

Minutes of the LTER Executive Board Meeting
November 6, 2009; 1-3pm EST; Videoconference

1. Meeting called to order at 1:10 pm by Chair Phil Robertson; Members attending: Hugh Ducklow, David Foster, Ted Gragson, Corinna Gries, Sarah Hobbie, Sally Holbrook, Dave McGuire, Steve Pennings, Bob Waide; Unavailable: Nick Brokaw, Mark Williams. Also present: Todd Crawl (through item #4).
2. Minutes for 13 September 2009 approved by consent with one correction.
3. Updates and Announcements
 - a. Robertson noted the AIBS Distinguished Scientist Award to be presented at the 2010 AIBS awards ceremony to LTER. Once details are provided we will make arrangements for appropriate representation.
 - b. NAB membership. Robertson noted new NAB members recruited by chair Carol Brewer based on her and EB input: Ann Bartuska, Alan Covich, Deborah Estrin, Jim MacMahon, and Susan Stafford. Three positions are still pending. Continuing are Michael Bender, Trudy Ann Cameron, Tony Janetos, Bob Kates, Sander Van der Leeuw, and Frances Westley. Next meeting March 4-5.
 - c. 2010 Minisymposium. Organizers Dave McGuire, Jess Zimmerman, and Morgan Grove report that the 2010 Minisymposium has been successfully organized and is scheduled for Thursday 4 March at NSF. Official program and invitations will go out in January. The LNO will attempt to stream the talks via the web.

4. Network Synthesis Prospecti (SP)

Todd Crawl provided an overview and update of prospecti status within NSF. He noted that all have been received well, and should be well-suited for tailoring for the upcoming Climate Research Initiative (CRI), which for the next 2 years will provide the most promising opportunity for funding. In the FY2010 budget \$197M is earmarked for cross-directorate climate research, with BIO, GEO, and SBE particularly targeted. Four solicitations are expected to be released within weeks of the FY2010 budget signing. Our funding targets (\$8M/5y) are not out of line. There will likely be 90d of response time once the request for proposals is announced, which makes a March-April deadline likely. There will be an additional solicitation for macroscale ecology using NSF platforms (LTER, CZO, NEON, etc.) to address multiscale questions ranging from regional to global. A metagenomics solicitation is also likely.

Discussion noted that the budget targets for the prospecti are significantly less than needed for full network-level research efforts; it was pointed out that a future scenarios project for Maine alone was recently funded by NSF-EPSCOR at the level of \$20M. Crawl suggested that for at least one project we build two scenarios – one at the current \$8M target and one at full network build-out. Also noted was the need for potential help from NSF to solicit federal agency partners; no plans are currently in place to facilitate these, though joint solicitations with DOE and USDA are presently under discussion for other topics.

5. ARRA Award Operational Plan Status and Update

Bob Waide recapped the subcommittee reports, attached. All four subcommittees met in October (Synthesis; Cyberinfrastructure / Network Information System (CI/NIS); Development and Outreach; and Core Services). Draft plans are expected by November 18 for all but CI/NIS, which will be ready by December 1. For those due November 18, comments from respective subcommittees will be solicited and a follow-on meeting will be organized as needed. Based on comments (and following another meeting as needed), the final draft plans will be prepared for EB consideration in January. For the CI/NIS plan, the first draft will be circulated to NISAC, IMC, and the EB CI/NIS subcommittee for feedback, due December 11. Following a December 15 EB Subcommittee meeting, a revision will be prepared and redistributed to the above committees plus an external advisory committee. The advisory committee will convene in Albuquerque January 20-21 together

with EB and NISAC representatives.

6. EcoTrends Update

Robertson noted that EcoTrends will be incorporated into the CI/NIS Operation Plan as an activity in the same manner as other activities. He will ask Deb Peters to provide a 2-page description to cover the 7 points outlined in the September 13 meeting for all activities (see Sept 13 minutes), to cover in particular the data management position discussed earlier and governance. Robertson noted that the immediate web improvements discussed at the Sept 13 meeting remain to be addressed. Dave McGuire made a motion to approve funding for these improvements, expected to cost no more than \$10k. The motion was seconded by Corinna Gries, and after further discussion, passed unanimously. Waide will contact Peters for a scope of work statement and initiate the paperwork necessary to implement; the SOW will be circulated to the EB.

7. 30-Year Review

Robertson reported on a discussion with Review Committee co-chair Alison Power about the timing, procedure, and materials needed for the 30-Year Review. The committee is expected to meet for the first time in the coming months and conclude the review in summer 2010. The review is expected to be more prospective than retrospective, focusing in particular on the contributions that LTER is positioned to make. This is consistent with comments made by NSF at earlier meetings. Many members of the committee will have no or little exposure to LTER. Suggestions are to invite committee members to visit the LTER site closest to them, as for the 20 year review; to attend the minisymposium in March; and potentially to meet coincident with the SC meeting at PIE, including the site tour. Initial materials to be provided to the committee include the decadal plan, synthesis prospecti, the AC/ERE's Tipping Points report, and perhaps the 2003 BioScience articles.

8. Request from Graduate Student Committee

The EB received a letter (attached) from Graduate Student Committee co-Chairs Amber Hardison and Chelse Prather on behalf of the Grad Committee requesting consideration of a cross-site postdoctoral fellowship to enhance collaboration among sites in the Network and provide an extension of the training that students receive as members of the network. The proposal was met with enthusiasm, though a number of important details would need to be worked out if funds were identified. The request was referred to the Synthesis Subcommittee for consideration as part of the operational plan, and Robertson will also share with Todd Crowl, who had indicated an earlier interest at one point.

9. Upcoming meetings

- a. November 17, 4-6 pm EST
- b. December 7, 1-3 pm EST
- c. Jan-Feb TBD
- d. March 3-5, 2010 (Washington DC)
- e. April TBD
- f. May 12-13, 2010 (SC Meeting at PIE)

10. Meeting adjourned 3:10pm

Notes from the EB Sub-Committee on Developing an Operational Plan for Synthesis

H. Ducklow, D. Foster, S. Pennings, P. Robertson, R. Waide

October 7, 2009

The sub-committee met by videoteleconference to discuss the four activities described under the thematic area of Synthesis in the LNO renewal proposal. These activities are: 1) Science Council, 2) All Scientists Meetings, 3) Research Working Groups, and 4) Decadal Plan. The sub-committee made the following recommendations:

1. Science Council

- Annual meetings of the Science Council should be included as an activity in the operational plan being prepared by the LNO in coordination with the EB. The resources proposed will cover one meeting per year, as per Network bylaws.
- The EB and SC should investigate additional means to engage scientists in discussions of network science. More frequent full meetings of the SC or subsets of the SC are options that were discussed. This topic should be re-visited with the participation of the full EB.
- Depending on the decision of the EB/SC with regard to more frequent meetings, additional resources may need to be allocated to this activity in the future.

2. All Scientists Meetings

- Triennial All Scientist Meetings should be included as an activity in the operational plan being prepared by the LNO in coordination with the EB. Including support for personnel to undertake ASM planning and follow-up is appropriate at the level proposed.

3. Research Working Groups and Decadal Plan

- These two activities should be combined as a single activity in the operational plan being prepared by the LNO in coordination with the EB.
- The operational plan should maintain sufficient flexibility to allow re-allocation of resources to respond to emerging opportunities and changing priorities.
- \$100,000 should be earmarked for meetings of Decadal Plan working groups in the next 11 months; funds will be allocated through a call for proposals restricted to these existing working groups. This amount is expected to cover 2 meetings for each of the 5 working groups at \$10,000 per meeting on average.
- The remaining participant support funds in these two activities (ca. \$80k for year 1) should be made available through an open call for proposals without specification of topic.
- Both calls should include the option of requesting small amounts of funding for salaries; at present for year 1 there is a \$50,000 placeholder for this.
- Waide will provide draft calls for each competition to the sub-committee.
- The EB should canvas sites for opportunities to augment network funds through other programs (e.g., Bullard Fellowships).
- The sub-committee should schedule another vtc before November 20th; a decision about carrying out this vtc will be made at a later date.
- Robertson will communicate recommendations about the calls for proposals to the full EB once draft documents are approved.
- No other LTER committees or constituencies need to be consulted in the development of the operational plan for these activities.

Notes from the EB Sub-Committee on Developing an Operational Plan for Development and Outreach

D. Foster, T. Gragson, S. Hobbie, P. Robertson, R. Waide
October 7, 2009

The sub-committee met by videoteleconference to discuss the four activities described under the thematic area of Development and Outreach in the LNO renewal proposal. These activities are: 1) Strategic Communication Plan, 2) Communication and Outreach, 3) Development, and 4) Training.

The sub-committee made the following recommendations:

General:

- The general elements of the operational plan as described in the material circulated by Waide are appropriate. The elements related from feedback from the LTER and broader communities need to be developed further as part of the operational plan.

1. Strategic Communication Plan

- The process of developing the strategic communication plan could best be moved forward by the participation of an external facilitator who would help design the process by which the plan would be created. Recruitment of such an individual is a key first step in developing the plan. This external person would work with the EB sub-committee on Development and Outreach to engage additional expertise in the community.
 - The LNO and the EB should be proactive in recruiting persons from the LTER network that can make significant contributions to the development of the strategic communication plan because of their expertise and experience in similar activities.
 - The LNO will canvass the LTER sites to identify potential external facilitators that could be engaged in the development of the strategic communication plan. Once identified, these individuals will be contacted for interviews and cost estimates.
- A subsequent step to determine the means to achieve the defined goals would be a longer-term process, involve additional expertise, and probably incur significant cost. Resource re-allocation would flow from the outcomes of this second step.
- Early 2010 is the likely time to initiate the strategic communication planning. The initial discussions between the EB and the external facilitator will inform the operational plan due by March 1.

2. Communication and Outreach

- The activities described in this section are appropriate for development in the operational plan.
- Modifications to these activities as well as the re-allocation of resources may result from the outcomes of the strategic communication planning effort.

3. Development

- The activities described in this section are appropriate for development in the operational plan.
- Reprioritization of goals as well as the re-allocation of resources may result from the outcomes of the strategic communication planning effort.
- Responsibilities assigned to the Director of Development (Michener) will be re-assigned to the Executive Director or will be addressed by other individuals or groups as determined by the Executive Board and the strategic communication plan.
- Partnerships with other networks and agencies may be best handled through a distributed effort that reflects LTER goals and priorities and feeds back into LTER activities. The role of the LNO may evolve into more of a coordinating role than a direct responsibility for establishing and maintaining partnerships.

4. Training

- The activities described in this section are appropriate for development in the operational plan.
- The audiences for training included information managers, students, scientists, outreach and communication contacts, or other groups within LTER.
- Training themes will depend on the needs and priorities of the various possible audiences, but could range from technical training to workshops in communication skills.
- Mechanism to determine prioritization of training activities is required. Mechanism should remain flexible for the moment, but the process of selection among different alternatives needs to be part of the operational plan. The EB sub-committee on CI should discuss the process of selection for IM/CI audiences.

Action items:

- Waide will distribute notes by Wednesday, October 14.
- The LNO will provide a draft operational plan for sections 4.1-4.4 by Wednesday, November 4.
- The LNO and the Chair will canvass the sites for potential external facilitators, evaluate the suggestions, interview potential candidates, get cost estimates, and develop a firm schedule for the development of the strategic communication.

Notes from the EB Sub-Committee on Developing an Operational Plan for Core Services

N. Brokaw, S. Holbrook, D. McGuire, P. Robertson (not present), R. Waide

October 13, 2009

The sub-committee met by teleconference to discuss the five activities described under the thematic area of Core Services in the LNO renewal proposal. These activities are: 1) Facilitation of Meetings, 2) Persistent Record of LTER Activities, 3) Acquisition of Data, Hardware, and Software, 4) Proposal Preparation, and 5) Management and Reporting.

The sub-committee made the following recommendations:

General:

- The general elements of the operational plan as described in the material circulated by Waide are appropriate.
- Many of the activities under Core Services will be funded from the core cooperative agreement, rather than ARRA funds. In developing the ARRA operational plan, care will have to be taken to appropriately account for the ARRA funds in the same activities for which they were requested.

1. Facilitation of Meetings

- The activities described in this section are appropriate for development in the operational plan.
- Because of the amount of money budgeted for Materials and Supplies, the operational plan should take care to provide sufficient detail on how these funds will be used.

2. Persistent Record of LTER Activities

- The activities described in this section are appropriate for development in the operational plan.

3. Acquisition of Data, Hardware, and Software

- The activities described in this section are appropriate for development in the operational plan.

4. Proposal Preparation

- The activities described in this section are appropriate for development in the operational plan.

5. Management and Reporting

- The activities described in this section are appropriate for development in the operational plan.

Action items:

- Waide will distribute notes by Wednesday, October 21.
- The LNO will provide a draft operational plan for sections 3.1-3.5 by Wednesday, November 18.

Notes from the EB Sub-Committee on Developing an Operational Plan for Cyberinfrastructure

J. Brunt, T. Gragson, C. Gries, W. Pockman, P. Robertson,
M. Servilla, W. Sheldon, R. Waide, M. Williams
October 15, 2009

The sub-committee met by teleconference to discuss the four activities described under the thematic area of Cyberinfrastructure (CI) in the LNO renewal proposal. These activities are: 1) Basic Cyberinfrastructure Support, 2) Information Management, 3) Network Information System, and 4) IT Database and Web Consulting. The sub-committee made the following recommendations:

Basic Cyberinfrastructure Support

- Support for basic cyberinfrastructure at the LNO should be included as an activity in the operational plan being prepared by the LNO in coordination with the EB. The resources will cover salaries and equipment support and maintenance for servers, desktop computers, video teleconferencing, rich media recording/streaming, and training laboratory.
- The operational plan should show specifics about server and storage acquisition, utilization, and replacement.

Information Management

- Support for communication and coordination among site information managers and support for network information management should be included as an activity in the operational plan being prepared by the LNO in coordination with the EB. The resources include salary for an information manager to develop and curate network databases, an annual meeting of the information management committee, an annual meeting of the IMC executive committee, two product oriented IM working group meetings, ~2 months of site information manager support and incidental travel for information management.
- The operational plan should include specific language related to the need to make progress on standardization of information exchange formats, web service specifications, metadata content and data formats.
- The operational plan should include specific language related to the need for standardization, the steps required, and the groups that would be engaged to make progress on standardization of data.
- The operational plan should address development and system support for high priority IMC working group activities.

Network Information System

- Support for the development of the Network Information System should be included as an activity in the operational plan being prepared by the LNO in coordination with the EB. The

resources will pay for salaries for development of the NIS including a NIS developer, 2 programmers, and 1 intern.

- The operational plan should clearly identify the functions PASTA can perform in support of site and network-level synthesis, standardizing access to and formatting of site data, and centralized data archiving.
- The operational plan should address the availability of development resources for high priority requirements that are identified by the Science Council.

IT, Database, Web Consulting

- Support for consulting services to sites should be included as an activity in operational plan being prepared by the LNO in coordination with the EB. The resources will cover partial FTE support for limited consultation with sites.
- The operational plan should present a process for gaining feedback to delineate activities that are appropriately covered under this category.

Next steps - Review procedure

- Development of this section of the LNO operational plan will require additional review and revision as follows:
 - LNO will produce a draft of CI/NIS operational plan by December 1 and distribute to EB/NISAC/IMC for feedback.
 - Feedback will be received by December 11. Feedback from IMC will be filtered through NISAC. EB-Sub-committee will conference to outline a quick revision.
 - LNO will revise draft operational plan and send to external reviewers around December 16. Feedback will be received around January 8.
 - NISAC/Reviewers/EB sub-committee face-to-face meeting mid-January (11-22 January).
 - LNO revise draft based on meeting and included with overall plan for review by EB and submission to NSF by March 1, 2009.
- External advisors to be considered:
 - Randy Butler, NCSA
 - Sridiri Gulallipi, USC
 - Chris Jones, UCSB/PISCO
 - Michael Piasecki, Drexel, CUASHI, WATERS
 - Bob Sandusky, UIC
 - Mark Schildhauer, NCEAS
 - Bruce Wilson, Oak Ridge, NPN, DataOne
- It was agreed that approval from NSF should be sought to provide external advisors with an honorarium for their participation of \$1000.

October 5, 2009

Dr. Phil Robertson
Chair, LTER Executive Board
Michigan State University
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Hickory Corners, MI 49060-9516

Dear Dr. Robertson & Members of the Executive Board of the LTER Network,

On behalf of the graduate students of the LTER network and as co-chairs of the LTER Graduate Student Committee, we would like to propose that the LTER Executive Board allocate money to support a cross-site post-doctoral fellowship (or fellowships). An LTER cross-site post-doctoral opportunity would be a natural extension of the training that students receive as members of the LTER Network. LTER graduate students take advantage of the collaboration and travel opportunities afforded to them by being a part of the LTER Network. However, there is currently no mechanism for these students to continue to work within the Network once they have completed their degrees, despite their being uniquely poised to take advantage of such an opportunity. We see a cross-site post-doctoral fellowship as an effective mechanism to enhance collaboration among sites in the Network, both in terms of science potential and relative cost.

Throughout our terms as co-chairs and during the terms of co-chairs who preceded us, graduate students have expressed interest in a Network level LTER-sponsored post-doctoral opportunity. In a survey that we conducted in 2008, 73% of students indicated that if given the opportunity they would continue working as part of the LTER network after finishing their degree (93 responses). Unfortunately, there is no obvious mechanism to achieve this goal for the matriculating graduate student. In addition, at the Graduate Student Symposium during the recent All Scientists Meeting in Estes Park, CO, Bob Waide was asked by a student in the audience when LTER post-doc funding might become available. We have also garnered support from numerous Principal Investigators across several LTER sites within the Network for such an opportunity.

Post-doc researchers may be particularly well-suited to do cross-site work. LTER faculty may be unable to commit to the time and travel required to execute a cross-site experiment due to teaching and other departmental responsibilities; however, post-docs could be more flexible. Additionally, former LTER students have a knowledge base that encompasses a familiarity with the types of research conducted across LTER sites as well as an in depth understanding of basic ecological principles. This knowledge base makes a postdoctoral researcher with prior LTER experience more qualified than one without any prior LTER affiliation. Currently, post-doctoral positions may address Network-wide issues, but are not supported directly by the Network or are often only supported by individual sites or PIs and are not advertised openly to the entire Network. This means that cross-site projects are conducted sporadically instead of frequently, with the ultimate result of a lower rate of synthesis. We envision instead a post-doctoral opportunity that is openly advertised, competitive, and prestigious, resulting in productive and meaningful

collaboration between LTER researchers by taking advantage of the knowledge and experience that LTER students already possess.

Although we recognize the many demands on the LTER budget, we consider this request to foster cross-site research among LTER-trained researchers to be consistent with the fundamental principles of the Network, as well as timely given the synthesis and collaboration efforts that evolved during the recent All Scientists Meeting. Accordingly, we submit our request to the Executive Board to consider setting aside money within the LTER budget to support one or more renewable cross-site post-doctoral opportunities that would be advertised to students across the network. We hope that such an opportunity would become a permanent feature of the Network budget.

Thank you for your consideration.

Sincerely,

Amber Hardison & Chelse Prather
Co-chairs, LTER Graduate Student Committee

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