOCIATED WITH INVITED SEMINAR SPEAKERS**

All-Hand meeting on Dec 2 (9am-noon PDT) – draft agenda:

- c. 9:00-9:30am: welcome and introductions – fuller introductions from new members
- d. 9:30-10:45am: formal progress reports
  - i. Project integration: Jenny
  - ii. WG I – Jenny (terrestrial), Serena (atmospheric), Joe (cyberinfrastructure)
  - iii. WG II – Mike (economics)
  - iv. WG III – Chad/Fok/Jennie (outreach and communications)
- e. 10:45am – 12pm: discussion of 2012 milestones
  - i. Break-out groups by working group (**working groups should have tentative milestones drafted before the meeting for discussion at this time**)
  - ii. All-hand discussion on milestones and project integration

### **Meeting Notes:**

Participants: Adam, Brady, Chung, Kruger, Vaughan, Poinsette, Anderson

- 1. Peer reviewers:
  - a. Mike will invite Ronald Sands for economics
  - b. James Sytvitski (who hasn't yet been invited) is not Director of IGBP, so probably not a good choice (as he will be out of country). Be thinking of another individual for integrated modeling. What about Wieslaw Maslowski (RACM)?

- c. An ag possibility is Clyde Frossi (but we will wait on this for now to see what the needs are; he is involved in climate change and extension)
  - d. More recently (since this meeting), Ananth has suggested Ilkay Altintas (<http://swat.sdsc.edu:8080/ilkay/>) – PI on Kepler (which we will use for BioEarth) – Ananth will wait to invite her for now.
  - e. We will start by bringing in peer reviewers for seminars, starting spring semester.
2. WG I seminars for Spring – we need to start filling out the calendar for these. Brady will give one on economics, Serena on WRF-CMAQ, others could include Christina on Rhessys and John on NEWS. I will contact people about good dates for these.
  3. Updates from each group:
    - a. Terrestrial update:
      - i. Mingliang has been trying out VIC and WRF-VIC on the central cluster, VIC results (as run on Central) are being analyzed. He has also been working on being able to read NetCDF files directly into RHESys, as well as preparing a number of gridded meteorological driving data for input to both VIC and RHESys (UW data, Abatsoglou data, DayMet data)
      - ii. Jun has been improving the N cycle in Rhessys, most recently in developing the N fixation using the literature.
      - iii. Snapshot of some example student activities: Sarah Anderson is currently in Alaska analyzing NADP data for Ndep for a variety of sites; Justin Poinatte has been working with the CENTURY model to better understand high alpine N cycling for improvement of these processes in BioEarth. Julian Reyes has been looking at data over grasslands.
    - b. Atmospheric update:
      - i. PNNL Subcontract in place, bi-monthly meetings have begun, first meeting on 10/28/11, next meeting 11/18/11 9am.
      - ii. New PhD student, Tsengel Nergui started this Fall, currently in training on learning to run CMAQ. New WSU atmospheric student to start in the Spring, working with Joe.
    - c. Cyberinfrastructure update:
      - i. Forum: how to use effectively
        1. Will add tutorial during all-hand meeting
        2. Conversations can be started by email and as they develop into a discussion, port them to the Forum and send the link to the new thread for interested individuals to subscribe to. This way, developing conversations can be made available to the entire BioEarth community.
      - ii. Subversion will be used for BioEarth code management
      - iii. CI team meetings have occurred on 2 Wednesday mornings recently.
        1. The most recent meeting (11/9/11) involved a discussion and presentation on Kepler software by Ananth (<https://kepler-project.org/> for scientific workflows) – this is a very exciting tool. Once we have developed it to handle some of our sequential runs

on the central cluster, we will do a full BioEarth tutorial and WG I seminar on it.

- iv. The Wyoming NSF Supercomputer Facility (Yellowstone) is now accepting applications for computing access. We are not submitting a proposal for this coming year as we have unused GAUs at the NCAR facility. If anybody needs GAUs, please talk to us about using them. I believe we will submit a proposal for use of Yellowstone next year. Joe will lead the charge on this submission.
- v. Our UCSB collaborators are gaining access to the WSU central computing facility. Please let me know if anybody else from other institutions needs access.
- d. Economics (Mike, please correct me if I get this wrong...)
  - i. By end of semester will have a basic version of the new econ model (the non-spatial, with delineations by subregion/watershed only, model) that will be built upon over the coming semesters and eventually incorporated into the biophysical BioEarth models. Production in each subregion is a function of water, land, crop yield, prices – currently under calibration.
  - ii. 2 pronged approach also involves development (over longer-term) of the fully spatial model.
- e. Communications
  - i. Liz working on analyzing interviews of BioEarth faculty, involved in literature review on stakeholder/modeler interactions
  - ii. Our DOE CRB forecast project involved another of workshops in which we presented VIC-CropSyst and its application. This involved a quantitative assessment tool live, with results that are confidential (which encourages more honest responses). Plus, this included opportunities for written comments and a public comment period. One of the questions involved asking about the utility/value of the research and the response was positive.