

**Science Coordination Group**  
**DRAFT Meeting Summary – Meeting #9**  
**Miami-Dade Fire Rescue Building**  
**9300 N.W. 41<sup>st</sup> Street**  
**Miami, Florida**  
**March 2, 2005**

**Attendance:**

**Members:**

Calvin Arnold	Greg Knecht	John Ogden
Joan Browder	Cherise Maples	Barry Rosen
Dan Kimball	Susan Markley	Rock Salt
	Greg May	Ed Wright

**Staff, Contractors, Public:**

Jim Barnes	Bob Doren	Dick Ring
Lisa Beever	David Erne	
Adriana Contillo	Rafaela Monchek	

**Members not present:**

Ronnie Best	Richard Harvey	Terry Rice
Ken Haddad	Loren Mason	Jay Slack
	Peter Ortner	John Volin

**Administrative Items:**

The meeting summary was approved with several changes from Barry Rosen. (Motion: Barry; Second: John, passed unanimously)

**Whiparound:**

Calvin Arnold announced Sunny Williamson will be chairing a meeting with key agricultural producers to consider new research proposals to expand research of the effect of CERP on Agricultural operations in South Florida.

Ed Wright learned that USDA Everglades funding was reduced this year, but it is unknown by how much. Due to the reduction, Bill Reck's position may not be filled.

Andriana Contillo offered copies of the RSMAS hydrocarbon study from 1993. The results closely match her research in 1996.

John Ogden requested the meetings follow a similar format to the Working Group of two days in smaller towns instead of one day in a heavily trafficked area. Rock expressed a concern with Ken's schedule, but will look into it. John also announced the final copy of the interim goals was transmitted to the USACE, SFWMD, and USDOJ, and will go to the Task Force at their next meeting. The interim targets will also go to the Task Force for consultation. The RECOVER report is now posted on the website.

Dan Kimball announced the availability of the draft report on Cape Sable canals with alternatives on how to deal with salt water getting into fresh water areas. Dan will provide a copy to Rafaela to distribute to the team.

Joan Browder announced a document is under development integrating evaluation and assessment performance measures for CERP. She suggested team members review it. She will be co-hosting a workshop on the work NOAA has done on the St. Lucie estuarine system.

Barry Rosen attended a quarterly review board (ORB) meeting with the SFWMD, USACE and state agencies on monitoring. Scientists provided information on the importance of monitoring needs to be reported to the SFWMD Governing Board. The ORB expressed an interest in creating a data clearing house on monitoring.

Rock added there is a perception that monitoring projects are started and then are hard to let go of. He questioned if using the RECOVER idea of a robust system-wide monitoring plan augmented by specific engineering or regulatory parameters that get the needed answers would be enough. Susan agreed that there are some duplicative monitoring programs or ones that have just been around so long and no one understands the purpose, but added that many of the county projects are serving specific goals and would be hard to combine. She cautioned that it's better to have a robust program in the beginning and get a strong baseline to receive a good return on your investment. It's worse to spend hundreds of thousands on a bad program than a million on a good one.

Barry added that on Picayune Strand they are down to the minimum amount of monitoring needed. A baseline is needed in restoration to prove results and ensure future funding. Bob added that the MAP plan is generalized, and monitoring programs will help get information on indicators and vital signs. Team members wishing to receive updates and information on RECOVER monitoring should contact April Huffman.

Lisa Beever announced the SWFRRCT spent the last few months identifying the environmental indicators for the Southwest Florida Feasibility Study and alternatives development process. 126 were identified from RECOVER and the CEMS. They will be starting their own prioritization list and narrowing down the 126.

Dick Ring is working with the University of Miami on their curriculum, teaching young professional how to work the science and management interface.

#### **Task Force Update, Greg May:**

A Task Force meeting was held in Fort Lauderdale on February 15 – 16<sup>th</sup>. The Task Force discussed independent scientific review stemming from the recent release of the CROGEE. A status report was given on the SCG by Rock Salt with Peter Ortner's assistance. Rock stressed the importance of having people from this team with scientific credibility at the Task Force meetings to provide a different perspective while coming to the same conclusion. At the Task Force meeting, Mike Collins commented on the expectation for a scope of work vs. the independence required for good independent scientific review.

The CSOP advisory team is working on the operation schedule for the combined projects. This is the first time an operational scheme has been developed for more than one project. The team is developing alternatives with real outputs and what the USACE and the PDTs can provide. SCG members were invited to attend their meetings.

The Task Force meeting scheduled for May 4<sup>th</sup> was changed to May 10<sup>th</sup>, and to avoid a scheduling conflict the SCG meeting was moved to May 24<sup>th</sup>.

#### **Indicators Presentation and Discussion, Bob Doren:**

Ecological Indicators:

Bob reviewed the changes that have been made to the indicator/vital sign guidelines based on comments provided at the SCG last meeting, and provided a review on the basics of Ecology. A warning was made that the further the indicator is from drivers and processes the longer it may take to notice changes. A good indicator is tightly correlated to the driver. Some indicators might not show change until irreversible effects occur.

The process for selecting indicators is a linear form of the CERP/RECOVER process to establish interim goals and interim targets. Guidelines for indicators and vital signs have been established, the criteria must still be determined. A source list of possible indicators as vital signs was generated at the last meeting.

Eight test criteria questions were reviewed for determining indicators, and four were reviewed for determining vital signs. The Roseate Spoonbill (Pinks) and Periphyton were used as examples to test the criteria.

John Ogden questioned the listed response to the first indicator question "Is the indicator relevant to the ecosystem?" that the Florida Bay population of Spoonbills is distinct. Roseate Spoonbill received a positive response for being an indicator in all of the test criteria questions. The team discussed the importance of tracking Spoonbills, and examining the recovery of nesting on Florida Bay. When problems are identified with a selected indicator, the reason must be investigated. The drivers affecting the indicators must be determined.

The team requested the wording for the fourth vital sign guideline "Is the indicator useful to guide further science and provide assistance in making management decisions?" be improved, taking out "guiding further science".

Periphyton was discussed as potentially being an indicator for water quality instead of hydrology. Periphyton is only affected by hydrologic alterations when there is interaction between the water surface and the substrate. The team also noted that there are "bad" types of Periphyton that can negatively affect the ecosystem.

**Public Comment:**

Dick Ring had thoughts about characterizing the need for additional science associated with the uncertainty of an indicator or the potential that may be hypothesized. It is important to include science in question 4 of the vital sign guidelines. Bob responded that said there are two types of uncertainty – what we don't know about periphyton, and the uncertainty of periphyton in being used as an indicator. Potential indicators with a high level uncertainty in its predictions for change would not be used. Dick suggested vital sign question 4 be divided into two parts, separating the science from the management sections.

Calvin added the independent review will determine if the right indicators are being used, and if we are applying them appropriately. He requested another question be added asking if we are assessing and interpreting the results appropriately.

**Total System CEM:**

The team reviewed the total system CEM, and linking the vital signs within it. There are two separate sets of criteria for the indicators for a specific issue or region and another for the total system. The SCG subgroup will look at CERP attributes and determine modifications that need to be made given these attributes.

Exotics were more appropriately labeled as a driver or a stressor instead of an indicator. Although a goal for invasive exotics is needed, and a way to measure acres free of exotics should be developed. Indicators should guide restoration.

While developing the indicators there may be gaps between them, for example fire. These linkages will need to be determined, or a gap will need to be identified.

**Public Comment:**

Dick Ring suggested it would be useful to characterize an attribute for vegetative condition that may speak to the end conditions trying to be achieved that is constructed by the spread of exotics and altered fire patterns. The same applies to spatial extent – what is the attribute being looked for in a restored system. Bob suggested a separate attribute for invasive species may be used. Joan Browder suggested adding 5 more slides to the presentation explaining each of the attributes.

**Goal Three:**

Bob reviewed the interim goals and targets in CERP for Goal Three.

Lisa Beaver distributed a matrix of the indicators the Southwest has developed. Items on the draft report from last January are expanded in the lines immediately below them. After going through all the CEMs, the team looked at which aspects were relevant to the Southwest. Built environment characteristics are included. The matrix was developed for use by the SCG. Bob asked Lisa to provide which of the indicators are being worked on and by whom.

**Public Comment:**

Lisa Beaver said the presentation on guidelines was very well thought out and applicable, and element added since January have been very good. She is excited about the process. On the Total CEM, look at some of the detail. Within the examples there is an east coast bias. The total suite should include some aspects of the southwest, she suggested looking at the matrix and using the items with high numbers in the far left column.

**Potential Indicators:**

The SCG identified several potential indicators, and after subgroup review, the following three will be brought back to the SCG:

Roseate Spoonbills

Periphyton

Fish and macroinvertebrates

**Independent scientific review:**

The SCG reviewed different options using individual anonymous and synergistic panel reviews. The team decided to ask Garth Redfield to pull together an expert assistance pool. If Garth is unable to, someone from the team would put together the panel. Barry Rosen will create a draft of panel questions for the SCG's review that will be finalized with the approach at the May meeting.

**Workplan:**

John expressed concern amongst RECOVER leadership in holding simultaneous meetings on the CEMs, but offered to work on selecting the appropriate people and facilitating attendance at a separate set of workshops.

**Next Meeting:**

Part of the next meeting should be used to deal with the nonhydrologic issues.

The next SCG meeting will be held on May 24<sup>th</sup> at Florida International University in room 243 of the Graham Center.