

**Science Coordination Group  
Meeting Summary – Meeting #13  
South Florida Water Management District  
3301 Gun Club Road  
West Palm Beach, Florida 33146  
August 31, 2005**

**Attendance:**

**Members:**

Calvin Arnold	Carol Mitchell (for Dan	John Ogden
Ronnie Best	Kimball)	Rock Salt
Gene Duncan (for Terry	Alyssa Jacobs (for Cherise	
Rice)	Maples)	
Ken Haddad	Greg May	

**Staff, Contractors, Public:**

Jim Barnes	Bob Doren	Brian Siems
Tim Canan	David Erne	
Walter Cybulski	Rafaela Monchek	

**Members not present:**

Lisa Beever	Susan Markley	Jay Slack
Joan Browder	Loren Mason	John Volin
Richard Harvey	Peter Ortner	Ed Wright
Greg Knecht	Barry Rosen	

**Whiparound:**

Carol Mitchell announced the Department of the Interior and the State signed an agreement for a management plan for the Dry Tortugas natural areas. They agreed to disagree while moving forward with the plan.

Ronnie Best asked if the Working Group and the Science Coordination Group could have meetings on adjoining days. Greg May responded that with several of the upcoming issues it would be helpful to have a joint meeting, potentially before the end of this year. Placeholders would be added to the calendar for joint meetings in 2006. Discussion between the two groups on water quality, indicators and several other issues would be beneficial. Specific issues, outcomes and a date for the joint meeting need to be identified. Ronnie Best also discussed a concern over the attendance at the meeting, and added that the SCG was elevated to stress the importance of science in this process. It was noted that attendance had been affected by the hurricane and summer vacations.

Rock Salt will bring the DOI science strategy to a future meeting. Needs have been laid out into broad categories, and scientists were invited to provide recommendations that will become part of their plan as they create their 2007 fiscal justification. Ronnie Best added that they have updated the science plan to better clarify items from the 2004 plan, and review the highest priorities. There will potentially be a shortfall of funds to cover the critical needs that must be started in 2006. Rock Salt added that this plan is good for coordinating the needs throughout the Department to show support for each other.

Greg May announced the next Task Force meeting is at the Omni Colonnade on September 20, 2005. The SCG will brief the members on the current status. The 2006 Strategic Plan and Biennial Report are approaching, and the need for the indicators will be elevated.

To deal with issues with models, and between modelers, John Ogden is currently setting up an adaptive management plan for the decomp program.

Rock Salt added that there are significantly divisive views on the effects of hydrology on tree islands. NPS believes there has been high water, but as long as it flows out it is fine. Flows in 3b and conservation areas 2 and 3a are under discussion. NPS and FWS have been asked to assemble a technical workshop to discuss and develop a coordinated game plan that will provide comfort that the tree islands will not be harmed. Carol Mitchell added that there have been a few initial meetings to exchange information. Having outside reviewers at the workshop to look at available data and provide commentary would be helpful. The workshop will be coordinated by Bruce Boler, and will include neutral parties. FWC and SFWMD will be included in the effort. Ronnie Best responded that this is the type of workshop the SCG should be creating since the information will be raised to the Task Force. The SCG will be invited and could be involved to the extent it felt appropriate. Bob Doren added that being involved in this type of workshop is one of the issues the PCS points out.

### **System-wide Indicators:**

Bob reviewed the SCG approved list of 12 indicators. There is still a question on Spoonbills and whether information is based on historic or current data. Contaminants are still being discussed due to a lack of information, and the exotic/vegetation mosaic indicator is under development. He also reviewed the regional modules that are being studied.

At the last SCG meeting the team agreed to review the indicators as a suite, and agreed on a basic format for the descriptors. The handout on Fish and Macro invertebrates is the draft template that will be used for the remainder of the indicators. Once this format is deemed appropriate, the experts will be completing these packages for each of the indicators. The packets will be sent out for review based on the 7 questions the SCG has agreed on. Time permitting; the team should decide how to communicate the information to the Task Force before the packages are distributed for review. The format should be linked to strategic goals, outputs, ecological results, baseline, progress and projects. The resources needed to implement indicators from RECOVER have been determined, and if they are unavailable, they have shown up as a gap. Additional information, such as cost could be included in the future. The SCG should be thinking of the end state and need to establish baseline and end state every two years.

There should be an understanding of who has the responsibility to gather the data for each of the indicators. Implementation for each indicator could be attached to this document to make it easier to flag projects when funding changes appear to impact the indicator. The best set of indicators should be presented regardless of the status of funding and current available data with justification. Groups and agencies that have made commitments should also be included. Agencies, individuals, and work being done on each of the indicators should be included in the Plan. In the "longer term science needs sections", the CEM results will be provided in bullet formatting; defining more specific needs. The "needs and gaps" could be referred to in the back of the Plan. Bob will send an electronic copy of the format to the team.

A concern was expressed over only two indicators being added to the RECOVER list, and only one of the indicators dealt with upland issues. RECOVER only deals with wetland restoration. Vegetation mosaic and exotics will be separated. The vegetation mosaic will be clarified to highlight upland issues.

### **Ecological Indicator Independent Scientific Reviews:**

The statement of work has been developed for the reviewers. Feedback is needed on a communication tool. He distributed an example of a draft of the communication of exotics by the SFWMD, by module. The SCG was asked to review this, and provide thoughts on it as a reporting system. In the 2002 version of the Biennial, the

red, yellow, and green reporting system was used for the non-technical audience. Due to the different scale, different targets may be used than RECOVER. The indicators should measure short and long term changes.

An executive summary with the map, status (red, yellow or green), and a one page explanation could be followed by the detailed information on the indicator. Tables and bulletized lists could be used to express the ratings. Elements of the progress could be rated separately, allowing for them to be green while the overall indicator is red.

The SCG must determine which elements of each indicator or region are important for the Task Force to know every two years. Report cards of the regions could be provided. Bob Doren and BAH will provide a draft format for the next meeting.

### **Development of Indicator Packages:**

RECOVER members working on respective indicators will be asked to develop the packages for the indicators based on the agreed upon format. The literature cited will be included in the packages to the reviewers, as well as the key publications used to develop them. The goal is to have the packages developed by spring 2006.

### **Exotic Plants Indicator:**

The key measures/metric to create this indicator is under development based on the data being collected from 4 funded projects. A final draft will be created, and RECOVER will be asked to review the indicator for its potential use for the SCG, and as a RECOVER indicator. Comments are needed on the metrics that should be included.

### **Scientific Review - Phase I:**

Six questions have been developed for the Phase I independent scientific review. The statement of work has been developed with an estimated cost of \$50,000 funded by OED. The review will take place as soon as a contract is in place. The questions will be redistributed to the team with the recommended changes by September 9, 2005. The reviewers must understand that the SCG can only make recommendations to the Task Force.

The following changes were made to the questions:

Question 1: Remove the beginning of the question up until "program level" to start with "do you feel..."

Question 5: The question will be rephrased to "Would the actions recommended in this plan help persuade the Task Force to coordinate "filling the gaps" in the critical science needs.

Question 6: This question will highlight item out of the GAO. Greg May will provide new language for this question.

### **Built System Indicators:**

The Built System subgroup is responsible for developing built system indicators in response to the Task Force's Goal 3. The subgroup has held two conference calls to review the task. A list of indicators from other efforts were reviewed and used in developing an initial "straw-man" of 4 indicators that the subgroup reached consensus on. Additional indicators may be developed.

- 1) Water Volume – the relationship between new and freshwater captured and how the water is distributed

Water volume capture data has been provided by RECOVER, but this information may change. Non-CERP storage projects must be considered as well.

- 2) Salt water intrusion – the salinity intruding into the coastal aquifers

The appropriate method for measuring salt water intrusion must be developed. The team discussed, that despite the lack of a project to move the saltwater boundary outward, there may be a desire not to move it inward.

### 3) Per capita use of water – efficiency of water being used

Over time water use would become more efficient, showing increased compatibility between the built and natural system. The accurate measures are available from the utilities and can be used to assess our conservation and to determine if increases in use are due to people using more water per capita or increases in population. The consumptive uses part of the model has been improved. A question was raised regarding the relationship between proposed indicators and the projects reported by the agencies in the Task Force strategy. For example, if all of the projects were implemented perfectly and there was no affect or relationship to a proposed indicator, would it be a viable indicator. If the indicator is not a good indicator, it may nevertheless be worth tracking if it was a key assumption for CERP.

### 4) Wastewater reuse – efficiency in reuse to decrease the demand for new freshwater

Reuse of water before it is discharged would mitigate the need for freshwater and thereby indicates increased compatibility. There is a strong programmatic requirement in the counties to look at wastewater reuse. The purpose of these indicators is to address the compatibility between the built and natural system, not to meet the needs of a particular project. Water supply is addressed through indicators 3 and 4. A connection is needed directly linking reuse to the analysis that restoration is built on, thereby showing that for restoration to succeed reuse is necessary. Capturing the increase in storage in the landscape as an indicator of success is a possibility to meet this requirement. John Ogden will see if the SFWMD has additional information. Additional language will be drafted for this indicator and the potential for another category of other information will be reviewed.

Two additional indicators, aquifer water levels and flood protection, and change in land use were reviewed by the subgroup and are still under consideration. Currently the subgroup is determining how to address flood protection on a regional level. Flood protection must also be linked to its effect on restoration.

Bob Doren will discuss with Susan Markley flood protection for the CERP reservoir projects as they come online. If heavy rain is causing the problem, not CERP, and it is not the responsibility of CERP to solve the problem, is it enough to recognize that we are aware of a problem?

At the next meeting Lisa will be presenting methods used, and GIS maps on conversion and impervious surfaces land use by understanding water and development. Susan will provide a briefing on salinity intrusion and flood protection.

Spatial extent is not captured in the current suite of indicators, and should be included as a separate indicator.

### **Science Needs, Gaps, and Actions:**

Bob Doren reviewed the process by which needs, gaps, and actions are being developed. CEMs by the CERP MAP modules have been utilized in this process. A two-day workshop was held on August 16<sup>th</sup> and 17<sup>th</sup> to review the northern estuaries, southern estuaries, and the greater Everglades. Some of the determined needs may be consolidated with sub-elements to condense the number of needs. The information provided is the initial framework of this process. Major ecological problems in the northern estuaries, including algae will be addressed in the background information and additional details section.

The next workshop will occur in September to discuss Lake Okeechobee, and to review and update the Total System elements included in Phase I. Needs, gaps, and actions will be drafted for SCG review at the November SCG meeting.

### **Information Sharing:**

The Information Sharing subgroup held a conference call on August 9<sup>th</sup>. Examples of information sharing agreements were discussed, and the adoption of a policy similar to the National Institutes of Health, provided below, should be adopted:

*“Data should be made as widely and freely available as possible while safeguarding the privacy of participants, and protecting confidential and proprietary data.”*

This policy will be distributed to the entire SCG for comment and possible presentation at the September Task Force meeting. This would be a living policy, adjusted to meet the needs of the Task Force entities.

Needs, gaps, and actions were developed for the section, including an agreement and a system to share information. Presently, compatibility and timelines are an issue in data sharing. Very few databases are available in real time. The subgroup developed possible information components and outputs for accessing and sharing across multiple databases and systems to better facilitate scientific coordination. Agencies/entities developing databases would be able to use an existing format. A web-based data-sharing system was recommended to allow searches through multiple databases. The existing systems should be examined to help determine most effective and efficient options. Software and development of the system would cost between \$50,000 - \$150,000. Additional details will be sorted through before presenting to the Task Force.

For the needs, gaps, and actions it should be determined who currently has policies. The fourth action should begin "consider the benefits of determining a policy". The message will be that information sharing policies are useful, but some agencies are not involved.

Holding science meetings and forums has also been identified as a need. There should regularly be a time when scientists working on Everglades restoration gather to discuss the issues. There is also a science/management connection need. The gap is the scientists and managers talking enough.

The SCG was asked to review the quality assurance and progress tracking sections and provide comments to Bob Doren.

**Next Steps:**

A suggestion was made that Jim Boone attend these meetings.