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SOUTH FLORIDA ECOSYSTEM

Some Restoration Progress Has Been Made, but the Effort Faces Significant Delays, Implementation Challenges, and Rising Costs

Statement of Anu K. Mittal, Director
Natural Resources and Environment

September 19, 2007

SOUTH FLORIDA ECOSYSTEM

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Highlights

Highlights of GAO-07-1250T, a testimony before the Subcommittee on International Operations and Organizations, Democracy and Human Rights, Committee on Foreign Relations, U.S. Senate

Why GAO Did This Study

The South Florida ecosystem covers about 18,000 square miles, and is home to the Everglades, one of the world's unique environmental resources. Historic efforts to redirect the flow of water through the ecosystem have jeopardized its health and reduced the Everglades to about half of its original size. In 1993, the United Nations Educational, Scientific, and Cultural Organization's World Heritage Committee (WHC) added Everglades National Park (Park) to its List of World Heritage in Danger sites. In 2000, a strategy to restore the ecosystem was set; the effort was expected to take at least 40 years and cost $15.4 billion. It comprises 222 projects, including 60 key projects known as the Comprehensive Everglades Restoration Plan (CERP), to be undertaken by a multiagency partnership.

This testimony is based on GAO's May 2007 report, *South Florida Ecosystem: Restoration Is Moving Forward, but Is Facing Significant Delays, Implementation Challenges, and Rising Costs,* and a review of WHC decision documents relating to the Park's listing. This statement addresses the (1) status of projects implemented (2) status of projects key to improving the health of the Park, (3) project sequencing factors, and (4) funding provided for the effort and extent to which costs have increased.

What GAO Recommends

GAO is not making any new recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-07-1250T.

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What GAO Found

Of the restoration effort's 222 projects, 43 have been completed, 107 are being implemented, and 72 are in design, in planning, or are not yet started. The completed and ongoing projects will provide improved water quality and water flow within the ecosystem and additional habitat for wildlife. According to restoration officials, significant progress has been made in acquiring land, constructing water quality projects, and restoring a natural water flow to the Kissimmee River—the headwater of the ecosystem. Many of the policies, strategies, and agreements required to guide the restoration in the future are also now in place. However, the 60 CERP projects, which are the most critical to the restoration's overall success, are among those that are currently being designed, planned, or have not yet started. Some of these projects are behind schedule by up to 6 years. Florida recently began expediting the design and construction of eight key projects, with the hope that they would immediately benefit the environment, enhance flood control, and increase water supply, thus providing further momentum to the restoration.

In 2006, the WHC adopted several key benchmarks that if met would facilitate removal of the Everglades National Park from its List of World Heritage in Danger sites. As noted by WHC, achievement of these benchmarks was linked to the implementation of nine key restoration projects. However, only one of these projects has been completed, four are currently being implemented and four are currently being designed. Moreover, the benefits of these projects will not be available for many years because most of the projects are scheduled for completion between 2011 and 2035.

There are no overarching sequencing criteria that restoration officials use when making implementation decisions for all 222 projects that make up the restoration effort. Instead, decisions for 162 projects are driven largely by the availability of funds. There are regulatory criteria to ensure that the goals and purposes of the 60 CERP projects are achieved in a cost effective manner. However, the 2005 sequencing plan developed for these projects is not consistent with the criteria because some of the data needed to fully apply these criteria were not available. Therefore, there is little assurance that the plan will be effective. GAO recommended that the agencies obtain the needed data and then comprehensively reassess the sequencing of the CERP projects.

From fiscal years 1999 through 2006, the federal government contributed $2.3 billion and Florida contributed $4.8 billion, for a total of about $7.1 billion for the restoration. However, federal funding was about $1.4 billion short of the funds originally projected for this period. In addition, the total estimated costs for the restoration have increased by 28 percent—from $15.4 billion in 2000 to $19.7 billion in 2006 because of project scope changes, increased construction costs, and higher land costs. More importantly, these cost estimates do not represent the true costs for the overall restoration effort because they do not include all cost components for a number of projects.

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to participate in your hearing on protecting the Everglades. As you know, restoring the South Florida ecosystem is a complex, long-term effort. This vast region, which is home to a rapidly growing population of more than 6 million people and supports a large agriculture-, tourism-, and recreation-based economy, also encompasses one of the world's unique environmental resources—the Everglades. Recognizing the importance of the Everglades, in 1979, the World Heritage Committee (WHC) of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) included Everglades National Park (Park) on its list of world cultural and natural heritage sites of importance. However, over the past 100 years, engineering projects designed to control floods and supply water to the residents of South Florida have diverted water from the Everglades. This alteration of water flow, coupled with agricultural and industrial activities and urbanization, has jeopardized the ecosystem's health and reduced the Everglades to about half of its original size. In light of the Everglades deteriorating condition, in 1993 the WHC added the Park to its List of World Heritage in Danger sites. These sites are determined to be facing serious and specific threats and require major conservation efforts.

In 1996, through the Water Resources Development Act of 1996, the Congress formalized the South Florida Ecosystem Restoration Task Force, an effort established by federal agencies in 1993 to stem the deterioration of the ecosystem and restore the Everglades to a more natural state. The Task Force was expanded to include state, local, and tribal representatives and was charged with coordinating and facilitating efforts to restore the ecosystem. The restoration effort currently consists of 222 projects, which include 60 key projects that comprise the Comprehensive Everglades Restoration Plan (CERP), 28 projects that lay the foundation for the CERP projects (that we refer to as CERP-related projects); and 134 projects that are not directly related to CERP (that we refer to as non-CERP projects). According to WHC and Park documents, nine of the 222 projects are key to achieving a set of benchmarks adopted by the WHC in 2006 that, when met, would lead to the removal of the Park from its list of sites in danger.

Our testimony today focuses on the (1) status of restoration projects and their expected benefits, (2) status of projects that are key to restoring the health of Everglades National Park, (3) factors that influence the

sequencing of project implementation, and (4) amount of funding provided to the restoration effort since 1999 and the extent to which costs have increased. Our testimony is based primarily on our May 2007 report [1]on the status of the South Florida Ecosystem Restoration Initiative. In addition, at the request of the subcommittee, we reviewed publicly available WHC decision documents regarding Everglades National Park's inclusion on the *List of World Heritage in Danger*. We conducted our work in accordance with generally accepted government auditing standards.

In summary, we found the following:

- Forty-three of the 222 projects that constitute the South Florida ecosystem restoration effort have been completed, while the remaining projects are currently being implemented or are in design, being planned, or have not yet started. Many of the completed projects are intended primarily to improve water quality in natural areas or to acquire or improve tracts of land in order to preserve wildlife habitat. The projects now being implemented also emphasize the restoration of wildlife habitat by acquiring or improving land, as well as the construction of key CERP-related projects that will improve water flow to natural areas. The projects not yet implemented are largely CERP projects that are crucial to realizing the restoration's overall goals, but these projects are progressing slowly. Despite the slow progress, agency officials report a number of achievements, such as finalizing key CERP agreements and restoring a more natural water flow to the Kissimmee River which is the headwater of the ecosystem. In addition, because of the continuing delays in implementing critical CERP projects, the state has begun expediting the design and construction of some of these projects with its own resources. The state hopes that its efforts will provide some immediate environmental, flood control and water supply benefits and will help provide some impetus to the larger CERP effort.

- Most of the nine projects that were identified by the WHC as being critical to removing Everglades National Park from the list of world heritage sites in danger have not yet been completed. Specifically, only one project has been completed, four are currently being implemented, and four are currently in the planning and design phase. Moreover, the

[1] *South Florida Ecosystem Restoration: Restoration is Moving Forward, but Is Facing Significant Delays, Implementation Challenges, and Rising Costs*, GAO-07-520 (Washington, D.C.: May 31, 2007

benefits from these projects may not be apparent for many more years. For example, five of the projects have scheduled completion dates from 2012 to 2035.

- There are no overarching criteria to ensure that the 222 projects that make up the restoration effort are implemented in a sequence that would ensure the achievement of environmental benefits as early as possible and in the most cost effective manner. Instead, implementation decisions for the 162 CERP-related and non-CERP projects are largely driven by available funding. The 60 CERP projects—which are critical to successfully achieving the restoration—have sequencing criteria; however, when the agencies developed their sequencing plan for CERP projects in 2005, they did not have key data and other information to fully apply these criteria. Recently, the agencies began revising the CERP project schedules and sequencing plan, but they still do not have the key information needed to fully apply the established criteria. As a result, there is little assurance that the revised sequencing plan, when it is final, will lead to a CERP project implementation plan that will provide restoration benefits as early as possible and in the most cost-effective manner. We recommended that the agencies obtain the information needed to fully apply the required criteria and then comprehensively reassess its sequencing decisions to ensure that the CERP projects have been appropriately sequenced.

- Participating federal and state agencies provided a total of $7.1 billion for the restoration effort from fiscal years 1999 through 2006. During this period, the federal government contributed about $2.3 billion to the restoration effort and Florida contributed about $4.8 billion. However, the federal contribution to the effort has been about $1.4 billion less than agencies expected during this period. Because the state has contributed more than its share the overall shortfall for the restoration effort has been about $1.2 billion. At the same time, the total projected cost of the restoration effort has increased by 28 percent—from $15.4 billion in 2000 to $19.7 billion in 2006. According to agency officials, the overall cost increases are due to project scope changes, increased construction costs, and higher land costs. Moreover, these cost estimates do not reflect the true cost of the restoration effort, which could be significantly higher because most CERP projects are still in the conceptual phase and their full cost is not yet known.

Background

The South Florida ecosystem covers about 18,000 square miles in 16 counties. It extends from the Kissimmee Chain of Lakes south of Orlando

to Lake Okeechobee, and continues south past the Florida Bay to the reefs southwest of the Florida Keys. The ecosystem is in jeopardy today because of past efforts that diverted water from the Everglades to control flooding and to supply water for urban and agricultural development. The Central and Southern Florida project, a large-scale water control project begun in the late 1940s, constructed more than 1,700 miles of canals and levees and over 200 water control structures that drain an average of 1.7 billion gallons of water per day into the Atlantic Ocean and the Gulf of Mexico. This construction resulted in insufficient water for the natural system and for the growing population, along with degraded water quality. Today, the Everglades has been reduced to half its original size and the ecosystem continues to deteriorate because of the alteration of the water flow, impacts of agricultural and industrial activities, and increasing urbanization.

In response to growing signs of ecosystem deterioration, federal agencies established the South Florida Ecosystem Restoration Task Force in 1993 to coordinate ongoing federal restoration activities. The Water Resources Development Act of 1996 formalized the Task Force and expanded its membership to include state, local, and tribal representatives, and charged it with coordinating and facilitating efforts to restore the ecosystem. The Task Force, which is chaired by the Secretary of the Department of the Interior, consists of 14 members representing 7 federal agencies, 2 American Indian tribes, and 5 state or local governments.[2]

To accomplish the restoration, the Task Force established the following three goals:

- Get the water right. The purpose of this goal is to deliver the right amount of water, of the right quality, to the right places, at the right times. However, restoring a more natural water flow to the ecosystem while providing adequate water supplies and controlling floods will require efforts to expand the ecosystem's freshwater supply and improve the delivery of water to natural areas. Natural areas of the ecosystem are made up of federal and state lands, and coastal waters, estuaries, bays, and islands.

- Restore, preserve, and protect natural habitats and species. To restore lost and altered habitats and recover the endangered or threatened

[2]Representatives from the state's major industries, environmental groups, and other stakeholders provide comments to the Task Force through public meetings and forums.

species native to these habitats, the federal and state governments will have to acquire lands and reconnect natural habitats that have become disconnected through growth and development, and halt the spread of invasive species.

- Foster compatibility of the built and natural systems. To achieve the long-term sustainability of the ecosystem, the restoration effort has the goal of maintaining the quality of life in urban areas while ensuring that (1) development practices limit habitat fragmentation and support conservation and (2) traditional industries, such as agriculture, fishing, and manufacturing, continue to be supported and do not damage the ecosystem.

The centerpiece for achieving the goal to get the water right is the Comprehensive Everglades Restoration Plan (CERP), approved by the Congress in the Water Resources Development Act of 2000 (WRDA 2000). CERP is one of the most ambitious restoration efforts the federal government has ever undertaken. It currently encompasses 60 individual projects that will be designed and implemented over approximately 40 years.[3] These projects are intended to increase the water available for the natural areas by capturing much of the water that is currently being diverted, storing the water in many different reservoirs and storage wells, and releasing it when it is needed. The cost of implementing CERP will be shared equally between the federal government and the state of Florida and will be carried out primarily by the U.S. Army Corps of Engineers (the Corps) and the South Florida Water Management District (SFWMD), which is the state authority that manages water resources for South Florida.[4] After the Corps and SFWMD complete the initial planning and design for individual CERP projects, they must submit the proposed projects to the Congress to obtain authorization and funding for construction.

[3]The original number of individual projects in CERP was 68. In addition to these 68, CERP included 6 pilot projects and 3 proposed feasibility studies. Since CERP's approval in 2000, the Corps and the South Florida Water Management District have reorganized the projects to group those that are logically connected into broader projects. For example, several projects around Lake Okeechobee have been combined into one project. At the time of our report, CERP consisted of 60 projects, but the total number of projects that make up CERP may continue to change as implementation progresses and projects are added, combined, divided into multiple parts or phases, or deleted.

[4]Although SFWMD is CERP's primary nonfederal sponsor, the Florida Department of Environmental Protection as well as three county governments and two American Indian tribes also serve as nonfederal sponsors for portions of the plan.

In addition to the CERP projects, another 162 projects are also part of the overall restoration effort. Twenty-eight of these projects, when completed, will serve as the foundation for many of the CERP projects and are intended to restore a more natural water flow to Everglades National Park and improve water quality in the ecosystem. Nearly all of these "CERP-related" projects were already being designed or implemented by federal and state agencies, such as the Department of the Interior and SFWMD, in 2000 when the Congress approved CERP. The remaining 134 projects include a variety of efforts that will, among other things, expand wildlife refuges, eradicate invasive species, and restore wildlife habitat, and are being implemented by a number of federal, state, and tribal agencies, such as the U.S. Fish and Wildlife Service, the Florida Department of Environmental Protection (FDEP), and the Seminole Tribe of Florida. Because these projects were not authorized as part of CERP and do not serve as CERP's foundation, we refer to them as "non-CERP" projects.

Success in completing the restoration effort and achieving the expected benefits for the ecosystem as quickly as possible and in the most cost-effective manner depends on the order, or sequencing, in which many of the 222 projects will be designed and completed. Appropriate sequencing is also important to ensure that interdependencies among restoration projects are not ignored. For example, projects that will construct water storage facilities and stormwater treatment areas need to be completed before undertaking projects that remove levees and restore a more natural water flow to the ecosystem.

Recognizing the threats that Everglades National Park was facing, in 1993, UNESCO's World Heritage Committee (WHC) included the Park on its *List of World Heritage in Danger*. This list includes cultural or natural properties that are facing serious and specific threats such as those caused by large-scale public or private projects or rapid urbanization; the outbreak or the threat of an armed conflict; calamities and cataclysms; and changes in water levels, floods, and tidal waves. The Park's inclusion on the list resulted from five specific threats: (1) urban encroachment; (2) agricultural fertilizer pollution; (3) mercury contamination of fish and wildlife; (4) lowered water levels due to flood control measures; and (5) damage from Hurricane Andrew, which struck the south Florida peninsula in 1992 with winds exceeding 164 miles per hour. In 2006, WHC adopted a set of benchmarks that, when met, would lead to the Park's removal from the list. According to Park and WHC documents, nine projects that are part of the overall restoration effort will contribute to the achievement of these benchmarks.

Although Many Restoration Projects Have Been Completed or Are Ongoing, Key Restoration Benefits Are Expected to Come From Projects Not Yet Implemented

Forty-three of the 222 projects that constitute the South Florida ecosystem restoration effort have been completed, while the remaining projects are currently being implemented or are either in design, being planned, or have not yet started. Table 1 shows the status of the 222 restoration projects.

Table 1: Status of the 222 Restoration Projects by Project Group

			Not yet implemented		
	Completed	In implementation	Planning/design	Not yet started	Total
CERP	0	7	21	32	**60**
CERP-related	15	10	3	0	**28**
Non-CERP	28	90	2	14	**134**
Total	**43**	**107**	**26**	**46**	**222**

Source: GAO analysis of documents provided by Task Force and participating agencies.

Completed Restoration Projects — Although 43 of the 222 projects have been completed since the beginning of the restoration effort, this total is far short of the 91 projects that the agencies reported would be completed by 2006.[5] Nine projects were completed before 2000 when the strategy to restore the ecosystem was set. These projects are expected to provide benefits primarily in the area of habitat acquisition and improvement. Thirty-four projects were completed between 2000 and 2006. The primary purposes of these projects range from the construction of stormwater treatment areas, to the acquisition or improvement of land for habitat, to the drafting of water supply plans.

Ongoing Restoration Projects — Of the 107 projects currently being implemented,[6] 7 are CERP projects, 10 are CERP-related projects, and 90 are non-CERP projects. Five of the seven CERP projects are being built by the state in advance of the Corps' completion of the necessary project implementation reports and submission of them to the Congress for authorization and appropriations. Nonetheless, some of the CERP projects

[5]South Florida Ecosystem Restoration Task Force, *Coordinating Success: Strategy for Restoration of the South Florida Ecosystem, Volume 2* (Miami, Fla.: July 31, 2000).

[6]Some projects have multiple components, and while the entire project cannot be counted as completed, important components of it may be finished. Unless all components of the project were complete, we counted these projects as being implemented.

currently in implementation are significantly behind schedule. For example, four of the seven CERP projects in implementation were originally scheduled for completion between November 2002 and September 2006, but instead will be completed up to 6 years behind their original schedule because it has taken the Corps longer than originally anticipated to design and obtain approval for these projects. Overall, 19 of the 107 projects currently being implemented have expected completion dates by 2010. Most of the remaining 88 projects are non-CERP habitat acquisition and improvement projects that have no firm end date because the land will be acquired from willing sellers as it becomes available.

Projects Not Yet Implemented — Of the 72 restoration projects not yet implemented—in design, in planning, or not yet started—53 are CERP projects that are expected to be completed over the next 30 years and will provide important benefits such as improved water flow, additional water for restoration as well as other water-related needs. In contrast, the other 19 projects include 3 CERP-related and 16 non-CERP projects, which are expected to be completed by or before 2013. Consequently, the full environmental benefits for the South Florida ecosystem restoration that the CERP projects were intended to provide will not be realized for several decades. Several of the CERP projects in design, in planning, or not yet begun, were originally planned for completion between December 2001 and December 2005, but instead will be completed from 2 to 6 years behind their original schedule. According to agency officials CERP project delays have occurred for the following reasons:

- It took longer than expected to develop the appropriate policy, guidance, and regulations that WRDA 2000 requires for the CERP effort.

- Some delays were caused by the need to modify the conceptual design of some projects to comply with the requirements of WRDA 2000's savings clause. According to this clause, CERP projects cannot transfer or eliminate existing sources of water unless an alternate source of comparable quantity and quality is provided, and they cannot reduce existing levels of flood protection.[7]

[7]The sources of water and levels of flood protection that must be protected are those that were in existence on the date of WRDA 2000's enactment—December 11, 2000.

- Progress was limited by the availability of less federal funding than expected and a lack of congressional authorization for some of the projects.

- The extensive modeling that accompanies the design and implementation of each project in addition to the "cumbersome" project review process may have also contributed to delays, as well as stakeholder comment, dispute resolution, and consensus-building that occurs at each stage of a project.

- Delays have occurred in completing the CERP-related Modified Water Deliveries to Everglades National Park (Mod Waters) project, which is a major building block for CERP. These delays, in turn, have delayed CERP implementation.

Given the continuing delays in implementing critical CERP projects, the state has begun expediting the design and construction of some of these projects with its own resources. The state's effort, known as Acceler8, includes most of the CERP projects that were among WRDA 2000's 10 initially authorized projects, whose costs were to be shared by the federal government and the state. According to Florida officials, by advancing the design and construction of these projects with its own funds, the state hopes to more quickly realize restoration benefits for both the natural and human environments and to jump-start the overall CERP effort once the Congress begins to authorize individual projects. The Acceler8 projects include seven that are affiliated with CERP and an eighth that expands existing stormwater treatment areas. The state expects to spend more than $1.5 billion to design and construct these projects by 2011.

Restoration Projects That Would Help Achieve the World Heritage Committee's Benchmarks Will Not Be Completed for Many Years

Most of the restoration projects that would help Everglades National Park achieve the WHC's benchmarks for removing the Park from its list of world heritage sites in danger have not been completed. According to Park and WHC documents, nine restoration projects were key to meeting these benchmarks. Table 2 lists the nine projects, the type of project, implementation status, and expected completion date.

Table 2: Status of Nine Restoration Projects Key to Achieving the World Heritage Committee's Benchmarks

Project	Type	Purpose	Stage	Completion Date
Storm Water Treatment Areas 3/4	CERP-related	Water Quality	Completed	2005
East Everglades Addition to Everglades National Park	Non-CERP	Habitat Acquisition and Improvement	Ongoing	TBD
Everglades Agriculture Area Storm Water Treatment Areas Expansion	CERP-related	Water Quality	Ongoing	2010
Modified Water Deliveries	CERP-related	Water Storage and Flow	Ongoing	2011
C-111 (South Dade)	CERP-related	Water Storage and Flow	Ongoing	2012
C-111 Spreader Canal	CERP	Water Quality	Not Yet Implemented	2015[a]
Everglades National Park Seepage Management	CERP	Water Storage and Flow	Not Yet Implemented	2015
Water Conservation Area 3 —DECOMP	CERP	Water Storage and Flow	Not Yet Implemented	2020
Central Lake Belt Storage	CERP	Water Storage and Flow	Not Yet Implemented	2035

Source: GAO analysis of agency provided data.

[a] SFWMD is expediting the design and construction of this project with its own funds in advance of congressional authorization, which may result in earlier completion.

As table 2 shows, only one of the nine projects has been completed; four projects are ongoing and will not be completed until at least 2012; and four projects are still in planning and design and are not expected to be completed until some time between 2015 and 2035.

In February 2007, the United States prepared a status report for the WHC on the progress made in achieving the benchmarks that the committee had established for the Park in 2006. Based on its review of this progress report, at a benchmarks meeting on April 2-3, 2007, the WHC's draft decision was to retain Everglades National Park on the list of world heritage sites in danger; to recommend that the United States continue its commitment to the restoration and conservation of the Park and provide the required financial resources for the full implementation of the activities associated with CERP. WHC's draft decision also requested that the United States provide an updated report by February 1, 2008 on the progress made towards implementation of the corrective measures. However, at the WHC session held between June 23 and July 2, 2007, the WHC decided to remove the Park from the list of world heritage sites in danger and commended the United States for the progress made in implementing corrective measures. In its final decision, the WHC encouraged the United States to continue its commitment to the restoration and provide the required financial resources for the full implementation of the activities associated with CERP. It is unclear from

the WHC final decision document whether any additional or new information was provided to the committee that led to its final decision.

The Overall Restoration Effort Has No Sequencing Criteria and Criteria Established For CERP Projects Have Not Been Fully Applied

No overall sequencing criteria guide the implementation of the 222 projects that comprise the South Florida ecosystem restoration effort. For the 60 CERP projects there are clearly defined criteria to be considered in determining the scheduling and sequencing of projects. However, the Corps has not fully applied these criteria when making CERP project sequencing decisions, because it lacked key data such as updated environmental benefits data and interim goals. As a result the Corps primarily relied on technical interdependencies and availability of funding as the criteria for making sequencing decisions.[8] The Corps has recently started to revisit priorities for CERP projects' and alter project schedules that were established in 2005 (this process is referred to as CERP-reset). However, because the Corps continues to lack certain key data for making sequencing decisions, the revised plan, when completed, will also not fully adhere to the criteria.

Although CERP-related projects provide the foundation for many CERP projects, there are no established criteria for determining their implementation schedule and their estimated start and completion dates largely depend upon when and if the implementing agency will have sufficient funding to implement the project. For example, the construction of the Mod Waters project has been delayed several times since 1997 because, among other things, Interior did not receive enough funding to complete the construction of this project. This project is expected to restore natural hydrologic conditions across 190,000 acres of habitat in Everglades National Park and assist in the recovery of threatened and endangered plants and wildlife. The completion date for the Mod Waters Project has slipped again and it is now not expected to be completed until 2011. Because completion of this project is critical to the implementation of other CERP projects such as the Water Conservation Area 3 Decompartmentalization and Sheetflow Enhancement (Decomp) project—a project that many agency officials consider key to restoring the natural system—these delays will have a ripple effect on the completion date of this project as well.

[8] An agreement establishing interim goals was signed by the Departments of the Army and the Interior and the state of Florida in late April/early May 2007.

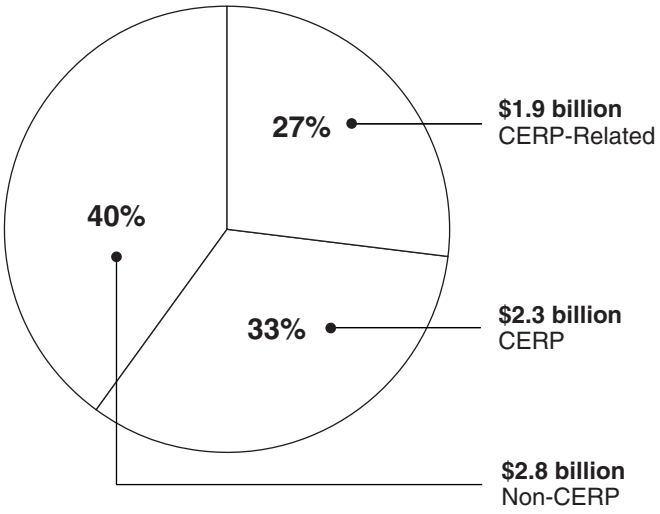
Similarly, for non-CERP projects, agencies reported that they do not have any sequencing criteria; instead, they decide on the scheduling and timing of these projects primarily if and when funding becomes available. For example, Florida has a land acquisition program to acquire lands for conservation and habitat preservation throughout the state, including for some non-CERP projects that are part of the South Florida ecosystem restoration effort. State officials have identified lands and added them to a list of priority projects proposed for acquisition throughout the state. However, whether or not these lands will be acquired for non-CERP projects depends on whether there is available funding in the annual budget, there are willing sellers, and the land is affordable based on the available funding.

Because of the correct sequencing of CERP projects is essential to the overall success of the restoration effort, we recommended that the Corps obtain the data that it needs to ensure that all required sequencing criteria are considered and then comprehensively reassess its sequencing decisions to ensure that CERP projects have been appropriately sequenced to maximize the achievement of restoration goals. The agency agreed with our recommendation.

Federal Agencies and Florida Have Provided More Than $7 Billion for Restoration Activities Since 1999, But Estimated Costs Have Increased and Are Likely to Rise

From fiscal year 1999 through fiscal year 2006, federal and state agencies participating in the restoration of the South Florida ecosystem provided $7.1 billion for the effort. Of this total, federal agencies provided $2.3 billion and Florida provided $4.8 billion. Two agencies—the Corps and Interior—provided over 80 percent of the federal contribution. As figure 1 shows, federal and state agencies allocated the largest portion of the $7.1 billion to non-CERP projects for fiscal years 1999 through 2006.

Figure 1: Federal and State Funding Provided for CERP, CERP-Related, and Non-CERP Projects and Activities, Fiscal Years 1999-2006



Source: GAO's analysis of federal and state agencies restoration funding data.

Note: Amounts do not total to $7.1 billion due to rounding. The amounts are $1.93 billion for CERP-related, $2.35 billion for CERP, and $2.80 billion for non-CERP.

While federal agencies and Florida provided about $2.3 billion during fiscal years 1999 through 2006 for CERP projects, this amount was about $1.2 billion less than they had estimated needing for these projects over this period. This was because the federal contribution was $1.4 billion less than expected. This shortfall occurred primarily because CERP projects did not receive the congressional authorization and appropriations that the agencies had expected. In contrast, Florida provided a total of $2 billion over the period, exceeding its expected contribution to CERP by $250 million, and therefore making up some of the federal funding shortfall.

Additionally, between July 31, 2000, and June 30, 2006, the total estimated cost for the South Florida ecosystem restoration grew from $15.4 billion to $19.7 billion, or by 28 percent. A significant part of this increase can be attributed to CERP projects; for these projects costs increased from $8.8 billion to $10.1 billion. This increase represents nearly 31 percent of the increase in the total estimated cost for the restoration. Agency officials reported that costs have increased for the restoration effort primarily because of inflation, increased land and construction costs, and changes in the scope of work. Furthermore, the costs of restoring the South Florida ecosystem are likely to continue to increase for the following reasons:

- Estimated costs for some of the projects are not known or fully known because they are still in the design and planning stage. For example, the total costs for one project that we examined—the Site 1 Impoundment project—grew by almost $36 million; from about $46 million to about $81 million after the design phase was completed. If other CERP projects, for which initial planning and design have not yet been completed, also experience similar increases in project costs, then the estimated total costs of not only CERP but the overall restoration effort will grow significantly.

- The full cost of acquiring land for the restoration effort is not known. Land costs for 56 non-CERP land projects, expected to total 862,796 acres, have not yet been reported. According to state officials, Florida land prices are escalating rapidly, owing primarily to development pressures. Consequently, future project costs are likely to rise with higher land costs. Similarly, while land acquisition costs for CERP projects are included as part of the total estimated project costs, thus far, the state has acquired only 54 percent of the land needed for CERP projects, at a cost of $1.4 billion. An additional 178,000 acres have yet to be acquired; the cost of these purchases is not yet known and is therefore not fully reflected in the cost of CERP and overall restoration costs.

- The cost of using new technologies for the restoration effort is unknown. The Congress authorized pilot projects in 1999 and 2000 to determine the feasibility of applying certain new technologies for storing water, managing seepage, and reusing treated wastewater. While the pilot projects have been authorized, the cost to construct or implement projects based on the results of the pilot projects is not yet known.

In conclusion, Mr. Chairman, our review of the South Florida Ecosystem restoration effort shows that the some progress has been made in moving the restoration forward. However, the achievement of the overall goals of the restoration and ultimately improvements in the ecological condition of Everglades National Park depends on the effective implementation of key projects that have not progressed as quickly as was expected. Moreover, the shortfall in federal funding has contributed to some of these delays and at the same time the costs of the restoration continues to increase and we believe could rise significantly higher than the current estimate of almost $20 billion. In light of these concerns, we believe that restoring the South Florida Ecosystem and Everglades National Park, will continue to be a significant challenge for the foreseeable future. This concludes our

prepared statement. We would be happy to respond to any questions you may have.

GAO Contacts

If you have any questions about this statement, please contact Anu K. Mittal @ 202-512-3841 or mittala@gao.gov. Other contributors to this statement include Sherry McDonald (Assistant Director) and Kevin Bray.

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