Topic 1: Review of Reviews: Steve Hamilton

Stats on reviews

2010 4 of 12 renewed unconditionally
2008 – 11 of 15 renewed unconditionally

Numerical ratings – means by site
2006 to 2010 means have gone down over the last two reviews. Often heard it said ratings don’t matter, but 4 out of 5 passed unconditionally had highest ratings.

There were fewer excellent ratings and more good ratings from 2008 to 2010.

Tone and content of reviews hasn’t changed much over the years, but the ratings ave.

NH: How do you know problem is from bottom or top? Is it reviews or is it poor proposals?

Major criticisms:
Responses to mid-term reviews were inadequate

Need better integration among research areas and team members
--breadth / depth trade-off causes tension

Conceptual model (and other models) must clearly link to research activities
--ISSE as a model variably praised or criticized depending on how well it fit the site.

In some cases, criticisms from panel were that folks were trying to fit into ISSE when it wasn’t appropriate.

In terms of responses to mid-term – clarification, what do we have to do to fix things vs. what it would be “nice” to do.

Other criticisms:
Lacked new and exciting research ideas/ theory – need greatest hits section to draw readers attention.
Need to do research that is uniquely possible in a long-term program.

Microbial ecology, food web theory, human dynamics cited as inadequately in certain proposals.

Recruitment of new PIs often suggested a new solution.

QUANTITATIVE MODELING: Often desirable, begin depending on model, but can attract criticism by people who have other models in mind.

BES had to write an addendum connecting what we had done with where we were going. It was helpful to them to do it. Some sort of mapping between past and present research. Not sure where to put it (not an addendum, obviously) should be done.

For proposal, do we last six years, or do we last twenty years?

NH: There will be explicit instructions in solicitation.

If there’s nothing specific in the solicitation, grant proposal guide specifies last five years and that is what should be followed

IM: efforts not up-to-date or up to standard
   Data not fully available through LNO repository.
Publication productivity: Judgment seemed subjective.

Education and outreach, IM efforts generally drew praise.

**Topic 2: Leadership**

There is a correlation between changes in leadership and changes in the fate of LTER programs.

*MCM—Diane McKnight*

“In preparing for battle, I’ve always found that plans are useless, but plans are indispensable.” Highly distributed, bunch of universities, lots of planning – tickets to the ice – how do we get together.

On-line support and package to interact with contractor. Four member executive committee, conference calls with the whole group weekly or bi-weekly, at times. In the field – PI in the field, responsible for everyone at a certain time. Can send folks off the ice. PI selection happens in that context.

Fourth PI since 1993—PIs are changed – discussion – who can do it? Then look at overhead? Full overhead is show-stopper because the site – universities don’t provide a lot matching – 10 sub-awards is a lot to manage. Decisions made on short notice sometimes - based on feedback. Have had advisory board – chaired by Gene Likins. Have not had one is last 5 years. Change PI shifts institution every time.


**CCE—Mark Ohman**
Opposite end of the spectrum – UCSB has infrastructure to support their operation. Vast majority of investigators are UCSB. Slating a proposal for third cycle of funding. Succession is foremost on their minds. Continue to add investigators. Some investigators have been reluctant to sign on as cover page PIs out of concern that it would affect their ability to get other grants. Had executive committee in first cycle, but dropped it because body can usually reach consensus of whole body of whole investigators. Will reconstitute the exec on advice of review panel.

**PIE—Chuck H. or Anne G? Can’t remember and didn’t write it down.**
Mostly investigators from MBL, but now transitioning. LPI, but have exec of about half of funded PIs. Moving the project to another institution would be tough, but can’t get new hires. We’ve been successfully transitioning to younger scientists, but bringing them to MBL is not really an option. So that’s a challenge. Convened an advisory board was needed. Had heard that it was needed to bring in heavies when there was a problem. Plan to bring in one or two people a year in advisory capacity, to find new directions. Exec meets every 6 to 8 weeks, more at prop time.

**KBS—Phil Roberston**
One LPI for 22 years, Everybody at one campus. Three live at KBS. Large number of Co-PIs all on cover page. Been an issue that NSF has only five spaces on the cover page. Executive committee meets every six to eight weeks. Usually for a few hours. Longevity of LPI is an issue. Came up when Phil took Exec Chair. Choice – recruit new faculty or provide two support positions to the project – outreach coordinator and research coordinator – two Ph.D. level coordinators. Not had an advisory board – had one early on – useful to help corral 40 odd PIs. Useful as sounding board and as a way to grab pis attention. Usefulness declined over time.

**General Discussion:**
Relationships with other entities and other projects? Importance of management and coordination with other institutions?

Most of the MCM folks have other grants and other projects.

KBS tries to be as inclusive possible. Anyone on site is included. Try to recruit some projects, but otherwise is laissez faire.

CCE – many partner projects spun off from LTER. Depends on coordination with projects.

NH: This is an issue with grant proposals. Proposals become very dense. Not clear what is happening with base funding.
Huge issue with BNZ – 8 to 1 leveraged funding. Massive amount of stuff not funded by LTER – How do you nuance proposal to determine what to include and not to include without swamping people.

In the past web pages were used to alleviate this problem, but with new GPG this won’t work...against the rules.

NH: We will argue that LTER proposal solicitations must allow some URLs. Panelists will have to go looking for them anyone. Uniform agreement by program officers on this.

Back to leadership: Formal by-laws. Executive Committee – there’s a vote at year five. Could vote in a new PI that is responsible for developing the next proposal. Executive committee gets voted in at the same time.

What does NSF expect?

NH: Have to a solid explicit transition plan. General management issue. The main issue is that we are thinking about and that there is a plan in place. Not a cookie cutter solution, but there is a requirement for there to be a framework for success over time.

**Data on leadership:**
Range on how many sites: 1-5.
1 same pi for 29 years, two for 23 years.
Two people have been LPIs of two different sites.
Ten of the 26 sites have been on probation.

Not necessarily a problem when there’s a transition. 6 sites had change, but was it cause or effect? Four sites went on probation and came out with no transition.

Think about tenure: don’t plan too far ahead.

If things are going well, need plan for continuity, if problem – make sure you need transition? Leadership changes don’t always go well.

NH: Don’t need to name names. Just have a framework – just have the options and always have a team that understands responsibility for what makes sites work. A “fell under the bus scenario.”

Do two CO-PIs work?
Yes. PIE is example.
Yes. CAP. Did Chuck Redmond and Nancy Grimm.

BES: Mixed leadership model. Steward Pickett– vision Peter Groffman–Ops
and budgets
Overall, though, BES IS organization by consensus. A group running the show.

AND: Internal politics and disagreements about who the next leader be. Defection of folks if wrong leader is chosen. What do you do? Transition is a problem. Fabulous younger people. Who the hell is going to take over? Started thinking about how to do it. Cut a deal with Dean. When Barbara Bond retires, the Dean will hire new LPI from outside?

**Topic 3: Internal communication**

*HFR—David Foster*

Real contrast among sites – how they are organized and distributed determines communication. HFR – folks get along. Small group, lots of continuity. HFR & MBL. Build on core and add group of associates. 35 folks work full-time at HFR. Makes a lot of communication easy. Everybody gets together and talks about research. Many groups affiliated from outside come to lab groups. Have been adding associated faculty & scientists.

Identify need and support person w/ one month of summer salary. Added environmental history, archaeology, paleoecology broaden group. Make appointments back to our institution. Don’t have advisory committee, but Bullard Fellows give new perspectives.

Communication – REU program working in interdisciplinary “pods” – this requires lots of faculty coordination. The summer program brings the whole research program together.

Summer meetings – similar structure to many other sites, including Coweeta. EXCEPT, summer meeting kicks off field season. One PI planning day, one talk day. Talks alternate between short talk days and long talk days during proposal periods. Often some of the best synthetic talks are from outside folks who are then recruited until LTER.

Monthly highlights on web page. New communications. Web page systems for updating where people are and what they are doing. Very few are formalized. Used meet monthly – now quarterly or when needed. Other mechanisms handle it.

*MCR—Sally Holbrook?*

Folks from eight institutions. Very remote field site. Used to have only dialup when in the field, so communication is a challenge. Two distinct field seasons compounds the challenge.

Two day all investigator meeting. A series of research & synthesis talk, poster session and breakout sessions. Also a convenient time for site updates. Changing visa requirements. Have working groups built around
needed expertise (some built around data sets).

During academic year – face to face meetings. post a lot of on-line data visualization resources. Helps facilitate synthesis and tells people what’s actually happening.

**General Discussion**


Also teach graduate seminar courses –

Site governance – executive committee & pi advisory monthly or a little less. Have an extensive intranet. Site Coordinator is an investigator. Weekly emails with headers – REQUEST FOR RESPONSE or CRITICAL INFORMATION.

**AND—Barbara Bond**

Started a communications campaign to get a higher profile for AND research across campus. Partners Board – a group of 16 senior level people from the various institutions. Leaders from different institutions coming in once a year. External but site leadership benefits from it.

Internally – have a hybrid – many are other institutions, but most are at OSU – across six colleges. 60 Investigators. One strategy is through listservs.

Advisory/Exec committee meets regularly. Bring in two young people. Most decision making happens there. In terms of research management & communication – myriad overlapping committees – meets on regular basis. Need oversight and leadership on measurements. Lots of research groups organized around research themes. Research component areas that are mostly disciplinarily focused. Main research groups were re-organized across disciplinary boundaries with funding.

Also make these cross-cutting groups do yet more cross-cutting as possible informally. Also works with young PIs informally. Tours informally and talks informally.

Monthly meetings – science hour and then representation from OSU and Willamette Forest. Need to hear what is going on in the national forest. Research-management connection – need to hear what is going on in the forest. Bring in

Annual PI meeting mostly around budget. Everybody reports to everyone else. Annual symposium – like local all-scientists meeting. Invited people
from town. 60-80 posters. Very successful.

Annual Field Day – HJA day. Free lunch, free transportation. Public message. Bring folks in from local community. Bring in folks to find out what they are doing.

**GCE—Merryl Alber**
One PI – Steve is CO-PI. Only two signatories. Executive Committee.

CO-PIs and IM are on Exec designated.

Annual reports – researchers are asked to please provide reports in terms of questions being asked.

1 minute thing – grad students get opportunity to hone message.

Business meeting. Two day meetings.

Advisory Board – six people. Two are LTER folks. Advisory Board has better overview of GCE then some Pls. Maybe a pain for them, but they are Say same thing year after year, but after a few years “we hear them.”

Listservs – LTER post-docs. Post-docs give quarterly report via email to the group.

At field site, people congregate there in the summer. Pennings is there all summer and is field supervisor. Last year, had weekly LTER potluck on Island. Doesn’t include modelers.

Annual meeting usually at UGA, not at site.

Exec has handle on whole picture. So does advisory Board. But not all Pls see whole picture. Some Pls are less involved, but are doing good research, so that’s OK.

**General Discussion:**
Mixed messages about advisory board. Is there a consistent policy?

No. How does Meryl’s work? It went into GCE LTER I proposal. Don’t know where it came from, could be just really useful.

NH: Advisory board is at our discretion.

LUQ originally had one. Makes reviewers think twice about negative comments when vetted by HT Odum, Gene Likins, Dick Wiegert.
BES: Multi-site contacts is very useful – working with other sites gives access to other opportunities. Much more ad-hoc, become more formalized over time as it’s worked well. Speaking from social science and remote sensing perspectives.

AND: most valuable uses of our advisory committee – sent them renewal proposal six weeks in advance - two week turnaround - month to address comments. Really improved process.

FCE: two advisory folks who give lots of good feedback.

Question about within site communication? What about cross-site communication?
How do we do that in regular LTER meeting planning?

CAP: Group of five LTER sites. Ok have a regional all-scientists meeting. Very successful and wasn’t such a travel burden. Really successful.

**Topic 4: Writing Proposals and Responding to Site Review Comments**
*LUQ—Nick Brokaw*

Negative reviews – end up being incredibly important. Get your mind around the mind of the reviewer. Could be you were wrong – or could be something was explained. Goal with every negative review, understand the way the reviewer was thinking. Can’t help getting bad reviews, make sure that nobody receives the same bad review twice.

Sometimes hard decisions to make.

Writing proposals – hard to have a conceptual framework that is exciting and that encompasses the whole team. Other people see the broad picture better. Only when ten people see that we are encompassing everything well does it work.

Writing in normal cycle versus probation. We were on probation. Red flag for site. Clearly weren’t productive. In two years, wrote everything we could. Much more clearly explained what we were doing, what we thought it meant. Had quite a bit of turnover in our team.

Take reviews seriously – spend time cranking more pubs, because that helps.

As soon as LTER proposal approved, start folder for next proposal. Will far outside, will ask for organized summary from each PI and summary of progress. Conceptual framework – need to spend a lot of time on that. Good connection between good conceptual framework and what you are doing.
Made a document about what a conceptual framework actually is by comparing site. LTER niche – your particular niche.

Make sure you press all the buttons. Read the RFP carefully. Worked very hard on probation proposal. Take it very seriously.

BNZ – Roger Ruess
Reluctant LPI. Passionate about program – blinked before Dave McGwyer.

Probation twice in a row. Learned an enormous amount from that. In 2008, we are going to write a successful proposal. Five things will be required:
1. Big Ideas, challenging objectives, creative science only LTER can do.
2. Highly integrated scientific structure clearly linking big ideas to research plan.
3. A research plan that addresses scientific framework – surgically decide who will & won’t be included. What is supported by LTER & not.
4. Demonstrate that long-term monitoring & long-term experiments were intimately tied to long-term framework. Had to get rid of some monitoring sites related to successional patterns – legacy of sites that you are monitoring that has nothing to do with current work you are doing. Great feedback. Shut down sites that don’t matter anymore.
5. Time to put proposal together. Started in fall in 2008, worked through whole fall to develop research plan. In the spring, wrote proposal in early summer. Put time into it. Learned a lot from failures

Made some diagrams about the scientific framework to clarify framework and keep proposal from seeking under weight of its own complexity.

FCE-Evelyn Gaiser
Learning a lot of this process. Proposal planning starts early on. Even before next proposal is funded. Constantly remind yourself what do you want to do in twelve and 24 years? Really tie six years to long-term vision. Advisory board was helpful in writing proposal. ASM last year all about feedback from advisory board. Working groups build off advisory board comments (or was it mid-term comments?). Included working group results in annual report. Preceded FCE ASM with a retreat for executive board. Everyone came together quickly on conceptual framework (Laura Ogden’s grandpa’s house on key largo didn’t help).

Do prior results section. Got two page docs from each working group. Good way to start. Got one page from each working group member.

1 page from each group member>>>two page from each group>>>>5 page for prior results.
Other steps
Reach out to new collaborators to fill in holes and planning writing assignment. Will have document by end of summer to send to external advisors.

*General Comments by Henry Gholz*
On the topic of communication – critical need to engage NSF program officers. Looking back over past 10 or 11 years. Tendency of things to get diffuse. Necessarily increasing informatics are tied to this. It is even more unclear how this links to proposed changes in renewals. Role of site visits and synthesis books are critical for creating points of departure for changes or re-affirmations in course. Enormous effort to get a synthesis book together works well.

Issues are well identified: leadership and transitions – whatever it is – needs to be agreed upon and articulated well in advance. Institutional support is critical. Lot of institutional fatigue after 30 years. Don’t assume that your institution supports you after all these years. The lack of a conceptual plan or model can be a problem.

Site visits and renewal panelists are told to look out for a couple of things:
1. Excellent research that doesn’t fit into strategic plan for site.
2. Research that does fit into plan, but isn’t necessarily long-term.
3. Make sure things are exciting.

*General Discussion*
Two years before first renewal proposal went in (FCE), put special issue into Hydrobiologia and looked back into where we had been, including stuff before first LTER proposal. Issue came out just before renewal proposal was due. Hectic, but worth doing.

Question: How does your strategy evolve? A balance of
A: We can only do this because we’ve been doing it for thirty years.
B. It is new and exciting science.

MCM: New synthesis can have a new audience – so focusing on a new perspective a new audience a new topic can take existing research and refresh it.

BES: At ASM, every presentation, had to start with ISSE. Beats everyone over the head with conceptual framework. Pictures that are the holy grail for what we are doing.

Crowell: Document Morgan and co. wrote should be shared across the network.
Morgan: Had to rewrite results from prior. Reorganize results from prior to coordinate with where we wanted to go. Here’s what you did, and here’s where we are going. Can share around network.

Comment: Seek to find continuity with overall plans for LTER with plans for site. Comments on thirty year review will be able to help us internally. ISSE framework. Looking forward to 30 year review.

Kane: 30 year review is a report to NSF. It is a recommendation to NSF, it is not NSF policy.

Brokaw: Keep the SIP in mind.

We all have site based frameworks. Conceptual framework is broadly applicable, but it is a tool for focus. It is not an omnibus for catching all you are doing.

Not everybody has to spin ISSE model, but you can speak to different aspects of the decadal plan.

NH: Important things to distinguish between all the things you do for the network and the core LTER stuff that do for the NSF at the site level. Seems to imply a tension between LTER Program at the site level and then what you are doing at the network level. There is an overlap. So, network guidance documents, the long-term research is emphasized. Meet the reason that special conditions exist. Looked at with scrutiny because funding model is different.

Question: How people pull together what everyone is doing? How do you get all the pieces. You do need a single voice for the actual proposal works, but first you need to from everyone and make sure everyone is included.

CCE: Started out as very inclusive meetings. Open dialog and then a series of more exclusive and more focused meetings.

Comment: Getting a detailed conceptual framework for everything at an appropriate level of detail is tough.

Agreed. One approach suggested they had one conceptual framework, then detailed diagrams for components, then one cartoon tying it all together.

Another suggests hiring good graphics person to help draft figures.

QUESTION: How important are five cores areas?

NH: Still a requirement. A paragraph, a table linking long term data sets to
core areas. Monitoring is where this important. But it is basically a requirement. However, you can do it.

They need to addressed explicitly and you do need to have a time series record of some form. The assumption is that, within your site, you may have “perhaps low resolution.” You can have low resolution data.

Phil: No mention of five core areas in review panel comments.

NH: But the panel did discuss lack of core areas in general discussion.

Web pages – look at online methods – put a massive amount of time for methods - online methods opportunity is a good one.

**Topic 5: Site Reviews**

*HBR—Charles Driscoll*

What we do is common sense. Three areas planning, execution post-review.

Get information about six months out. Quarterly science meetings – do a lot of business then. Six months prior to review – do planning activities. Plan program, field trips, activities, do everything in advance. Review, critique, go over.

Program:
Forest service person talks about forest service and collaborations
Then overview from other PI – best observations. Try to engage the reviewers in some specific issues they are facing (gets some pushback).

Presentations on science this (education & outreach, IM mixed in)

Try to build in as much flexibility as possible. Review teams may want to do something. Roll with weather. Roll with the program. Try to do our homework on what their interests. If it is too heavily programmed, wont get that opportunity.

Give students opportunity to talk to reviewers. Mix it up. Younger reviewers give talks, then older reviewers. Look at them as opportunity.

Tell reviewers “we won’t cover everything. If there’s something we haven’t covered that you think you should, ask us – maybe we are build intereactions with reviewers.”

Response: Have workshops specifically in response to comments. Include that in our Prior Research section of proposal.
Deb Peters: Been part of 8 or 10 reviewers. Perspectives are a meld of different roles. Reviews are to help us write a good successful proposal. Do a good job on what we control. Spend a lot of time creating a document that has everything. Make sure you have a lot of people there to mingle. Hammer in conceptual framework.

Being more dynamic in themes. At the end of the day, we want information from them.

A lot of times the reviews are very detailed. These are all recommendations. They are all equally weighted. We could use some guidance from NSF as to what priorities as well. Prioritizing is an issue since everything is all recommendations.

Matt Kane: Two answers:

1. You can call us and ask us and we’ll tell you what we can tell you.
2. You are the one who are betting the farm on this. It is up to you to determine which are constructive. Realistically, you don’t have space to defend all twenty points

Good suggestion – guidance to panelists should prioritize.

FCE/CAP—Dan Childers
Field trip – hare brained idea that we have the field trip first. Having field trip first was immensely successful. Make sure they are hearing science all the time. In the van. Have students out there. One of things the field trips show is logistics. Flying in helicopters.

Field trips and they’re yours. Any time you can inject students, do it: they’re doing the work, they have the energy. Make sure that they know what part of the picture they know what they’re involved. Make sure they know where they fit in the grand program.

One thing you need to do in the report. Make sure you address the reviews of the last proposal in the report.

Be careful which administrators you invite from the University. This is a chance to get more internal support – potentially good strategically. But, depending on the Administrator, could reflect poorly on your institutional support. Also, if you have outside partners, bring them in.

We allowed the sites to make recommendations about who the good reviewers. Make list of good non-conflicted to reviewers.

CCE—Mark Ohman
Youngest cohort. When we were reviewed – one question we asked were
“well fine, but where does the water come from?” Create a context. Provide a diagram (or something) describing the biome for outsiders). Needed a conceptual diagram telegraphing the conceptual model. Crisply and efficiently communicate the overall scheme. Very useful also for outreach. A good statement of our perception of our system at a certain point in time.

When we did the review, didn’t know what the important things were? What were the signature scientific accomplishments. Being told in advance that there were four or five papers representing principal achievements.

A single synthetic paper is also an option. Having that kind of paper available is useful.

General Discussion
Again, recommendations to NSF that they ask panelists to prioritize recommendations.

Correspondence to reviewers is a public document and it is given to the sites.

In briefing, goal panelists are given is to provide adaptive feedback and to keep it at high level feedback. Site’s Written response to site review is available to review panel for proposal.

On caution about relying too much on the mid-term as a bell-weather for what is to come at proposal review. If no red flags at mid-term, people put mid-term review panel report down and move on.

Crowell: Review team reads mid-term report as part of proposal review, but, in his recollection, People didn’t do reply to mid-term sites review. You have to do the reply. There is no requirement, but you should to it. Write the letter so that you know that you know what.

Robertson: Todd may not have seen letters because they didn’t go in until closer to proposal submission (by which time Todd, as a rotater, would be gone). Just because you postpone the letter, doesn’t mean that you don’t circulate a set of comments.

Comment: What folks ought to be doing at mid-term review is figuring out if you are doing what you said you were going to do?

Suggestion from Robertson: PROVIDE A CHARGE (Phil Robertson) to the visit team. Ask them what they think about specific thing, acknowledging that they have another agenda to address. That primes them for a recommendation – consider treating them as advisors as much as
evaluators.

Need to be flexible for site review. Tell the site visit team, “you can change this if you want.”

If you have a good schedule, stick to it, unless folks ask for change.

No wandering no drift in the field site visits.

**No sunglasses.**

Provide a “buddy” for each review team member.

Called up the review team first. Asked them about what they want. You’ve got to be ready to drop everything and re-do it.

The one-minute poster thing of Merryl’s is brilliant. People coming out as people. Makes people more accessible after. Did it at the site review. All grad student posters.

Crowell: Site made request explicit what they’d like feedback on. The more you focus the review team, the more good feedback you are gonna get. The review panel can be focused.

You can send reports to mid-term reviewers. Consider them as advisors. They do want to help you. Good review panel will tell you “whatever you need,” and will be available down the road.

**Topic 6: Do we do this again?**

YES!!!

Organizational Suggestion: Two sessions: One with NSF, one without.

Do NSF without session first.

Topics: Could go through same process next year to discuss next year’s reviews. We will have another set of reviews by then, after all.

Will table all topics until later.

How about format? People like format.