

Minutes of the LTER Executive Board Meeting
May 11, 2010; 9am-5 pm EDT; Peabody, MA

1. Meeting called to order at 9 am by Chair Phil Robertson; Members attending: Nick Brokaw, Hugh Ducklow, David Foster, Corinna Gries, Sarah Hobbie, Sally Holbrook, Dave McGuire, Steve Pennings, Bob Waide, Mark Williams; Unavailable: Ted Gragson. Also attending: incoming members Steve Hamilton, John Moore, and Emily Stanley; NSF program officer Todd Crowl (arrived 1 pm; item #9 and following); and SIP consultants Walter Collier and Robert Mortis (arrived 3:30 pm; item #12).
2. Minutes for April 19, 2010, EB meeting were approved by consent.
3. LNO Annual Review
The final piece to the LNO Annual Review is the definition and approval of performance criteria for the current calendar year, distributed earlier. At the EB's request, criteria related to the Network Information System (NIS) have been earlier discussed and recommended for approval by NISAC. Following discussion and amendment of draft criteria, the milestones (attached to these minutes) were adopted by consent.
4. Science Council Science Meeting Agenda
The Science Council science meeting agenda was discussed and finalized. Discussion included strategy for assigning participants to breakout workgroups for the Strategic Implementation Plan (SIP) discussions; the need to adjust the agenda to allow for NSF comments earlier than anticipated; and the format for the 30y review co-chair discussion.
5. Ecotrends Funding
Bob Waide shared notice from NSF that proposed funding from the LNO ARRA award for an Ecotrends position in Las Cruces has been denied owing to the inability of NSF to authorize reallocation of funds of this magnitude (\$360,000 for 3 years) without separate external review. The EB last fall had identified funds in the LNO budget to fund the existing Ecotrends support position (now vacated) for up to 3 years to assist Deb Peters with qa/qc of site data as it was imported into the Ecotrends database (see earlier minutes). The effort was designed to complement NIS development by helping to ensure that additional clean site data will be available as NIS becomes operational.

Substantial discussion [with later NSF input] elicited 3 possible paths as a Network activity: 1) Inclusion of EcoTrends in the SIP coupled to submission of a separate proposal to NSF to fund continuation as a Network activity; this would require submission to an existing program (e.g. DBI) rather than as a supplement to an existing award. 2) Close-out the current phase of EcoTrends with an LNO supplement request to cover the expenses of providing for adequate documentation of the data set and the means used to produce it. Funding for legacy data (see below) would alleviate the need for separate EcoTrends funding. 3) Fold EcoTrends site data qa/qc into the legacy data prospectus now under discussion with NSF.

The consensus decision is to authorize Waide to work with Peters to write a supplement proposal as needed to ensure that work performed to date is well documented and available for future efforts. This does not preclude the possibility of a separate proposal led by Peters nor the potential for involvement in the legacy data initiative.

6. Legacy Data Initiative Update
Robertson reported that NSF is now encouraging the development of an 8-10 page whitepaper to follow on from the legacy data prospectus submitted in February. The paper should elaborate on plans outlined in the prospectus and in particular address a) network dataset priorities – which data would be included in what order; b) governance – how would future decisions be made about data priorities and underlying issues such as controlled vocabularies and keyword dictionaries; c) management – how will resources be distributed and

how will personnel be led, coordinated, and managed; and d) relationship to other sites with legacy data. Discussion covered the potential for involving US Forest Service sites that we know to be interested in capturing their own legacy data as well as OBFS and LTREB sites. Robertson will query the existing legacy data committee for interest in continuing on with whitepaper development and will charge the committee and supplement as needed.

7. Science Council Business Meeting Agenda

Robertson reviewed the SC business meeting agenda; adjustments were made to ensure time for necessary topics, including logistics for next year's meeting at Moorea. Also discussed was the SC chair election procedure including the potential for a future bylaw change to allow the chair to vote in closed-ballot polling (currently the chair votes only in the case of a tie, which exposes the vote).

8. Transformative Science from LTER

In response to an immediate National Science Board request for a description of the transformative science of LTER, Waide and Robertson submitted a quarter-page summary that would otherwise have benefited from site and EB input. NSF is now requesting that we collect examples from every site to be synthesized into a network statement that can be posted on the network web site. Additionally NSF is expected to require each site to post 2-3 bullets prominently on its home page. Discussion elicited a plan to start this process, with the creation of bullets backed up by shorter statements understandable by the average Congressional science staffer.

Robertson will create and chair an EB committee to collect from sites their 1-3 most transformative science highlights for collation, expansion, and network synthesis.

9. NSF Update – Todd Crowl

- a. Renewal panel. The panel met 2 weeks ago and verbal notifications are expected to start going out next week. Twelve proposals involved 5 program officers from 3 directorates. The 15% cost of living increases is equivalent to \$2.4M/y; \$1.8M has been committed by BIO, and the remainder is being solicited from other directorates, to be sorted out shortly.
- b. Supplements. Announcements about education supplements will be made quickly, and the remaining portions within the next several weeks.
- c. Climate Change Research Investment. The Water rfp brought in 380 letters of intent, NSF is expecting about 190 proposals. The macroscale ecology rfp is now out, with the panel scheduled to meet in November. All of the climate initiatives will be continued through 2012, and beginning in 2010 will morph into the Science, Sustainability, and Engineering Sciences initiative; details at www.nsf.gov/sees
- d. 30y Review. The 30y review panel has now received their official charge from the BIO advisory committee and expect to meet for the first time in early June.
- e. LTER Transformative Science. NSF programs are under increasing scrutiny from Congress and the Network needs a mechanism for explaining LTER to the average congressional staffer. A web site at the national level is essential, as is a page on each local web site. NSF will likely require each site to post its 2-3 bullets on transformative science on its home page. Getting out ahead of this curve on is advisable.
- f. ULTRA. NSF received 114 proposals, and have made 19 awards, 2 very recently with SBE funds. There will be a high-level meeting at NSF the last week of May to discuss the long-term vision.
- g. Legacy Data Initiative. A targeted white paper would be welcome; needs to clearly articulate a network program rather than one that is site-based, and potentially broadened to include other programs such as OBFS. There is potential for capturing NEON operational funds for FY10; Robertson needs to contact Liz Blood to discuss further potentials.
- h. EcoTrends. The request from the LNO/EB to reallocate funds to support a position at Las Cruces was too big for a subaward, despite best efforts at the program level to have approved. The EB will have to

consider other options; with the book now in press, the first phase is completed and the Network may want to revisit priorities. A supplement to support wind-up activities would likely be welcome.

10. AIBS Public Policy Announcements

Waide asked for advice regarding when to send on AIBS public policy announcements. The Network is an AIBS policy member and thus gets alerts several times per month. The consensus is to continue as usual – so far the number of messages is reasonable. Discussion also raised the potential for identifying at each site a communications person who would take responsibility for sorting LNO and Network messages to the right recipients at each site. This was referred to the Communications Planning Committee.

11. Waide Research Breaks

Waide announced that this year he will take two remaining research breaks of 3 months each, with the first beginning in June.

12. SIP Planning

SIP facilitators Walter Collier and Bob Mortis joined the meeting to discuss SIP plans including details of the upcoming SC workshop.

13. Upcoming Meetings

- a. Summer EB meetings TBA

14. Meeting adjourned 5:00 p.m.

Performance Criteria for the LNO
January 1, 2010-December 31, 2010
Adopted 11 May 2010

Purpose: clear performance criteria will enable the EB to do a better job in its annual review of the LNO.

Goal 1 – Increase the pace and scope of scientific synthesis in the LTER Network

- Milestone 1 – By the end of the 3rd quarter, begin initial planning for a 2012 LTER All Scientists Meeting including requesting space at the YMCA of the Rockies in Estes Park. Information on participant preferences and alternate venues will be transmitted to the EB for decision on location and dates. **Criteria for evaluation:** Completed or not.
- Milestone 2 – By the end of the 2nd quarter, prepare and carry out the Science Council meeting at the Plum Island Estuary LTER site and follow-on activities. **Criteria:** comments of participants and EB.
- Milestone 3 – By the end of the calendar year, solicit new proposals for synthesis projects from the LTER community as directed by the EB. **Criteria:** completed or not.
- Milestone 4 – By the end of the calendar year, complete and execute an operational plan to update LTER Network spatial data holdings in conjunction with the LTER Spatial Data and Analysis Committee, subject to instructions from the EB. **Criteria:** plan completed or not.
- Milestone 5 - By the end of the calendar year, update the database with information on working groups funded by the LNO, including final reports, lists of participants and their site affiliations, and products. **Criteria:** database is up to date, contains the information described, and is accessible; EB members evaluate completeness and usability of database.

Goal 2 – Support Decadal Plan cyberinfrastructure goals

- Milestone 1 – By the end of the 3rd quarter, revise, administer and evaluate a new LTER Cyberinfrastructure Assessment Survey to include CI needs based on the current LTER CI Plan and spatial data needs of the LTER Network and LTER sites. **Criteria:** survey completed and assessment presented to EB.
- Milestone 2 – The CIO will develop a technology replacement/upgrade schedule for servers and training lab computers and present the plan to the Executive Director by 1 July 2010. **Criteria:** schedule completed or not.
- Milestone 3 – The CIO and Systems Analyst will capture and stream the annual LTER Mini-symposium at NSF on 4 March 2010. **Criteria:** activity successfully completed or not.
- Milestone 4 – The CIO, Network Information Manager, Systems Administrator, and Systems Analyst will develop and support four communications about data management, cybersecurity, and other timely and related computer and data security issues to LTER scientists, staff, and students through webcasts and associated web-articles by the end of 2010 - web events will include “how to” and “best practice” guidelines on network and computer security. **Criteria:** number and quality of communications as measured by responses to questions in biennial surveys.
- Milestone 5 – LNO will recruit and hire a new information manager by 1 February 2010. **Criteria:** completed or not.
- Milestone 6 – The CIO will receive up to two proposals for product-oriented meetings from information managers and will evaluate proposals for alignment with NIS goals and objectives, with the option of requesting NISAC feedback. **Criteria:** completed or not.

Milestone 7 – The NIM will work with staff from the H.J. Andrews LTER (AND) to transition the management and curation of climate and hydrologic databases (ClimDB/HydroDB) to the LNO by the end of the year. **Criteria:** completed or not.

Goal 3 – Support Network governance and operations

Milestone 1 – By the end of the calendar year, organize cost-effective meetings of LTER committees: Science Council (1), Executive Board (3), LTER Mini-symposium (1), National Advisory Board (1), Network Information System Advisory Committee (2), Information Managers annual meeting (1), and IM Executive Committee (1). **Criteria:** meetings successfully held, survey responses every 2 y, EB collective assessment.

Milestone 2 - By the end of the 2nd quarter (or earlier if required by NSF), provide requested materials in support of the 30-year review of the LTER Network. **Criteria:** done or not.

Milestone 3 – By the end of each quarter, obtain updates of information on committee web pages from committee chairs. **Criteria:** Description of requests by LNO and responses by sites.

Milestone 4 - By the end of the calendar year, submit a detailed annual report to the LTER Executive Board. This report will contain evidence of completion of the milestones contained herein and proposed milestones for the year to come. **Criteria:** done or not.

Milestone 5 - By January 31, submit a detailed annual report for Cooperative Agreement DEB-0832652 to the National Science Foundation, following requirements in the Cooperative Agreement. **Criteria:** done or not.

Milestone 6 - By May 31, submit a detailed annual report for Cooperative Agreement DEB-0936498 to the National Science Foundation, following requirements in the Cooperative Agreement. **Criteria:** done or not.

Milestone 7 - By May 31, submit a detailed final report for Cooperative Agreement DEB-0236154 to the National Science Foundation, following requirements in the Cooperative Agreement. **Criteria:** done or not.

Milestone 8 - By the end of the 2nd quarter, prepare and submit proposals to the CI-TEAM and Informal Science Education programs at NSF. **Criteria:** done or not.

Milestone 9 - By February 1, prepare a detailed operational plan for the expenditure of LNO funds for review by the Executive Board. **Criteria:** done or not.

Milestone 10 - By February 28, submit a detailed operational plan for the expenditure of ARRA funds to NSF. The contents of this operational plan will be determined by the requirements in the General Programmatic Terms and Conditions that govern the pertinent Cooperative Agreement. **Criteria:** done or not.

Milestone 11 - By the end of the 2nd quarter, carry out a successful reverse site visit at the National Science Foundation and implement recommendations from that visit. **Criteria:** Evaluation of operational plan by NSF; on time completion of revisions requested by NSF.

Milestone 12 - By the end of the 3rd quarter, complete an Operational Procedures Manual for the LNO. **Criteria:** done or not.

Milestone 13 - By the end of the calendar year, review and revise the LNO Strategic Plan. **Criteria:** done or not.

Goal 4 – Improve information flow within LTER and between LTER and others.

Milestone 1 - By the end of the calendar year, work with the SC to complete a Strategic Communication Plan for the LTER Network; embedded in the plan will be a plan

- for bi-directional communication to inform development of the Network Information System. **Criteria:** plan completed and approved by the EB or not.
- Milestone 2 – Complete an informative and attractive newsletter by the end of the 2nd quarter and another by the end of the 4th quarter. **Criteria:** completed or not.
- Milestone 3 - By the end of the calendar year, facilitate and subsidize reprinting of two site brochures. **Criteria:** completed or not.
- Milestone 4 - By the end of the calendar year, review and revise schedule for training activities for LTER scientists and information managers for calendar year 2011. **Criteria:** completed or not.
- Milestone 5 - By the end of the calendar year, complete training activities for LTER scientists and information managers scheduled for calendar year 2010. **Criteria:** completed or not; evaluations of participants.

Goal 5 – Create productive collaborations that improve interoperability with other networks

- Milestone 1 – By the end of the calendar year, review results of the relationship between the LTER Network and the National Biological Information Infrastructure and set new goals. **Criteria:** list of goals and recommendations.
- Milestone 2 – Maintain contact with cyberinfrastructure developers and information managers at NEON and develop a plan to formalize the relationship. **Criteria:** List of accomplishments.
- Milestone 3 – Advise EB of promising opportunities with other networks through annual updates as part of LNO annual report. **Criteria:** Completed or not.
- Milestone 4 –Negotiate partnerships with institutions submitting proposals for a national synthesis center, as requested. **Criteria:** Completed or not; evaluation of terms by EB.
- Milestone 5 – By the end of the calendar year, engage the leadership of OBFS in a discussion of future joint interactions and report back to the EB. **Criteria:** Done or not.

Goal 6 - Achieve progress in the development of the LTER Network Information System

- Milestone 1 - By the end of the 2nd quarter, identify requirements and demonstrate a functional prototype (Phase 1) of the Data Catalog component (see section 3.2.3.10.1 of the LNO Operational Plan 2009-2014) of the PASTA framework. Specifically, engage NIS Tiger Team to evaluate necessary web-service interface requirements and deploy and configure a Metacat server instance. **Criteria:** Done or not; feedback from NISAC on milestone progress.
- Milestone 2 - By the end of the calendar year, identify requirements and demonstrate a functional prototype (Phase 1) of the Data Loader component (see section 3.2.3.10.1 of the LNO Operational Plan 2009-2014) of the PASTA framework. Specifically, engage NIS Tiger Team and EML Metrics working group identify requirements for quality checks and reporting of quality of metadata and deploy an instance of the Data Manager Library for testing metadata and data congruency and loading data into the Data Cache. **Criteria:** Done or not; feedback from NISAC on milestone progress.
- Milestone 3 - By the end of the 3rd quarter, identify requirements and demonstrate a functional prototype (Phase 1) of the Data Cache component (see section 3.2.3.10.1 of the LNO Operational Plan 2009-2014) of the PASTA framework. Specifically, engage NIS Tiger Team to evaluate necessary web-service interface requirements and deploy and configure a RDBMS server instance. **Criteria:** Done or not; feedback from NISAC on milestone progress.

Attachment 1 – LNO Performance Criteria

- Milestone 4 - By the end of the 3rd quarter, integrate necessary interface modifications to the current LTER Data Portal to support the Data Manager component (see section 3.2.3.10.1 of the LNO Operational Plan 2009-2014) of the PASTA framework. Criteria: Done or not; feedback from NISAC on milestone progress.
- Milestone 5 - By the end of the calendar year, identify requirements and demonstrate a functionally prototype (Phase 1) of the Metadata Factory component (see section 3.2.3.10.3 of the LNO Operational Plan 2009-2014) of the PASTA framework. Specifically, engage NIS Tiger Team to evaluate necessary provenance metadata content to be included in the generation of EML for Level-1 through Level-4 data and deploy an instance of the Metadata Factory to generate EML for Level-1 data. Criteria: Done or not; feedback from NISAC on milestone progress.
- Milestone 6 - By the end of the calendar year, identify requirements and demonstrate a functional prototype (Phase 1) of the Workflow Manager component (see section 3.2.3.10.2 of the LNO Operational Plan 2009-2014) of the PASTA framework. Specifically, engage NIS Tiger Team to evaluate necessary web-service interface requirements and deploy an instance of the Workflow Manager to evaluate simple workflow execution. Criteria: Done or not; feedback from NISAC on milestone progress.
- Milestone 7 - By the end of the calendar year, complete a draft plan for integration of the EcoTrends and ClimDB/HydroDB databases into the Network Information System (see section 3.2.3.11.1 of the LNO Operational Plan 2009-2014). Criteria: Done or not; feedback from NISAC on milestone progress.
- Milestone 8 - By the end of the 3rd quarter, complete and deploy services that support HIVE-LTER interoperability. Specifically, a) format the LTER controlled vocabulary in Simple Knowledge Organization System (SKOS) format, b) install and test the HIVE vocabulary repository, c) develop a functional prototype of a metadata generation vocabulary tool, and d) develop a functional prototype of a metadata discovery vocabulary tool. Criteria: Done or not; feedback from NISAC on milestone progress.