

## NERRS Science Collaborative “Collaboration Support”

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NERRS Science Collaborative Advisory Board Meeting  
September 7, 2016

Support has been both to the UM team in understanding key elements of effective collaborative process in order to better inform RFP language and guidance and staff support.

Also serving as a resource to Science Collaborative grantees as they get projects underway and encounter challenges.

## Activities

- *Characteristics of the Science and End User Involvement in NOAA Science Collaborative Projects: A Preliminary Assessment of 2010-2014 Grants* (Internal Working Paper, June 2015)
- *Grantee Reflections on 2010-2014 NOAA Science Collaborative Projects: Challenges, End User Influence & Lessons Learned* (Working Paper, September 2016)
- *Back-of-the-Envelope* advice for current and new NSC projects (Fact Sheets, September 2016)

2015 Internal Working Paper identified the key characteristics of the 31 2010-2014 NSC grants to help identify major elements for NERRS and UM team.

Updated 2016 working paper drawing from all 31 final reports submitted for the 2010-2014 grants distills the notable impacts of end users, major challenges encountered, lessons learned, and advice of grantees for future projects.

Insights from the 2016 working paper will be used to create “back-of-the-envelope” tips for enhancing the collaborative dimension of the NSC research projects.

## Grantee Reflections in their Final Reports on 2010-2014 NSC Projects

1. How did collaboration with intended users impact the applied science components of the project?
2. What did you find most challenging or unexpected about the project?
3. Did you have all of the skill sets on the team that you needed?
4. Did your budget include sufficient resources to execute the project?
5. What do you know now that you wish you had known when you started?
6. Please describe any lessons learned, obstacles, accomplishments or anything else you'd like us to know about your experience on this project.

The final reporting guidance for the 2010-2014 NSC projects asked several open-ended questions. The answers to these questions provide an informative narrative for these research projects, their contribution to the NERRS, and advice for future grantees.

## Intended User Impact

- RESEARCH FOCUS & PROCESS
  - Impacted research objectives, methods, priorities
  - Contributed local knowledge, identified suitable sites, provided historical data
  - Assisted with research
- FORM & CONTENT OF FINAL PRODUCT
- RESEARCHER MOTIVATION & UNDERSTANDING
  - Enthusiasm and energy was motivating
  - “We were surprised to learn...”

Responses to the final report open-ended question (“How did collaboration with intended users impact the applied science components of the project?”) reveal three areas of notable impact. Most researcher’s report that end users influenced the research focus and process (in particular impacting research objectives and approach and contributing local knowledge and capacity to the research process); influenced the form and content of the final product in order to ensure its accessibility to end users; and provided enthusiasm and energy that the researchers found motivating.

## What enabled end user impact?

- Involvement of Advisory Groups
- Sustained engagement that instilled ownership and commitment
- Periodic Workshops

The reporting of intended user influence included descriptions that highlighted the important role of research advisory groups and the sustained engagement of end users in enabling their impact on the applied science aspects of the research.

## Most Challenging or Unexpected?

- PROCESS-RELATED CHALLENGES
  - Collaborative science is unfamiliar and more complicated
  - Personnel changes (given importance of relationships)
  - Time-consuming because of need for learning, flexibility and responsiveness
  - Chicken-egg conundrum
- RESEARCH-RELATED CHALLENGES
- UNEXPECTED/SURPRISING
  - Enthusiasm of end users
  - Resilience despite challenges
  - Importance of effective facilitation

In response to the question: “What did you find most challenging or unexpected about the project?” several challenges related to the collaborative dimension of the research were mentioned. In particular, the reality that collaborative science was new to most researchers was challenging; when personnel changes occurred it was particularly challenging because relationships are the foundation of collaboration. Some also noted that end users sometimes identify needs and propose research; while at other times research needs to demonstrate value before end users take note and engage.

## Anything Else?

- **ANCILLARY BENEFITS**
  - Changed them professionally
  - Established enduring relationships that have leveraged future partnerships
  - Influenced direction of subsequent research
  - Introduced grad students to an important but unheralded approach to research

In response to the prompt: “Please describe any lessons learned, obstacles, accomplishments or anything else you’d like us to know about your experience on this project.” researchers offered wide-ranging responses, most highlighting ancillary benefits of the collaborative research process, noting that it changed them professionally, established enduring relationships that have leveraged future partnerships and influence future research. Some particularly valued the involvement of grad students in the research, introducing them to a different paradigm for research.

Questions/Comments?