

**DEPARTMENT OF THE ARMY**

**COMPLETE STATEMENT**

**OF**

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ASSISTANT SECRETARY OF THE ARMY  
(CIVIL WORKS)**

**BEFORE**

**THE COMMITTEE ON NATURAL RESOURCES  
SUBCOMMITTEE ON FISHERIES, WILDLIFE, OCEANS  
AND INSULAR AFFAIRS**

**UNITED STATES HOUSE OF REPRESENTATIVES**

**ON**

**FLORIDA EVERGLADES RESTORATION:  
WHAT ARE THE PRIORITIES?**

**NOVEMBER 3, 2011**

Mr. Chairman and distinguished members of the subcommittee, I am Jo-Ellen Darcy, Assistant Secretary of the Army (Civil Works). Thank you for the opportunity to testify on the Comprehensive Everglades Restoration Plan (CERP), approved by Congress in the Water Resources Development Act of 2000 (WRDA 2000) and being implemented by the U.S. Army Corps of Engineers (Corps) and our non-federal partners in Florida. My testimony focuses on the questions included in your letter of October 24, 2011.

## **EVERGLADES RESTORATION STATUS UPDATE**

Working in collaboration with partners and many stakeholders at the local, state and federal level, restoration of the historic Everglades ecosystem is one of the largest and most complex environmental restoration efforts in North America. The overarching goal is to capture the fresh water that now flows unused to the ocean and the Gulf and redirect it to storage for delivery to natural areas when they need it. Returning a more historic flow of water to the *River of Grass* will not only revive the native habitat for 68 federally listed threatened and endangered species, it will also naturally replenish the underground aquifers that supply drinking water to the population of south Florida. Redirecting flows away from the Atlantic and Gulf will also protect coral reefs and other coastal ecosystems important to the states' fisheries, diving, tourism and related industries.

Due to the continued decline in overall health of the ecosystem and recognizing that a healthy ecosystem is fundamental to a healthy economy, numerous initiatives and construction projects are now under way to revitalize and protect the expansive south Florida ecosystem. A major component of south Florida ecosystem restoration is implementation of the CERP, the framework for large-scale restoration of the Everglades. CERP is a series of modifications to the regional water supply and flood control project (the "Central and Southern Florida Project") that is carried out by the Corps and its non-Federal sponsor, the South Florida Water Management District.

The CERP is based on "getting the water right" by improving water quality, quantity, timing and distribution to the remnant Everglades while also maintaining other water related levels of service. There are other important projects that pre-date CERP (the "Foundation Projects") for Everglades restoration that work hand-in-hand to realize the benefits of the CERP. These important companion Foundation Projects will restore the Kissimmee River and improve water flows into Everglades National Park. The state of Florida is also working to restore and protect the Northern Everglades by creating water quality treatment marshes for water flowing into Lake Okeechobee, coastal estuaries and the Everglades. Other federal agencies, such as the U.S. Department of Agriculture (USDA), have provided conservation easements to protect and conserve private lands in a manner that also benefits improvements in regional water quality and storage.

Major components of CERP include above-ground and underground water storage features, water preserve areas, management of Lake Okeechobee as an ecological resource, improved water deliveries to the St. Lucie and Caloosahatchee estuaries,

treatment wetlands, improved water deliveries to the Everglades, removal of barriers to the natural sheetflow of water, reuse of wastewater, and improved water conservation.

Sound environmental science is at the heart of this effort, much of it new and pioneering work. Since 2000, much has been learned through rigorous research, extensive monitoring and the development and refinement of computer models. The CERP planners recognized this natural progression in applied science and included a commitment to adaptive management as an integral part of CERP implementation to support improved decision-making and CERP performance over time. This commitment was reinforced in the WRDA 2000 with specific requirements to improve the plan over time. As restoration and scientific investigations advance, the opportunities to incorporate CERP improvements and changes to better achieve restoration goals and objectives advance as well.

In accordance with WRDA 2000, the 2010 Report to Congress was recently submitted by the Assistant Secretary of the Army (Civil Works) and the Secretary of the Interior in consultation with the United States Environmental Protection Agency, the Department of Commerce and the state of Florida. The Secretary of the Interior, the Administrator of EPA and I each reviewed the progress to date and determined that satisfactory progress is being made towards achieving the benefits for the natural system and the human environment envisioned in the CERP.

The Corps, in partnership with its primary partner, the South Florida Water Management District (SFWMD), continues to develop an integrated strategy for implementation of the Plan. In order for the Plan to be implemented successfully it is imperative to maintain coordination with the Department of the Interior, tribal governments and other federal, and state partners, all of which have actively participated in the development and progress of this program. In the past five years, three projects were authorized for construction in the Water Resources Development Act of 2007: Indian River Lagoon South, Picayune Strand Restoration and Site 1 Impoundment. Construction is underway on all three of these projects and is providing needed momentum toward the restoration of the Everglades. In addition, funding provided through the passage of the American Recovery and Reinvestment Act (ARRA) allowed construction on both CERP and other south Florida Restoration projects to proceed at a quicker pace while providing over 6000 jobs in south Florida.

## **CERP FUNDING**

The allocation from Fiscal Year (FY) 1999 through FY 2011 for CERP is \$753,845,000, which includes funds received through ARRA, as well as regular appropriations. The amount allocated includes funding for Planning, Design and Construction of CERP projects.

The current cost estimate for the CERP is \$13.5 billion at October 2009 price levels. Over two billion dollars in combined contributions from the federal and state partners has been provided in support of CERP and prospective CERP projects over the past

five fiscal years (2005- 2009). During this time, the federal government expended almost \$259 million, while it is estimated that non-Federal sponsors spent approximately \$270 million on activities not related to land acquisition, which is a major expense. As of December 31, 2010, the state of Florida has spent an estimated \$1.29 billion to purchase approximately 233,000 acres which are anticipated to be made available for CERP project features. Some of this land was acquired by the state using federal grant funds amounting to over \$327 million. Funding over the past five years included resources made available under ARRA which are outside the general FY 2009/FY 2010 budget process. ARRA funds combined with the President's FY 2009 and FY 2010 budgets infused the largest amount of Federal funding received since Congress approved CERP in 2000. This resulted in a "jump-start" of important restoration projects, speeding the recovery of the natural system, and providing jobs and contracts during difficult economic times.

### **HOW MANY OF THE 68 CERP COMPONENTS HAVE BEEN COMPLETED?**

Construction is underway on all three projects authorized in the Water Resources Development Act of 2007 (Indian River Lagoon South, Picayune Strand Restoration and Site 1 Impoundment). In fact, I was pleased to attend the groundbreaking for the Indian River Lagoon South project last Friday, along with Congressman Rooney. The Committee on Independent Scientific Review of Everglades Restoration Progress, which is required by the WRDA 2000, positively acknowledged the value and contributions of the Adaptive Assessment and Monitoring program, which has been regularly supported by the Administration and the Congress. Additional work continues on the Melaleuca Eradication project as well as Aquifer System and Recovery Pilot projects, small projects authorized in CERP. The SFWMD has begun construction on two additional CERP projects, the C-111 Spreader Canal and Biscayne Bay Coastal Wetlands projects.

Following is an outline of the work conducted on authorized CERP projects, with a description of the status of projects that have nearly completed the Project Implementation Report (PIR) process and a description of the SFWMD's construction efforts to date on projects that have not yet been authorized but have a PIR in process and for which a Pre-Project Partnership Agreement has been signed.

Major construction efforts on authorized CERP Projects:

- Initiated construction for the Merritt Pump Station feature of Picayune Strand Restoration, building on the state's work of filling and plugging seven miles of the Prairie Canal; removal of 65 miles of roadways and installation of seventeen culverts. Wading birds, black bears and the endangered Florida panther have already been observed within the 13,000 acres of restored habitat.
- Installed pilot projects for aquifer storage and recovery, with ongoing cycle testing and monitoring at the Kissimmee River and Hillsboro Canal sites.
- Completed designs to prepare Indian River Lagoon-South for construction. Initiated construction on October 28, 2011.

- Awarded the first construction contract for the Site 1 Impoundment, adjacent to the Arthur R. Marshall Loxahatchee National Wildlife Refuge. Initiated construction on the Site 1 project.
- Initiated construction for the Annex facility to support the Melaleuca Eradication project.

PIR's for three additional major projects are nearly complete and a fourth is significantly through the review process:

- The Caloosahatchee (C-43) West Basin Storage Reservoir project has a signed report of the Chief of Engineers.
- The C-111 Spreader Canal Western Project has completed the Civil Works Review Board process as well as state and agency review. The next step is a signed report of the Chief of Engineers.
- The Biscayne Bay Coastal Wetlands (Phase I) has been sent to the Civil Works Review Board. Broward County Water Preserve Areas has been approved by the Civil Works Review Board, is currently being revised by the Jacksonville District to update the document.
- In addition, the Army and the state of Florida recently initiated the Central Everglades study, a major step to pursue restoration of habitat in the central "river of grass" portion of the Everglades. This study is part of the Corps' of Engineers larger nationwide planning modernization program, designed to shave years from the project delivery process. This study will build on recent science with the target for completion in less than two years, rather than the 5-7 years of past studies.

Certain projects are being implemented by the state of Florida under their own authorities and using their own resources. The Corps coordinates closely with the SFMWD during the PIR process for projects where the state wishes to undertake construction. These projects or portions of projects are expected to advance the delivery of benefits to the natural and human environments in and around the Everglades ecosystem. The Corps has also worked closely with the state of Florida to assist in its efforts to expedite these projects with regard to the required federal permitting under Section 404 of the Clean Water Act. The SFWMD has signed Pre-Project Partnership Agreements and is currently implementing construction under its own resources for the C-111 Spreader Canal and Biscayne Bay Coastal Wetlands projects, including the following work:

- Initiated construction of the Deering Estates Flow-way, part of Phase 1 of the proposed CERP Biscayne Bay Coastal Wetlands Project to restore more natural water flows to the Bay and Biscayne National Park, thus helping to restore the estuarine environment and associated plant and animal life.
- Completed construction of L-31E Culverts, part of Phase 1 of the proposed CERP Biscayne Bay Coastal Wetlands Project.

- Initiated construction of the proposed CERP C-111 Spreader Canal Western Project to benefit Florida Bay by restoring freshwater wetlands, tidal wetlands and near-shore habitat.

## **LAKE OKEECHOBEE**

The state of Florida has the primary responsibility for meeting existing water quality standards. Nonetheless, north of Lake Okeechobee there have been two projects that have involved federal participation by the Corps that have had an effect on water quality in this area. As part of the Foundation Projects, the Corps of Engineers and SFWMD are jointly implementing the Kissimmee River Restoration Project which, as it is completed, will help improve the water quality flowing into Lake Okeechobee. The Corps is also constructing the Taylor Creek/Nubbin Slough project, authorized as part of the Critical Projects.

Since 2000, it is my understanding that approximately \$315 million of state funding and SFWMD contributions have been invested to implement activities described in the Florida state law. SFWMD's achievements to date include the use of Best Management Practices (BMP), construction of a phosphorus reduction project, landowner partnerships to provide water storage on private lands, and pilot projects to test and demonstrate technological innovations. The following specific accomplishments were reported to us by the SFWMD:

- As of December 2010, landowners enrolled approximately 1.3 million acres (76%) of agricultural lands in the state-adopted Best Management Practices program and are applying owner-implemented BMPs focused on reducing phosphorus loads to Lake Okeechobee. Almost two-thirds of the agricultural acreage with owner implemented BMPs (838,780 acres) have also administered cost-share BMPs. Florida's Department of Agriculture and Consumer Services will continue to work cooperatively with the coordinating agencies, stakeholders, and landowners to identify alternative funding sources and other opportunities to accelerate the rate of BMP enrollment and implementation.
- More than 30 phosphorus reduction projects have been constructed with state of Florida funding, including isolated wetland restoration projects, Dairy Best Available Technology projects, former dairy remediation projects, and public-private partnership projects. The potential average annual phosphorus load reduction from these projects is estimated at 26 metric tons.
- Six Hybrid Wetland Treatment Technology (HWTT) projects have been implemented under a joint effort between the SFWMD and Florida Department of Agriculture and Consumer Services in the St. Lucie and Lake Okeechobee watersheds. Another HWTT site in the Lake Okeechobee Watershed is expected to be built by March 2011. Collectively, these projects will provide approximately four metric tons of phosphorus load reduction per year.

- Lakeside Ranch, Stormwater Treatment Area (STA) construction is under way. This STA is expected to reduce the average phosphorus load to the lake by approximately 24 metric tons per year when it is fully operational.
- With funding provided by the state of Florida and South Florida Water Management District, crews removed or sequestered approximately 1.9 million cubic yards of muck from Lake Okeechobee, exposing thousands of acres of natural lake bottom sand and promoting the return of native plant species. In addition, the project removed 142 metric tons of phosphorus from the lake. These efforts were completed during low Lake Okeechobee water levels.

## **COMMITTEE ON INDEPENDENT SCIENTIFIC REVIEW OF EVERGLADES RESTORATION PROGRESS (CISRERP) REPORT**

Much of the rationale for the conclusions reached by the CISRERP relates to the presence of “legacy phosphorus” upstream of the Everglades and the expected lag between the completion of individual restoration construction projects and full ecosystem recovery. Despite CISRERP's outlook that restoration will take several decades, there are encouraging examples of multi-party, multi-pronged approaches to abate water quality issues. Implementation of restoration measures in a dynamic, living ecosystem has always been recognized as having a higher degree of uncertainty than, for example, many of the Corps' more traditional flood control projects. The CERP has always acknowledged that completion of planned work does not mean instant success. Although parts of the south Florida ecosystem have demonstrated remarkable resilience in their recovery following completion of a particular restoration project, the full ecosystem responses lag behind physical completion of construction. More importantly, science is now telling us that chemical changes in the makeup of the system after project features are complete are likely to take significantly longer than originally expected before the ecosystem will be restored.

In view of the complexity and uncertainties of the Everglades ecosystem, we have known from the beginning that difficulties would arise and adjustments to the Plan would be needed along the way. For these reasons, Congress directed us to develop adaptive management strategies. These strategies are embraced and incorporated into the CERP and the Corps remains committed to the use of the best available science and employment of proven adaptive management techniques. These strategies are essential to our success.

## **CONCLUSION**

The Army is committed to continue to work with all of its partners to continue to work in this critical area. This concludes my testimony and I look forward to any questions you or other Members of the subcommittee may have.