



Everglades Restoration: Federal Funding and Implementation Progress

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February 26, 2013

Congressional Research Service

7-5700

www.crs.gov

R42007

CRS Report for Congress

Prepared for Members and Committees of Congress

Summary

The Everglades is a unique network of subtropical wetlands in South Florida that is approximately half of its historical size, due in part to degradation from federal water projects. In 2000, Congress authorized a 30-year plan, termed the Comprehensive Everglades Restoration Plan (CERP), for the restoration of the Everglades ecosystem in southern Florida. When originally authorized, it was estimated that CERP would cost a total of \$8.2 billion and take approximately 30 years to complete. More recent estimates indicate that the plan would take approximately 50 years to implement, and would cost \$13.5 billion.

Under CERP, the federal government (through the U.S. Army Corps of Engineers and the Department of the Interior) is required to fund half of the costs for restoration, with an array of state, tribal, and local agencies paying the other half. In addition to activities under CERP, a number of other federal and state efforts that pre-date CERP (known collectively as “non-CERP” or “Foundation” activities) also contribute to Everglades restoration. While non-CERP efforts are technically not included in CERP, the two sets of activities are widely viewed as complementary.

Since passage of CERP in 2000, the federal investment in the Everglades has increased. As of the end of FY2012, the federal government had provided \$1 billion in funding for CERP, with the state providing matching funds for CERP projects, as well as advanced funding for land acquisition and construction for expected future CERP projects. Federal funding for non-CERP activities (most of which pre-date CERP) has also continued over this time period. These efforts are estimated to total more than \$3 billion as of 2011. While estimates of nonfederal (i.e., state) funding contributions to CERP and related restoration efforts vary widely depending on what methodology is employed, most agree that, to date, the State of Florida has spent significantly more on Everglades restoration than has the federal government.

Progress has been made on a number of Everglades restoration projects, although overall progress to date has fallen short of initial goals. As of 2012, the majority of the land necessary for restoration projects under CERP had been acquired, and significant progress has been made on non-CERP activities (including improved water deliveries to Everglades National Park). Construction has also been initiated on four CERP projects, and studies have been completed or are underway for a number of other CERP projects. Despite this progress, some projects have seen setbacks in the form of schedule delays and cost escalations. Additionally, new or revised authorizations will be required for many projects to go forward. These impediments may have the effect of further delaying restoration efforts.

Reductions to state funding and the lack of new Everglades CERP authorizations in the Water Resources Development Act have increased attention to the congressional role in Everglades restoration. Debate and resolution of these issues has implications, both for ecosystem restoration in the Everglades and for large-scale restoration initiatives elsewhere.

This report provides information on federal appropriations for Everglades restoration and provides a brief summary of accomplishments and potential challenges for Everglades restoration.

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Introduction

The Florida Everglades is a unique network of subtropical wetlands that is now half its historical size. The federal government has had a long history of involvement in the Everglades, beginning in the 1940s with the U.S. Army Corps of Engineers (hereinafter referred to as the Corps) constructing flood control projects that shunted water away from the Everglades to make way for agricultural and urban development. Additional factors, including nonfederal development efforts, have contributed to the shrinking and altering of the Everglades ecosystem.

In recognition of the unique ecosystem services provided by the Everglades, federal and state agencies began ecosystem restoration activities in the Everglades in the early 1990s. However, it was not until 2000 that federal and state restoration activities were coordinated under an integrated plan. In the Water Resources Development Act of 2000 (WRDA 2000, P.L. 106-541), Congress approved the Comprehensive Everglades Restoration Plan (CERP) as a framework for Everglades restoration and authorized an initial round of projects by the Corps and the Department of the Interior (DOI). According to the process, additional Everglades projects are to be presented to Congress for authorization as their planning is completed. In WRDA 2007 (P.L. 110-114), four additional projects were authorized. As of early 2013, four other projects had feasibility studies completed but were not yet authorized.

To date, some progress has been made on Everglades restoration, but much more time and funding will be required to complete restoration as currently contemplated. Previously, some have highlighted the overall slow pace of restoration as an argument for expedited support. Conversely, others have argued that restoration activities in the Everglades already receive too much funding relative to other priorities, and that the support provided for these activities is not appropriate given larger fiscal concerns.

Stakeholders involved with planning other large-scale restoration initiatives look to the Everglades as a model and a test case. Some believe the types of activities funded and the level of funding for the Everglades may set a precedent for other restoration initiatives, and should thus be a priority. Others assert that Everglades restoration efforts have been disproportionately favored relative to similar projects, and should be subject to the same cost-cutting efforts as other areas of the budget.

This report summarizes historical and current funding for Everglades restoration, with a focus on federal funding and recent issues facing Congress. It also summarizes some of the major accomplishments in Everglades restoration since the enactment of CERP in 2000, as well as ongoing challenges.

Everglades Projects: CERP and Non-CERP

Federal CERP funding was first authorized in WRDA 2000, with a focus on increasing storage of excess water in the rainy season to provide more water during the dry season for the ecosystem and for urban and agricultural users. It is estimated that CERP will take more than 50 years and \$13.5 billion to complete.¹ The federal government is expected to pay half of CERP's costs, and

¹ This figure represents the estimated cost to the federal government in October 2009 dollars according to the Corps. (continued...)

an array of state, tribal, and local agencies (i.e., nonfederal sponsors) will pay the other half. This same cost share is expected to apply to all project operation and maintenance costs.

WRDA 2000 authorized initial projects, established federal/nonfederal cost-sharing ratios for Everglades restoration, and created a process for additional projects to be authorized as part of the CERP framework. WRDA 2007 authorized an additional three CERP projects. Four other projects have completed the study phase and are ready for construction authorization. The status of these projects is discussed later in this report.

Federal Everglades restoration activities not authorized under CERP are often referred to as “non-CERP” or “Foundation” activities. Depending on how broadly this category is defined, it can encompass a wide variety of Everglades restoration activities undertaken by multiple agencies.² Most (but not all) of the authorities for this funding predate the enactment of CERP in 2000. However, similar to CERP funding, most funding for non-CERP Everglades restoration is provided to the Department of the Interior and the Corps of Engineers. Thus, the Corps and DOI are often the focal point for funding debates surrounding the Everglades.

Funding for Everglades Restoration

Federal funding for Everglades restoration is largely provided through DOI and the Corps, and is concentrated in two appropriations bills—the Interior and Environment appropriations bill (which provides funds to DOI) and the Energy and Water Development appropriations bill (which provides funds to the Corps). Additionally, some funding in other appropriations bills is sometimes noted as contributing to Everglades restoration, but is not formally tracked under the Administration’s non-CERP totals.³

Appropriations laws and conference reports typically do not specify appropriations levels for most Everglades restoration activities. Rather, the Administration’s budget request identifies restoration funding totals for the Administration’s request and for the previous fiscal year.⁴ Actual expenditure information for previous appropriations is tracked by the South Florida Ecosystem Restoration Task Force. A summary of funding for both CERP and non-CERP activities within DOI and the Corps is provided below in **Table 1**.

(...continued)

See U.S. Army Corps of Engineers, *Comprehensive Everglades Restoration Plan, 2010 Report to Congress*. Available at <http://www.sfrestore.org/documents/index.html>. Hereinafter *2010 CERP Report to Congress*.

² In addition to the Corps and DOI, the South Florida Ecosystem Restoration Task Force also tracks funds that are provided to the National Oceanic and Atmospheric Administration, the U.S. Environmental Protection Agency, and the U.S. Department of Agriculture. However, in its annual budget request, the Administration typically only tracks “non-CERP” funding for the Corps and DOI.

³ As previously noted, some funds not discussed in this report are tracked under the “non-CERP” heading because of their contribution to Everglades restoration. This includes funds for the Environmental Protection Agency (also in the Interior and Environment appropriations bill), the National Oceanic and Atmospheric Administration (Commerce, Justice, and State, the Judiciary, and Related Agencies appropriations bill), and the U.S. Department of Agriculture (U.S. Department of Agriculture and Related Agencies appropriations). For additional information, see crosscut budget documents available at <http://www.sfrestore.org/documents/index.html>.

⁴ Thus, these totals often lag behind final enacted appropriations.

DOI Funding

Funding within the Interior and Environment bill is allotted to four agencies within DOI: the National Park Service (NPS), the Fish and Wildlife Service (FWS), the U.S. Geological Survey (USGS), and the Bureau of Indian Affairs (BIA). Within these agencies, two types of Everglades funding are often highlighted: funding for CERP and funding for the Modified Waters Delivery Project for Everglades National Park (also known as “Mod Waters”).⁵ Funding for CERP is typically provided to NPS and FWS, while funding for the Modified Waters deliveries project is provided to NPS. Although Mod Waters is technically a non-CERP project, it is widely considered to be a keystone project for Everglades restoration, including CERP. DOI funding totals for FY2006-FY2013 are shown in **Table 1**.

The FY2013 Administration request for Everglades funding included \$71 million in DOI funding for Everglades restoration, including an increase of approximately \$8 million for the Modified Waters Delivery Project. This funding has been provided directly to the Department of the Interior since FY2009.⁶

Table 1. Corps and DOI Funding for Everglades Restoration
(thousands of dollars)

	FY2007	FY2008	FY2009	ARRA	FY2010	FY2011	FY2012	FY2013 Proposed
DOI	75,152	87,355	128,862	23,264	79,424	70,600	99,831	70,748
<i>CERP</i>	8,481	8,383	9,459	-	8,449	8,401	8,347	8,392
<i>Non-CERP</i>	66,671	78,972	119,403	23,264	70,975	62,199	91,484	62,356
<i>[DOI Mod Waters]</i>	<i>[13,330]</i>	<i>[14,299]</i>	<i>[60,000]</i>	<i>[21,052]</i>	<i>[8,400]</i>	<i>[8,000]</i>	<i>[7,987]</i>	<i>[8,000]</i>
Corps	157,553	112,694	115,712	95,412	167,364	131,066	142,486	153,000
<i>CERP</i>	64,000	64,000	83,640	87,896	119,966	79,860	57,886	91,000
<i>Non-CERP</i>	93,553	48,694	32,072	7,516	47,398	41,108	84,600	62,000
<i>[Mod Waters]</i>	<i>[35,000]</i>	<i>[9,840]</i>	-	-	-	-	-	-
Total	232,705	200,049	244,574	118,676	246,788	201,666	242,317	223,748

Source: Congressional Budget Justifications for the U.S. Department of the Interior and Army Corps of Engineers, FY2006-FY2013.

Notes: DOI funding includes funding for the National Park Service, the Fish and Wildlife Service, the U.S. Geological Survey, and the Bureau of Indian Affairs. “ARRA” represents funding under the American Recovery and Reinvestment Act (P.L. 110-5). Mod Waters totals represent a subset of non-CERP funding.

⁵ The Modified Waters Deliveries Project is an ecosystem restoration project in south Florida designed to improve water delivery to Everglades National Park.

⁶ Prior to FY2009, this funding was provided both to the Corps and to DOI.

U.S. Army Corps of Engineers Funding

Funding for Corps Everglades restoration projects in the Energy and Water Development bill is listed under project-level headings in the Corps Construction account. Currently, these projects include the Central and Southern Florida Project, Kissimmee River Restoration, and Everglades and South Florida Restoration. Historically, funding was also included for two other areas, Florida Keys Water Quality Improvement and the Modified Waters Deliveries Project.⁷ Corps funding is directed toward planning and construction of projects authorized under CERP and other authorities. Within Corps totals, funding for CERP is considered a key benchmark for Everglades restoration commitment and progress. **Table 1** shows funding totals for the Corps in recent fiscal years and the FY2012 President's request.

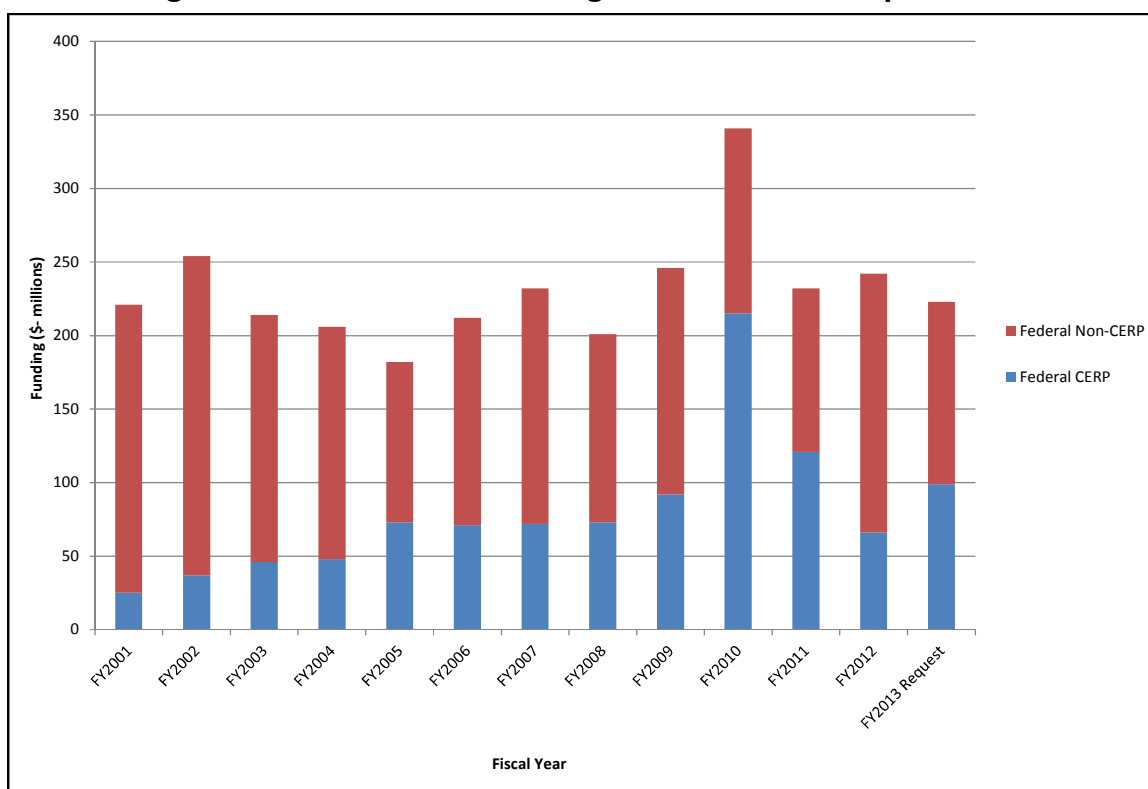
Funding Trends

Federal funding totals for restoration activities in the Everglades ecosystem have been collected since the early 1990s. Overall, since FY1993, the federal investment in Everglades restoration is estimated to have exceeded \$4 billion, and has increased in recent years. From FY1993 through FY2000, federal appropriations for Everglades restoration activities totaled more than \$1.2 billion. More recently, from the enactment of CERP in FY2000 through FY2012, total federal funding exceeded \$3.1 billion, with more than \$900 million of that total going to federal CERP projects. Overall, average federal funding since the enactment of CERP has increased, from approximately \$159 million per year before enactment of CERP to \$259 million per year since CERP was enacted.⁸ **Figure 1** shows all Everglades funding since 2001, breaking these totals down between CERP and non-CERP funding.

⁷ As noted above, in recent years Mod Waters funding has been provided solely to DOI. Florida Keys Water Quality Improvement was completed in FY2009.

⁸ CRS analysis of departmental data for FY1993-FY2011. These totals are for Corps and DOI restoration work only.

Figure I. Estimated Federal Everglades Restoration Expenditures



Source: Estimated Federal CERP Expenditures.

Notes: FY2010 includes additional funding under P.L. 111-5 (ARRA). Some totals for non-CERP funding may not match with previous totals due to inconsistencies in reported funding levels between the President’s budget and the crosscut budget documents.

Comparing Federal and State Funding

Exact comparisons between federal and state funding levels are complicated for a number of reasons. As previously noted, CERP funding is to be cost-shared equally between the federal government and nonfederal entities in the state of Florida. Many view the status and amount of federal CERP funding relative to nonfederal funding for this initiative as an important indicator of the federal government’s commitment to Everglades restoration. While the state has invested considerable funding in CERP, much of this funding is for land acquisition related to the expected “footprints” of future CERP projects. Thus, exact comparisons between federal and state funding levels are complicated.

Nonfederal CERP expenditures are ostensibly tracked in several reports, including a crosscut budget report prepared annually by the South Florida Ecosystem Restoration Task Force. However, this funding is not formally “credited” by the Corps toward CERP project cost shares until a number of requirements have been met. These requirements include completion of a project implementation report (PIR) and authorization for construction of the project by Congress, as well as signing of a project partnership agreement, or PPA. Thus, although some may reference large nonfederal contributions toward CERP, the proportion of these expenditures that have been formally credited toward CERP is actually much smaller. Indeed, it is possible

that, depending on subsequent actions of the Corps and Congress, some of the aforementioned funds will never be credited under CERP.

The magnitude of the difference between initial state expenditures and the amounts actually credited under CERP results in a wide range of reported state funding levels for CERP. For instance, the State of Florida's annual crosscut budget previously estimated that from 2001 to 2011, it spent approximately \$3 billion for its CERP costs. However, actual credited expenditures from federal and state entities have been noted by the Corps to be roughly even to date, and a 2012 National Research Council (NRC) review noted that all state expenditures for authorized CERP projects (i.e., projects authorized in WRDA 2000 and WRDA 2007) only exceeded federal expenditures by \$270 million as of 2011.⁹

In its 2012 report to Congress, the NRC estimated that another \$584 million in state expenditures would be available for crediting if the next "round" of CERP authorized projects is authorized. The total amount expended by the State of Florida that may be credited to all future CERP projects ranges widely, depending on which assumptions are used.¹⁰ Future legislative actions, including project authorizations, would be an important factor in determining the exact amount eligible for cost shares. (For more information, see "Challenges", below.)

Implementation Progress/Challenges

Congress has mandated several major reports that include detailed evaluations of Everglades restoration. NRC reviews of Everglades restoration are published biennially and a report was most recently published in 2012; CERP reports to Congress are published every five years and a report was most recently completed in 2010.¹¹ Both reports outline accomplishments and challenges related to CERP and non-CERP projects.

Since passage of CERP in 2000, progress has been made on Everglades restoration for both CERP and non-CERP projects, including construction of pilot projects and initiation of several other construction projects. As discussed below, some of the non-CERP "Foundation" projects are nearing completion. Additionally, in recent years many have noted an increase in momentum for Everglades restoration as several projects moved from the planning to construction phase. Most of these projects have seen increases in federal appropriations. In addition to progress on construction, baseline information and processes have also been established, the scientific understanding of many of the uncertainties associated with Everglades restoration has improved, and a programmatic structure is in place to facilitate future projects. Selected CERP and non-CERP accomplishments as of 2013 are noted below.

⁹ Committee on Independent Scientific Review of Everglades Restoration, National Research Council, *Progress Toward Restoring the Everglades: The Fourth Biennial*, Washington, DC, 2012, http://www.nap.edu/catalog.php?record_id=13422. Hereafter Fourth Biennial Review.

¹⁰ A number of potential CERP projects benefited from land purchases by the State of Florida but have yet to receive a Chief's Report or be authorized by Congress. Correspondence with Steve Kopecky, Corps, May 11, 2011.

¹¹ See footnotes 1 and 9.

Accomplishments¹²

- Purchase of more than 60% of total land required under CERP.
- Design and installation of four CERP pilot projects authorized in WRDA 2000.
- Initiation of construction on the Picayune Strand restoration project (authorized in WRDA 2007), which is expected to restore 55,000 acres of wetlands. The first phase of this project is expected to be complete in 2013.
- Initiation of construction on the Site 1 Impoundment Project (authorized in WRDA 2007), which is expected to provide for 13,280 acre-feet of water storage and prevent saltwater intrusion. The first phase of this project is expected to be completed in 2013.
- Initiation of construction for the C-44 Reservoir and Stormwater Treatment Area (STA) component of the Indian River Lagoon-South Project (authorized in WRDA 2007), which is expected to store approximately 50,000 acre-feet of stormwater. This project is expected to be completed in 2018.
- Completion of PIRs by the Corps for four projects: the C-111 Spreader Canal; Biscayne Bay Coastal Wetlands; C-43 West Basin Storage Reservoir, and Broward County water preserve areas.
- Initiation of expedited construction by the State of Florida on four projects: Loxahatchee River Watershed, Lakeside Ranch STA, C-111 Spreader Canal, and Biscayne Bay Coastal Wetlands.

Selected Non-CERP Accomplishments

- Initiation of construction of the 1-mile bridge component of the Mod Waters Project, which is expected to improve water deliveries to Everglades National Park. This project is expected to be completed in 2013.
- Completion of three of four phases of the Kissimmee River Restoration Project, which is expected to reconnect the river with its historical flood plain and better restore more natural flows.

Challenges

Outside reviewers, including the NRC, have noted the relatively slow pace of Everglades restoration compared to the ambitious timetables laid out in original program documents.¹³ These observers have acknowledged that while there has been some progress in the Everglades, implementation of actual restoration projects receiving federal and state funds has been considerably slower than expected. At the same time, estimated costs for Everglades restoration have gone up significantly. While CERP was originally estimated to cost a total of \$8.2 billion (2000 dollars) in funding over 30 years, more recent estimates indicate that CERP will cost \$13.5

¹² Accomplishments noted are as of 2013.

¹³ See for example, Committee on Independent Scientific Review of Everglades Restoration, National Research Council, *Progress Toward Restoring the Everglades: The Third Biennial Review*, Washington, DC, 2010, pp 64-68, https://download.nap.edu/catalog.php?record_id=12988. Hereinafter referred to as the Third Biennial Review.

billion (2009 dollars), and have extended the expected timeline for implementation to 50 years.¹⁴ Stated reasons for these cost and schedule changes include inflation, changes to project design, and funding streams that were less than originally expected.

As of 2013, no major CERP project receiving federal funds had been completed, and the majority of projects described in earlier plans had yet to be initiated. Many of the projects envisioned in earlier program documents are either unauthorized, or else require amendments to their original authorization to proceed further.¹⁵ As of 2013, 10 of the 45 project implementation reports expected under CERP had been finalized or completed in draft form. Of these 10 projects, only four have been authorized by Congress and have had construction initiated. In several cases, CERP projects have yet to be authorized by Congress, but nonfederal construction work has begun.

Another challenge going forward for Everglades restoration may be the status of potential new project authorizations under the Water Resources Development Act (WRDA). Originally, CERP envisioned regular enactment of WRDAs and associated inclusion of CERP projects as they were studied and recommended to Congress. However, since 2000, one WRDA has been enacted (2007). Absent new authorizations, there is no clear way for federal work on Everglades restoration to proceed, and construction may slow considerably from its current pace as existing projects wind down and the Corps is not able to match prior state expenditures for unauthorized projects. Such a scenario would likely delay CERP further relative to the current expected timeline.

Other challenges to Everglades restoration have been noted by outside reviewers and others. These challenges include ongoing issues associated with water quality in the Everglades and south Florida, the adequacy of some restoration efforts in recreating historical hydrologic conditions, and ongoing degradation of species and ecosystems in south Florida, which has in some cases accelerated in recent years.

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¹⁴ According to the Corps, the increased cost estimates since 2000 are attributed to (1) \$3.63 billion in inflation adjustments; and (2) \$1.63 billion in price /scope changes.

¹⁵ While WRDA 2000 conditionally authorized 10 projects, these projects will reportedly need to have their authorizations amended due to substantive changes in project scope.