

# CAMNet

## Annual Rendezvous

January 13-15, 2008  
Keys Gate Golf and Country Club  
2300 Palm Drive  
Homestead, FL

### SUMMARY

#### Executive Summary

On January 13-15, 2008, the Collaborative Adaptive Management Network (CAMNet) convened the second annual Rendezvous in Homestead, Florida. This gathering was designed to provide a forum for CAM practitioners, scientists, policy makers, academics and stakeholders to:

- develop solutions for key challenges to implementing collaborative adaptive management (CAM); and
- develop a common understanding of policies and guidance needed to support successful CAM implementation.

The 2008 Rendezvous was made possible by the support of PBS&J <http://www.pbsj.com/> and the South Florida Water Management District <https://my.sfwmd.gov>, and participant registration fees. The Program for the event was developed by a committee of CAMNet members. Participants came from the Glen Canyon, Missouri River Basin, Upper Mississippi River System, Platte River, Pacific Northwest, New England and the Florida Everglades, and included adaptive management (AM) practitioners, scientists, academics, and policy makers from state and federal agencies, universities, and the private sector. A list of participants is included in Appendix A.

Participants reviewed successes, challenges and lessons learned from CAM projects around the country, with a special focus on the Comprehensive Everglades Restoration Program (CERP). Following a field visit to Everglades National Park, attendees participated in work groups to generate ideas for addressing three key challenges to successful implementation of AM that were identified during the plenary sessions. These included:

- How to integrate effective science and adaptive management into policy decision making?
- How to get funding and institutional support to begin and execute CAM?
- What is the relationship between CAM, ecosystem services, and climate change and how can CAM help address these issues?

The results of these breakout groups included both specific recommendations for advancing adaptive management and restoration in the Everglades, as well as general recommendations that are relevant across multiple AM programs.

On the final day of the gathering, participants focused on the link between CAM and policy and discussed recommendations for policies and guidance to support the successful implementation of CAM.

The successes, challenges, and lessons learned from the featured AM case examples, recommendations for advancing Everglades' restoration, and policy suggestions are captured below.

Presentations made at the Rendezvous can be found at [www.adaptivemanagement.net](http://www.adaptivemanagement.net)

## Pressing CAM Issues

Participants were asked to share the most pressing issue or question they are currently facing in their effort to implement collaborative adaptive management. Responses helped to shape the focus of the breakout sessions on Day 2 and are summarized as follows:

- **Application** - How to move from conceptual AM plans to applied AM?
  - There have been successes in collaboration, and successes in monitoring. How can we bring together all the elements of CAM successfully?
- **Institutions** - What changes are needed in institutions to enable execution of CAM? Specifically, how can we address political dynamics and personnel changes?
- **Funding** for CAM - How to develop mechanisms to fund CAM?
- **Science-Policy Interface** – How to link AM results to management and policy decisions? Decision makers need to see the monitoring results and an explanation of the policy change being recommended.
- **Laws** - How to reconcile AM with existing law? Where are the frictions or constraints legally? What changes are needed? How to maintain the positive aspects of law, transparency and accountability? (*Note: BLM is conducting a legal review of AM cases to identify if and where regulatory changes are needed to support CAM.*)
- **CAM and ecosystem services** - What is the relationship between CAM and ecosystem services? What are the drivers of change in ecosystem services? How do climate change and urbanization affect ecosystem services, and how can CAM help address this?

## CAM Updates

Updates were provided on the Glen Canyon Dam Adaptive Management Program (GCDAMP), Upper Mississippi Navigation and Ecosystem Sustainability Program (NESP), Platte River Recovery Implementation Program (PRRIP), MIT-USGS Science Impact Collaborative (MUSIC), a Department of Interior effort to initiate an inter-agency CAM laboratory, and an economic perspective on how climate change will affect the West. These updates focused on successes experienced, challenges faced and lessons learned by a cross section of CAM programs and projects around the country. Highlights from the presentations are summarized below.

### Successes

- AM has provided improved information to decision makers in the Glen Canyon Dam AM Program.
- Agreement was reached among stakeholders on a conceptual model in the Upper Mississippi River System.
- Resource agencies agreed on vision and goals for restoration in the Upper Mississippi River System.
- When scientists did not know how to incorporate social principles into the program goals, social scientists were invited to participate in the NESP.

- An adaptive management plan has been developed for the Platte River Recovery Implementation Program (PRRIP)
- AM provided a framework by which differing opinions about how the Platte works and how restoration can occur can be examined.
- The MIT MUSIC teaches joint fact finding and adaptive management and provides opportunities for students to work with professional consensus builders and apply these concepts on the ground.

### **Challenges**

- Timescales required to conduct AM experiments often do not fit within decision makers' schedules.
- Responding to legal challenges to implementing AM.
- Learning how to restore processes in contrast to simply building projects. Monitoring shows that projects have been built or activities have been completed; yet processes have not been restored, so restoration has not been achieved.
- The requirement to outline details of a project in order to obtain funding for implementation results in inflexibility and makes it difficult to actually execute AM.
- It is difficult to communicate the importance and value of restoring ecological processes to end users.
- Transitioning from development of an AM plan to implementation.

### **Lessons Learned**

- Need to integrate the restoration of processes into the design and implementation of projects.
- Maintaining human dignity and civility is key to achieving effective collaboration and ecosystem management.

### **Next Steps**

- Explore the reasons for changes that have been monitored.
- Identify system level and process performance measures in order to be able to assess when ecological processes have been restored, and therefore restoration has occurred.
- Develop a detailed proposal for an inter-agency laboratory for learning about CAM through on the ground case examples.

### **Featured CAM Program: Comprehensive Everglades Restoration Program**

Elmar Kurzbach, U.S. Army Corps of Engineers and Tom St. Clair, Everglades Partners Joint Venture presented an overview of the Comprehensive Everglades Restoration Program (CERP). Lorraine Heisler, U.S. Fish and Wildlife Service and John Ogden, South Florida Water Management District discussed successes achieved in CERP as well as lessons learned in four areas:

- Institutional structures needed to support AM
- Collaborative processes and communication
- Getting the science right
- Working in a dynamic political environment

### **Successes**

Presenters shared the following successes achieved by the CERP:

- Passage of enabling legislation

- Formation of a system level scientific organization to coordinate monitoring and assessment for CERP
- Development of a balanced science plan through the Monitoring and Assessment Plan (MAP)
- Hypotheses about the Everglades have been updated through science
- Definition of AM for CERP
- Publication of the CERP AM Strategy
- Draft AM Implementation Guidance Manual available

They also discussed the following lessons learned:

### ***Institutional Lessons***

- The decision about whether to do AM is a key juncture. If it is decided that AM is necessary, there needs to be a new way to design and plan AM projects.
- Enabling legislation and regulations are important because they provide:
  - Funding of the system-wide monitoring and assessment program
  - Endorsement of AM at a program level
  - Initial Planning for AM

However, enabling legislation is not sufficient for long-term viability of the AM program (e.g. funding).

- Having a specific organization (RECOVER) with responsibility for the AM program has been valuable because it:
  - Provided initial momentum for developing the AM strategy
  - Could mobilize to educate managers and project staff and bring in outside expertise
  - Is crafting program-wide “how to” guidance
  - “Teaches by Doing” – as with the Water Conservation Area 3 Decompartamentalization and Sheetflow Enhancement (DECOMP) case

### ***Collaborative Process and Communication Lessons***

- Collaboration can never begin soon enough
  - Waiting for the perfect time to roll-out a new idea usually doesn’t work (example from DAMP)
- Educating others about AM takes more time than you think and requires constant re-training as personnel change – Are definitions important?
- Multiple “languages” must be spoken
  - Science, management, engineering, etc.
  - Need to develop a common language about uncertainty (scientific, engineering, policy uncertainties)

### ***Science Lessons***

- The process for integrating science and decision-making needs attention early.
  - MAP (Box 2) implementation out-paced the development of the science-management interface (Box 3). We’re now in catch-up mode.
- It is important to communicate why uncertainties put us at risk
- Document the history of hypotheses about the Everglades and how science has improved our understanding

### **Policy Environment Lessons**

- We are operating in a dynamic political environment – Due to public opinion changes, managers' views of critical uncertainties are likely to change
- Existing planning procedures and policies limit options for AM
  - Incorporate learning as a project objective
  - USACE Planning Process and project justification
  - Policy limits on monitoring costs and durations

Additional information on CERP, including the CERP AM Strategy, can be found at the following websites:

<https://www.evergladesplan.org>

[http://www.evergladesplan.org/pm/program\\_docs/adaptive\\_mgmt.aspx](http://www.evergladesplan.org/pm/program_docs/adaptive_mgmt.aspx)

### **Recommendations for Advancing CAM in the Everglades**

Participants met in small group work sessions and offered the following ideas and recommendations. Several are targeted to address challenges shared in the presentation about the Everglades, and others are relevant to any AM project or program.

- Sell naming rights to water structures or other features to raise money to pay for restoration (e.g. naming rights to the Tamiami Trail bridge).
- Document and disseminate AM accomplishments and offer next steps.
- Use and communicate science effectively by:
  - clearly communicating the definition of AM (critically examine if the definition is shifting from an approach to learn from the system through field experiments, to a focus on uncertainty, and if this shift is intentional)
  - drafting and presenting white papers to communicate key points
  - identifying key upper level decision makers and communicate science, cost, alternatives, and the risks of no action "Need science because nature doesn't speak English"
- Engage stakeholders in governance and decision making. Examine why NGOs no longer attend Everglades meetings. Invite NGOs and other stakeholders to meetings. Get stakeholder agreement on objectives.
- Identify a small project and test implementation of CAM in the Corps process and document lessons learned so that you have a success to showcase and experience to apply to larger projects.
- Identify ways to distinguish AM from existing approaches and procedures, rather than making AM additional work (middle ranks resist AM because it currently adds work to an already overflowing plate).
- Modify the staff evaluation system to provide rewards for long term performance and AM.
- Even if the economic value of ecosystem services is not known, note the existence of these services so they are considered in decision making. Sometimes this type of qualitative acknowledgement is sufficient to result in better-informed decisions.

### **Recommendations for Getting Funding and Institutional Support for CAM**

The following recommendations were made by the small group that addressed funding and institutional support for CAM:

- Explain management benefits of implementing real AM and address management concerns.
  - Look for secondary benefits (potentially non-ecological) to support ecological projects. In many cases, a given ecological project doesn't have the value justification, but does when coupled with other benefits (e.g., transportation, global warming).
  - Demonstrate/predict benefits.
  - Illustrate the risk of doing nothing.
  - Present examples of successes and lessons learned in a language that is understandable by scientists, managers, and policy makers.
- Top-down direction to managers may be needed to implement AM. Reward implementation of AM through the performance review process.
- Get political support for funding.
- Scientists should stop dwelling on uncertainties, and build on successes.

## Policy Recommendations

Panelists initiated a plenary discussion framed by the following questions:

- What is needed at the policy level to enable successful implementation of CAM?
- What are the best mechanisms to address this?
- What can CAMNet do to support this?

Panelists and participants then made suggestions related to AM and policy in four categories: planning effective projects, empowering government, building public trust, and integrating science and policy. The ideas discussed are detailed below.

### Planning effective projects

- The cost of AM should not be tied to the cost of construction. (Currently monitoring is capped at a percentage of project cost and duration is limited.)
- Develop guidance on what a Project Implementation Report (PIR) needs to contain regarding AM.

### Empowering government through structures and people

- Modify performance review metrics for middle management to reward AM. One way to do this is to reward long term performance instead of, or in addition to, short term projects.
- Put one person in charge of AM who believes in it and is ultimately responsible for decisions.
- Identify ways to reduce risk for staff to apply AM.
- Examine the Government Performance Results Act (GPRA). Does it make it harder for people to invest in results down the line? Are we becoming accountable in a way that makes us less likely to be successful?
- Establish structures and systems in management to support continuity.
- Implement methods to support staff with collaborative skills and to train additional staff in this skill set.
- Identify what is needed to establish commitment for a long-term process.
- Create methods to synthesize the elements of CAM, including assessment, modeling, monitoring, collaboration, etc.

### **Building Public Trust to Move Restoration Forward**

- Identify ways to provide assurances of ecosystem services while developing a more flexible way of assessing changes over time.
- Benefits – The public wants to know there will be benefits. Look into ways to deal with idiosyncratic values (Mt. Rushmore) on a national scale, because Corps projects compete for funding nationally.
- Address concerns related to the Federal Advisory Committee Act (FACA).
- Change prohibitions to collaboration for the Corps. The result is not giving up authority, but using authority in a different way, for example, getting a joint decision, then implementing, instead of making a decision without input and then having to “sell” it.

### **Integrating Science and Policy for Effective AM**

- Convene a managers and scientists conversation about CAM and how to apply it in a way that works for both disciplines.
- Describe the value of AM in terms of return on investment.
- Work to quantify and define risk.
- Acknowledge the timeframes in which elected and appointed officials are working and provide available information within those timeframes so science can be used to inform decisions.

## Rendezvous Evaluation

Participants shared the following closing thoughts about what worked well, suggested improvements for the future, and ideas for future CAMNet gatherings.

### What Worked Well

- Place-based meeting
- Focus on an AM case example
- Field visit with local guide
- Learning from others' experience
- Learned about collaboration
- Gained ideas for mapping out how to integrate science into management decision making
- Participation by managers
- Feel supported and reinvigorated

### Improvements & Ideas for Next Year

- Showcase successes, perhaps small scale projects
- Spend more time explaining where in the process case examples are, and what obstacles have been overcome
- Allow more time for the field visit
- Extend the meeting by ½ day
- Focus on how to solve the challenges identified

### Improvements & Ideas for Next Year (continued)

- Convene a managers meeting on AM
- Review and report on literature on collaboration
- Be open to values other than natural resources
- Broaden participation – actively identify and invite policy makers, senior leaders, Congressional staff, social scientists, NGOs
- Consider conducting a future CAMNet meeting in conjunction with Natural Resource Planners
- Connect with the University of Florida's graduate program in AM
- Registration fee is high
- Identify ways to mentor the next generation
- Work on developing decisional frameworks
- Do strategic planning on how to get the paradigm shift to applied AM

## Next Steps

1. Meridian will prepare a summary of the Rendezvous discussions and recommendations and distribute to participants for review and comment. Presentations will be posted on the CAMNet website.
2. The CAMNet Core Advisory Group will meet to plan goals and tasks for 2008, incorporating input from this gathering.

## APPENDIX A

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