

Notes from meeting of LTER Executive Board, March 4 – 5, 2015

Attending: Charles Driscoll, Evelyn, Gaiser, Anne Giblin, Peter Groffman, Margaret O'Brien, Mark Ohman, Deb Peters, Emma Rosi-Marshall, Gus Shaver, Mary Spivey, Bob Waide. With occasional participation from Mini-Symposium speakers Mark Harmon, John Kominoski, Jim Morris, Roger Ruess

Highlights and Action Items:

- The annual Mini-Symposium was postponed due to snow and a closing of the Federal Government on March 5. Speakers gave “lightning” versions of their talks to James Olds, Jane Silverthorne, Saran Twombly and Linda Deegan. We will reschedule a virtual Mini-Symposium, possibly during the Science Council meeting in May.
- A solicitation for a new arid or semi-arid LTER site will likely be released from the Biology directorate in 2016 with funding to begin in 2017.
- There is interest within the Geosciences directorate to fund two new coastal/marine LTER sites.
- We need to prepare a slide and some text to highlight synergies between LTER and NEON; articulating what the different programs do and how they will complement each other into the future. Some draft slides are attached at the end of these notes.
- We need to prepare a short note addressing the importance of LTER scientists as participants in LTER review panels and mid-term reviews given concerns about inherent network conflicts of interests. A draft of this is attached at the end of these notes.
- Groffman will remind all sites that are currently preparing proposals to send around a draft of their proposal to some outside reviewers at least six months before the proposal is due.
- Notice: Mid-term review team reports are not going to be given to renewal panels. The “cover letter” from the NSF program officer that attends the mid-term review will also NOT be provided to renewal panels. Renewal proposals will be REQUIRED to have a “response to mid-term review” section as part of the “Project Description.”
- We need to be sure that sites are aware of what Information Management services are going to be lost during the transition from the current network office and the new Data Center. The network office and the Information Management Executive Committee (Margaret O'Brien lead) will prepare a list of changes and the Executive Board should be sure that the sites are aware of it.

Items Discussed:

1. Sites on probation:
 - a. CWT has assembled an outside advisory committee and is planning to produce a draft proposal by July 1.
 - b. LUQ has a team of outside reviewers and should have a draft by March 15.
 - c. Keeping sites off probation:
 - i. Passing around the proposals for review was very helpful in the past. We need to reinstate this practice, but it needs to be at least 6 months in advance of the deadline. Groffman will remind all sites that are currently preparing proposals to do this. Will this create a conflict of interest if they go to people

who potentially could be on the panel? Perhaps restrict the exchange to people writing proposals that would not be on the panel anyway.

- ii. Leadership transitions are important:
 - 1. Can the Executive Board or the network office engage with University leadership to urge them to facilitate successful transitions?
 - 2. We need to get younger people involved in leadership activities earlier in their career.
 - 3. Is the commitment too big, especially for younger scientists?
 - 4. Leadership transitions will be a subject of discussion at the upcoming Science Council and All Scientists meetings.

2. Mid-term reviews:

- a. Mid-term review team reports are not going to be given to renewal panels.
- b. The “cover letter” from the NSF program officer that attends the mid-term review will also NOT be provided to renewal panels.
- c. Renewal proposals will be REQUIRED to have a “response to mid-term review” section as part of the “Project Description.”
- d. We need to recognize that our mid-term reviewers are likely to be more general and less familiar with LTER. Our presentations need to be adjusted accordingly.
- e. We need to remember that the mid-term reviews are now very strongly focused on progress made on the proposal that was funded three years before the review. For the most part, this new focus is a great thing. The only drawback is that we might not get more comprehensive useful feedback and perspective that an outside review team might have. One idea is to follow up with the review team at a later date, perhaps bring them back to the next site all investigator meeting.

3. Interactions with the Geosciences (GEO) Directorate:

- a. We met with Roger Wakimoto, Marge Cavanaugh, Dave Garrison, Lisa Clough and Rick Murray over a couple of different sessions on March 4.
- b. Wakimoto is keen to understand the nature and scope of different programs that overlap the directorates. Is there duplication?
- c. There is interest in funding two new Coastal LTER sites!
 - i. The GEO directorate is soliciting input from the community via Town Hall meetings, e.g., at the recent ASLO meeting in Spain.
 - ii. Currently laying the groundwork, seeking funds and establishing a justification for this within the directorate.
 - iii. Dave Garrison is leading this effort.
- d. There are potential synergies with the Critical Zone Observatory (CZO) program:
 - i. This was originally envisioned as a short-term program that would move to different sites over time. It has evolved into more of a long-term program at a set group of sites.
 - ii. Waide met with the CZO leadership and Groffman is on the CZO steering committee. They have started discussions about possible collaborations. CZO is interested in expanding their geographic coverage and in incorporating more biology into their program. LTER could benefit from the geological and physical science expertise in the CZO network.

- e. Clough – Polar programs:
 - i. Reports that the Antarctic sites now require more extensive environmental impact statements.
 - ii. Was impressed with the way that the leadership transition was handled for MCM.
4. Interactions with the Biology (BIO) Directorate:
- a. We met with Saran Twombly and Linda Deegan over a couple of different sessions on March 4 and 5 and James Olds (skype) and Jane Silverthorne on March 5th.
 - b. Solicitations:
 - i. NSF is currently working on the solicitation for renewal proposals that will be due in early 2016. Making a strong effort to have this released as early as possible.
 - ii. The BIO Directorate is planning to release a solicitation for a new arid or semi-arid site. Hoping for a competition in 2016 with funding to begin in 2017.
 - iii. The solicitation for the new National Communications Office is open. If people have questions about this we should encourage them to contact NSF (Saran) directly.
 - iv. The solicitation for the new Data Center will be released in fall 2015 with funding to begin in 2016.
 - v. There is some hope that supplements for equipment, international collaboration and data management will return.
 - vi. There will be a solicitation for EAGER or workshop or RCN proposals for Arts and Science Collaborations. Sometime this year.
 - vii. There will be a Dear Colleague letter for EAGER grants for new investigators to work at LTER sites.
 - c. NSF is concerned about LTER community participation in renewal panel and mid-term review teams. They are concerned about our ability to provide fair and objective reviews and about “fall out” if sites are not recommended for renewal. We need to draft a short note addressing the importance of LTER scientists as participants in LTER review panels and mid-term reviews. Charley Driscoll has prepared a draft of this (attached).
 - d. We need to prepare a slide and some text to highlight synergies between LTER and NEON; articulating what the different programs do and how they will complement each other into the future. Gus Shaver has prepared some draft slides (attached). We should also send: Peters, D. P. C., H. W. Loescher, M. D. SanClements, and K. M. Havstad. 2014. Taking the pulse of a continent: expanding site-based research infrastructure for regional- to continental-scale ecology. *Ecosphere* 5:art29.
 - e. Compensation for the Chair of the LTER Science Council. We noted that the current chair (Groffman) is not receiving compensation. Saran noted that funding for this was budgeted in the current network office award for this and that she would consider requests for this in future awards. Funds in the current award are not being used to compensate the chair because Scott Collins waived this compensation for the current year to facilitate other network office activities.

5. Data Management issues:
 - a. NSF is providing funding to the network office to maintain the Network Information System (NIS) during the transition from the current network office to the new data center.
 - b. The network office and the Information Management Executive Committee have prepared a list of services that are going to be lost during the transition. Sites need to be aware of this list and be prepared to deal with any problems that this might cause. O'Brien will prepare a short summary based on site interviews and share it with the EB and with Saran Twombly.
 - c. O'Brien, Gries and Tarrant put together an EAGER proposal to conceptualize what the new data center might look like. The proposal has been recommended for funding and will hopefully produce information useful to the solicitation. It is important that this group articulate if there are approaches to data management that won't work for LTER. Saran Twombly is going to follow up with O'Brien directly about this.
 - d. The Network Information System Advisory Committee (NISAC) has inquired about planning and decision-making processes for the transition. Groffman, working with O'Brien and Waide will draft a response.
 - e. Some sites are still interested in being able to track who uses the data that they have placed in PASTA. It is currently possible only to track users from within the LTER network. The ability to track users is something that was originally planned for PASTA but has been put on indefinite hold. Sites will need to decide if they want to put their data into PASTA without being able to track users or to withhold data and justify this to reviewers.
6. Education report:
 - a. LTER Education efforts are funded largely from the 24K Schoolyard Ecology supplements that the sites get. Activities run from K-16, are loosely coordinated among sites, but there is quite a bit of communication among sites.
 - b. It would be nice to determine:
 - i. How many sites have a full time education person and if this person is paid by the LTER grant.
 - ii. How many sites are engaged in long-term education efforts.
 - iii. How many sites are involved in cross-site efforts.
 - c. Mary will continue discussions with Saran Twombly to determine NSF expectations for the SLTER programs.
 - d. The Schoolyard Ecology book program, through PI Diane McKnight, has received \$444,920 in new funding from NSF (Award #1346857) and is very well regarded within the agency.
7. FCE book:
 - a. The publications committee recommended that the book "The Coastal Everglades: The Ecology of a Transformed [and Transforming] Landscape become part of the US LTER Book Series.
 - b. There was unanimous support among the EB for this recommendation.

8. Planning for the May 12 – 15, 2015 LTER Science Council meeting:
 - a. A request for funding is currently pending with NSF. People will need to make their own travel arrangements and get reimbursed afterwards.
 - b. Most sites are willing to cover the expenses to bring a second person, which is very nice. Should be around 50 people at the meeting.
 - c. The network office is arranging for transportation only from Logan airport (Boston) to the site.
 - d. Timing
 - i. Tuesday – Executive Board all day. Possible Mini-Symposium in the afternoon.
 - ii. Wednesday/Thursday Science Council and field trip:
 1. Science program is being organized by Sherri Johnson, Emma Rosi-Marshall, Phil Robertson and Nancy Grimm.
 2. Focused on inorganic nutrients. A template for presentations has been sent out.
 3. There will be a two hour presentation session and then two, two hour working group sessions. Hope to separate the working group sessions with the field trip, or an evening to give people time to think and cogitate on the discussion.
 4. Should include time for follow up discussions of issues raised in the November 2014 meeting at NSF.
 5. Report from NSF
 - iii. Friday AM – lead PI meeting

9. Executive Board rotations at May Science Council meeting:
 - a. FCE, ARC, CCE rotate off.
 - b. SBC, MCM, GCE rotate on. Representatives from these sites should show up at the Science Council meeting in time for the Tuesday EB meeting.

10. Planning for the All Scientists Meeting, August 29 - September 3, 2015:
 - a. We have four plenary speakers; James Olds, Diana Wall, Knute Nadelhoffer and Ned Gardner.
 - b. We have funding to support 7 people per site to attend. These funds should be mostly used for graduate students.
 - c. The call for working groups is just about ready to go out. We need to be sure to include working groups on “follow up topics from the November 2014” meeting. These topics include; probation, network activities, conceptual models, quantitative approaches, and leadership transitions.

11. LTER/SESYNC synthesis postdoc program (<http://www.sesync.org/opportunities/sesync-lter-synthesis-postdoctoral-fellowships>):
 - a. This program emerged from the 2014 Science Council meeting which led to a request for some “synthesis postdocs” to work with LTER data.
 - b. ~50 LTER scientists registered to serve as mentors in the program and ~ 70 applicants indicated interest in the LTER positions.
 - c. 2 – 3 positions are available.

- d. We should check with NSF and SESYNC if this program will be continued and if so, we should develop ideas for projects that are closely linked to the synthesis themes that emerge from the Science Council meeting in May.

12. LTER-SESYNC-SPE effort:

- a. John Kramer (SESYNC), Kathy Fallon Lambert (Science Policy Exchange) and Groffman are working to develop an “LTER-SESYNC-SPE Collaboration to Promote Learning and Leading at the Science-Policy Interface.”
- b. Perhaps we should have a working group at ASM on this topic.
- c. An evening session at ESA might also be a good idea.
- d. Might want to develop a standing LTER committee on this topic. Perhaps this falls within the purview of the Communications Committee.

13. By-laws:

- a. The emergence of the new National Communications Office might make some of our by-laws irrelevant, e.g., that the Executive Director of the LNO is chosen by the Executive Board.
- b. Once the new office emerges, we should officially review and propose revisions where necessary.

14. Network issues:

- a. This is a topic that came up at the November 2014 meeting at NSF. We are expected (by NSF and by ourselves) to function as a network to at least some degree. However, it is not clear how to evaluate and credit “network participation” both externally and internally.
- b. We have very little evidence that there are sites that are benefiting from the network but not contributing. This is a good finding. We should ask why this is; what motivates sites to be good citizens.
- c. We need to separate “cross-site science” from “network governance” activities for evaluation and credit.
- d. Have the expectations for network activities changed, both internally and externally.
- e. There used to be more supplements to foster cross-site collaborations.
- f. We need to develop expectations and criteria and evaluation.

Draft slides about “LTER and NEON” (we need someone to fix these up a bit; less text, some pictures:

What is NEON?

- NEON is fundamentally an integrated monitoring program designed to provide data needed to answer questions of ecology at very large (continental) scales.
- Design of the network is explicitly geographical, with 19 (20) sites chosen to represent the full range of ecosystem variation in the US.
- Products of NEON are data sets. Analyses, integration, synthesis, and new knowledge are to be produced by “users” with separate funding.
- Data sets consist of multiple, high-quality time series of key ecological and environmental variables, all collected in the same way at all sites.
- NEON is hypothesis-free, with the exception of implicit hypotheses related to choice of sites representing geographic variation that would make useful and interesting comparisons (points on a map).
- With the exception of a stream fertilization experiment (STREON) there are NO manipulative experiments or disturbance/recovery sites included in NEON while most of the LTER sites have long term manipulations as part of their program.

What is LTER?

- LTER is fundamentally a program designed to answer questions of stability, resilience, regulation, and change in ecosystems and their component populations and communities, especially over times longer than funding period of the typical individual research grant and longer than the life span or turnover time of individual ecosystem components.
- LTER focuses on properties of populations, communities, ecosystems, and landscapes that determine long-term regulation, resilience, stability, and trajectories and magnitude of change.
- Research is mostly site-based, addressing specific questions and hypotheses of long term population, community, and ecosystem research deriving from the unique system properties of those sites.
- Multisite and cross-network research is important and still growing in LTER; this work may involve comparisons among sites that differ in terms of the system properties that affect their regulation and responses, or it may involve geographic comparisons of these system properties along short or long environmental gradients.
- Long-term whole-ecosystem manipulations and disturbance/recovery studies are a key part of LTER research at most sites; i.e., experiments and disturbance studies designed as tests of specific hypotheses about long-term change, stability, and resilience.
- LTER also produces data sets, mostly about individual sites. These are used in two ways, first as background and context that can enrich interpretation of new results from the same sites. and second as the basis for cross-site, network, and global comparisons.

NEON vs LTER—We need both!

- NEON produces data; LTER produces data, analyses, synthesis, and predictions.
- NEON does monitoring; LTER does monitoring and experiments and disturbance studies and modeling/synthesis.
- NEON is fundamentally geographical and comparative by design; LTER tests hypotheses about system properties and long term change, stability, and resilience at all spatial scales.
- NEON and LTER both operate at all scales of ecological organization, from individuals to populations, communities, ecosystems, and landscapes.
- NEON data are expected to inform and enrich LTER research as well as all other research in ecology and ecosystem studies, however it is funded.
- LTER will also provide detailed site data and experimental/disturbance studies that will enrich interpretation of standard data collected by NEON; analyses and synthesis of NEON data will be performed by both LTER and (mostly) non-LTER researchers .

Some draft text about LTER participation in renewal panels and site reviews:

Dear Saran,

We appreciate your informative and frank discussion on LTER Network activities at our Executive Board meeting on 5 March 2015. The EB had follow up discussion on some of the items that you mentioned. In particular we are writing to engage you in a discussion about LTER scientist participation in LTER proposal review panels.

We share your concerns about the potential issues associated with LTER scientists participating in LTER proposal panels. We have confidence in the NSF conflict of interest system; we believe that this program is effective. Moreover, we think generally that LTER scientists have a good perspective that should contribute positively in the review of LTER proposals and we would like to see them make up a subset of panel participants. LTER sites are a complex mix of core long-term observations, long-term experiments, and new research driven by hypotheses arising out of previous years research. A significant number of sites have critical partnerships and leveraged funding from other federal agencies. To someone not associated with LTERs it is not always easy to understand what constraints there may be on a site in changing direction or how a site makes key decisions. Non-LTER scientists also do not always appreciate how sites have to balance long-term consistent data collection with new hypothesis testing. Having an experienced LTER investigator can help keep panels and review teams focused on LTER goals.

We note that LTER investigators beneath the senior PI level are generally less invested in cross-site LTER work and therefore should in general be less conflicted and would also serve as a good pool of potential reviewers. We also believe that more senior investigators could also provide valuable and constructive views of LTER proposals for sites they are not in conflict with.

The LTER community welcomes the opportunity to continue to participate on the panels for LTER proposals. We appreciate the issues you brought up to us and we need to be sensitive to these concerns going forward. We hope to have a continuing dialog with you on these issues, and to provide support to insure that we have high quality and effective participants in LTER proposal panels.

Best wishes,

The EB