

*DRAFT Meeting Minutes
Joint WG and SCG Meeting
West Palm Beach, Florida
September 20, 2012*

Welcome and Introductions

Barry Rosen called meeting to order at 10:40AM. Agenda (Encl. 1) provided. He recognized Martin County Commissioner Ed Fielding and Martha Musgrove. Chad Kennedy announced Ernie Marks has accepted Greg Knecht’s position at DEP. Chris Kelble reported that NOAA is unsure whether the water quality sampling will continue for the Keys and southwest shelf. They may get some funding in FY13 for Florida Bay and Biscayne Bay. Dan Kimball reported he did a tour of Tamiami Trail and they are making great progress on the bridge and the C-111 SC Phase 1 project is performing as advertised. Shannon Estenoz congratulated the Corps, the SFWMD and everyone who is working on the CEPP and noted they are working on some difficult issues and she has been impressed by their level of commitment. She had the opportunity to meet with COL Dodd and looks forward to him joining the restoration team. Susan Markley welcomed everyone. Nick Aumen announced that he is co-chairing a meeting of the Society for Freshwater Science (formerly the North American Benthological Society) scheduled from May 19-23, 2013 in Jacksonville, FL that will be attended by freshwater scientists from all over the world. They hope to have some sessions on the Everglades.

In Attendance:

Sep 20

Working Group (WG) Members

Alternates

Barry Rosen – Vice Chair - United States Geological Survey	√	
Vacant - FL Dept of Environmental Protection -		
Ernie Barnett - South Florida Water Management District	√	
Billy Causey – NOAA, FL Keys Nat’l Marine Sanctuary	-	
Chuck Collins – Florida Fish and Wildlife Conservation Commission		
COL Dodd - U.S. Army Corps of Engineers	-	Howie Gonzales
James Erskine - Miccosukee Tribe of Indians of FL	-	
Roman Gastesi – Local Government	-	
Vacant - U.S. Dept of Transportation	-	
Veronica Harrell-James – U.S. Attorney’s Office	√	
Eric Hughes – U.S. Environmental Protection Agency	√	
Dan Kimball – Chair – NPS – ENP & Dry Tortugas National Parks	√	
Vacant – Office of the Governor of Florida	-	
Keith Neves - Bureau of Indian Affairs	-	
Fred Noble - FL Dept. of Transportation		
Bonnie Ponwith – NOAA, National Marine Fisheries Service	-	Theo Brainerd
W. Ray Scott - FL Dept. of Agriculture and Consumer Services	√	
Craig Tepper – Seminole Tribe of Florida	√	
Larry Williams – U.S. Fish and Wildlife Service	√	

Vacant - Palm Beach County Water Resources Manager	-
Vacant - Broward County Department of Natural Resource	-
Vacant – U.S. Department of Agriculture	-
Shannon Estenoz - Special Advisor	√
Science Coordination Group (SCG) Members	
Susan Markley – Acting Chair – Miami Dade County	√
Nick Aumen – Vice Chair – National Park Service	√
Calvin Arnold - U.S. Department of Agriculture, ARS	
John Baldwin – Florida Atlantic University	√
Lisa Beever – Charlotte Harbor National Estuary Program	
Ronnie Best - United States Geological Survey	√
Joan Browder - NOAA, National Marine Fisheries Service	√
James Erskine - Miccosukee Tribe of Indians of FL	
Susan Gray - South Florida Water Management District	√
Bob Johnson - National Park Service	√
Chris Kelble - NOAA, AOML	√
Chad Kennedy - FL Dept of Environmental Protection	√
Cherise Maples - Seminole Tribe of Florida	
Gil McRae – Florida Fish and Wildlife Conservation Comm.	
Bob Progulske – U.S. Fish and Wildlife Service	√
Bill Reck - U.S. Department of Agriculture	√
Dan Scheidt – U.S. Environmental Protection Agency	
David Tipple - U.S. Army Corps of Engineers	√

Bill Reck announced USDA made another wetland restoration easement purchase which represents the fourth year in a row that USDA has made a significant purchase in the watershed. Larry Williams reported good news on some species (snail kite, Cape Sable seaside sparrow and Florida panther) that are experiencing slow but steady ticks upward. FWS appreciates all the partnerships that are helping to make that happen. Ernie Barnett stated that the SFWMD has been heavily involved in the CEPP process and thanked everyone representing the agencies and the numerous stakeholders for their tremendous effort. The SFWMD is very pleased with the progress. CEPP holds great promise to get those desperately needed flows through the heart of the Everglades. They had a landmark moment when they received the permits from DEP for implementing the restoration strategies, the measures that are necessary to ultimately achieve the water quality standards in the Everglades. They are in the midst of ramping up the \$880 million Governor Scott plan to achieve the water quality standards. They are also working with Palm Beach County to acquire the land needed to get flows to the Loxahatchee Wild and Scenic River. They will also be working with the Corps and other partners on projects such as the North Palm Beach County/Loxahatchee River Watershed Restoration plan. Dave Tipple introduced April Patterson, the Corps’ new RECOVER Leadership group member. The May meeting minutes (Encl. 2) were presented. Chad Kennedy made a motion to approve them which was seconded by Susan Gray. Minutes were approved as presented.

Leadership Discussion for the WG and SCG

Shannon Estenoz noted this is the first meeting without Greg Knecht and they have a vacant leadership position for the Chairmanship. The WG Chair and Vice Chair have alternated unofficially between a state and federal partner and they are now looking for any state representative who is interested in chairing the WG. In the interim, Barry Rosen has agreed to serve as the Acting Chair. Susan Markley has been serving as the interim SCG chair for some time and she is willing to serve as the Chair. Susan said she was happy to continue helping and considered it a privilege and an important responsibility. Shannon said the recommendation would be brought to the Task Force at its next meeting which should be in either Nov. or Dec. If someone is identified to serve as the WG Chair before the next TF meeting they could get consensus by e-mail.

2012 Task Force Reporting Requirements

Shannon Estenoz reminded everyone that the Strategy and Biennial Report (Encl. 3) is statutorily required from the Task Force to the Congress. She asked everyone to review the document and brief their Task Force principal as well. This is the third draft with the exception of the System-wide Ecological Indicators Report and she asked everyone pay careful attention to that piece since it has changed. Joan Browder said there are a couple of NOAA items that she wanted to add and would work with Marsha Bansee to get them included. Marsha Bansee reviewed the schedule for completing the document in order to get it to Congress early next year. Shannon said that they are looking for a vote today to transmit the document to the Task Force for approval. They will have an additional week to look at the Indicators piece and try to get consensus via e-mail. Susan Markley introduced Laura Brandt from FWS has been working with the indicator scientists on the Indicators Report and Bob Johnson who will talk about the hydrology section.

System-wide Ecological Indicators

Laura Brandt provided a presentation (Encl. 4) and on the eleven system-wide ecological indicators which were drawn largely from RECOVER performance measures. In 2005, the TF asked the SCG to develop the suite of indicators and in 2006 the initial communication tool was developed and sent out for peer review. Since that time they have been working to make this a better communication document. What is in the Strategy and Biennial Report is a portion of what appears in other reports. It is intended to be easily understood by a wide audience and is supported by the more detailed System-wide Ecological Indicator Report and other project documents. She explained the stoplight colors and noted that this year they have black circles where no data has been collected due to funding cuts. In addition, this year's report has the use of trend arrows to show what direction they think the trend is going. Laura reviewed all of the changes that were made from the 2010 report. They have added 'Indicators at a Glance' since they are now fortunate to have five years' worth of data. Next steps include finishing up the full 2012 System-wide Ecological Indicators Report and integrate where possible with the 2012 System Status Report (SSR). They need to address how they will move forward for the 2014 report given the funding challenges for a number of the indicators. Susan Markley added there were extensive cycles of review with the indicator scientists. Later in the agenda they will discuss how they are going forward and how they will deal with the funding issues.

Hydrology

Bob Johnson provided a presentation (Encl. 5) explaining that they have added in a hydrologic characterization into the indicators report as a bridge between some of the goals for restoration. For example, Goal 1 has as an objective of providing 1.8 million acre feet of surface water storage by 2036 and it is hard to figure out how adding storage will benefit an indicator. They need some way to look at natural hydrologic variability and how much of the change they see in an indicator is due to change in rainfall or water management. The hydrology responds quickly and is a good indicator of what will happen ecologically. It will allow them to see if there are benefits on the ground. This is also an attempt to standardize the hydrological analysis across the indicators when they say it is a wet year they say it is wet for a particular reason. He reviewed some of the graphics that are in the larger report noting that in this particular report they have an El Nino year followed by La Nina year.

Craig Tepper asked about the red areas shown in the water depth maps. Bob replied that the red areas are in Big Cypress and are not included in the data base. For some years EDEN included it and for other years it didn't. Craig Tepper said he had a problem with the data not being there. Bob agreed and said they can have a conversation with USGS to discuss the issue. Shannon asked whether it was red because they don't have the data or red because it is dry. Bob clarified it is red because they do not have the data. Shannon said that red is meaningful and conveys a condition. Bob said it is a matter of sitting down with the EDEN group, for some years they have the data, for some they do not and for other years it was not processed the same way. He is hoping it is something they can fix for the report. Ronnie Best said USGS can make this a high priority and asked Bob to send him an e-mail saying that this is a high priority. Susan Marley said there are two issues, one may be that they get more data and the other is in cases where data is not available and it is important to show using dashes, for example, so it is not confused with other colors. Chad Kennedy asked about some of the graphs which were sometimes white. Bob clarified that generally inside the domain of EDEN the data is collected, however Big Cypress is an issue where they couldn't do the averaging right.

Shannon Estenoz asked for all edits to be provided by the following week on the Strategy and Biennial Report which has to go to the Task Force and the Congress. On the Ecological Indicators portion everyone has a little more time. The more detailed System-wide Ecological Indicator Report does not go to Congress and folks have more time. She thanked Laura Brandt for her work and improvements. Shannon asked everyone that as they are reviewing the reports to consider their audience. Susan Markley said the inclusion of the hydrologic maps to give the ecological context is a great idea and said she would like to see, even in the summary report that goes to Congress, a sentence or two about Lake Okeechobee and the northern and southern estuaries. Shannon asked for a suggestion on a graphic they could use that is easy to understand as well as suggestions for the language that interprets the graph.

Ronnie Best said that for the Indicators Report they need to keep in mind that they want to show the difference from what they anticipate as being the restored Everglades compared to today's Everglades. He added that the Everglades continues to degrade and a restored Everglades is the target. Shannon Estenoz said they need to recognize this is a work in progress and some of those ideas may go on the list for the 2014 report. Susan Gray said the SFWMD has some standard graphics and maps that can be

used. She also said she would feel more comfortable transmitting this document to the Task Force without the indicator section just because they need to look at it. Shannon suggested polling the WG and SCG for concurrence before they transmit this to the Task Force.

Central Everglades Planning Project (CEPP)

Project Delivery Team (PDT)

Kim Taplin provided a presentation (Encl. 6) reviewing what has been accomplished over the past several months. They have worked on plan formulation and configurations north of the red line in the Everglades Agricultural Area (EAA) and worked on plan formulation south of the red line, northern WCA 3A. They have gone about this planning process with a spatial perspective starting at the top of the system with the red line and flows from EAA into WCA 3A. The greenline and blueline with flows through WCA 3A and WCA 3B and flows from WCA 3A/3B into ENP. The blueline represents Tamiami Trail and the yellow line represents the seepage they need to deal with.

For the plan formulation and configurations north of the redline they looked at multiple combinations in the EAA of deep water reservoirs, STAs and flow equalization basins (FEBs). She reviewed the options as well as what they heard from the various stakeholders. Another thing that came up during the scoping process was for them to consider incorporating the Holey Land into this first increment of planning. More input and study is needed before including in CEPP as well as additional work to get to consensus and they will probably screen this option out and recommend that it be considered in future increments. For the plan formulation and configurations south of the redline, Northern WCA 3A Options they built on a lot of work done by the prior DECOMP and she went over the options (L-6 diversion, WCA 3A hydropattern restoration feature, Miami Canal backfilling and the triangle rehydration project) that were reviewed. She reviewed the concerns they heard from the stakeholders.

They have kicked off the RECOVER system-wide evaluation of the northern pieces of CEPP. It is an opportunity to check how well a project supports and achieves CERP system-wide objectives, potentially identifies performance issues and suggests project improvements and suggests monitoring and analysis for adaptive management and continued improvement of restoration. It is required by CERP Pro Regs and was initiated on September 17-18, 2012. The Jacksonville District has kicked off an effort to look at other ecosystem services that restoration provides. This is the first time the Corps is considering incorporating ecosystem benefits, there is no policy guidance that would allow them to use this analysis to select the CEPP plan but on the recommended plan they are going to try and identify what those ecosystem service benefits are. They expect preliminary results to be available in December.

Another effort being kicked off in November is to have a more formal sub team look at Adaptive Management and develop an Adaptive Management Plan. Next steps include looking at the configurations for the greenline, blueline and yellowline together and screening options as a unit because what they do affects what goes out for seepage. She reviewed the feature types that are under consideration for the L-67 A/C and L-29 levees as well as what they have heard from the stakeholders. She reviewed the upcoming meetings that have been scheduled through October 2012 and reminded everyone that the updated calendar is available at www.sfrestore.org

iModel

Fred Sklar provided a presentation (Encl. 7) noting that they are at a point where they need to screen out the different options. The iModel is used to try and figure out how to optimize the different structures and get to the targets. He reminded everyone that the iModel is a computer optimization program that provides flow scenarios (solutions) to meet numerous restoration targets simultaneously. The whole system has twenty or so targets and this will try to solve them all at the same time. The modeling team needs the targets in WCA 3A, WCA 3B and ENP for the iModel. The iModel will show the percentage of target achieved and changes in infrastructure/operations to achieve an increment of CEPP restoration. Targets are designed to achieve a natural system hydrology needed for ridge and slough landscape conservation and restoration. CEPP targets aim for an increment of restoration that will benefit the areas given the current ecology and elevations. Assumption is to test possibility of gravity flow, a key aspect of long term sustainability for restoration from WCA 3A to WCA 3B to ENP. Targets are mainly based on the RECOVER approved slough vegetation performance measure with the caveat that this hydrology may not be suitable for all places during this first increment of CEPP. He reviewed the major features of the ridge and slough landscape in WCA 3A and WCA 3B, the tree island changes from 1940 – 2004 and the iModel targets for WCA 3A and WCA 3B.

Working Group Sponsored Public Workshops

Allyn Childress provided a presentation (Encl. 8) on the public workshops that have been held and noted they have had good consistent attendance. Two upcoming workshops are scheduled for Sep 26 and Oct 2nd. The meeting calendar as well as the materials from the workshops is posted on the website at:

www.sfrestore.org

Public Comment

Martha Musgrove (Florida Wildlife Federation) addressed the funding of science in particular the RECOVER MAP program, something near and dear to her heart. She said scientists need to narrow down how the science makes a difference to a project and why something is terribly important. When you have a body of data such as alligators, it becomes a prime target. FWF is against including the Holey Land in CEPP. The water will not meet the water quality and asked that it not be included in CEPP.

Drew Martin (Sierra Club) said he really appreciates the work done to allow the public to participate. He agrees with Martha on the need to keep those indicators going. CEPP will create real benefits if done. He said he wanted to know the likelihood that it will be done and the timeframe and what would happen if it doesn't get done.

Dawn Shirreffs (NPCA) commended the CEPP team adding that the amount of work they have done is mind numbing. They have spent a lot of time on the EAA and she supports the PDT screening out the Holey Land and other nonessential options so that they can focus on the southern part of the system. The clock is ticking and she wants them to be ready for the next WRDA.

Sara Fein (Everglades Law Center) thanked the CEPP team adding that what they have accomplished is very impressive. They need to keep their eye on the ball and address Holey Land in the future because of the water quality concerns. She is also concerned with putting pumps on Tamiami Trail and is looking

forward to working on the southern part of the system. She thanked them for holding some of the workshops in Miami Dade.

Meghan Tinsley (Audubon) commended the entire CEPP team for advancing the most ambitious restoration project the Everglades has ever seen at an unprecedented time scale and adding in a public participation process at the same time. Overall, progress has been remarkably smooth and expects that any hiccups they encounter will be addressed as they have been. On Holey Land, she commends the team for identifying potential areas for improvement while keeping an eye on the overall schedule and putting aside things that may be too difficult at this time. They support addressing Holey Land in the future. She encouraged the CEPP team to stay on schedule and keep the focus to maximize the ecological benefits.

Bret Hauquitz thanked them for having the public workshops and for all the work that is being done. He supports the plan and agreed they should include ecosystem services adding that will help sell this to Congress who will see it as an investment. He also said it was a good idea for 3B to capture seepage and help return more water into the Everglades and said he supported the removal of the manmade canals as possible and return it to its natural state.

Discussion on CEPP

Shannon Estenoz asked what CEPP is doing to ensure that water supply for Biscayne Bay isn't being reduced during the CEPP process. Matt Morrison said that a sub team has been identified and is working to identify key locations on the east side of the east coast protective levee and are looking at structure flows, canal elevations, impoundments that are associated with the 8.5 SMA and the C-111 south Dade system. Through the screening process and detailed plan formulation analysis with the final array of alternatives they will be looking at existing flows that make it to Biscayne Bay either through canals or groundwater and compare those to the analysis they have with the project conditions. They will make adjustments in operations and potentially include additional structural features as part of the plan to make sure that Biscayne Bay receives the same amount of water that is has been receiving over the period of record that they have been analyzing.

Shannon asked whether anything has come to the top as an opportunity, such as the L-6 diversion. Kim Taplin reminded everyone that the goals for central Everglades are to get water flowing for the central part of the system so they are not exactly formulating for that improvement for Biscayne Bay. She announced that Ms. Darcy signed the record of decision (ROD) for the Biscayne Bay Coastal Wetlands PIR. They are looking at it to do no harm and are not really seeing opportunities since this is just an increment focused on central Everglades. Susan Markley said she is participating on that team and they are just starting to have the more detailed discussions but some of the early screening information that they are looking at may not be possible to formulate for benefits and in this case it is more of a savings clause issue. They may be able to deal with issues such as timing and make sure they don't make the dry season worse or more flooding in the wet season. Perhaps there may be some opportunity that some things are moving a tiny bit in the right direction and they are starting to have these discussions early on. Bob Johnson added that NPS has a small team to look at water level flows and they will be looking for opportunities. In their zealously to reduce seepage they don't want to reduce flows but

they will do a fairly detailed analysis. Joan Browder said she hoped they will also be looking at the groundwater as well as the canal level water to see what kind of a gradient they get. They think there is a significant amount of groundwater seepage influencing Biscayne Bay. Matt Morrison said he mentioned the structure flows and looking at what is contributing to Biscayne Bay via the canals. They will also be looking at the groundwater flux underneath the east coast protective levee from the restored system to the built system to the east. They will have a good handle when they compare the final array of alternatives.

Shannon Estenoz asked where the PDT is on the ecological target for 3B. She wanted to get a sense in particular for site 71. If there are modifications that can be made, even if it is a small step toward that target, would hope that those kinds of modifications don't get screened out. 3B is a sensitive part of the system and they all know they can't go all the way in one step. Kim Taplin replied screening targets are a way to screen. How they are doing the benefit calculations to come up with habitat units is based on the RECOVER approved performance measures so how much lift toward that performance measure is what they will be calculating and applying it to come up with habitat units and how much area gets what portion of that lift towards the vetted scientific performance measure for ridge and slough. They have gotten approval that if they are using these RECOVER performance measures that have been widely vetted and have some scientific support behind them that they do not have to go out and do an independent/external peer review of how they are doing things. They know they are doing an increment and the iModel is what they need to use for the transition. A restored target up in northern 3A, for example, would shock the system and they need to explain that as they talk about the benefits. They need the transition in order to not shock the system and cause adverse effects. Shannon said that was helpful and an important point. She reminded them to always think about their audience and the importance of finding language to explain this. They have to help the Task Force understand what the objectives are. Bob Johnson said the dilemma is that the three station average for WCA-3A gets up to 11 feet on a common basis. They have invested half a billion dollars into a project at the downstream end at NE Shark Slough to get it up to at least 8 ½ feet. As they introduce water into 3B but don't bring the stage up they are pushing the plans towards pumping alternatives. They are passing less water through 3B but they still have to pull it out. He agrees they want to do everything they can to achieve the targets.

Ronnie Best said they have a very good group of people working on this plan. For the Biscayne Bay groundwater component Kevin Cunningham is finishing his four year study looking at the groundwater flow and he encouraged the members to have their staffs look at it. He suggested having him provide a presentation to the CEPP PDT. There was a comment made on the backfilling to the Miami canal and if they find they have to do more, then they are going to have to give science the funding at the level it should be. On the deep water refugia, he wanted to encourage recreation folks to stay actively involved adding that the Everglades historically had few deep water habitats. Deep water habitats can inappropriately negatively affect the natural system as it recovers. Kim Taplin said the ecological sub-team has wrestled with this and put together a paper describing why complete backfilling is better than plugging and leaving those deep water refugia. They are getting a lot of that documented to include in their report. Chris Kelble, on the ecosystem services, said he thought it was important to look at the

trade-off between the recreation happening in the northern part of the system and in the southern part of the system and the estuaries that will benefit from getting more water.

Invasive Exotics Update

Dennis Giardina provided a presentation (Encl. 9) noting he is the co-chair of the Everglades Cooperative Invasive Species Management Area (ECISMA). ECISMA was formed in 2006 and the geographic boundaries include the Everglades Protection Area plus Big Cypress National Preserve, Holey Land and Rotenberger WMAs, Miccosukee and Seminole Tribal lands, South Miami Dade Wetlands and have now extended east to the Atlantic Ocean to include county and urban lands of southeast Florida. Their mission is to improve the effectiveness of invasive species control by sharing information, innovation and technology across borders. He reviewed the major components for effective invasive species management for both plants and animals. When they talk about invasive species and the invasion process, ideally they want to try and prevent the introduction, the closer to detection the better. The further out the less likely they are going to be able to stop an invasion and they will have to shift to management and control. He reviewed five of ECISMA's priority invasive species that are relevant to Everglades restoration that included two plant and three animal species.

Mikania micrantha is an example of a plant species that has not received dedicated funding to date and it is very unlikely it will be eradicated. They are in a rapid response mode in dealing with the Nile monitor lizard which is a carnivorous lizard known to depredate Nile crocodile nests in Africa. The center of the Nile monitor lizard population is within miles of Biscayne National Park and Turkey Point Nuclear Power Plant. There is no management funding to date and is unlikely to be eradicated from southeast Florida. Other animal species covered in the presentation were the Argentine black and white tegu lizard population is already established in Long Pine Key in ENP and poses imminent threat to the Key Largo Wood Rat. There is no dedicated management funding and eradication is unlikely. Northern African pythons are closely related to Burmese pythons and they are going to eventually have a hybrid in south Florida that does not occur anywhere else in the world. The reproducing population was established within five years of discovery and there is still no dedicated management funding. He wrapped up with the invasive fresh water fish noting that for 99% of all the invasive species issues in south Florida all the biologists from all the agencies are in lock step. The only one where there is some contention is on the exotic fresh water fish. His agency on the one hand says that these fish are not impacting our native fish population and studies show that they are not impacting our native fish populations. Intuitively they know that there must be an impact but so far they have not been able to show it. On the other end the National Park Service does not want any of these fish in ENP and they want to do everything possible to keep them out. ECISMA has been sort of the mediator between those two poles and they are working together to do what they can to address this problem. They have an annual non-native fish round-up that has helped the FWCC is extend the known range of introduced freshwater fish species.

ECISMA has addressed this group on prior occasions and the recommendations (promote federal prevention initiatives; establish early detection/rapid response coordinator and dedicated funding; coordinate development of cross cut budget; promote continued improvements to coordination) have not changed. There are good assessment tools that have been developed in Australia, New Zealand,

South Africa and Hawaii. He believes they can build upon that and have meaningful prevention. He believes that a federal EDRR position for all taxa to lead on-going efforts as well as dedicated interagency funding to implement EDRR is needed. ECISMA has been recognized nationally and both the Seminole and Miccosukee Tribes are working with them. The giant African Snail is the latest species ECISMA is helping to survey and map and they will do what they can to remove them from natural areas.

Shannon Estenoz reported that the Chair of the Task Force has asked that this issue be put on their next agenda. The WG and SCG have the opportunity to tee this issue up for the Task Force. She asked whether everyone was comfortable with the four recommendations were still timely. Larry Williams said it was a great presentation, in particular the way that ECISMA approaches the feasibility of controlling an individual species. Often a question that they as natural resource managers in dealing with a new invasive species, they have this question of whether it looks like a \$10,000 problem or \$100 million problem. He asked about the methods or systematic way they have of doing that. Dennis said the closer you catch a new invasive species to introduction the less costly, the longer it is around then the more costly. They rely on the scientists who partner through ECISMA to help make those assessments. A lot of these kinds of analyses are shots from the hip. It is hard to take all the factors into consideration and give them a dollar value. The synergy and network of ECISMA is great because a lot of professionals want to work with them. It is the most dynamic group he has ever been involved.

Ronnie Best asked whether they had dedicated funding from any source for the early detection and rapid response. Dennis said that to date none for these specific species in his presentation that he is aware of. USGS has stepped up especially with the Argentine black and white Tegu. Bob Reed and his guys took over the radio telemetry and some other things but funding just ran out and the Key Largo office is being shut down. The FWCC has been taking more of a leadership role and they now have a coordinator in south Florida with a very small budget spread across the region for multiple species. As far as he knows there has been no dedicated funding for any one of these particular species in terms of early detection and rapid response and very little money for ongoing control, management and research efforts. Ronnie Best said he proposed \$187,000 per year for the reptilian species and asked everyone to come up with \$50k each. He and Dan Kimball were the only ones to say yes. He recognizes that times are hard but this is an extremely important issue. Ronnie clarified that it was not a USGS proposal but he brought it up again in hopes that they could find four partners at the table to come up with \$50k each. As they go to the Task Force – comment about containment and what they have on the landscape today is very important. They need to invest some dollars in the research component. Melaleuca control has gone a long way and is an example of how investing in the research the research can go a long way. USGS is also investing in research for controlling the invasive fish species, if it works it will be a new tool that they can work on and they need to invest dollars in those tools as well. He suggested that when they go to the Task Force they tell them they need the management, EDRR and research dollars. Dennis Giardina noted that control, management and containment is all they can hope for, for the species in his presentation but it is not going to stop with those species. Every year there is a new plant or animal species that turns up and ECISMA is limited to what they can do. He said it would be great if they had some authority to do what they need to do in terms of early detection and rapid response.

Dan Kimball noted that ECISMA is an incredible model. The ambrosia beetle is not only going after avocados but bay trees as well and there are dead bay trees along Tamiami Trail. Dan asked if there was any hope for controlling the beetle. Dennis said ECISMA immediately jumped in to try and deal with that issue. NPS, SFWMD were right there and provided ECISMA with aircraft and funding to do surveys. This beetle which vectors laurel wilt disease jumped from Martin County to Miami Dade County and will be impossible to stop. Unfortunately they will see the collapse of the avocado production industry and die back of bay trees across the state.

Dan Kimball said the ambrosia beetle is an example of where research is needed. He along with Dan Thayer made those same four recommendations to the Task Force and they have made some progress on the national screening. Carol Mitchell at ENP is working hard with the Washington office and there may be some dollars in FY14 for a federal early detection and rapid response capability. ECISMA is the one thing they have going for them and it makes sense to make an investment there. OMB has been very supportive of exotic plant management teams. Shannon proposed they have a sub team help tee this up for the Task Force and asked if there were any objection to the four recommendations. Larry Williams asked about the cross cut budget recommendation. Shannon explained that it is a tool to see across agencies what resources are being spent. Dan Kimball added the first question OMB asks is who is spending what and how it all fits together. That information is needed to put a compelling argument together. Craig Tepper added that a huge resource could be lost due to these invasions. The Seminole tribe has been putting considerable resources into this but resources have to stay on tribal lands.

Public Comment

Commissioner Ed Fielding asked whether a species specific pathogen was feasible. Dennis Giardina said that it is inevitable that over time they will experiment with things that today seem like science fiction.

Shannon suggested that a sub team of volunteers take these recommendations which have been previously presented to the Task Force and fleshing them out for the next TF meeting. It is helpful to be more specific and provide ideas on how they may be implemented. Dennis Giardina, Joan Browder, Larry Williams, Dan Kimball, Carol Mitchell, Chad Kennedy and Leroy Rogers volunteered. Ray Scott would provide a FDACS person. Ray Scott asked whether they should be casting this as a joint state-federal initiative since there are several state agencies involved in this issue: FWCC, DEP, FDACS and the SFWMD. Shannon said absolutely and recognized that the four recommendations seem to be federally focused. Craig Tepper suggested adding USDA since they do a lot through their EQIP program. Shannon said they would talk to the tribes as well.

System-wide Science Issues

National Research Council (NRC) Report

Bob Johnson provided a presentation (Encl. 10) on the fourth biennial report. The National Academy of Science has been involved in reviewing Everglades restoration projects since 1999. The Committee on Restoration of the Greater Everglades Ecosystem (CROGEE) was established in 1999 and the CROGEE produced seven reports. The Committee on Independent Scientific Review of Everglades Restoration Progress (CISRERP) was formed in 2004 as required in WRDA 2000, Section 601 (j) to review the Plan's progress toward achieving the natural system restoration goals. CISRERP is specifically charged with

assessing ecological indicators to measure progress in restoring the ecology in the natural system. Prior biennial reports were completed in 2006, 2008 and 2010. Regular themes include the restoration plan in context, implementation progress and science and decision making. They always have special topics for each of the reports and the special topics in the fourth biennial review include: ecosystem trajectories affected by water quality and quantity; timeline of significance legal actions related to water quality; and status of numerical nutrient criteria for the state of Florida. The report states that notable progress has been made in the construction of Everglades restoration projects over the last two years and recognize the eight CERP projects are now under construction. They have a standing criticism that production of restoration benefits within the Water Conservation Areas (WCAs) and Everglades National Park continues to lag behind. They recognize the significant accomplishments with the state proposed projects (Restoration Strategies) to improve water quality and the Central Everglades Planning Project (CEPP) to expedite restoration benefits to the remnant Everglades. They get into issues that are more policy related such as the implications of state funding declines and how project authorizations could soon become a major impediment to restoration progress.

The report has specific recommendations for scientific foundation for decision making. First on monitoring, they talk about the need for this effective assessment of restoration progress will depend on solid monitoring to establish the pre-project trends and follow that up with a data intensive look at ecological changes so you can attribute those changes to the project modifications they make. It is a two-part process where they need to know what the system was like in the beginning and track it at the end to show restoration success. The reports says that a comprehensive assessment of their monitoring efforts is needed to ensure the short and long term goals are met, ensure critical gaps are addressed in a cost effective manner and should consider all of the CERP related monitoring programs. When they look at cuts in the monitoring program, such as MAP, they have to put that in the context of everything else they are doing. Some new concepts they raised as a way to do science as funding gets tighter are the dynamic reference concept trajectories analysis.

Overall CISRERP summary states that the pace of restoration has improved but the focus has been on the periphery of the remnant Everglades. Substantial progress has been made to reduce phosphorus. There has been minimal progress to restore hydrology. Declines of hydrology dependent features will take long to recover. Declines will continue until both hydrology and water quality improvements can be addressed. The Central Everglades planning process is a step in the right direction.

RECOVER Monitoring and Assessment Plan (MAP)

Susan Markley noted the Task Force gave the SCG guidance to continue looking at the concept of how they can continue to provide the information that was intended to be conveyed given the realities of reduced funding.

Laura Mahoney provided a presentation (Encl. 11) noting the purpose is to provide an update on the task of refining the strategy that will be used to prioritize MAP monitoring in FY14 and future years. The final product will be a written strategy that would be applied to monitoring projects. She reviewed CISRERP's recommendations which include they: meet the intent of the MAP; include MAP performance measures; adjust to funding changes; improve communication as they go through the process; identify

critical gaps in existing monitoring; integrate monitoring efforts and increase efficiency and meet the short and long term needs of the CERP. Other suggestions include maintaining a system-wide perspective, adding or refining criteria and adding other recommendations as they come up. She reviewed the schedule and noted that once they have developed a solid draft they will ask the SCG to sponsor a workshop to allow for additional public comment.

Tom Teets said they know that funding will always be a challenge and it is critical to look at the gaps and sentinel sites because they know the frequency of some of the sampling is in peril. They need to find a sustainable way to continue this effort. Shannon Estenoz said that RECOVER MAP is all about CERP which has not progressed in the way they envisioned. They don't have the projects in place they thought they would. It seems to her that the Everglades is a patient under the knife and they need to be monitoring its health. All facing budget cuts and science is not being held harmless. The TF has a statutory responsibility to coordinate restoration science and she thanked RECOVER for including the SCG in their discussions. Susan Markley said they all believe that the suite of indicators and that type of approach continues to be important. Indicators never intended to be stand-alone and they have to think more broadly than the CERP MAP.

Ronnie Best said they are looking at 2 – 4% total budget cuts on the science component and that is a small amount of money that makes a big difference. They have a dynamic system and they are dropping the monitoring when it is the most critical. He can't believe they aren't funding REMAP. They need to have more money invested in the science so they won't lose critical information. Bob Johnson said he wants to see them move forward with this review of MAP plus all the integrated programs. The next panel of CISRERP starts up in November and this next panel will help them figure out how to talk about new approaches to monitoring. The NRC review helps them figure out this transition and they should think of them as partners and not just reviewers.

Chris Kelble said they have not done a great job of communicating the science. The SCG should speak to how the SSR should be delivered and identify the audience and how it fits together. They need to also push and ensure that adaptive management still goes on despite the budget crunches. Susan Gray said this is an issue they have struggled with for a long time. A lot of progress has been made such as on the issue of redundancy of reports. They need to continue to communicate and the SCG should continue to facilitate what science is critical to their region. Regarding the presentation, she clarified that they will end up with a process to help them prioritize the work that needs to be done. Shannon Estenoz said the science is not being synthesized in a way for the policy makers to make the best use of it. To her knowledge REMAP has never had to compete with MAP before. SCG is the place where they have a broad set of players at the table that can help think of new ways to talk about the science that they are doing.

Corps Program and Project Update

Howie Gonzales noted the leadership changes with the new District Commander COL Alan Dodd, new Division Commander in Atlanta COL Jackson and new Chief of Engineers Lt COL Bostic. They are working hard to get them up to speed with Everglades restoration. He provided a presentation (Encl. 12) reviewing the status of first generation (IRL – South, Picayune Strand and Site 1 Impoundment) and

second generation (C-43 West Basin Storage Reservoir, C-111 SC Western Project, Biscayne Bay Coastal Wetlands and Broward County WPA) projects. He said he anticipates CEPP to be complete by the end of 2013. Overall, the Corps of Engineers is tracking 22 projects awaiting authorization, with CEPP it will be 23 with five projects in south Florida.

Nick Aumen announced the Corps has awarded a contract for the remote operation of the S-10 structures. He reminded everyone that the inflows from the north are controlled by the SFWMD through the STAs and the outflows through the south are controlled by the Corps of Engineers through the S-10 structures. Coordination of inflows and outflows is very important and they have been talking about trying to automate the structures for a long time. Once construction is complete they will work with the Corps and the SFWMD on the operation schedule.

Public Comment

Drew Martin (Sierra Club) addressed the invasive species issue which could change the whole ecosystem. He wonders how safe he would be if he were to encounter a 25ft python and questioned what this would do to the tourism industry. This should serve as motivation to provide funding. He is concerned with wading birds and lizards that can eat a lot of the eggs. He encouraged this issue be kept a high priority. He noted his concern with the snail kite and the F grade they received from the National Academy of Science. He asked is this meant they were going to be gone and what could they do to raise that grade.

Megan Tinsley (Audubon) noted that that of the 10 ecosystem components the Everglades snail kite was the only one that received an F. Many components of the system are in serious decline approaching irreversible harm. The snail kite situation is grave and is approaching extirpation in the Everglades. There has been an increase in nesting snail kites but it has occurred in a geographical area that is miniscule compared to the WCAs and critical kite habitat in the Everglades. Areas like Lake Toho where they may have some nesting may serve to hold kites over until critical areas become restored but it is not enough to restore the population from the brink of losing their hold in the Everglades. They need to integrate the multi species approach into CEPP. It is unfortunate that now that they have so many projects moving in Everglades restoration that they have lost the monitoring that is critical to determine if they are successful and they need to maintain those funding levels.

Next Steps, Closing Comments and Adjourn

Shannon Estenoz reminded everyone that they will be polling everyone on the Strategy and Biennial Report and comments should be provided in strike through/underline. Her office would follow-up with an e-mail on the invasive exotics issue.

Meeting adjourned at 4:25PM.

Handouts:

1. Agenda
2. Draft meeting minutes, May 2012
3. Draft Strategy and Biennial Report

4. System-wide Ecological Indicators presentation
5. Hydrology presentation
6. CEPP PDT presentation
7. iModel presentation
8. CEPP WG Sponsored Public Workshops presentation
9. Invasive Exotics presentation
10. NRC Report presentation
11. RECOVER MAP presentation
12. Corps Program and Project Update presentation