

Draft Meeting Minutes
 Joint Working Group and Science Coordination Group Meeting
 South Florida Water Management District
 West Palm Beach, Florida
 November 28, 2018

1. Welcome and Introductions

James Erskine, the newly elected Chair, called his first meeting to order at 10:05 AM. The agenda and draft meeting minutes from the June 2018 meeting were provided. Members were encouraged to think about their 2019 priorities in preparation for the discussion later that afternoon. Two new WG members, COL Andrew Kelly (USACE) and John Maehl (Martin County), were welcomed. Adam Gelber, new Director for the Office of Everglades Restoration Initiatives (OERI), was introduced. Nick Aumen reminded folks about the GEER Conference on April 22-25, 2019 in Coral Springs, FL. Kevin Burger recognized Joan Lawrence and Dennis Duke who would be retiring after making tremendous contributions to this effort for many years. James Erskine recognized Billy Causey who would also be retiring after over 30 years of government service, he served as the second Chair of the WG and is the longest serving member. James Erskine noted the BBRRCT has provided a memo dated November 27th, 2018 regarding the commitment to restoration of Biscayne Bay and Biscayne National Park, and a PDF version will be e-mailed to the members following the meeting. Members were asked to provide brief introductory remarks. The video, handouts and presentations from this meeting are available via the link below:

<https://www.evergladesrestoration.gov/wgm/>

In Attendance:

Nov 28

Working Group (WG) Members

Alternates

James Erskine - Chair - FL Fish and Wildlife Conservation Comm.	√
Nick Aumen – Vice Chair – U.S. Geological Survey	√
Billy Causey - NOAA, Florida Keys Nat'l Marine Sanctuary	√
Deb Drum – Palm Beach County	√
Gene Duncan - Miccosukee Tribe of Indians of Florida	√
Rebecca Elliott - FL Dept. of Agriculture and Consumer Services	√
Margaret Goodro - Biscayne National Park	-
Cecelia Harper - U.S. Environmental Protection Agency	√
Veronica Harrell-James - U.S. Attorney's Office	√
Lee Hefty - Miami Dade County	-
COL Andrew Kelly – U.S. Army Corps of Engineers	√
Marjorie Kirby - FL Dept. of Transportation	-
John Maehl – Martin County Board of County Commissioners	√
Cherise Maples - Seminole Tribe of Florida	√
Russell Morgan - U.S. Dept. of Agriculture, NRCS	-
Roland Ottolini - Lee County Division of Natural Resources	√
Clay Porch - NOAA, Southeast Fisheries Science Center	-

Pedro Ramos - NPS, ENP & Dry Tortugas National Parks	√
Leonard Rawlings - Bureau of Indian Affairs	-
Edward Smith - Florida Department of Environmental Protection	√
Joe Sullivan – U.S. Department of Transportation, FHWA	-
Eva Velez - South Florida Water Management District	√
Larry Williams - U.S. Fish and Wildlife Service	√
Vacant - Office of the Governor	-
Phil Everingham - Chair, BBRRCT, Special Advisory Group	-
Adam Gelber – Office of Everglades Restoration Initiatives	√

Science Coordination Group (SCG) Members

Susan Gray - Chair - South Florida Water Management District	√	
Bob Johnson – Everglades National Park	√	
John Baldwin - Florida Atlantic University	-	
Joan Browder - NOAA, National Marine Fisheries Service	√	
Amy Castaneda - Miccosukee Tribe of Indians of Florida	√	
James Evans - City of Sanibel Natural Resources Department	√	
Jennifer Hecker – Charlotte Harbor National Estuary Program	√	
Chris Kelble - NOAA, AOML	-	
Chad Kennedy - FL Dept. of Environmental Protection	-	
Gil McRae - FL Fish and Wildlife Conservation Commission	-	Penny Hall
Cherise Maples - Seminole Tribe of Florida	√	
Bob Progulske - U.S. Fish and Wildlife Service	√	
Gina Ralph - U.S. Army Corps of Engineers	√	
Barry Rosen - United States Geological Survey	√	
Dan Scheidt - U.S. Environmental Protection Agency	-	
Dave Rudnick - U.S. Department of the Interior, Special Advisor	√	
Vacant - FL Department of Agriculture and Consumer Services	-	
Vacant - U.S. Department of Agriculture – NRCS	-	
Vacant - U.S. Department of Agriculture – ARS	-	

2. 2018 Strategy and Biennial Report

Kevin Burger reminded everyone the final draft was circulated in September 2018. Members except for the tribes, who abstained, voted to accept the Biennial Report. Substantive edits have been received which require the document be re-circulated. WG and SCG members will receive the document via e-mail following this meeting for their acceptance. Once accepted, the report will be e-mailed to the Task Force for approval.

3. SFWMD Program and Project Update

Megan Jacoby provided a presentation reviewing the performance of the Stormwater Treatment Areas (STAs). The SFWMD has 57,000 acres of STAs that have treated 20.2 million-acre feet of water and removed 2.6 million tons of phosphorus to date. Outflow of phosphorus is decreasing as projects come online. The Restoration Strategies, an \$880 million state program, was reviewed. It was noted that at

the end of Restoration Strategies, the state will have spent more than \$3 billion on water quality treatment. This program includes storage and treatment of water and increases their operational flexibility. Updates were also provided on CERP projects such as the C-43 Reservoir which will help them improve the timing, quantity and quality of water deliveries to the Caloosahatchee Estuary and will also help them capture excess basin runoff, provide Lake Okeechobee releases and dry season freshwater flows. For the C-44 Reservoir/STA project, the SFWMD is working on constructing the STA which they expect will be completed in 2019. The Reservoir STA complex will help them attenuate peak flows and reduce nutrient loads from the C-44 basin to the St. Lucie Estuary and into the southern portion of the Indian River Lagoon. On the Biscayne Bay Coastal Wetlands Phase 1 project, they have expedited some critical features that will help in planning Phase 2. They continue to look at ecological benefits to the coastal wetlands and have observed benefits from the interim pump station during the last pilot test. At this point all the necessary construction is complete and more water can be moved south.

James Erskine added that in addition to the operational flexibility, the wildlife conservation and nature based recreational opportunities that are created on some of these facilities are not to be overlooked. Ed Smith noted the SFWMD has met or exceeded the timeframe on almost every single milestone for Restoration Strategies. Gene Duncan said he appreciated the work the SFWMD has done, especially with the Everglades Construction Project. However, they have eight sub-basins that discharge directly into the Everglades that have no treatment and no planned STAs. Some of those basins discharged at 74 ppb last year and he would like to see some effort to put some STAs on the ground to treat those eight basins.

4. USACE Program and Project Update

Howie Gonzales provided a presentation that included an overview on the projects throughout the system that are in varying stages of planning, design, construction and O&M. There is a strong federal interest to improve the health of over 2.4 million acres of South Florida Ecosystem for the more than 8.1 million residents in south Florida. He reviewed the program structure and provided updates on various projects including the Kissimmee River Restoration project which restores critical floodplain habitat and timing of flows to Lake Okeechobee and the Modified Water Deliveries to Everglades National Park (MWDs) project. MWDs is funded by the Department of Interior, implemented by the USACE and will ultimately be operated by the SFWMD. This project will restore water deliveries to Northeast Shark River Slough in ENP. MWD's construction was completed in May 2018 and they continue to work on the combined operational plan. Updates were also provided on the C&SF: Canal C-111 South Dade project as well as 1st and 2nd Generation CERP projects. The Central Everglades Planning Project (CEPP) which was authorized in WRDA 2016, identified the next increment of project components that focus restoration on more natural flows into and through the central and southern Everglades. The CEPP South Validation Study will be completed in 2019. The SFWMD has initiated construction on some of the south components and the Everglades Agricultural Area (EAA) Reservoir Section 203 which was authorized in WRDA 2018. Status updates were also provided on the three planning studies (Loxahatchee River Watershed Restoration Project, Lake Okeechobee Watershed Project, and Western Everglades Restoration Project) currently underway.

The South Florida Ecosystem Restoration (SFER) budget was reviewed. Construction budgets have declined from FY17. FY19 budget is \$67.5 million with workplan funds in the amount of \$37 million. The USACE can move funds from project to project within the SFER program and do their best to move

money to the areas with the greatest need. The O&M budgets for the CERP program requiring a 50/50 cost share with the SFWMD, were also reviewed. Because the Corps' O&M accounts have been zero over the last several years, it has affected the SFWMD's ability to operate and maintain the projects.

Gene Duncan said the Miccosukee Tribe's first issue is with the Picayune Strand project. The modeling showed there would be a groundwater increase on tribal lands to the south-east, so a quit claim was initiated and 805 acres were taken away from the Tribe. On the Southwest corner, the neighbors there get a flood control project. There is a real problem with environmental injustice and the Tribe wants the 805 acres returned. The Tribe's second issue is with CEPP, the SFWMD has begun construction of the S-333 North project but FDEP cannot give them a permit to discharge from that structure because CEPP calls for more water and with more water comes more phosphorus loading which will violate the settlement agreement. The state filed a motion to vacate the settlement agreement in federal court that the Tribe will oppose. In fact, restoration calls for more water not less and they will need to re-visit the calculations on how they determine compliance. Senate Bill 10 requires the EAA Reservoir to discharge 43% more water into the water conservation areas (WCAs), this is a 36% increase in phosphorus loading going into the Everglades. The Tribe believes they need more oversight not less.

Deb Drum said that Palm Beach County is strongly supportive of continuing the effort on the Loxahatchee River Watershed Project (LOWRP) and they look forward to getting the green light. She asked about the Lake Okeechobee Regulation Schedule (LORS) and whether there was any intention to re-address that effort. Howie said they are in the final stages of developing the Project Management Plan and the study effort will be initiated in February 2019. With the Herbert Hoover Dike completion scheduled for 2022, they see both efforts syncing up at completion. Eva Velez reviewed how the O&M funding works for the SFWMD and noted that not having the O&M funds has a direct effect on the SFWMD's ability to operate certain pump stations. Adam Gelber added they are aware of the O&M reimbursement concerns and they are working on it vigorously.

5. Integrated Delivery Schedule (IDS) Update

Howie Gonzales reminded everyone the Yellow Book contained an implementation plan that showed the sequencing of CERP projects. The Programmatic Regulations required a Master Implementation Sequencing Plan (MISP) which ultimately led to the creation of the IDS in 2008. The IDS includes CERP projects in addition to efforts contained within the South Florida Ecosystem Restoration Program. The purpose is to provide a schedule and sequencing plan which is used as a tool to communicate priorities. The IDS is intended to be a living document and was last updated in July 2018. It includes FY18 allocation of \$107 million for USACE and \$154 million for the SFWMD. The IDS will be updated in the summer of 2019 and will include the FY20 President's Budget due in February 2019 and the State of Florida's FY20 budget which will be released in the Spring of 2019.

6. National Research Council (NRC) Report

Bob Johnson provided a presentation noting the external peer review of CERP is mandated by Congress in WRDA 2000. This is the 7th iteration for the Committee on Independent Scientific Review of Everglades Restoration Progress (CISRERP). He reviewed the statement of task with those items that are to be included in each biennial report as well as the committee membership and study process. The 2018 report included specific focal areas: review of restoration progress; restoration monitoring; Lake Okeechobee and CERP mid-course assessment. CISRERP noted that impressive progress has been made

and CERP planning efforts have advanced the vision for CERP storage, but a holistic understanding of combined benefits system-wide are lacking. The Committee found that early CERP projects vary to the extent they have implemented effective monitoring plans. Challenges to determining project benefits include: rainfall variability; confounding effects of other projects; lag times of ecosystem response and lack of clear reference conditions. CISRERP recommendations include developing quantitative project objectives. This report included a detailed discussion on Lake Okeechobee and the effects of changing water levels inside the Lake itself. Lake regulation is central to Everglades restoration benefits and conditions systemwide and one of the major components of any system-wide storage discussion. Lake Okeechobee is lower now than it was at the beginning of CERP. With the completion of the Herbert Hoover Dike, pending any risk assessments, they will be ready to look at changes to the regulation schedule. Ecological conditions in Lake Okeechobee have been adversely affected when the levels go above 16 feet and below 12 feet for multiple years. The Committee recommends real-time optimization of lake levels to reduce impacts associated with high water levels and provide more flexibility, which is what the SFWMD has been doing.

The Committee also discussed CERP planning from the context of how much storage is needed for CERP to deal with future changes such as sea level rise and climate change. The Everglades of 2050 and beyond will differ from what was originally envisioned when CERP was developed. CISRERP also recommends conducting a mid-course assessment. Agencies should look at how much storage they currently have and how much they will need under future possible climate and sea level rise conditions. Results will document the benefits provided by CERP and inform robust decisions about planning, sequencing and adaptive management. The Committee also suggested they re-tool the science program to bring the latest information and tools into CERP planning and implementation. They recommend having an independent Everglades lead scientist or lead science office that is empowered to coordinate and promote needed scientific advances. Printed copies of the final report will be available sometime in January 2019. The next CISRERP report is due in September 2020.

Joan Broader asked how the WG and SCG would respond to these recommendations and comments. The Yellow Book had ASR and the Lakebelt and CERP doesn't have either of those anymore except for very limited ASR storage. As they address the storage question, they will come up short and that needs to be addressed. Bob Johnson explained that the water storage question is why they are asking for the mid-course assessment. They do not have nearly the amount of storage that was proposed at the beginning of CERP. All the ASR regional studies have suggested that only 40% of the proposed ASR is feasible. Bob noted that his own personal recommendation is that they look at the mid-course analysis recommendation and see if it is something they can benefit from and determine how they would take this on.

Susan Gray noted there are a series of presentations that will touch on the monitoring recommendations and how they are looking at data. From a science perspective she thinks they are all interesting questions that will have resource implications. The question is whether they will have to stop and do what the Committee is asking for or whether it can be done concurrently. Dave Rudnick added that if they read the entire CISRERP report there is a lot of detail in the report and a lot of challenges to their scientific program that is tightly linked to challenges faced by the restoration itself. He recommended the SCG members have a separate discussion or some means of having an interagency discussion on how they respond given the fiscal limitations. There are shortcomings in project level monitoring that are strongly worded in the report and it is important for them to explore

how they effectively monitor individual projects concurrently. For example, coastal soils and peat collapse, is highlighted as one where the consequences of not implementing CERP sufficiently and on time which could mean long term irrevocable damage or change.

Eva Velez said she appreciated the discussion on project level monitoring and looks forward to that as it relates to the system-wide monitoring and what RECOVER is doing. The Committee saw their struggle in juggling all the different requirements for planning, constructing and operating these projects. As to the storage question, the Yellow Book had very big numbers north of the lake and as they plan the Lake Okeechobee Watershed Restoration Project (LOWRP) and stitch together these projects, they are learning a lot about what is needed. Through modeling they have learned that the CEPP PACR including the EAA Reservoir together with the plan under consideration for north of the lake will provide an 80% reduction in estuary discharges which was one of the goals of CERP. The report acknowledged the significant work the SFWMD has done in planning.

Public Comment

Martha Musgrove (Florida Wildlife Federation) congratulated all those who were retiring and added that this meeting has shown the reason everyone is here, which is to exchange information and coordinate everything from the science to the implementation of these projects. She thanked the members for their persistence.

Nyla Pipes (One Florida Foundation) said she is a big champion of Everglades restoration and it is important they let people know they are making progress. She highlighted the importance of the Indian River Lagoon – South project in the IDS as well as the C-23 and C-24 Reservoirs. The local watershed to the St. Lucie River is a huge part of their problem and it is not just the discharges from Lake Okeechobee. She applauded those who have worked on these issues for so long.

Minutes Approval

Susan Gray made a motion which was seconded by Nick Aumen to approve the minutes. Meeting minutes were approved with minor edits provided by Deb Drum.

7. 2019 System Status Report and Report Card

Susan Gray stated the challenge with the SCG and the Restoration Coordination and Verification (RECOVER) is that there were two entities walking a parallel path that weren't as tightly connected as they could and should be. She was looking forward to getting RECOVER woven into the SCG process and vice versa. Patti Gorman reported that RECOVER has been working on their five-year plan because CERP is not the CERP of the Yellow Book. The effort started in FY17 and goes to FY21. A lot of the things the CISRERP recommended are things they are already doing or have included in their 5-year plan. RECOVER would like to come back to this group and provide updates on the Conceptual Ecological Models (CEMs), Performance Measures and their work on Interim Goals and Targets. The modeling for the Interim Goals and Targets is like what was asked for by CISRERP in the mid-course assessment. Two of RECOVER's key products are the System-wide Monitoring and Assessment Plan (MAP) which lays out all the monitoring on a system-wide scale and the System Status Report (SSR) due in 2019 which informs the Report to Congress (RTC). For the 2019 SSR, the team wanted to improve their outreach, communicate implications of key findings, integrate indicator analyses across regions and the entire Everglades ecosystem, report on progress toward meeting interim goals and targets, consider major

system drivers such as climate change and exotic species as well as address those recommendations from CISRERP in their 2016 and 2018 reports. The 2019 SSR will include monitoring data from 2012 – 2017 and provides the scientific foundation for the 2020 Report to Congress. The report is web based and designed to be interactive and user-friendly. The final chapter of the SSR looks ahead to the future of restoration, with discussion on projects in the planning and implementation phases as well as new science being developed. RECOVER is working with the Univ. of Maryland team on a report card which will be a high-level communication tool. A preview of the what the report card will look like as well as an explanation of what the scores mean was provided. RECOVER just finished the internal and external review process. Comments will be brought forward and both the report card and the SSR will go live on the web in January 2019. Printed copies of the report card will also be made available at that time.

Deb Drum said she appreciated the amount of work that has gone into putting these report cards together adding they look amazing. She found the Lake Okeechobee algae report card confusing noting that it is the intensity of the blooms that disrupts things dramatically. As far as the northern estuaries, it seems like a pass/fail grade when they have cyanobacteria and blooms within the northern estuaries. They have years where it is not disruptive and years where it is completely disruptive and that should also be captured. Patti noted that when they have 5 years of data with one green year and one red year, it's tough to communicate so they are breaking down the graphics by years and indicators to better communicate what has occurred. Susan Gray added this report period ended in 2017 so what has happened this past year will be reflected in the next report.

Jennifer Hecker said she appreciated the team doing this in a way that is visually compelling and easy to understand for policy makers. She also shares the concern with the algae score in Lake O. and that it registers as a green overall. Regardless of this past year, they have had harmful algae coming down from the lake into the Caloosahatchee in prior years. It would be very confusing to policy makers to see it as a green, not even a yellow or red when they have been experiencing some severe impacts. Also, non-native and invasive species are also registering as green and the fact that they are increasing overall warrants a yellow or a red. Members were asked to send any additional comments to Patti Gorman.

8. System-wide Ecological Indicators Report

Laura Brandt noted that although she works for FWS, she also works d on this report through funding from USGS. She acknowledged the internal support from FWS and the commitment from USGS to get the science synthesized. There was a need to succinctly communicate what was going on with Everglades restoration, not just with CERP. There is a system-wide indicator's section in the Biennial Report to Congress which is the reader's digest version of the full System-wide Ecological Indicators Report. There are different tiers of information that different people can digest. The full report provides more detailed technical information and each indicator has its own section that is put together by the indicator scientists. None of the indicators have shown improvement over this reporting period and none have met restoration targets. Invasive exotic plants and animals continue to present challenges to restoration. Although concentrations have been reduced substantially, phosphorus continues to be a system-wide water quality concern and monitoring programs continue to have funding challenges. For several years, they have been asking whether they have the right indicators and whether some need to be added and removed and whether this is meeting the needs of the folks using the information.

Billy Causey said pink shrimp is a great indicator and although it was good to see they made the ranking, not good to see they had not been monitored. NOAA has a couple of species they believe should be added to the list such as the spotted sea trout and loggerhead sponges. Jennifer Hecker noticed a lot of the indicators remained consistent except for southern coastal systems phytoplankton blooms which appear to worsen. She asked whether things get highlighted when they see changes either positive or negative. Dave Rudnick said those things are emphasized in the text and the full indicators report will include a discussion. If they look at the Florida Bay portion of the southern coastal systems in the full report, 2018 was a terrible year with widespread blooms and turbidity which was largely a consequence of Hurricane Irma. Laura clarified that the state of the indicator is not based on one year, one good year does not mean the indicator is in good shape and it is based more on an ecological status.

Pedro Ramos said communication is important and they need to improve. He asked for a briefing at a future meeting on the progress made with the communication tool. There may be some Everglades fatigue which he finds concerning. They need continued support and funding for this work long term.

9. Review and Assessment of the System-wide Ecological Indicators

Susan Gray noted there has been this parallel path with RECOVER, the SCG and the system-wide ecological indicators. She hopes they can weave these together to get more efficiency and consistency. The Task Force asked the SCG to develop a suite of system-wide indicators for CERP and non-CERP restoration projects. The initial suite of ecological indicators was developed ten years ago and along with new science and projects coming online it is time to initiate an assessment of the appropriateness of the current indicators. This is not just a funding issue, it is a personnel issue and they need people trained in the ecosystem that can look and evaluate the data. Effort will include a series of workshops for each geographic area and participants are needed to coordinate, organize and conduct this effort over an extended period. They will also need the participation of subject matter experts. This is a big item that is long overdue and will need to be discussed as part of the 2019 workplan.

Joan Browder recognized and thanked Billy Causey for his comments on the juvenile pink shrimp, spotted sea trout and the two sponges. She volunteered to help on this item.

10. 2019 WG and SCG Priorities Discussion

Kevin Burger noted that Allyn Childress would help facilitate this session. Allyn Childress instructed the members to not be constrained in providing ideas. The members went through a brainstorming exercise and developed an initial list of priorities. The chairs along with OERI staff will narrow down the initial list and present it to the Task Force for their consideration at the next meeting. The priorities will then be brought back to the WG and SCG for further discussion and next steps.

Public Comment

Drew Martin (Sierra Club) agreed invasive and exotic species are serious issues. Some of these animals could really impact the ecosystem and those need to be high on the priority list. There needs to be something on how the Everglades ecosystem sequesters a significant portion of carbon as well as the need for large indicators such as coral reefs, seagrass and mangroves. What is happening in developed areas must also be part of the indicator. Continue to see the development of wetlands in the developed areas which creates stormwater runoff. The assumption when CERP was developed was that there

would be DECOMP and the water would flow unimpeded. Agriculture is blocking the flow and maybe the last indicator is how clean the water is getting to the bottom of the system.

Pete Quasius (Audubon of the Western Everglades) said he lives on the coast and nitrogen is their major problem and should be on their priority list. He is often asked by policy makers about their return on investment. If they can demonstrate they will get a good return on their investment both for quality of life and economic return, then it makes their job of getting the funding and public support they need easier.

Kellie Ralston (American Sportfishing Association), said her association is the trade association for the sport fishing industry and include everyone from rods and reels to apparel and boat manufacturers. Florida is the fishing capital of the world and the sportfishing association is a \$9.6 billion industry. Their manufacturers are nationwide and over 25% of their business occurs from the State of Florida. Everglades restoration is a priority issue for her industry. Having clean water so that people want to come to Florida to fish, is paramount for her industry. They are advocating for additional federal funding with the Administration and will have similar conversations with the state as well. Having an IDS that shows full federal and state funding would be a powerful tool for them to take to Congress as they advocate for funding. She also urged they focus on Florida Bay, as a priority.

Next Steps and Closing Comments

James Erskine thanked everyone for attending and participating in the discussion. Nick Aumen encouraged everyone to continue the priority discussion so that they can decide on priorities.

Meeting adjourned at 3:08PM.

The video, presentations and handouts for this meeting are available at:

<https://www.evergladesrestoration.gov/wgm/>

Presentations and handouts:

1. Administrative Items
 - a. Agenda
 - b. Draft minutes, June 5, 2018 meeting
 - c. BBRRCT memo dated 11/27/18 re: Biscayne Bay Coastal Wetlands Project
2. SFWMD Program and Project Update presentation
3. Corps Program and Project Update presentation
4. Integrated Delivery Schedule
 - a. Presentation
 - b. Placemat
5. NRC's CISRERP presentation
6. 2019 System Status Report and Report Card presentation
7. System-wide Ecological Indicators presentation
8. Review and Re-evaluation of the System-wide Ecological Indicators presentation