

Meeting Summary

SOUTH FLORIDA ECOSYSTEM RESTORATION SCIENCE COORDINATION GROUP (SCG)

Coral Springs Marriott, Orchid Room
11775 Heron Bay Blvd., Coral Springs, FL 33076
Wednesday, April 28, 2010

Members and Staff present:

Bob Johnson, ENP
Dave Tipple, USACE
Ronnie Best, USGS
Joan Browder, NOAA
John Baldwin, FAU
Chad Kennedy (via phone), FL.DEF
Lisa Beever, CHNEP
Chris Kelble, NOAA
Susan Markley, DERM

Calvin Arnold, USDA
Susan Gray, SFWMD
Bill Reck, USDA
Gil McRae, FFWCC
Terry Rice, Miccosukee Tribe of Indians
Matt Harwell for Todd Hopkins, USFWS
Greg May, SFERTF OED
Carrie Beeler, SFERTF OED

Opening Remarks and Introductions

Susan Markley opened the meeting at 10:03 AM noting the good turnout. She reviewed the agenda highlighting the addition of the New Science Information Brief discussion.

Member's Whip Around

Lisa Beever said she was updating information on the online water atlas www.wateratlas.org. She explained that the user can create their own maps of water bodies in Florida along with several data layers. She said that they also budgeted improvements of an optical model for pollutants and water clarity with a spectral model that works better. She encouraged members to take a look at this tool.

Chris Kelble explained NOAA's involvement with marine and estuarine goal setting and referenced the website for the MARES program, <http://www.sofla-mares.org>. He said that the effort is expanding farther into coastal zone. He added that they are working with social scientists and managers. They plan to take all the indicators for the sub-regions and put them into a single report card for the eastern coastal seaboard.

Bob Johnson gave a status of the Modified Water Deliveries project. He said that they are moving forward with the construction of the modification to the eastern bridge. He added that they are working through the issues with conveyance and seepage and that moving water from WCA 3A to WCA 3B is the next component. He explained that there will be a potential change in design because of the limit of how high water levels can go on Tamiami Trail. He informed the group that NPS has submitted a draft on Tamiami Trail next steps to OMB. He then updated the group on the Everglades Restoration Transition Plan (ERTP) explaining that the current B.O. for the operating plan is terminating November 2010. He said that the draft B.A. from the Corps is being worked on by staff. He added that options are limited and they are focused on lower water level

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in WCA 3A, while protecting the downstream system for the Cape Sable Seaside Sparrow.

Dave Tipple said that comments on the AM integration Guide are due today and comments on the SSR 2010 are due May 12. He said that the Knowledge Gained product would be discussed in an evening session at the GEER conference and then they would hold another workshop a month later in August on the east coast of Florida.

Ronnie Best reported that an invasive species summit would be held in conjunction with GEER. He told the group that 400 abstracts have been submitted and that the agenda would be finalized soon. He announced that thanks to the generosity and willingness of the sponsors of the conference, there would be no cost to State agency participants. This will maximize participation in consideration of their travel restrictions.

Gil McRae told the group about the proposed legislation to tighten controls on reptiles of concern. He said that it gives wide authority and institutes bans on certain species. He reminded the group that during the cold snap many pythons died and in turn, the hunt did not turn up very many snakes. He said that his agency is also working on the E RTP.

Bill Reck brought up the need for a future meeting schedule.

Matt Harwell said that he was sitting in for Todd Hopkins. He reported that Loxahatchee burned 30,000 acres last year and 15,000 acres this year. He said they are doing work on exotic control and the non-target effects. Additionally, the Refuge had a successful fledgling season for Snail Kites. He added that the Refuge is the only part of system that has wading bird foraging occurring. He also added that there would be a special session at GEER on how real world science is being used by managers. He said that there is an initiative to inventory, monitor and conduct research to determine answers to what needs to be done with the Refuge related to climate change. He informed the group that a new refuge is being planned in the Lake Wales Ridge. He said that the new refuge has the potential to create habitat corridors and allow for additional panther movement. He said they are also looking at the feral cats in the Keys which are killing endangered species.

Greg May recognized Sylvia Pelizza, the Refuge Manager for Loxahatchee National Refuge, and thanked her for joining the meeting.

2010 Update of the Plan for Coordinating Science (PCS) Discussion

Greg May summarized the provisions of WRDA 96 related to the establishment and duties of the TF to coordinate South Florida ecosystem restoration. He explained that although one of those duties was to coordinate science, at the time there was no

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established means of coordinating science on a programmatic/ecosystem scale. He reviewed the 2003 GAO report that provided recommendations for coordinating science to include the identification of needs and gaps. The report was followed by congressional language asking the TF to largely implement the recommendations from GAO. He reviewed the initial 2004 PCS, which was independently reviewed by Battelle. He summarized the concept of using the CEMs as a filter to identify the most important needs and gaps. When the 2006 final draft PCS was presented to the TF some members were concerned that the gaps section would become an unfunded mandate and so no action was taken on the draft. He then reviewed the development and use of the ecological indicators, which were reported in the 2008 PCS and the Biennial Report which is submitted to Congress. Greg explained that 2008 report also included the needs and gaps assessment as part of the strategic frameworks for coordinating science.

He said that today's task was to determine if there were significant science coordination advances that have taken place over the last two years that need to be added to the PCS (phase 1 effort). Beyond that they need to review the overall framework and determine if it is still sufficient or if it needs to be updated in 2012 (phase 2 effort). He explained that although the congressional language asked that the PCS be updated every two years, the group may also want to evaluate whether there is a more appropriate interval.

Susan Markley asked about the timeline for an update. Greg May explained that traditionally the SCG presents a final draft report to the TF in September and that drafts were reviewed before then by the WG and SCG. He said the group also needed to consider the format for the update. He thought the 2008 PCS and its level of level of detail was great and should be retained but that they could add a short addendum or update. Susan Markley asked the group for feedback.

Bill Reck asked who would put the update together. Greg May said it depended on what kind of update was needed. He added that consultants were hired for the first PCS. Bill Reck said that even with Bob Doren working on the last update, it takes a lot of time to get all comments incorporated. He thought it might be helpful to look at the "Jordon report" and note what things have been addressed since 2008. Greg explained that the needs and gaps were a snapshot in time. While a valid question, he thought whether to update them would likely be a "phase 2" question. He added that we would have to pull together Everglades experts and he wondered if they thought this was the highest and best use of their time. Bob Johnson explained that the National Academies of Science have said that synthesis of science at the ecosystem level is very important and he thought that this is the right forum for doing that synthesis. Susan Markley remarked that this discussion would come up on the final agenda item. She added that revisiting needs and gaps or changing priorities could be part of an outline of phase 2.

Matt Harwell explained that he saw two parts to the phase 1 update: 1) a strategic focus on other types of content that should be added to the PCS and 2) a strategy for laying

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out the phase 2 update. Bob Johnson agreed that the timing is not right for a complete strategic update. He added that there are multiple efforts going on related to large-scale synthesis across agencies. He said that when the new findings are available, additional science strategies will come forward. He thought that the SCG strategy should merge with the WG strategy and noted that timelines are changing on the CERP side. He asked if the group is anticipating other requests from the TF for information briefs. Greg May said that the Task Force assignments came from SCG and WG recommendations. Bob Johnson said that exotic animals and climate change are new targets and another set of key issues can be identified. He suggested a distillation of all the synthesis and science efforts going on to include, how they relate, what it means, and where we need to fill gaps on communication. He believed that otherwise the update would be more of a report on process or a “synthesis of synthesis”, or a description what is coming out of process. He added that another big step for the SCG would be to follow all of these efforts. Susan Markley thought that Bob and Matt were suggesting that in the update the SCG note these activities and what is expected to come out of them (the objective and goals). She noted that it is not in the PCS 2008 version. She added that the SCG tries to be clear that they are not implementing tasks and not duplicating other agency efforts; however the SCG uses the information to add value. Susan Gray advocated for a document to serve many masters without losing intent. She explained that it would be helpful to post things on the web so the information can be used and there is no redundancy. Calvin Arnold remarked that there have been changes in the membership of the TF and wondered if the group was confident that in their understanding of the expectations of the TF. At this point Greg said he thought the TF largely relies on the SCG for their recommendations. Calvin Arnold reminded the group about the meeting in Key West and wanted to avoid a repeat of that scenario. Ronnie Best thought a brief update of the 2008 PCS was a good idea and thought it could point out progress and what has been accomplished with stimulus money. He also believed it should include emerging issues such as invasive species and ecosystem services.

Susan Markley explained that the general strategy over the years was to focus on using the CEMs and the informed process of the ecosystem indicators. She asked the group if they agreed that the foundation makes sense with some updates including emerging issues and activities going on elsewhere those are coordinating science. She added that she thought it was important to keep the update brief but not necessarily constrain the number of pages to increase flexibility. Ronnie Best explained that fact sheets represent synthesis and they should point the reader to the background materials. He added that if we have a standalone document it should refer back to the 2008 PCS. John Baldwin recommended using more web-based PDFs with links to references instead of hard copies and added that the links and format helps with Susan Gray’s concerns. Matt said the SSR is doing exactly what John suggested. Lisa Beaver remarked that the 2008 PCS was beautifully constructed by using the CEM as the starting point and following it through. She said that 2 years of implementation is not long enough to evaluate anything in detail. She thought the group should instead look at the progress in implementing the 2008 PCS.

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Chris liked the idea of a synthesized update of the PCS because he believes that progress has been made and there is a need to recognize emerging issues. Bob Johnson noted that outcomes of the synthesis projects would not be ready for this update. Greg May agreed noting that it is important for the SCG to participate in the synthesis projects, but the output of the synthesis will have to be captured later in phase 2.

Matt suggested a draft outline of topics for the synthesis document: 1) how the PCS fits in (umbrella), 2) what has happened since 2008 (information brief), 3) highlight communication vehicles to aid in science communication 4) the path forward- next update, evaluate how successful we are, linkages from science to decision makers, and identifying emerging issues.

Greg remarked that measuring success is important, but since there is no system in place to do this, the group may want to tee it up for phase 2. There were no volunteers at this time but the group agreed that the process used to develop the information briefs would be acceptable for the PCS update as well.

Public Comment

Joel Van Arman from the Art Marshall Foundation told the group that he was very much in support of that ecosystem services effort in particular, because of the ROG effort. He believed it is important to tie the area north of the lake to the estuaries and into CERP. In terms of the planning effort, he believed it is a good plan. He suggested a boiler plate to include, what's changed since the Plan came out and what is the "new stuff" that needs to happen. He believes that politicians should be the target audience.

Discussion of the New Science Information Brief

Susan Markley reviewed the development of the New Science Information Brief. She said she is hopeful that the SCG can finish the document today with everyone's ok.

Terry Rice said that obviously we have been going back and forth long time on paper. He informed the group that he has had a chance to get the cited papers and read them. He turned the presentation over to Joette Lorion.

Joette Lorion explained that one foundation of restoration was "no net loss of tree islands". She believes this is a continued effort to get greater volumes of water than are needed. She pointed out that the cited papers are going over millennia and asked what time period we should pick. She told the group that she wanted anything about the WCA removed. She suggested removing the last line or at least the reference to WCA 3A. She remarked that comments about additional fresh water is too general, if it is related to the southern Everglades then it is ok.

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Terry Rice noted that we don't have the flow today compared to pre-drainage conditions. He wondered about the Marshall language. Susan Markley explained that she spoke to authors of the papers to get some of the wording. She added that the language before was too broad and they attempted to make it clear that they were referring to ENP and FL bay. She pointed out that there are some tables and graphs that compare marsh and levels in CERP. She added that one can see the fresh water flows that Marshall's approach estimated were larger than previously understood. She explained that the narrative may not have the exact sentence, but all 3 authors felt the language was an accurate summarization.

Ronnie Best felt the language was conservative and accurate. Joette asked that the summary include the word "one". Matt Harwell amended the suggestion to "one recent assessment of the relationship between water levels". Chris Kelble didn't think it was necessary to amend the language. Joette said that is fine but then she would like to remove the reference to the WCAs because she did not want any indication that we should drown WCA 3 to get flows to the south. Bob Johnson said that RECOVER estuarine subcommittee adjusted their salinity models to reflect higher water flows. He added that the general pattern is the same although we only referenced 1 paper by RECOVER. Terry Rice said if you want to bring more papers then we can analyze all of them or we can move on.

Bob Johnson said there is a nice map that may help this discussion with sampling areas based on coring and deposition. Joette Lorion noted that there have been dryer and wetter periods. Terry Rice said the conditions vary over time and we are in a wet period now. Susan Markley reminded the group that the brief's focus is on what science has emerged since 2000 and was not to talk about policy. She explained that when we gathered the papers we tried to clarify what time periods were being discussed. She added that the revisions sometimes did a good job in clarifying time periods and sometimes they did not. She said that Terry and Joette are right about the studies being long term and going back over a long period of time to look at the role of climate and drought cycles. Joette Lorion pointed out Marshall's document and said it was only talking about the slough. Matt Harwell explained that currently RECOVER is studying the issue of whether greater water flows are needed.

Ronnie Best explained that references were put in to validate the statements noting that the area north of the Trail is much wetter because of the damming effect of the road. Terry Rice thought that the group could say something like, "over the years water levels have fluctuations and we should plan for fluctuations". Joette Lorion said that the sentence would be accurate if we were talking about Taylor Slough only. Susan Markley explained that the studies dealt with certain areas or habitat types and explained they were looking into a map to help show the sites. Joette Lorion asked why the technical paper from SFWMD was included as a source. Susan Markley explained that they are a valid source. Joette Lorion said they are also political. Susan Markley said that these findings related to marshes. She asked if their concern would be satisfied if the document was to revert to the section that references Shark River

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Slough. Joette Lorion said she would have to look at it but thinks it would. Bob Johnson said that there is a need to look at the paper that is being referenced because it talked about the lower end of WCA 3B to northern Shark Slough. Joette said the decision is not what was, but what we are going to restore it to look like. Bob Johnson explained that the group went out of the way to make no inferences of recommendation for restoration. Terry Rice said the new science tells us that the Everglades fluctuated over the years, the New Science Brief implies that it was always wetter; it is one snap shot in time. Susan Markley suggested trying to get a phrase to clarify that point.

Joette Lorion pointed out that on page 2 the discussion about tree islands talk about fire, but not flooding and downstream marshes. Susan asked if everyone was ok with adding it and they answered yes. Joan Browder asked that the sentence about CERP and getting the water right, be removed. No one disagreed. Lisa Beaver talked about changing the scales on the graphic to make the metrics match and Chris Kelble said he would fix it.

Editing the New Science Brief

During the break the New Science Brief was edited to try to capture the previous conversation. She explained that the deleted section related to “get water right” and there was no debate. The next edit dealt with the change to fresher and wetter section. She pointed to the removal of the areas and the pollen studies result. Ronnie Best argued that removing that made it incorrect by excluding valuable information. John Baldwin pointed out that the purpose of the paper was to communicate the new science. Susan Markley said that in parts of WCA 3 and Loxahatchee there were slough type systems. Joette Lorion said that in fact, the papers talk about all the different plants and environments and she is afraid that people will just pick out the wetter issue.

Ronnie Best explained that marsh systems are an indication of wetter and that around the 1930-40s WCA 3A suddenly got wetter. He added that if you went north of western WCA 3A things did get drier. He said that the author even went into some detail about when some of these changes started to occur. Joette Lorion said the author makes the point that climate change outweighs water management changes. Ronnie Best agreed, but pointed out that major floods are part of what drive the system and said that a long term pattern is water lily habitat showing that parts of WCA 3A were sloughs. Joette asked if he wanted to turn 3A into a slough. Bob Johnson felt that the edits made the sentence very vanilla and others agreed. Susan Gray thought that with something this short it was impossible to get everything in detail. Bob Johnson suggested adding the two other references back in so folks could read the documents for themselves. Susan Gray said there are initiatives that are also provided information about the changes in vegetative patterns in the pre-drainage Everglades. All agreed to remove the last sentence and add the two references back into the document.

Joette asked that the flooding issues be first in the new edits to the tree island section. The SCG reached consensus on the language in the New Science Information Brief.

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SCG Priority Issue Discussions

Susan introduced the topics that were discussed at the workshop last month and said that they were open for discussion about possible next steps.

Climate Change and Everglades Restoration Science Coordination

Greg May recommended talking about how best the SCG can provide useful information on Climate Change related to restoration. He believed that the SCG could focus on research. Susan Markley referenced the handout on climate change and the next step section. She said that a shared data set or planning scenario needs to be developed. She added that all the members and agencies talk about climate change and she knows a lot of agencies are working on models, but wondered how to get to that point. Matt Harwell suggested that a common planning approach could be something the SCG could take up. He was wondering how to create an information flow that also provides feedback.

Greg May reminded the group that at the joint workshop last month there was an interest in focusing on climate change at the ecosystem level. He explained that one of the roles of the SCG is to share information between members and added that there is so much going on related to climate change, that it is hard to keep up with everything. He said that another idea that was discussed was a clearinghouse noting this could be achieved through conference calls, web-based information sharing, or workshops. Matt Harwell thought that if we had a multi-day workshop then there should be some very clear goals and he believed that there should be a web based component because it is helpful with setting a framework to organize the issues and provide feedback. He said he could almost picture a needs and gaps analysis. He believed that neither the workshops nor the clearinghouse alone would help get the optimal information desired. He referenced the ECISMA website as a good example of doing both. Lisa Beever noted that CEMs are a cornerstone of framework and it would be good to incorporate a climate change component. She informed the group that the Charlotte Harbor National Estuaries Program was trying to develop a climate change CEM and was hopeful that they would get a grant from EPA. Susan Markley pointed out that MARES is working on a CEM. Chris Kelble noted that they are incorporating climate change in the CEM, but said he had not seen a good summary of how climate change works in South Florida; he has only seen summaries of predicted climate change impacts.

Susan Gray noted that climate change has been incorporated in the existing CEMs already, but there is not a CEM for climate change only. She liked Matt's suggestion on a clearinghouse. Matt Harwell liked the idea of climate change CEM and explained the initial CEM development. He added that they were further refined to hypothesis clusters. Ronnie Best reminded the group that there have been and will be several climate change workshops including one scheduled for GEER.

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Greg May said that the SCG could help coordinate the CEM. Susan said there is a subset of the issues that are within our purview but we still need progress in identifying what that is. The group agreed that the facilitation and development of a CEM for climate change would be a task appropriate for the SCG to work on.

Synthesis of Science Information; Integration with Management Issues

Susan said since there has been a special request to talk about ecosystem services by members of the public and SCG she would like to discuss it.

Ronnie Best explained that ecosystem services included things like: flood storage, water supply, recreation, wildlife habitat, biogeochemical values and transportation. He said that greenhouse gases are a part of conversation within the context of the total environmental cost. He said that they are trying to fit ecosystem services into the conversation. He also talked about canals and channels as ways to move water around how and bringing them into the conversation. Chris Kelble thinks that ecosystem services are an important part of valuation. Ronnie Best thought the role of the SCG is bigger than just the role of the Corps and CERP. He advocated having conversations to address how to build an understanding of the planning and policy components. He thought that some of the homework that may come from the workshop at GEER may be appropriate for the SCG. Bill Reck said that it is as tough to measure the services as it is to quantify them.

Chris Kelble informed the group that in the MARES process they are tackling this problem through a CEM that goes from ecosystem services to evaluation. Greg May said one of the historic challenges of restoration is that part of valuation is based on people's values, which falls under the social sciences. Greg asked Chris how they were dealing with social science issues. Chris said with random sampling survey techniques, but he noted that it was too expensive to do. Bill Reck referenced the rangelands as a good example of process, because USDA is paying for the ecosystem value. Matt Harwell said he was glad to hear that MARES is doing something on the human environment CEM and remarked that they have had one for CERP since 1999. He added that he did not know what if anything is done with the information. He hoped that information from GEER could be leveraged to help the valuation related to CERP. Greg May noted that for better or worse the current valuation system was acceptable to the Corps leadership and OMB. Ronnie Best said the new Principle and Guidelines document will tell us how to do valuation and that he would like to help lead that discussion. Greg agreed that that if successful they could use an Everglades method as a pilot project. Dave Tipple believes the Guidelines will be a very broad set of information and would be surprised if they got explicit on which item we must be done.

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General Public Comment

Gene Duncan from the Miccosukee Tribe of Indians of Florida said he believes that RECOVER and the SCG should merge. He said the same people have to go to 2 different meetings when the different groups are doing essentially the same job. He said he has heard all the arguments that they are not doing the same thing, but he believes there is a big duplication of effort. He hoped that the members would keep this in the back of their minds and think about it. Susan Gray says she agrees they do some similar things.

Next Steps and Closing Comments

Susan Markley asked Greg to review the meeting schedule for the year. He asked the members about the suitability of May 26 or 27 for the next SCG meeting and there were no major objections. He said they were looking at June 23/24 or June 30/July 1 as possible meeting dates for a TF meeting. He noted they usually did not meet in August because of vacation schedules. He said that other possible dates for TF, WG or SCG meetings are September 21 and 22, October 20 and 21, and November 17 and 18. Bill Reck remarked that this information was helpful.

Meeting adjourned at 3:30 PM.