

Central and Southern Florida Project

COMPREHENSIVE EVERGLADES RESTORATION PLAN

2005 Report to Congress



US Army Corps
of Engineers



**Central and Southern Project
Comprehensive Everglades Restoration Plan
2005 Report to Congress**

Government Entities Involved in Everglades Restoration

Federal

Executive Office of the President
Executive Office of the President,
Council on Environmental Quality
U.S. Department of Agriculture,
Natural Resources Conservation Service
U.S. Department of Army, Corps of Engineers
U.S. Department of Commerce,
National Oceanic and Atmospheric Administration
U.S. Department of Interior: Bureau of Indian Affairs;
Fish and Wildlife Service; Geological Survey; National Park Service; and
Office of the South Florida Ecosystem Restoration Task Force
U.S. Department of Justice
U.S. Department of Transportation,
Office of Safety, Energy and Environment
U.S. Environmental Protection Agency

Tribal

Miccosukee Tribe of Indians of Florida
Seminole Tribe of Florida

State

Executive Office of the Governor
Florida Department of Agriculture:
Division of Forestry; and Institute For Agricultural Studies
Florida Department of Community Affairs
Florida Department of Environmental Protection
Florida Department of Health
Florida Department of Transportation
Florida Fish and Wildlife Conservation Commission
South Florida Water Management District
South Florida Water Management District, Water Resources Advisory Commission
Southwest Florida Water Management District
St. Johns River Water Management District

Local Counties

Broward, Charlotte, Collier, Glades, Hendry, Highland,
Lee, Martin, Miami-Dade, Monroe, Okeechobee, Orange,
Osceola, Palm Beach, Polk, St. Lucie

AGENCY LETTERS

Section 601 of the Water Resources Development Act of 2000 approved the Comprehensive Everglades Restoration Plan (CERP) as a framework for modifications and operational changes to the Central and Southern Florida Project needed to restore, preserve and protect the South Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection. Per the requirements of Section 601 (l), the Secretaries of the Army and the Interior jointly submit this Report to Congress on the implementation of the Plan.

In accordance with section 601(l)1 of the Act this report includes:

“...the determination of each Secretary, and the Administrator of the Environmental Protection Agency, concerning the benefits to the natural system and the human environment achieved as of the date of the report and whether the completed projects of the Plan are being operated in a manner that is consistent with the requirements of subsection (h)...”

This report also includes a letter of support signed by the Florida Department of Environmental Protection (FDEP) and the South Florida Water Management District (SFWMD).

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DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
108 ARMY PENTAGON
WASHINGTON DC 20310-0108

06 OCT 2005

Determination of the Secretary of the Army for the
Five-Year Report to Congress Pursuant to Section 601(L) of the WRDA 2000

I have determined that satisfactory progress is being made towards achieving the benefits for the natural system and the human environment envisioned in the Comprehensive Everglades Restoration Plan (CERP).

Since authorization of the CERP in the Water Resources Development Act of 2000, the Army Corps of Engineers has developed an integrated strategy with its primary partner, the South Florida Water Management District, to ensure efficient, coordinated efforts to implement the Plan. Key to the success in implementing this program is effective coordination with the Department of the Interior, as well tribal governments and other federal and state partners, all of which have been active participants.

While none of the components identified in the Comprehensive Plan have been completed during this first reporting period, critical actions that lay the groundwork for completion of projects have been addressed. Implementation actions have focused on development of program coordination mechanisms and guidance necessary to implement this complex and highly dynamic effort, initiation of many of the required Project Implementation Reports (PIR) that lead to construction, and continued implementation of the foundation projects that CERP will be built upon.

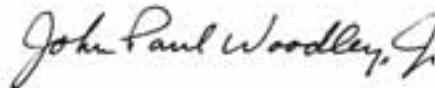
Significant effort has been devoted to putting into place needed program coordination mechanisms and guidance. The Programmatic Regulations to guide the overall success of CERP implementation were finalized and adopted in December 2003. The Master Implementation Sequencing Plan is in place, setting forth the road map for completion of Plan projects and focusing the allocation of resources into five year bands. President Bush and Governor Bush signed the Comprehensive Everglades Restoration Plan Assurances of Project Benefits Agreement, and an agreement for resolution of disputes between the federal government and the State of Florida has been completed. An Independent Scientific Review Panel convened by the National Academy of Sciences was established last year. Finally, great progress has been made in drafting the first set of Interim Goals, which will be used to evaluate the restoration success of CERP and appropriate adaptive management strategies, and the Six Program Wide Guidance Memoranda called for in the Programmatic Regulations to address Assurance of Project Benefits requirements. Both these efforts are expected to be completed in the near future.

During this reporting period the Corps has initiated numerous PIRs that will ultimately lead to construction. Scores of individuals have been actively coordinating the more than 20 PIRs. The PIRs present the alternative designs evaluated in developing the project plan to be recommended for construction authorization to Congress. Recently completed PIRs include Indian River Lagoon - South, and Picayune Strand Restoration.

I am pleased to report that there have also been observable benefits to the natural system and the human environment from continued implementation of the foundation projects CERP is built upon. The results of backfilling just a portion of the Kissimmee River have proved remarkable, with project operations generating a return of natural flow patterns in the restored area and native flora and fauna returning in significant numbers to the area. Completion of several Critical Restoration Projects has reduced fresh water losses from the Pensucco Wetlands and reduced nutrient discharges from populated areas into Water Conservation Area 3A, improving the health of these valuable wetland systems.

In addition, the State of Florida has implemented several projects in an effort to advance realization of restoration benefits. The 2004 completion of the Prairie Canal Backfilling project by the South Florida Water Management District is but one example. The project is already providing a portion of the benefits envisioned in the Picayune Strand Restoration Project by reducing drainage of adjacent natural areas including Fakahatchee Strand State Preserve and the Florida Panther National Wildlife Refuge and demonstrating that native vegetation quickly covers the backfill area, with very few nuisance or exotic plant species having been observed. Ospreys and wading birds have been observed foraging in the area and some beneficial surface water flows were also observed during the 2004 wet season.

The next five years herald the promise of even more tangible, beneficial changes in the South Florida ecosystem, with nineteen projects identified as part of CERP to be under construction or completed by 2010. We look forward to continuing progress with the Department, the State of Florida, and our other partners in achieving the benefits for the natural system and the human environment envisioned by CERP.



John Paul Woodley, Jr.
Assistant Secretary of the Army
(Civil Works)



THE DEPUTY SECRETARY OF THE INTERIOR
WASHINGTON

Determination of the Secretary of the Interior for the Five-Year Report to Congress
Pursuant to Section 601(L) of the Water Resources Development Act of 2000

Since the passage of the Water Resources Development Act (WRDA) of 2000 and its authorization of the Comprehensive Everglades Restoration Plan (CERP or the Plan), the Department of the Interior (Department) has worked with its Federal, State, and Tribal partners to implement the CERP. This initial effort during the past five years has focused on developing the required procedures and legal assurances to guide the implementation of the Plan over the next several decades and to refine the project designs for the initial suite of authorized projects, as well as projects to be proposed for future authorization.

The legal mechanisms to assure project benefits as required by WRDA 2000 are in place. The **Comprehensive Everglades Restoration Plan Assurance of Project Benefits Agreement** was signed in 2002 by President Bush and Governor Bush. Similarly, the programmatic regulations setting forth procedures to implement CERP, including mechanisms to adaptively manage the plan to incorporate new scientific information, were promulgated and are set forth at 33 CFR Part 385.

As required by the programmatic regulations, six program guidance memoranda are being developed to ensure that the completed projects of the plan are operated in a manner consistent with WRDA 2000, the programmatic regulations and the Assurance of Project Benefits Agreement. These guidance memoranda contain technical instructions and guidance on, among other things, the formulation and content of Project Implementation Reports to be prepared pursuant to WRDA 2000, including formulation and evaluation of project alternatives and the identification of the amount of water to be dedicated and managed for the natural system by the State of Florida to achieve restoration goals. These guidance memoranda also contain technical instructions and guidance on the general content of operating manuals and adaptive assessment activities. Lastly, there are additional tools to measure restoration progress, including an initial set of interim goals and a monitoring and assessment plan. The interim restoration goals, presently under development, will guide the implementation of CERP and will be memorialized in an intergovernmental agreement among the State of Florida, the Department of the Interior and the Department of the Army. It is anticipated that the guidance memoranda and the interim goals agreement will be completed in 2006. The Monitoring and Assessment Plan has been developed, and its formal assessments will be used as the foundation of the adaptive management strategy for CERP implementation.

Although none of the CERP projects were expected to be completed during this reporting period, I am encouraged that benefits to the natural system from two partially completed CERP projects are evident. For example, in the Picayune Strand Restoration Project (formerly Southern Golden Gate Estates) immediate benefits from backfilling by the South Florida Water Management District of the Prairie Canal were observed as the

surrounding wetlands were re-flooded. Native wetland vegetation quickly recovered in the area, and ospreys and other wading birds immediately moved to take advantage of the improved habitat. Similarly, benefits from the initial portion of the Indian River Lagoon – South Project are also evident where 2,000 wetland acres from the former Allapattah cattle ranch, a 20,000-acre “natural area” component of the Indian River Lagoon - South Project, have been restored. These restored wetlands provide immediate improvements to water quality and provide foraging habitat for several species of wading and water birds.

Additionally, two important milestones have been reached for the Modified Water Deliveries to Everglades National Park (Mod Waters) Project, which is a foundation project for the CERP and the Federal government’s highest priority. While completion of Mod Water has been delayed, the construction contract for completing the 8.5 Square Mile Area portion of the project has been recently awarded and a Record of Decision for the Tamiami Trail component has been finalized. Implementation of the Tamiami Trail component will restore more natural flows of water to Northeast Shark River Slough, consistent with the project’s authorization. Assuming appropriation of sufficient funds, the project is estimated to be complete in 2009.

For the reasons described above, I have determined that the restoration progress is proceeding in accordance with the legislative requirements set forth in the Water Resources Development Act of 2000 (P.L. 106-541) authorizing the Comprehensive Everglades Restoration Plan. As set forth in the Report to Congress, the Federal and State agencies implementing the CERP anticipate that additional natural system benefits will be achieved during the next five year reporting period. The Department will continue to coordinate closely with the Congress as we implement CERP with our Federal, State, Tribal and other partners.


P. Lynn Scarlett
Deputy Secretary



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 30 2005

OFFICE OF
WATER

Determination of the Administrator of the U.S. Environmental Protection Agency for the
Five-Year Report to Congress Pursuant to Section 601(l) of the WRDA 2000

I have determined that substantial progress is being made to achieve significant environmental restoration as well as benefits to the South Florida human environment as a result of implementation of the Comprehensive Everglades Restoration Plan (CERP). The actions to date are consistent with the required assurances of project benefits contained in Subsection 601(h) of the Water Resources Development Act (WRDA 2000). This determination is in accordance with Section 601(l) of the Act and as required by the Programmatic Regulations for the Comprehensive Everglades Restoration Plan (33 C.F.R. 385.40(d)(1)).

The 2005 CERP Report to Congress, jointly submitted by the Secretaries of the Army and Interior, is the first CERP report to Congress since the enactment of WRDA 2000. The report details the substantial and meaningful programmatic and project related efforts of the U. S. Army Corps of Engineers (COE), the South Florida Water Management District, the associated cooperating federal and state agencies, the Tribal Nations, and the local governments responsible for implementing CERP. Currently, numerous CERP program coordination and project formulation, design and implementation activities are underway.

Significant environmental results have been achieved through implementation of the foundation restoration projects, particularly the Kissimmee River restoration. In view of our water quality protection mandates, EPA supports the expedited implementation of the first two major CERP projects: the Indian River Lagoon South and the Picayune Strand. Both projects will provide dramatic ecological and water quality restoration benefits to the Everglades Ecosystem.

Over the next five years, numerous additional CERP projects are scheduled for initiation, construction, and completion. With proper design, construction and operation, many of these projects will result in achievement of improved ecological conditions, including water quality, in the wetland and aquatic systems of South Florida. Through continued collaboration between local, state, federal, and tribal partners, and continued support for CERP implementation, I anticipate that the next Report to Congress will document substantial ecological restoration across the South Florida landscape.

EPA is, and will continue to be, an active partner working with the COE, other federal agencies, the State of Florida, the Tribal Nations, and local governments in the development and implementation of CERP. EPA views CERP as a vital opportunity to help restore the nationally and internationally valuable and unique Everglades Ecosystem. EPA remains committed to supporting the adaptive management approach to CERP implementation in order to achieve the natural system and human environmental results for South Florida.



Benjamin H. Grumbles



Jeb Bush
Governor

Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Colleen M. Castille
Secretary

October 3, 2005

Mr. John Paul Woodley
Assistant Secretary of the Army
Public Works
108 Army Pentagon
Room 3E446
Washington, D.C. 20310-0108

Dear Assistant Secretary Woodley,

Subject: Comprehensive Everglades Restoration Plan 2005 Report to Congress

The CERP 2005 Report to Congress highlights the significant efforts of the partnering agencies during the first five years of CERP implementation. The progress made to date has resulted in moving forward on the development and implementation of many projects that will restore and protect the Everglades.

The State of Florida's commitment to fulfill its part in restoring the Everglades has been continually demonstrated through consistent funding and support of restoration programs every year since 2000. Just five years into the \$8 billion plan, the State of Florida has already invested \$1.2 billion and committed another \$2.5 billion through the end of the decade to clean up and restore the River of Grass. Much of this funding, which includes more than \$259 million from the Department of Interior and the Department of Agriculture, and over \$32 million from local governments, has been used to acquire over half of the land needed for CERP.

Significant progress has been achieved towards making Everglades restoration a reality over the last five years. The state initiated construction on the first CERP project, which is already showing results towards reviving more than 55,000 acres of wetlands in Picayune Strand, restoring wildlife habitat, and improving the health of downstream estuaries.

No other government in the world has invested as much time or money in improving the quality of one single waterbody or natural system. Florida has already made more progress in less time to reduce phosphorus levels than ever predicted, setting aside an unprecedented \$1 billion for water quality improvements alone. The 36,000 acres of wetlands constructed by the State are cleaning water from the 170 parts per billion levels of a decade ago to 12 parts per billion today -- confirmation that we are on the right track.

"More Protection, Less Process"
Printed on recycled paper.

John Paul Woodley
October 3, 2005
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Over the past decade, phosphorus levels entering the natural system have been dramatically reduced. While agriculture interests were required to achieve a 25 percent reduction in phosphorus flows through best management practices, actual application of the improved farming techniques has, in fact, exceeded requirements and achieved greater than a 50 percent reduction, more than double the minimum legally required. Through a combination of research, treatment wetlands and improved farming practices, Florida has prevented more than 1,700 tons of phosphorus from entering the Everglades over the last 10 years. By using the right science to make the right investments in the right areas, we will continue to see further improvements that will lead to additional phosphorus reductions in the remaining impacted areas in the Everglades.

Florida has strengthened this commitment to Everglades Restoration through the Acceler8 program, enabling completion of restoration projects that will provide immediate environmental, economic, and social benefits years ahead of schedule. This effort is designed to get projects in the CERP constructed sooner, while freeing up resources to complete other important projects and maintain the momentum of the overall South Florida Ecosystem Restoration Program.

The State of Florida is committed to Everglades restoration and will continue to move forward in a timely and cost-effective manner. The continuing partnership utilizing the State's Acceler8 initiative and the streamlined Federal processes will result in a more efficient and effective implementation of the Plan to restore America's Everglades.

Sincerely,



Colleen M. Castille, Secretary
Department of Environmental Protection
District



Carol Wehle, Executive Director
South Florida Water Management

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EXECUTIVE SUMMARY

The Comprehensive Everglades Restoration Plan 2005 Report to Congress is the first in a series of periodic reports fulfilling requirements of the Water Resources Development Act of 2000 (WRDA 2000)¹. This Report provides members of Congress and other interested parties with an update on the progress of the Comprehensive Everglades Restoration Plan (CERP or the Plan) over the first five-year period of its implementation. It is submitted jointly by the Secretary of the Army and the Secretary of the Interior. The Report summarizes the progress made to date and the accomplishments expected over the next five years. Expenditures for the first five years are included, along with forecasts for funding requirements for the next five years.

Program Coordination

Implementation of the Plan is a very complex and highly dynamic effort to restore, preserve, and protect the South Florida ecosystem while providing for other water-related needs of the region. The unprecedented scope and complexity of the Plan, coupled with Congressional requirements for coordination contained in WRDA 2000, created the need to develop and support a number of coordination processes. These coordination efforts include developing a common understanding of the requirements of WRDA 2000 and the Programmatic Regulations between federal, state and local governments, agencies and stakeholders with diverse missions and interests. It has also been necessary to develop new technical concepts to implement guidance in WRDA and the Programmatic Regulations. These additional efforts to develop this common understanding has led to delays in meeting the schedule defined in the Plan and the Programmatic Regulations. However, the use of these collaborative processes has resulted in improved products more acceptable to a wider range of interests and has enhanced working relationships at multiple levels.

All WRDA 2000 requirements directed by Congress to be completed in the initial five-year period have been completed. The requirements achieved include:

- The execution in 2002, by President Bush and Governor Bush, of the President/Governor's Agreement, entitled *Comprehensive Everglades Restoration Plan Assurance Of Project Benefits Agreement* as required by §601 (h) (1) (A) of WRDA 2000,
- The execution in 2002, by the Secretary of the Army and the Governor of the State of Florida, of an agreement for resolving disputes between the United States Army Corps of Engineers (USACE or the Corps) and the state associated with the implementation of the Plan as required by § 601 (i)(1) of WRDA 2000,
- The promulgation in 2003 by the Department of the Army, with the concurrence of the Secretary of the Interior and the Governor of Florida, of the Programmatic Regulations for the Comprehensive Everglades Restoration Plan; Final Rule,

¹ Reference WRDA 2000 601 (l) dated December 11, 2000 on www.evergladesplan.org

required by § 601 (h) (3) of WRDA 2000 to ensure that the goals and purposes of the Plan are achieved,

- The establishment in 2004 by the Secretary of the Army, the Secretary of the Interior, and the Governor, in consultation with the South Florida Ecosystem Restoration Task Force, of an independent scientific review panel (The Committee on Independent Scientific Review of Everglades Restoration Progress), convened by the National Academy of Sciences, to review the Plan's progress toward achieving the natural system goals of the Plan as required by § 601 (j) (1) of WRDA 2000, and
- The transmittal in 2003 of the report for the Miami-Dade Aquifer Storage and Recovery (ASR) as required by §601 (m) of WRDA 2000.

Outreach and Assistance activities were commenced as required by § 601 (k) of WRDA (2000) including:

- Small and minority-owned businesses are provided opportunities to participate in CERP contracting opportunities,
- Outreach programs have been developed to reach a variety of audiences, including individuals with limited English proficiency and, in particular, for socially and economically disadvantaged communities, and
- Impacts on socially and economically disadvantaged communities and individuals, including individuals with limited English proficiency, are considered during Plan implementation and such individuals are given opportunities to review and comment.

Processes and Procedures were developed to guide CERP implementation during this reporting period. All draft documents listed below are expected to be finalized in early 2006:

- *Master Implementation Sequencing Plan Version 1.0* (MISP) (shown in Appendix C), was finalized March of 2005. This document describes the current sequencing and scheduling for the projects included in the Plan. It lists and groups individual projects in the five-year period, or Band, in which construction is expected to be completed,
- Six Program-Wide Guidance Memoranda, which are currently in draft form, provide guidance on the general format and content of Project Implementation Reports (PIRs); formulation and evaluation of alternatives developed for PIRs; general content of operating manuals; general direction for the assessment activities of REstoration COordination and VERification (RECOVER); instructions for identifying in PIRs the appropriate quantity, timing, and distribution of water to be dedicated and managed for the natural system; and instructions for identifying in PIRs if an elimination or transfer of existing legal sources of water will occur as a result of implementation of the Plan,
- A Pre-CERP Baseline, which is currently in draft form, is one of the tools to be used in determining if existing legal sources of water will be eliminated or

transferred as a result of implementation of CERP and whether levels of service for flood protection will be reduced,

- An Interim Goals Agreement, which is currently in draft form, will be used to evaluate the restoration success of the Plan throughout the implementation process, and
- An Interim Targets Document, which is currently in draft form, will be used to evaluate the success of the Plan in providing for other water-related needs of the region, including water supply and flood protection throughout the implementation process.

Project Implementation

A strong federal-state partnership has been established for restoration of the Everglades ecosystem both for CERP implementation and for implementation of the projects that form the foundation for the CERP. Key among these Foundation Projects is the Modified Water Deliveries to Everglades National Park Project (Mod Waters) which will establish more natural flows to Everglades National Park and contributes much of the early increases in sheetflow. Completion of the Mod Waters Project is the federal government's highest restoration priority.

In furtherance of the federal-state partnership for CERP implementation the United States Army Corps of Engineers (USACE or the Corps) and the South Florida Water Management District (SFWMD), the primary non-federal sponsor, have executed a Design Agreement for \$712 million for planning, engineering, and design studies of CERP projects. These studies are proceeding. Additional Design Agreements have also been executed with Lee County and Palm Beach County for individual CERP projects to be sponsored by these counties. These design studies are also proceeding. The USACE, SFWMD, and other non-federal sponsors continue to provide information to, and consult with, the South Florida Ecosystem Restoration Task Force (Task Force), the Florida-based Working Group, and stakeholder advisory bodies to the Task Force.

The Plan was provided as a framework for implementation and it was envisioned that as scientific and technical information improved and became integrated into the Plan, the anticipated completion dates of the projects would be directly affected. These refinements have often led to additional challenges and time requirements in implementing these projects. The agencies continue to review their processes and identify the most efficient means to implement projects on schedule. Timely Congressional authorizations and appropriations are also crucial to maintaining any implementation schedule.

Land acquisition for projects is a significant effort in implementation of the Plan and early acquisition efforts illustrate the continued commitment of agencies. The State of Florida has purchased 207,000 acres using \$800 million in state funds, \$259 million in federal funds, and \$32 million in local funds. This represents over 51 percent of the total land expected to be needed for the CERP.

The State of Florida through its Acceler8 initiative expects to expend over \$1.5 billion in additional state funds above the \$200 million per year already planned for CERP. The goal of the Acceler8 initiative is to complete the design and construction of projects,

including certain projects in the CERP, by 2010. It is anticipated that through close coordination with federal agencies the state will design and construct Acceler8 projects that are consistent with all or part(s) of the recommended plan for the corresponding CERP components. It is also anticipated that Acceler8 projects that are consistent with CERP recommended plans will be proposed to Congress for crediting authorization. Acceler8 projects and their corresponding CERP components are shown in Table 2-3.

As required, the USACE will continue to complete Project Implementation Reports (PIRs), complete all environmental requirements, ensure compliance with the Endangered Species Act and prepare a Chief of Engineers report prior to requesting authorization. Appropriate environmental coordination actions including public and agency reviews, as required by the National Environmental Policy Act (NEPA), will also be completed. The U.S. Fish and Wildlife Service is working closely with the USACE and the SFWMD to aid in the development of NEPA documents for these and all CERP projects as part of the PIR process.

Over the next five-year period, subject to issuance of Section 404 permits by the Department of the Army, construction is expected to be completed by the state through its Acceler8 efforts for all or portions of seven of the ten projects initially authorized in WRDA 2000. These seven projects are:

- C-44 Basin Storage Reservoir (Indian River Lagoon-South),
- Everglades Agricultural Area Storage Reservoirs—Part 1, Phase 1,
- Site 1 Impoundment,
- Water Conservation Areas 3A/3B Levee Seepage Management,
- C-11 Impoundment and Stormwater Treatment Area,
- C-9 Impoundment and Stormwater Treatment Area, and
- C-111 Spreader Canal.

These projects are expected to provide approximately 261,400 acre-feet of water storage; 4,000 acres of stormwater treatment area; restoration of freshwater wetlands, tidal wetlands and nearshore habitat; and restoration of the quantity, quality, timing and distribution of freshwater to the estuarine systems such as Manatee Bay and Barnes Sound, while providing public access and recreational opportunities.

Additional projects in the CERP to be completed in the next five-year period as part of the Acceler8 and other state initiatives are all or a portion of the following projects recommended in the Plan but not yet authorized by Congress:

- C-43 West Reservoir,
- Biscayne Bay Coastal Wetlands (Phase 1),
- Picayune Strand Restoration,
- Acme Basin B Discharge, and
- C-51 and L-8 Basin Reservoir (Phase 1).

These projects are expected to provide significant increases in water storage; restoration of the quantity, quality, timing, and distribution of freshwater to Biscayne Bay and Biscayne National Park; restoration and enhancement of wetlands by reducing over-drainage while restoring natural and beneficial sheetflow; increased spatial extent of wetlands; improved water quality and volume of water delivered to coastal estuaries; and public access and recreational opportunities.

CERP projects and feasibility studies scheduled for completion by the Corps and local sponsors in the next five-year period include:

- Lakes Park Restoration,
- Winsberg Farms Wetland Restoration, Phase 2,
- ASR Pilot Projects (installation to be completed; testing to continue),
- L-31 Seepage Management Pilot,
- Lake Istokpoga Regulation Schedule,
- Rotenberger Wildlife Management Area Operation Plan,
- Florida Bay/Florida Keys Feasibility Study,
- Southwest Florida Feasibility Study, and
- Comprehensive Integrated Water Quality Feasibility Study.

The CERP proposed the use of Aquifer Storage and Recovery (ASR) technology on an unprecedented scale. Three ASR Pilot Projects to address technical uncertainties related to the implementation of large scale ASR are contained in the Plan. The Plan showed completion of these pilot projects in 2002. However, Congressional appropriations to initiate installation and operational testing of the ASR pilots (Caloosahatchee (C-43), Hillsboro, and Lake Okeechobee) were not received until 2006. The initial results of these tests will be provided in the next report to Congress. In addition, a plan for an ASR Regional Study was developed by an interagency team working with an independent scientific review panel. This study has been initiated to collect regional hydrogeologic and water quality data, and develop a regional groundwater model and other tools required to address regional scale uncertainties. The ASR Regional Study is the first step in the PIR studies for large scale ASR and will be complete about one year after full implementation of the Pilot Projects. The need for an ASR Contingency Plan was identified to evaluate alternative solutions for maintaining overall CERP performance in case the ongoing ASR Regional Study and planned ASR Pilot Projects determine that CERP proposals for large-scale ASR are not technically feasible.

WRDA 2000 requires the completion of a PIR prior to the implementation of each CERP project. Two PIRs have been completed which are under review by the Administration, one for the Indian River Lagoon – South Project (IRL – South) and one for the Picayune Strand Restoration Project. The C-44 component of the IRL - South Project and the Picayune Strand Restoration Project as documented in their respective PIRs are to be designed and constructed under the state's Acceler8 initiative and are consistent with CERP.

Financial Summary

The Plan presented to Congress in 1999 included a baseline cost estimate for projects (including pilot projects and feasibility studies) of \$7.8 billion (rounded) at October 1999 price levels. WRDA 2000 requires implementation of the Plan to be equally cost shared between the federal government and multiple local sponsors, with the predominant local sponsor being the SFWMD. In addition, the Plan also included a baseline cost estimate for adaptive assessment and monitoring of \$387 million. These baseline cost estimates did not include funds for Program Coordination initiatives required by the WRDA 2000 and the Programmatic Regulations.

The current cost estimate for the Plan is \$10.9 billion at October 2004 price levels and is discussed in detail in the Financial Summary section of this report (See Section 5 for details). Cost increases include (1) \$1.6 billion (rounded) in price level (inflation) adjustments from October 1999 to October 2004, (2) \$600 million (rounded) in scope changes based on final decision documents with Chief's Reports (for Indian River Lagoon – South and Picayune Strand Restoration projects), and (3) \$500 million (rounded) in Program Coordination requirements neither anticipated nor costed in the Plan. Of the \$500 million, approximately \$97 million represents expenditures through FY04. The remaining approximately \$403 million are for programmatic activities through the remainder of CERP.

Examples of programmatic activities included in this \$500 million are:

- Program management activities required by WRDA 2000
- Program management activities required by the Programmatic Regulations
- Public Outreach and Environmental and Economic Equity (EEE) efforts required by WRDA 2000
- Other essential coordination activities
- Other program controls

Cumulative expenditures for the USACE and creditable expenditures for the SFWMD through FY04 are \$104.3 million and \$105.2 million respectively (see Table 5-5). These expenditures are for projects, adaptive assessment and monitoring, and Program Coordination activities. The expenditures by the SFWMD for accelerated land acquisition and expenditures by federal agencies and local governments are not represented in these figures. For example, not included in these totals are approximately \$259 million in federal land grant funds provided to the state by DOI and USDA, plus \$800 million in state funds, and \$32 million in local funds expended for acquisition of lands expected to be needed for CERP implementation.

Funding provided for FY05 plus anticipated CERP funding for FY06 through FY09, required to support USACE and SFWMD design and construction tasks per approved MISP Version 1.0, total \$625 million and \$2.450 billion, respectively. See Table 5-6 for annual funding requirements. This funding imbalance is attributed to state initiatives to accelerate CERP implementation. The MISP Version 1.0 shows the forecast sequencing and implementation schedule for CERP projects based on the technical dependencies which link projects, best professional judgment regarding forecast project benefits, and

currently anticipated funding. Next generation models are currently being developed which will improve benefits analysis and will be used to help guide MISP refinement during the next reporting period. In addition to benefits analysis refinement, it is recognized in the MISP Version 1.0 that if additional funding becomes available at least some elements of projects that show demonstrable benefits to the natural system, as well as significant stakeholder support, could be sequenced earlier. Candidate projects with demonstrable benefits to the natural system, as well as significant stakeholder support, include the IRL – South Natural Areas, Everglades National Park Seepage Management Project, and the WCA 3 Decompartmentalization and Sheetflow Project.

Foundation Projects

The Plan is intended to build upon certain federal and state Everglades restoration projects (referred to as Foundation Projects) that were assumed to be complete during the planning processes for the CERP. The full suite of benefits from the implementation of all of the CERP projects depends on the successful completion of the Foundation Projects.

Key among these Foundation Projects is the Modified Water Deliveries to Everglades National Park Project (Mod Waters), which is the federal government's highest restoration priority. In addition to being critical for restoration of more natural flows to Everglades National Park, Mod Waters provides much of the early increases in sheetflow. As noted in WRDA 2000, funds cannot be appropriated for construction of certain components of CERP which also contribute to early increases in sheetflow until the Mod Waters Project is completed. Completion of Mod Waters has been delayed. Continued Congressional funding support for Mod Waters is essential to meet the scheduled project completion in 2009.

Mod Waters and other Foundation Projects including the federally authorized Kissimmee River Restoration Project, Modifications to the C-111 Project, the Critical Restoration Projects, and the C-51/STA-1E Project, as well as the State of Florida's Everglades Construction Project, are described further in Appendix A of this Report.

During the last five years, the USACE, the DOI, and the SFWMD, in partnership with other federal, state, and local agencies and tribal governments have been working to complete the Foundation Projects while moving forward with the planning and design for initial construction of the CERP projects. These Foundation Projects are scheduled to be completed in the next five-year period.

Continuing Challenges

One of the important water storage components envisioned in the Comprehensive Plan was the use of Aquifer Storage and Recovery wells. The Plan recognized associated technological uncertainties and proposed implementation of several pilot projects to reduce these uncertainties. Recommendations made by the ASR Issue Team of the South Florida Ecosystem Restoration Task Force and an independent scientific review panel convened by the National Academy, reinforced the need to address these uncertainties and provided additional recommendations with which to address them. While an ASR regional study has been funded to address many of these concerns, funding for field testing of the pilot projects has not yet been provided. The rising cost of real estate also

presents significant challenges to the restoration effort. Real estate in South Florida has experienced significant increases in cost as compared to the national average, with some areas growing by as much as five percent per month. In an attempt to keep costs as low as possible, and to ensure the availability of lands, the South Florida Water Management District, the Corps primary sponsor, has initiated early acquisition of lands anticipated to be required to implement CERP. To date, the SFWMD reports that 51 percent of the lands expected to be needed for CERP have been acquired. Nevertheless, remaining CERP lands need to be acquired as quickly as practicable.

Getting the quantity, timing and distribution of water right must be complemented by efforts to ensure that water quality is satisfactory to support the variety of plant life and wildlife characteristic of the historic Everglades ecosystem; water quality is a critical factor in the restoration effort. While the State of Florida retains the primary responsibility for meeting water quality standards in source waters it is widely recognized that restoration is likely to require additional reductions in the levels of some constituents. Significant progress is being made by the state in improving water quality and the Corps expects to complete a comprehensive assessment of the water quality needs in the region to ensure successful restoration during the next reporting period. The Department of the Interior, on behalf of the Departments of the Interior, Army, and Justice, and the Environmental Protection Agency submitted to Congress on September 21, 2005, a report entitled *Joint Report to Congress Everglades Water Quality August, 2005*. The Department of the Interior and Related Agencies Appropriations Act, 2004, Public Law 108-108 required the submission of this report concerning the quality of the water entering the A.R.M. Loxahatchee National Wildlife Refuge (Refuge) and Everglades National Park (Park). Based on the results contained therein, the report states that the Departments of the Interior, Army, and Justice and the Environmental Protection Agency believe that progress is being made in meeting the terms of the Consent Decree in *United States v. South Florida Water Management District* and applicable Class III state water quality standards and that additional work is underway to realize improved water quality that is protective of the Everglades ecosystem. This report is discussed in more detail in Section A.1.5.

Summary

The USACE, the DOI and their partners are aggressively pursuing a clear strategy to achieve the Interim Goals and benefits of the Plan during the next five years and a long-term vision for the implementation of restoration in South Florida. The first step in this strategy is to complete the construction and implementation of the Modified Water Deliveries to Everglades National Park Project and other Foundation Projects for the CERP (Kissimmee River Restoration Project, Modifications to the C-111 Project, Critical Restoration Projects Program, Everglades Construction Project, and C-51/STA-1E Project). Concurrent with completion of the Foundation Projects, these cooperating agencies are proceeding with the detailed design and implementation of projects as identified in the MISPP. Some of these projects are projects in the state's Acceler8 initiative, all of which are expected to be consistent with CERP. Acceler8 is recognized as a state initiative to design and construct projects, or portions of projects, identified in the CERP, and these state actions are expected to advance the delivery of benefits to the ecosystem. The USACE has provided information to assist the state in optimizing the

timing of Acceler8 projects with regard to Federal 404 permitting and coordination with the PIR process. It is expected that this will maximize the probability that the Acceler8 efforts will be consistent with the recommended plan identified in the PIR and proposed for Congressional authorization. The USACE, the DOI and their partners, with strong Congressional support, will continue to aggressively advance Everglades Restoration using established collaborative processes to overcome technical uncertainties and other challenges. The world is watching and learning from our collective efforts to save the unique Everglades ecosystem for the people of Florida and the nation.

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**BACK COVER POCKET: AN OVERVIEW TO THE CERP 2005 REPORT TO
CONGRESS**

ABBREVIATIONS AND ACRONYMS

ASR	aquifer storage and recovery
AA&M	adaptive assessment and monitoring
C&SF	Central and Southern Florida
CERP	Comprehensive Everglades Restoration Plan
CGM	CERP Guidance Memorandum
CIWQFS	Comprehensive Integrated Water Quality Feasibility Study
CSOP	Combined Structural and Operational Plan
CREW	Corkscrew Regional Ecosystem Watershed
CROGEE	Committee on Restoration of the Greater Everglades Ecosystem
DOI	U.S. Department of the Interior
EAA	Everglades Agricultural Area
EEE	Environmental and Economic Equity
USEPA	U.S. Environmental Protection Agency
EFA	Everglades Forever Act
ENP	Everglades National Park
EPA	Everglades Protection Area
FB&FK	Florida Bay and Florida Keys
FDEP	Florida Department of Environmental Protection
FY	fiscal year
GIS	geographic information system
ICU	Initial CERP Update
IMC	Interagency Modeling Center
IRL	Indian River Lagoon
MAP	monitoring and assessment plan
MISP	Master Implementation Sequencing Plan
NEPA	National Environmental Policy Act
OMB	Office of Management and Budget
PBA	Palm Beach Aggregates
PCA	project cooperation agreement
PDT	Project Delivery Team
PIR	project implementation report
PMP	project management plan
PPDR	pilot project design report
RECOVER	REstoration COordination and VERification
SFERTF	South Florida Ecosystem Restoration Task Force
SFERTF-WG	South Florida Ecosystem Restoration Task Force–Working Group
SFWMMD	South Florida Water Management District
SWFFS	Southwest Florida Feasibility Study
SLE	St. Lucie Estuary
STA	stormwater treatment area
USACE	U.S. Army Corps of Engineers
WCA	Water Conservation Area
WRAC	Water Resources Advisory Commission
WRDA	Water Resources Development Act

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Central and Southern Florida Project

COMPREHENSIVE EVERGLADES RESTORATION PLAN

2005 REPORT TO CONGRESS

1. INTRODUCTION

1.1 AUTHORITY AND PURPOSE

The Comprehensive Everglades Restoration Plan 2005 Report to Congress is the first in a series of periodic reports fulfilling requirements of the Water Resources Development Act of 2000 (WRDA 2000), section 601 (1) dated December 11, 2000 as quoted below:

REPORT TO CONGRESS

Beginning on October 1, 2005, and periodically thereafter until October 1, 2036, the Secretary and the Secretary of the Interior, in consultation with the Environmental Protection Agency, the Department of Commerce, and the State of Florida, shall jointly submit to Congress a report on the implementation of the Plan. Such reports shall be completed not less often than every 5 years. Such reports shall include a description of planning, design, and construction work completed, the amount of funds expended during the period covered by the report (including a detailed analysis of the funds expended for adaptive assessment under subsection (b)(2)(C)(xi)), and the work anticipated over the next 5-year period. In addition, each report shall include –

- (1) the determination of each Secretary, and the Administrator of the Environmental Protection Agency, concerning the benefits to the natural system and the human environment achieved as of the date of the report and whether the completed projects of the Plan are being operated in a manner that is consistent with the requirements of subsection (h);*
- (2) progress toward interim goals established in accordance with subsection (h)(3)(B); and*
- (3) a review of the activities performed by the Secretary under subsection (k) as they relate to socially and economically disadvantaged individuals and individuals with limited English proficiency.*

The full text of WRDA 2000 section 601 and other important CERP documents are available on www.evergladesplan.org .

This Report provides members of Congress and other interested parties with an update on the progress of the Comprehensive Everglades Restoration Plan (CERP or the Plan) over the first five-year period of its implementation. It is submitted jointly by the Secretary of

the Army and the Secretary of the Interior, and was developed in consultation with stakeholders and interested state, federal, local, and tribal entities; and the South Florida Ecosystem Restoration Task Force (Task Force).

The Report summarizes the planning, design and construction works completed, funds expended and benefits achieved during the initial five-year period, and the accomplishments expected over the next five years including efforts by the state through initiatives such as Acceler8. Expenditures for the first five years are included, along with forecasts for funding requirements for the next five years. Also included is the CERP cost estimate updated to October 2004 price levels.

1.2 BACKGROUND

The United States Congress passed the “Swamp and Overflowed Lands Act of 1850”, which conveyed the whole of Florida’s swamp and overflowed lands to state ownership. A stipulation in the act was that the sale of the lands to private interests should finance the necessary work of reclamation. By the early 1920s over 400 miles of canals had been dug and much of the northern and eastern Everglades drained to make way for farm settlement. Following these actions, flood control works were necessary to protect the population during extreme storm events and to realize the economic potential of the state’s exceptional natural resources. As a result, earlier drainage projects were expanded first by the State of Florida and then later in partnership with the federal government, through the United States Army Corps of Engineers (USACE or the Corps). This partnership worked to control the hydrologic conditions that were hampering economic development. The emphasis on economic goals focused the design objectives on projects that would allow development of the region with little understanding of the consequences to the Everglades ecosystem.

1.2.1 The Central and Southern Florida Project

In 1948, Congress approved the Central and Southern Florida (C&SF) Project, which extends from south of Orlando to the Florida Keys and is composed of a regional network of canals, levees, water conservation areas, and water control structures (See Figure 1). The C&SF Project serves multiple purposes including flood control, regional water supply for agricultural and urban areas, prevention of saltwater intrusion, water supply to Everglades National Park, preservation of fish and wildlife, recreation, and navigation. To meet project purposes, the C&SF Project altered a significant portion of the natural system². The Kissimmee River was channelized and Lake Okeechobee was diked to prevent uncontrolled overflows from the lake. The region of the Everglades immediately south of Lake Okeechobee, now called the Everglades Agricultural Area, was drained to

² For the purpose of this document, natural system means all land and water managed by the Federal government or the State within the South Florida ecosystem including, but not limited to, water conservation areas; sovereign submerged land; Everglades National Park; Biscayne National Park; Big Cypress National Preserve; other Federal or State (including a political subdivision of a State) land that is designated and managed for conservation purposes; the contiguous near-shore coastal water of South Florida; and, any tribal land that is designated and managed for conservation purposes, as approved by the tribe. (Programmatic Regulations Section 385.3)

accommodate agricultural production. A drainage system was constructed in the lower east coast to allow for urban, suburban, and agricultural development. Central portions of

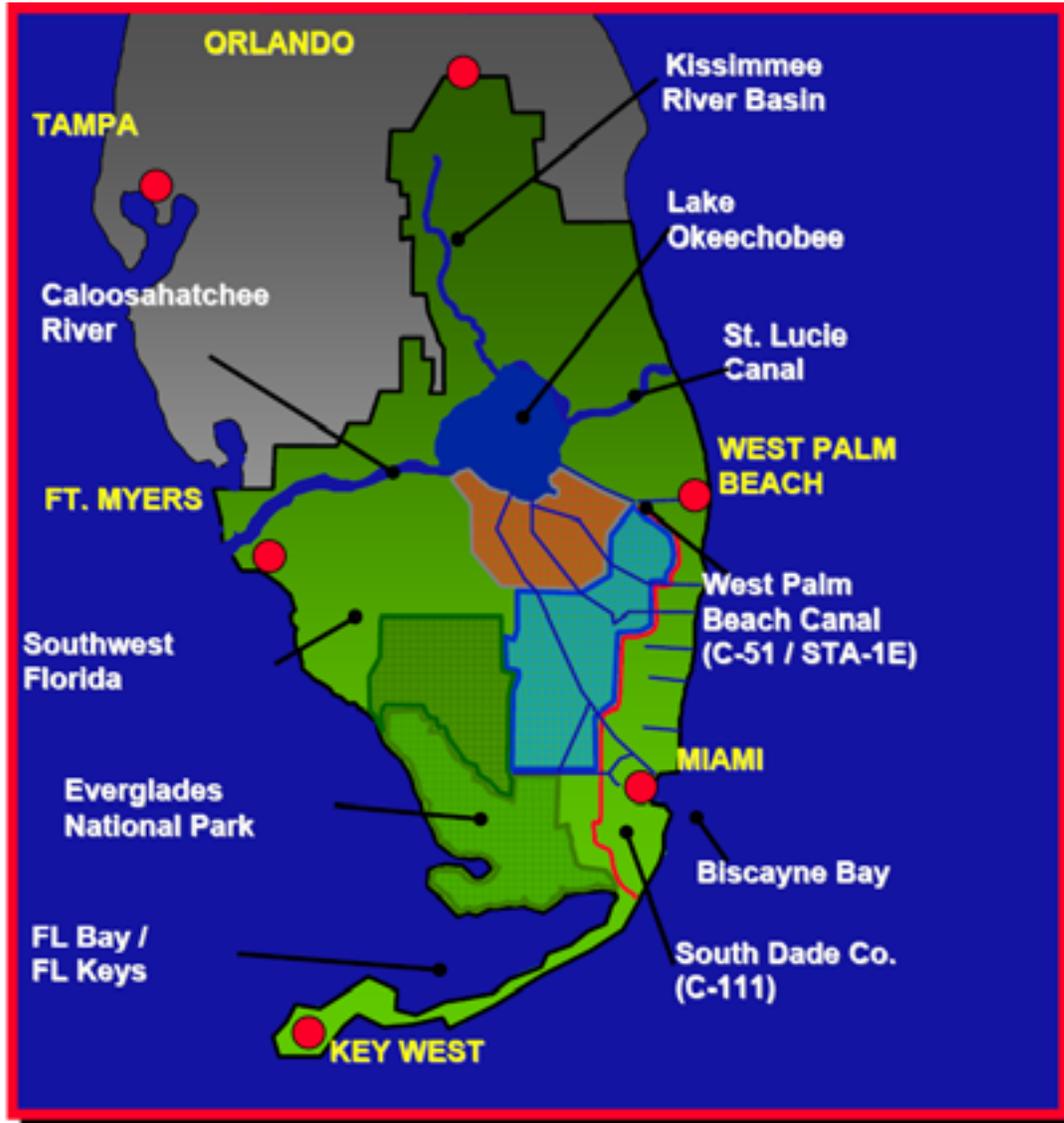


Figure 1: Central and South Florida Map

the Everglades were diked to create the Water Conservation Areas (WCAs), serving the dual purposes of storing water for human needs in the lower east coast and for deliveries of water to Everglades National Park. The project has had unintended adverse effects on the unique natural environment that constitutes the Everglades and South Florida ecosystem. These adverse effects include decreasing the spatial extent and connectivity of wetlands and habitat, damaging marsh vegetation and estuarine areas, and decreasing natural storage capacity. To address this problem, both the state and federal governments have implemented programs that are intended to restore the Everglades and the South Florida ecosystem.

Numerous entities have been working for many years to restore and preserve more natural hydrology in the ecosystem, to protect the spatial extent and quality of remaining

habitat, to promote the return of abundant populations of native plants and animals, and to foster human development compatible with sustaining a healthy ecosystem. Success for the natural system of South Florida will be achieved by restoring and sustaining those hydrological and biological characteristics that both defined the original pre-drainage greater Everglades and made it unique among the world's wetlands. These defining characteristics include the great extent of naturally interconnected and interrelated wetlands; sheetflow; extremely low levels of nutrients in freshwater wetlands; healthy productive estuaries; the great resilience of the plant community mosaics; and abundance of native wetland animals. Although the future Everglades ecosystem will be smaller than the pre-drainage system, restoration will be successful if the new system responds to the restoration activities being undertaken by recovering many of its original characteristics and functionally behaving as a natural Everglades ecosystem rather than as a set of managed and functionally separated wetlands (See Figure 2). Success for the needs of the human environment of South Florida will be to maintain or improve current levels of water supply and flood protection for a rapidly growing human population, consistent with the goals of the Plan for the natural system.

Lack of water storage capacity in the regional system led to ecological damage, particularly during wet and dry periods. During wet periods, high water levels caused damage to marsh vegetation and large regulatory releases of water to provide flood protection caused damage to estuarine areas. In dry periods, water was not available to alleviate damaging low water levels in the natural system or provide for regional water supply needs for people. The South Florida human environment is dependent upon the natural system for public health, safety, and welfare as well as an enhanced quality of life. The ability to restore the health of the remaining Everglades ecosystem and achieve sustainability in water resources for all needs depends on the successful implementation of the restoration projects.

To deal with these problems, a number of projects were initiated to begin the restoration process. These projects are referred to as Foundation Projects because they were initiated prior to development of the CERP. Key among the Foundation Projects is the Modified Water Deliveries to Everglades National Park Project. The other Foundation Projects are the Kissimmee River Restoration Project, Modifications to the C-111 Project, Critical Restoration Projects Program, Everglades Construction Project, and C-51/STA-1E. The CERP builds upon the Foundation Projects which were assumed to be complete during the planning processes for the CERP. The full suite of benefits from the implementation of all of the CERP projects depends on the successful completion of the Foundation Projects.

1.2.2 Restoration Partnerships/Increasing Stakeholder Participation

Many federal, state, and local entities are working to address the ecological conditions in South Florida. The Task Force was created by Congress in WRDA 1996 to coordinate the development of consistent policies, strategies, plans, programs, project activities and priorities for addressing restoration, preservation and protection of the South Florida ecosystem while also providing a forum for consensus building and issue engagement among the entities involved in restoring the South Florida ecosystem. The Task Force includes representatives from federal, state, local, and tribal governments.

Stakeholders are important partners in restoration. In 2001, the Water Resources Advisory Commission (WRAC) was established by the South Florida Water Management District (SFWMD) Governing Board to represent a broad range of stakeholders and advise the Board on all aspects of water resource protection in South Florida. In 2002, WRAC became an advisory body to the Task Force on ecosystem restoration activities and continues to assist in this capacity.

The USACE, SFWMD, and other non-federal sponsors continue to provide information to, and consult with, the Task Force, the Florida-based working group, and advisory bodies to the Task Force as required by the Programmatic Regulations, as requested by the Task Force, and as otherwise appropriate throughout the implementation process for the Plan. The Task Force continues to review and provide recommendations on reports and products. The strategy for restoration of the South Florida ecosystem, of which the CERP is a major part, is contained in the Task Force's 2004 publication of *COORDINATING SUCCESS: Strategy for Restoration of the South Florida Ecosystem*.

1.2.3 The Comprehensive Everglades Restoration Plan (CERP or The Plan)

Congress approved the CERP as outlined in the *Central and Southern Florida Project Comprehensive Review Study Final Integrated Feasibility Report and Programmatic Environmental Impact Statement*, dated April 1, 1999 (the Plan). The CERP is a framework for the restoration, preservation, and protection of the natural system that also provides for other water-related needs of the region, including water supply and flood protection, and is the centerpiece of the restoration effort to get the water right in South Florida. The Plan's 68 components are forecast to be implemented over a 30-year period in accordance with the *Master Implementation Sequencing Plan Version 1.0* (MISP), completed in 2005, which is the most recent sequencing for project implementation. Together, these components are expected to benefit the ecological functioning of more than 2.4 million acres of the South Florida ecosystem while improving regional water quality conditions, deliveries to coastal estuaries, urban and agricultural water supply, and maintaining existing levels of flood protection. Building on the Foundation Projects described in this report, the CERP will improve the connectivity between diverse and significant habitats. The plan for meeting the overall restoration vision consists of implementing many projects that contribute to comprehensive restoration of the ecosystem and will "get the water right." Central to "getting the water right" are the concepts of quality, quantity, timing, and distribution—getting the right amount of water of the right type to the right places at the right time. All of the projects in CERP are designed to work together toward this goal. The USACE and the U.S. Department of the Interior (DOI) are the lead federal agencies responsible for undertaking many of the efforts in partnership with the SFWMD and other sponsors. The state is designing and constructing several projects included in the Plan through state initiatives such as Acceler8, all of which are anticipated to be consistent with CERP. As stated in WRDA 2000, "The overarching objective of the Plan is the restoration, preservation, and protection of the South Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection." The Plan's greatest strength is that it integrates natural and human system objectives into a single design which is supported by a wide array of stakeholders. A significant challenge is to move forward through implementation with the continued support of these stakeholders.

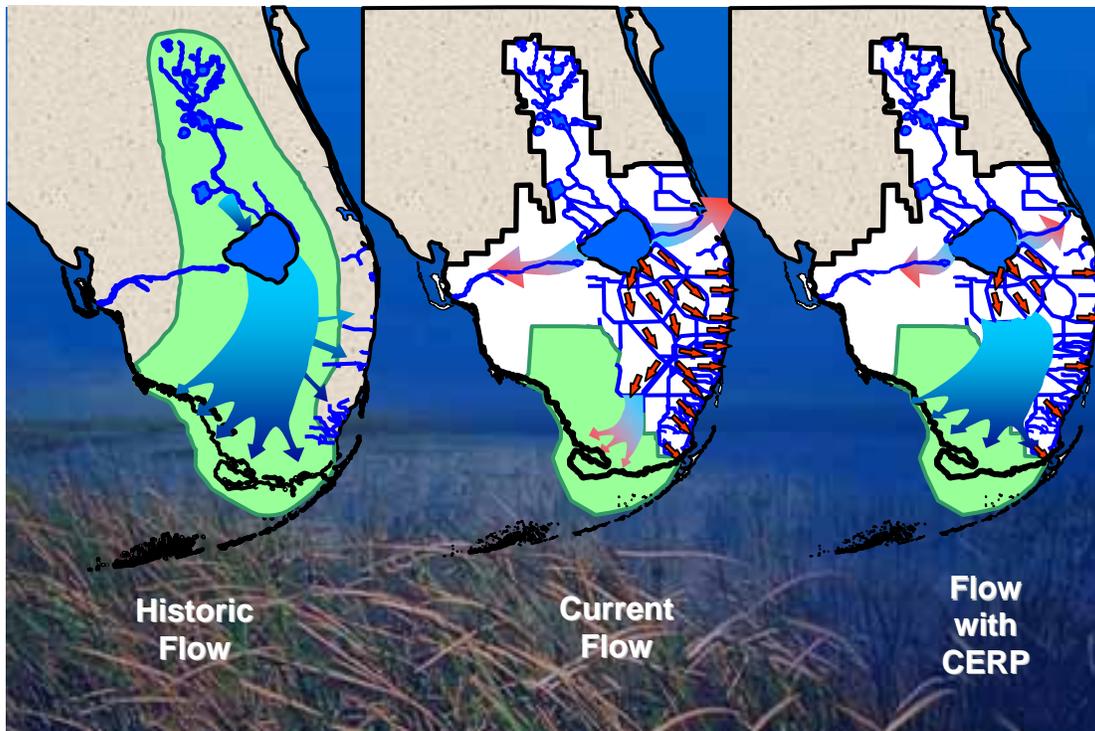


Figure 2: Historic versus Current Flow versus Flow with CERP in South Florida

1.3 WRDA 2000 REQUIREMENTS ACCOMPLISHED DURING THE FIRST FIVE YEARS

All WRDA 2000 requirements directed by Congress to be completed in the initial five-year period have been completed as described below.

1.3.1 The President/Governor's Agreement

Section 601 of WRDA 2000 required the execution of an agreement by the President of the United States and the Governor of the State of Florida. On January 9, 2002, President Bush and Governor Bush executed the *Comprehensive Everglades Restoration Plan Assurance of Project Benefits Agreement* under which the state shall ensure that water made available by each project in the Plan shall not be permitted for a consumptive use or otherwise made unavailable by the state until such time as sufficient reservations of water for the natural system are made under state law.

1.3.2 Dispute Resolution Process

An agreement was entered into on September 9, 2002, between the Department of the Army, State of Florida, and the South Florida Water Management District for resolving disputes under CERP.

1.3.3 Miami-Dade Aquifer Storage and Recovery Report

A report for the Miami-Dade Aquifer Storage and Recovery (ASR) was completed and transmitted to Congress in 2003. The report recommended evaluating opportunities for additional water through enhancement of other CERP projects versus the costs of

providing water through the proposed Miami-Dade ASR program. Additional opportunities would be investigated under a Comprehensive Plan Modification Report.

1.3.4 Programmatic Regulations

Section 601 (h) (3) of WRDA 2000, enacted December 11, 2000, required that within two years after its enactment the Secretary of the Army, with the concurrence of the Secretary of the Interior and the Governor of Florida, promulgate Programmatic Regulations to ensure that the goals and purposes of CERP were achieved and to govern Plan implementation. The Department of the Army developed the Programmatic Regulations openly and inclusively. Using an extensive collaborative process, the Department of the Army solicited and received information and suggestions from governmental agencies, Native American Tribes, stakeholders, and the public at numerous meetings held with these interests over a six month period. The South Florida Water Management District's Water Resources Advisory Commission (WRAC) and the South Florida Ecosystem Restoration Task Force-Working Group (SFERTF-WG) were involved in providing extensive information and suggestions. In December 2001, the Corps of Engineers published an initial draft of the Programmatic Regulations for circulation to agencies, the Miccosukee and Seminole Tribes, stakeholders, and the public; it was a starting point for further discussions that helped the Corps of Engineers prepare the final proposed rule. As required by Executive Order 12866, as amended, a draft of the proposed rule was then submitted to the Office of Management and Budget on April 17, 2002 for review. Although these regulations took longer than scheduled in WRDA 2000 to finalize, the extensive coordination that occurred during their development resulted in a much improved product that was more broadly accepted than might have occurred otherwise. The Programmatic Regulations for the Comprehensive Everglades Restoration Plan: Final Rule was then published in the Federal Register on November 12, 2003. This final rule establishes the processes and procedures that will guide implementation of the Plan.

1.3.5 Interim Goals

In February 2005, the REstoration COordination and VERification (RECOVER) interagency team provided its final set of recommendations for Interim Goals and Interim Targets to the USACE, DOI, and the SFWMD in *The RECOVER Team's Recommendations for Interim Goals and Interim Targets for the Comprehensive Everglades Restoration Plan*. These recommendations will be considered in development of the Interim Goals Agreement to be completed next reporting period.

Interim Goals along with Interim Targets provide the major means for evaluating the restoration success of the Plan. Interim Goals are used to track the performance of the Plan toward achieving expected environmental benefits, and Interim Targets address tracking the performance of the Plan toward providing for other water-related needs. Progress toward development of these tools is more fully described in Section 4.

1.3.6 Outreach and Assistance Activities

As required by Section 601 (k) of WRDA 2000, programs at the federal and state levels ensure that small and minority-owned businesses are aware of opportunities with the

USACE and the SFWMD and are provided opportunities to participate in CERP contracting opportunities under section 15 (g) of the Small Business Act (15 U.S.C. 644 (g)).

The USACE and the SFWMD have developed and implemented a wide array of creative and effective outreach programs and products at both the program and the project level for a variety of audiences, including individuals with limited English proficiency, and in particular for socially and economically disadvantaged communities. Products and publications have been developed in various educational levels and in multiple languages (English, Spanish, and Creole).

To ensure that impacts on socially and economically disadvantaged communities and individuals, including individuals with limited English proficiency, are considered during implementation of the Plan, and that such individuals have opportunities to review and comment on its implementation, efforts have been made to

- schedule and locate public meetings and workshops in locations readily accessible to both low-income and minority populations and to communities adjacent to CERP projects, and
- provide translators for select meetings.

A more detailed discussion of the Public Outreach Program including Environmental and Economic Equity activities and accomplishments is included in Appendix E.

1.3.7 Independent Scientific Review

In 2004, the Secretary of the Army, the Secretary of the Interior, and the Governor of Florida, in consultation with the Task Force established an independent scientific review panel (The Committee on Independent Scientific Review of Everglades Restoration Progress), convened by the National Academy of Sciences, as required by Section 601(J)(1) of WRDA 2000, the Programmatic Regulations, and in accordance with the Office of Management and Budget (OMB) requirements and EC 1105-2-408, the committee will:

- review the Plan's progress toward achieving its natural system restoration goals, and
- produce a biennial report to Congress, the Secretary of the Army, the Secretary of the Interior, and the Governor that includes an assessment of the ecological indicators and other measures of progress in restoring the ecology of the natural system, based on the Plan.

The Committee held its first meeting in October 2004 and its first report is anticipated in June 2006. In addition to the work that will be done by the Committee, the RECOVER interagency team, and project teams will request additional independent scientific review as needed as projects are developed.

2. PROJECT IMPLEMENTATION

2.1 INTRODUCTION

The goals of the Comprehensive Everglades Restoration Plan (CERP or the Plan) are achieved through the implementation of projects. Figure 3 is a map of the CERP components, which make up the various CERP projects listed in the *Master Implementation Sequencing Plan Version 1.0* (MISP). The state's Acceler8 effort and corresponding CERP projects are being developed concurrently, and close coordination will ensure consistency between these efforts.

Everglades Restoration

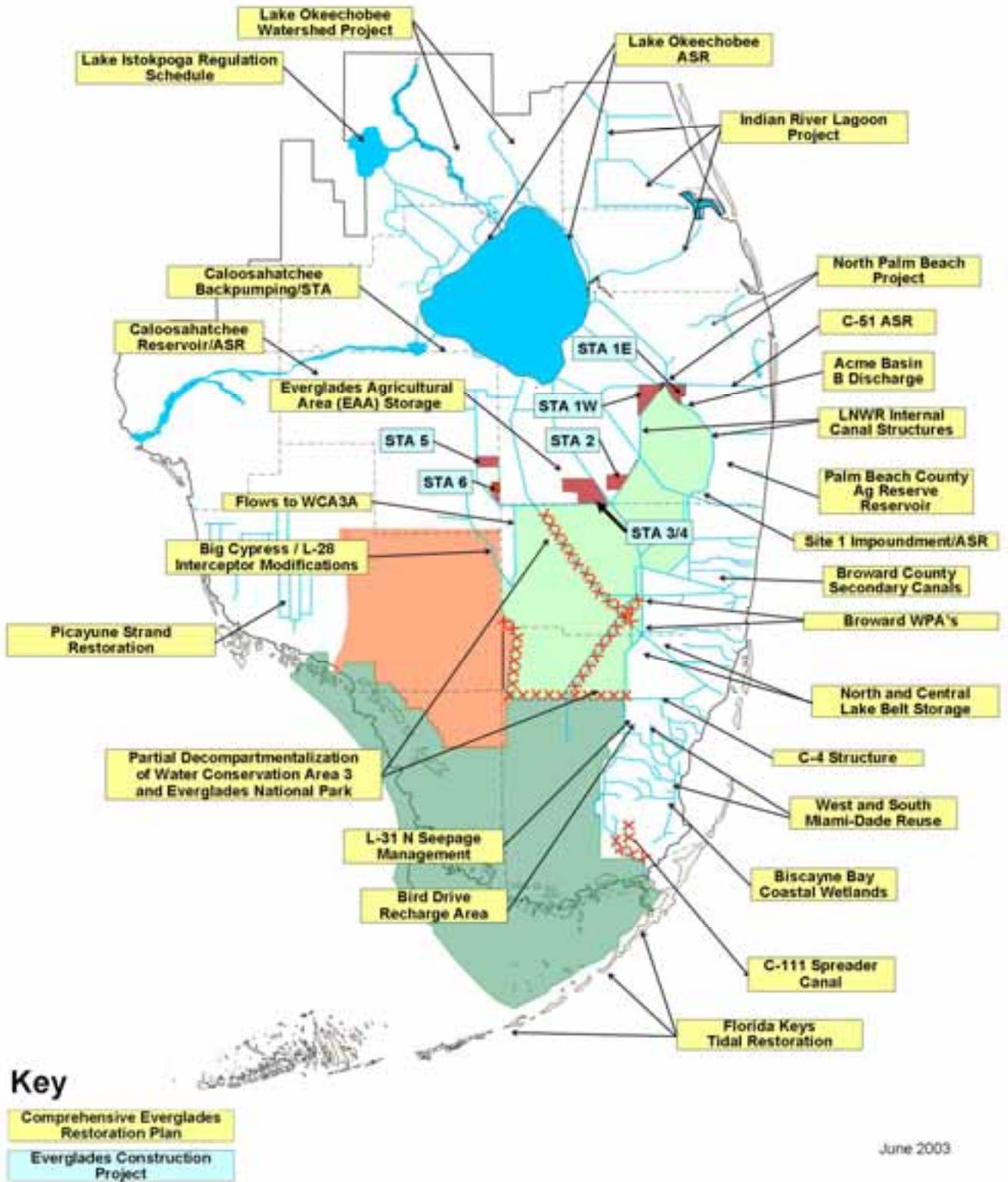


Figure 3: Map of CERP Projects

2.1.1 Accelerated Land Acquisition

The State of Florida with financial assistance from the Department of the Interior (DOI), Department of Agriculture and the local governments of Martin, Palm Beach, Broward, Miami-Dade and Lee Counties, has made land

**51% OF CERP LANDS
ACQUIRED**

acquisition a priority. To stem the effects of rising costs and ensure the availability of lands for CERP implementation, the state has moved forward aggressively in acquiring lands well in advance of project need. To date, the state has spent over \$800 million to purchase over 207,000 acres. This represents more than 51 percent of lands identified in the Plan and has been updated with information from Project Implementation Report (PIR) study teams. More specifically, this includes approximately 60 percent of lands for projects included in MISP Band 1 (2005-2010) and approximately 15 percent of lands for projects in Band 2 (2010-2015). Some of this land was acquired by the state using federal funds that total over \$259 million. Additionally, local governments have contributed more than \$32 million in funding. A total of over \$1 billion dollars has been invested in land acquisition to date. Acquiring this land now, rather than waiting, reduces the overall program costs and preserves land that may otherwise be developed. During the interim period between land acquisition and project implementation, the land is often leased back to the original owner or some interim restoration work is done to prepare the land for its ultimate use.

2.1.2 Streamlined Implementation Processes

In order to make CERP design and construction more efficient, the state launched the Acceler8 initiative while federal processes were concurrently streamlined. These process improvements will enable benefits to be delivered to the natural system and human environment sooner than scheduled.

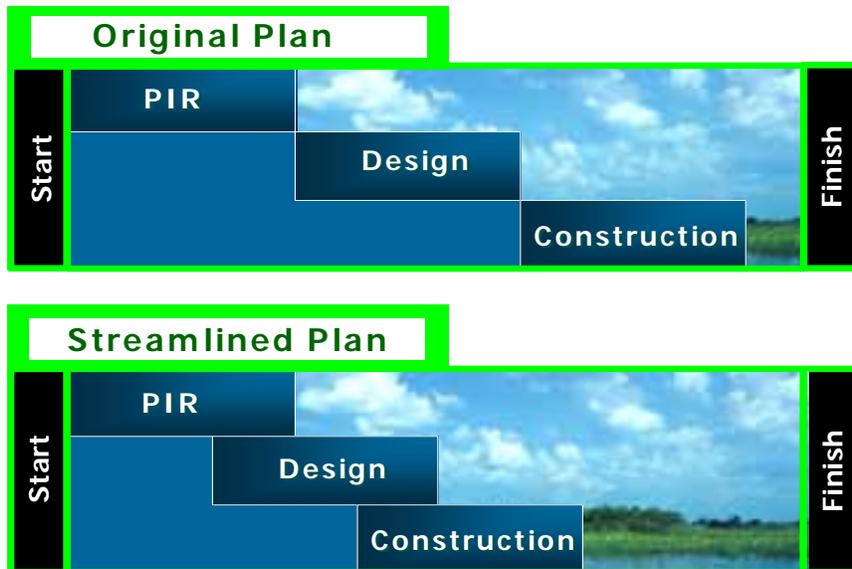


Figure 4: Depiction of Federal Streamlined Approach to CERP Implementation and State’s Acceler8 Initiative

As required, the United States Army Corps of Engineers (USACE or the Corps) will continue to complete PIRs, complete all environmental requirements, ensure compliance with the Endangered Species Act, and prepare a Chief of Engineers report prior to requesting authorization. Appropriate environmental coordination actions including public and agency reviews as required by the National Environmental Policy Act (NEPA) will also be completed. The U.S. Fish and Wildlife Service is working closely with the USACE and the South Florida Water Management District (SFWMD) to aid in the development of NEPA documents for these and all CERP projects as part of the PIR process.

2.2 STATUS OF INITIALLY AUTHORIZED PROJECTS

There are several projects (ten full scale and six pilot projects as well as an adaptive assessment and monitoring program) included in the Plan which have already received some form of Congressional authorization. Of these six pilot projects, two were authorized in the Water Resources Development Act (WRDA) of 1999 and the remaining four were authorized in WRDA 2000. Table 2-1 shows the status of the authorized pilot projects and Table 2-2 shows the status of the full scale projects.

Table 2-1. Authorized Pilot Projects

Authorized Project	Status
ASR Pilot Projects Hillsboro Lake Okeechobee Caloosahatchee River (C-43)	A Pilot Project Design Report (PPDR) has been completed that includes all three of these projects. Installation of exploratory wells has been completed. Congressional appropriations were received in FY06 to initiate installation and operational testing of the ASR Pilots (Caloosahatchee (C-43), Hillsboro, and Lake Okeechobee). The SFWMD is proceeding with implementation of the Hillsboro ASR Pilot Project.
L-31N Seepage Management Pilot	The PPDR for this project is under development with a project team evaluating the best location for the project.
Lake Belt In-Ground Reservoir Technology Pilot	Lands for the implementation of the full-scale Lake Belt In Ground Reservoir will not be available until 2022.
Wastewater Reuse Technology Pilot	Preliminary work on the PPDR for this project indicated high treatment cost documented in the Wastewater Reuse Evaluation Report. Treatment costs will be monitored and as costs decrease, the CERP project will be reevaluated.

Note: Schedules for the above authorized projects are shown in Appendix C MISP Version 1.0 Bands.

WRDA 2000 also authorized a series of ten full-scale projects contingent upon the preparation of individual PIRs for review and approval by the Secretary of the Army and both the House and Senate Authorization Committees prior to the initiation of construction. The original schedule (April 1999) for these projects, along with the current schedule for implementation, is included in Appendix C. Due to additional requirements in WRDA 2000 and better information, the design studies for many of these projects have taken longer than originally anticipated.

Table 2-2. Authorized Full-Scale CERP Projects

Authorized Project	Status
C-44 Basin Storage Reservoir	This project, with modifications, has been incorporated into the Indian River Lagoon – South PIR that is currently under Administration review. The SFWMD, through its Acceler8 initiative, is advancing the design and construction of the project.
Everglades Agricultural Storage Reservoir, Phase 1	A project team is currently developing the PIR for this project. The SFWMD, through its Acceler8 initiative, is advancing the design and construction on a portion of the project.
Site 1 Impoundment	A draft PIR has been completed and distributed for public and agency review. The SFWMD, through its Acceler8 initiative, is advancing the design and construction of the project.
WCA 3A/3B Levee Seepage Management	These three components have been grouped into one project and are being addressed in the PIR for the Broward County Water Preserve Areas. The SFWMD, through its Acceler8 initiative, is advancing the design and construction of the project.
C-11 Impoundment	
C-9 Impoundment	
Taylor Creek/Nubbin Slough	This project has been incorporated into the Lake Okeechobee Watershed project and the development of the PIR is in progress.
Raise and Bridge East Portion of Tamiami Trail and Fill Miami Canal within WCA 3	These two projects have been combined into the WCA 3 Decompartmentalization and Sheetflow Enhancement Project. The PIR for the entire project is under development.
North New River Improvements	
C-111 Spreader Canal	A project team is currently developing the PIR for this project. The SFWMD, through its Acceler8 initiative, is advancing the design and construction of the project.

Note: Schedules for the above authorized projects are shown in Appendix C MISP Version 1.0 Bands.

2.3 PROJECT ACCOMPLISHMENTS DURING THIS REPORTING PERIOD

2.3.1 The Indian River Lagoon – South PIR

The Indian River Lagoon–South (IRL-S) PIR and Chief’s Report have been completed and are under Administration review. IRL-S was included in the House and Senate draft versions of WRDA 2005. The recommended plan, located in Martin, St. Lucie, and Okeechobee Counties, will improve

COMPLETED PIRs:
IRL-SOUTH
& PICAYUNE STRAND
RESTORATION

water quality within the St. Lucie Estuary and the Indian River Lagoon by reducing the damaging effects of watershed runoff; reducing high peak freshwater discharges to control salinity levels; and reducing nutrient loads, pesticides, and other pollutants. The project will also provide water supply for agriculture to offset reliance on the Floridan Aquifer. The Indian River Lagoon – South project identified in the Plan consisted of the C-44 Basin Reservoir, and the C-23/C-24/C-25/North and South Storage Reservoirs at a cost of \$980 million (October 2004 price level). The plan recommended in the PIR consists of a modified C-44 Reservoir and Stormwater Treatment Areas (STA) that collocates the reservoir and STAs, with the C-23/C-24/C-25/North and South Storage Reservoirs and Northfork floodplain restoration at a cost of \$637,384,000 (October 2004 price level). In addition it also contains recommendations for Muck Remediation along with the three natural storage areas at a cost of \$573,224,000 (October 2004 price level) for a total of \$1.210 billion (October 2004 price level).

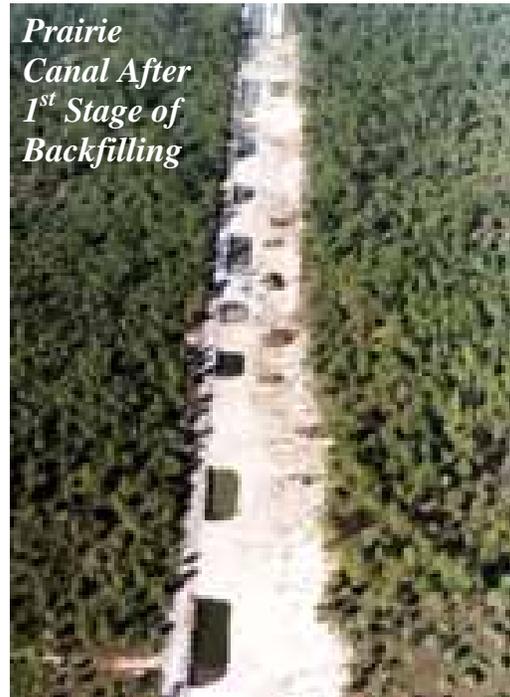
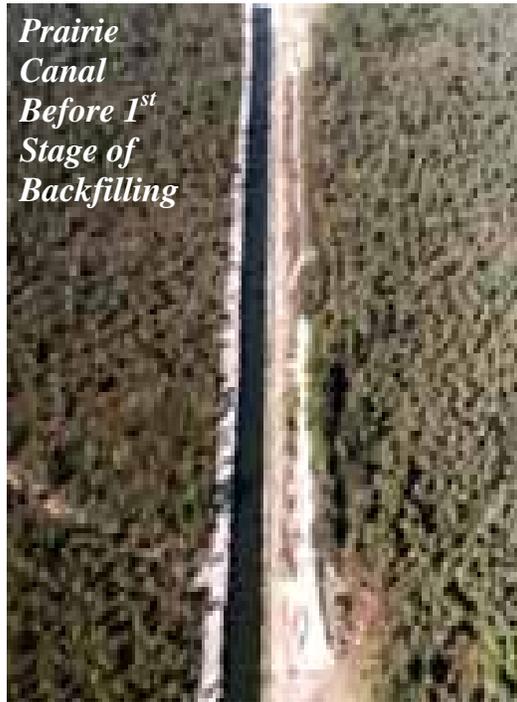
The recommended plan includes 170,000 acre-feet of storage in reservoirs (C-44, C-23, and C-24 North and South Reservoirs, and C-25 Reservoir); 8,731 acres of STAs (C-44, C-23; C-24, and C-25); storage on 92,000 acres of natural storage areas (Allapattah, Palmar, and Cypress Creek); and removes 7,900,000 cubic yards of muck from the St. Lucie River and Estuary. In accordance with the concept of continually evaluating opportunities to improve the Plan, this project provides a much wider array of benefits for the natural system and improves the ecosystem performance of the Plan overall.

2.3.2 The Picayune Strand Restoration PIR

The Picayune Strand Restoration PIR and Chief’s Report have been completed and are under Administration review. The recommended plan will restore and enhance over 50,000 acres of wetlands in the former Southern Golden Gate Estates and in adjacent natural areas and public lands by reducing over-drainage. Implementation of the restoration plan will also improve the water quality of coastal estuaries by moderating the large salinity fluctuations caused by the freshwater point discharge from the Faka Union Canal. The project includes a combination of spreader channels, canal plugs, road removal, and pump stations in the Western Basin and Big Cypress, Collier County, south of I-75 and north of US 41 between the Belle Meade Area and the Fakahatchee Strand State Preserve at a cost of \$349,419,000 (October 2004 price level).

The PIR identified the need for larger pumps resulting from (1) additional direction provided in WRDA 2000 to maintain existing levels of flood protection in areas surrounding the project site, and (2) modeling results suggesting that the original plan would diminish flood protection in the developed area to the north of the project site. The

costs for land acquisition for this project were not accounted for in the Plan. The PIR properly accounts for this land acquisition (\$193,043,000) as a project cost. Both the need for larger pumps and documented real estate costs have contributed to an increased cost of the overall project but are needed to ensure the benefits of the Plan will be achieved. This project is an example of how science-based decisions and flexibility can be used to maximize the benefits of CERP while addressing stakeholder concerns.

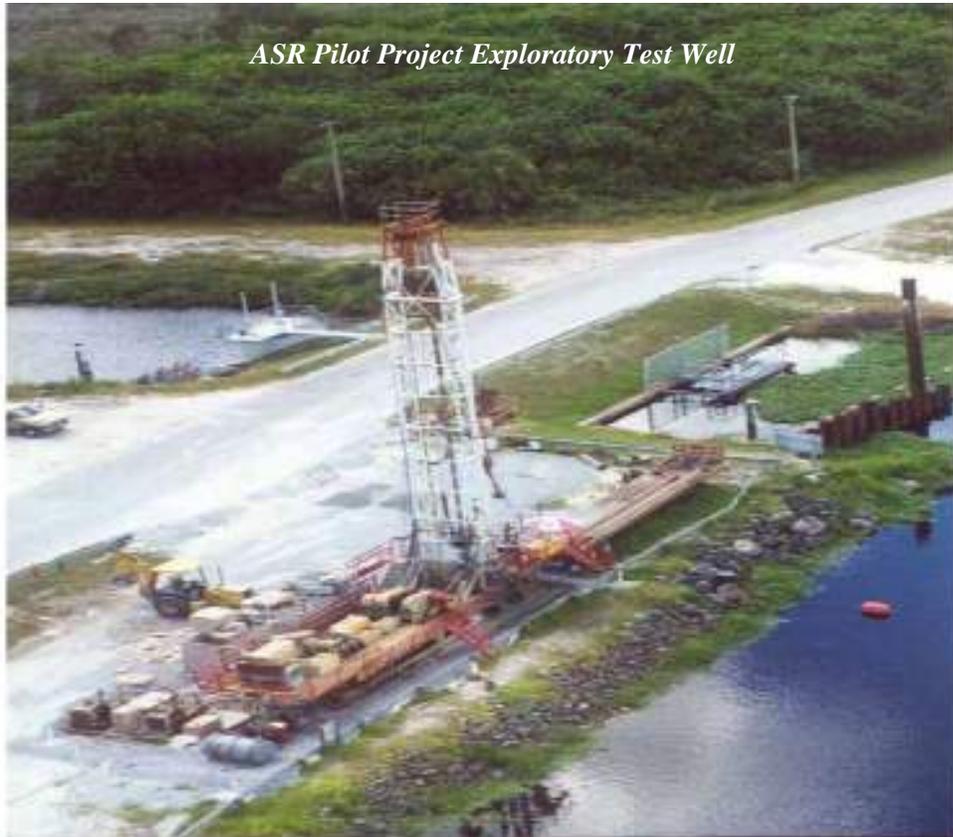


The Prairie Canal, a key component of the Picayune Strand Restoration, is being backfilled by the SFWMD, the non-federal sponsor, in advance of the schedule in the PIR. As shown in the “after” photo above, earthen plugs are being installed in the canal to reduce drainage of adjacent natural areas including Fakahatchee Strand State Preserve and the Florida Panther National Wildlife Refuge. Canal plugging is proceeding in stages; Stage one is complete, Stages two and three are still to be installed. Ecological benefits are already being realized as a result of the Prairie Canal backfill. Native vegetation is quickly covering the fill areas and very few nuisance or exotic plant species have been observed. Ospreys and wading birds have been observed foraging in the area and some beneficial surface water flows were also observed during the 2004 wet season.

2.3.3 The Pilot Project Design Report for the Three ASR Pilot Projects

A Pilot Project Design Report (PPDR) for the Hillsboro, Lake Okeechobee, and Caloosahatchee River (C-43) Pilot Projects was completed in September 2004. The aquifer storage and recovery (ASR) Pilot Projects have been designed to address local scale technical uncertainties relative to ASR design and operation by investigating options for surface water withdrawal, injection, and pumping cycles; water treatment technology; and effects of these pumping cycles on the groundwater and ecosystem in the

test region. Operating these pilot projects will also provide insight into likely operational costs, which will aid in a comparison of ASR technology with conventional (e.g., surface water reservoirs) and alternative (e.g., desalination) technologies to meet the environmental water supply needs. The report contains design analyses for pilot projects in three South Florida regions: Hillsboro, Lake Okeechobee, and Caloosahatchee. The project team recognized the value of installing exploratory wells in the vicinity of the proposed ASR Pilot Project sites to reduce uncertainties about the subsurface hydrogeologic conditions present, prior to ASR well construction. Accordingly, wells were installed at three sites around Lake Okeechobee and at the Hillsboro and



ASR Pilot Project Exploratory Test Well

Caloosahatchee sites to provide preliminary lithologic, geophysical, and hydrogeologic information. The results of this preliminary investigation were evaluated to confirm that these are viable sites for ASR purposes. The results were then incorporated into the PPDR. The ASR Pilot Projects are sequenced in the MISP to precede the implementation of the ASR project.

Exploratory wells have been installed as part of the design effort to determine feasibility for location of the pilot projects. The Pilot Project Design Report for the three ASR Pilot Projects includes a cost estimate of approximately \$45 million. The FY06 appropriation includes funds to initiate installation and testing of the ASR Pilot Projects. These ASR Pilots will take about four years to complete construction and operational testing after installation is initiated.

2.3.4 ASR Regional Study

The CERP includes use of ASR technology on an unprecedented scale. This technology involves collection and treatment of excess surface waters that are then stored in underground aquifers for later recovery. Although ASR technology has been used successfully in Florida since 1983, concerns have been expressed about the proposed use of large-scale ASR in South Florida. Many of these concerns were outlined in a report prepared by the ASR Issue Team of the South Florida Ecosystem Restoration Task Force. To address concerns about ASR, an interagency study team led by the USACE and SFWMD was formed in 2000 and included representatives from the U.S. Geological Survey, U.S. Environmental Protection Agency, Task Force, Florida Department of Environmental Protection, Florida Geological Survey, Florida Department of Health, and various local governments. The interagency study team was tasked with preparing Project Management Plans (PMPs) and overseeing the implementation on the three ASR Pilot Projects. In 2001, an independent scientific review panel of the National Academies of Science and the Committee for the Restoration of the Greater Everglades Ecosystem (CROGEE) reviewed the draft PMPs for two ASR Pilot Projects and subsequently issued a report that recommended additional research.

The ASR Regional Study was designed to answer many of the questions concerning the feasibility of full-scale ASR implementation. CROGEE subsequently reviewed the PMP for the ASR Regional Study. Its report commended the interagency team for producing a comprehensive study plan and noted the studies were well integrated with the three ASR Pilot Projects. The PMP was approved and the ASR Regional Study has been initiated to collect regional hydrogeologic and water quality data, and develop a regional groundwater model as well as other tools required to address regional scale technical uncertainties. This regional study utilizes information from ongoing pilot projects to better address the use and scale of ASR. The ASR Regional Study is the first step in the PIR studies for large scale ASR and will be complete about one year after full implementation of the Pilot Projects. Data collection and regional groundwater model development for the ASR Regional Study is in progress as a part of CERP design studies.

2.3.5 Additional Project Accomplishments During This Reporting Period

During the initial reporting period, thirty-three Project Management Plans, twenty-three Project Implementation Reports, and four Pilot Project Design Reports were initiated. In addition, the USACE and the U.S. Department of the Interior in cooperation with the state hosted the First National Conference on Ecosystem Restoration. More than 900 people from 43 states and the District of Columbia attended the conference, including, state, and local agency personnel, tribal governments, water resource engineers and managers, environmental consultants, environmental policy managers, ecological scientists and researchers, hydrological modelers, students, and environmental interest groups. Participants interacted in an interdisciplinary setting to review and summarize state-of-the art science, planning and management activities, and to formulate goals and approaches to restoration. The conference also provided an opportunity to learn about national ecosystem restoration efforts throughout the country and to learn about large-scale ecosystem restoration programs.

2.4 OTHER ACCOMPLISHMENTS DURING THIS REPORTING PERIOD

2.4.1 Construction of the Testing Project for the C-51/L-8 Reservoir Project

In partnership with the City of West Palm Beach, Indian Trail Improvement District, and Palm Beach County, the SFWMD completed the L-8 Reservoir Testing Project at the Palm Beach Aggregates (PBA) site in March 2005. The testing project provided the technical basis to confirm that the rock mining pits at the PBA site could be effectively used for water storage. Based on the data collected during this project, the SFWMD, in partnership with the Florida Department of Environmental Protection, moved forward with acquiring this storage facility in 2002-2003. The construction of up to 47,000 acre-feet of storage with associated inflow and pumping infrastructure is scheduled to be complete in 2008, representing a timesaving of approximately 6 years over the conceptual schedule outlined in the Plan. By utilizing a phased approach to the construction, approximately 18,000 acre-feet of discharge capacity has been made available for interim water management benefits in the L-8 Basin area and this capacity will increase every year until full completion. The PIR will evaluate whether the L-8 Reservoir is a necessary part of the North Palm Beach County – Part 1 Project, however, early information suggests that its inclusion may be beneficial.

2.5 ANTICIPATED PROJECT ACCOMPLISHMENTS DURING THE NEXT REPORTING PERIOD

2.5.1 Coordination of CERP PIR Studies and State Initiatives (Acceler8 and Other Projects)

The USACE, the DOI and their partners are proceeding with the detailed design and implementation of multiple CERP projects as identified in the MISP. These include projects in the CERP which are being designed and constructed through the state's Acceler8 initiative. These initiatives to design and construct projects, or portions of projects, identified in the CERP are expected to advance the delivery of benefits to the natural and human environments. The USACE has provided information to assist the state in optimizing the timing of Acceler8 and other state initiatives with regard to Federal 404 permitting and coordination with the PIR process. It is expected that this will maximize the probability that all of the state initiatives listed below will be consistent with the recommended plan identified in the appropriate PIR and proposed for Congressional authorization. The PIRs to be completed in the next five years are listed in Appendix B and include the following: Lake Okeechobee Watershed, Winsberg Farms Wetlands Restoration, C-43 Storage Reservoir Part 1, Everglades Agricultural Area (EAA) Phase 1, Acme Basin B Discharge, North Palm Beach County-Part 1, Site 1 Impoundment, Strazulla Wetlands, Broward County Water Preserve Areas, Biscayne Bay Coastal Wetlands, Melaleuca Eradication and Other Exotic Plants, Lakes Park Restoration, Water Conservation Area (WCA) 3 Decomartmentalization, Henderson Creek/Belle Meade Restoration and Everglades National Park (ENP) Seepage Management. The required environmental reviews for the PIRs, Section 404 permitting, and associated state environmental permitting will be closely coordinated.

The state, through its Acceler8 initiative, is expected to expend over \$1.5 billion in additional state funds over the next five years above the \$200 million per year already

planned for CERP to complete by 2010 the development of plans and specifications and construction of the Acceler8 projects. By using available state resources to fund these projects now, the accompanying benefits will be available to the natural and human system much sooner than would be otherwise possible. The projects selected for this initiative, some of which were authorized in WRDA 2000, are in accordance with the sequencing contained in the MISP identified in the CERP. Most of the land for the Acceler8 projects is already in public ownership. The state is coordinating extensively with the Project Delivery Teams to insure consistency between Acceler8 projects and the PIRs. The U.S. Fish and Wildlife Service is working closely with the USACE and the SFWMD to aid in the development of NEPA documents during the PIR process which also satisfy environmental study requirements for Section 404 permits for Acceler8 projects. Through close coordination during PIR development, it is anticipated that the state will design and construct Acceler8 projects that are consistent with all or part of the recommended plan for corresponding Plan components. The projects to be designed and constructed under this initiative and related CERP projects are listed in Table 2-3. The estimated cost of the Plan components listed below totals \$1.89 billion (rounded) (October 04 price level) which is 24 percent of the updated cost of the CERP as detailed in Appendix D.

Table 2-3. Acceler8 Projects Forecast to be Completed by 2010

Acceler8	Corresponding CERP Components (CERP April 1999 Titles)
C-44 Reservoir and STA (IRL-S)	C-44 Storage Reservoir
C-43 West Reservoir	C-43 Storage Reservoir
EAA Storage Reservoir – Part 1, Phase 1	EAA Storage Reservoir, Part 1
Water Preserve Areas	Acme Basin B Discharge
	Site 1 Impoundment
	C-9 Impoundment
	C-11 Impoundment
	WCA 3A/3B Levee Seepage Management
Picayune Strand Restoration	Southern Golden Gate Estates Hydrologic Restoration
Biscayne Bay Coastal Wetlands - Phase 1	Biscayne Bay Coastal Wetlands
C-111 Spreader Canal	C-111 North Spreader Canal

Note: One Acceler8 project (Everglades Agricultural Area Stormwater Treatment Areas Expansion) does not represent a CERP component, so it was not included in this table.

The Acceler8 projects will provide a wide variety of benefits to both the natural and the human environment. The following subsections present a description of these projects and the benefits each will provide.

2.5.1.1 C-44 Reservoir and Stormwater Treatment Area

This project included in the CERP, which is being designed and constructed through the state's Acceler8 initiative, consists of a 4,000 acre, 10-foot deep, above ground reservoir that will provide additional water storage for the C-44 basin. The project also includes a 4,000 acre STA to capture and treat excess stormwater runoff before it enters the St. Lucie Canal and, ultimately, the St. Lucie Estuary and Indian River Lagoon. The project will capture and store local stormwater runoff from the basin, treat some or all of the runoff and return it to the C-44 (St. Lucie) Canal when needed, and decrease excess water flow to the St. Lucie Estuary. Water quality will improve through the reduction in the amounts of phosphorus, pesticides, and other pollutants in the runoff entering the estuary. The project will also increase available water supplies for the environment and human needs, as well as provide public access and recreational opportunities. Construction is scheduled to be completed in 2009.

2.5.1.2 C-43 West Reservoir

This project included in the CERP, which is being designed and constructed through the state's Acceler8 initiative, consists of an above ground reservoir located along the Caloosahatchee River. Maximum storage capacity is 160,000 acre-feet. Depending on storage needs, water depth will vary from 12 to 16 feet. The reservoir will be constructed on an 11,000 acre parcel owned by the SFWMD in Hendry County, west of LaBelle. The project will capture and store regulatory releases from Lake Okeechobee, reducing the number/volume of harmful discharges to coastal estuaries as well as capture and store stormwater runoff from the C-43 basin, decreasing/attenuating excess water flow to the Caloosahatchee Estuary. Additionally, the project will provide a water supply for the Caloosahatchee Estuary restoration by attenuating peak flows during the wet season and providing essential flow for estuary health as well as agricultural and urban demands during the dry season. Recreation and public access opportunities will also be a component. Construction is scheduled to be completed in 2010.

2.5.1.3 Everglades Agricultural Area Storage Reservoir – Part 1, Phase 1

This project included in the CERP, a portion of which is being designed and constructed through the state's Acceler8 initiative, consists of an above-ground reservoir for water storage, with a capacity of 190,000 acre-feet at a maximum depth of 12 feet. The reservoir will be constructed on a 16,700-acre parcel of land situated north of STA 3/4 and between the Miami and North New River canals, and is a piece of the CERP project which is designed to provide significant additional storage in the southern region of the EAA for which a PIR is currently being developed. The Acceler8 project also includes conveyance capacity increases for the Bolles and Cross canals in order to provide improved flood protection and water flow capabilities for moving water to and from the EAA Reservoir and STAs. The project will capture, move, and store regulatory releases from Lake Okeechobee, reducing the number/volume of harmful discharges to coastal estuaries as well as capture, move, and store agricultural stormwater runoff, reducing the

need for emergency flood control back pumping into Lake Okeechobee. Additional water to meet Everglades and agricultural water demands will be made available, lessening water supply dependency on Lake Okeechobee. Operational flexibility to move water within the EAA will be improved, including flow equalization and optimization of the performance of STA 3/4 to further reduce phosphorus inflows to the Everglades. Public access and recreational opportunities will be provided along with flood protection for lands adjacent to the Bolles and Cross canals. Construction is scheduled to be completed in 2009.

2.5.1.4 Water Preserve Areas

This project included in the CERP, which is being designed and constructed through the state's Acceler8 initiative, includes the construction of above-ground impoundments, a wetland buffer strip, pump stations, culverts, canals, water control structures, and seepage control systems. The Water Preserve Areas proposed in the CERP consist of a series of five project components (Site 1 Impoundment, C-9 Impoundment, C-11 Impoundment, Acme Basin B Discharge, and WCA-3A/3B Seepage Management) located adjacent to the Everglades Water Conservation Areas in Palm Beach, Broward, and Miami-Dade counties. These components are contained in the PIRs (currently being developed) for the Broward County Water Preserve Areas (C-9, C-11, WCA-3A/3B Seepage Management), Acme Basin B Discharge and Site 1 Impoundment. The components will improve the Everglades' water quality by diverting urban runoff into impoundments, simultaneously improving hydropatterns in the WCAs and flows to ENP. Additionally, the components will enhance and increase the spatial extent of wetlands adjacent to the remaining Everglades and reduce seepage of pristine water from the WCAs into urban areas, providing a buffer between natural and developed areas. Excess water discharged to tide and "lost" to the system in Palm Beach and Broward counties will be reduced, and supplemental water supply deliveries and aquifer recharge to urban areas will be provided, thus reducing demands on Lake Okeechobee and the WCAs. Recreation and public access will be incorporated into the project as well. Construction is scheduled to be completed in 2007 and 2008.

2.5.1.5 Picayune Strand Restoration

This project included in the CERP, which is being designed and constructed through the state's Acceler8 initiative, involves the restoration of natural water flow across 85 square miles in western Collier County that was drained in the early 1960s in the anticipation of extensive residential development. This subsequent development dramatically altered the natural landscape, changing a healthy wetland ecosystem into a distressed environment. The project includes 83 miles of canal plugs, 227 miles of road removal, and the addition of pump stations and spreader swales to aid in rehydration of wetlands and maintenance of flood protection for the Northern Golden Gate Estates residential area. The project will restore and enhance the wetlands in Picayune Strand (Southern Golden Gate Estates) and in adjacent public lands by reducing over drainage while restoring a natural and beneficial sheetflow of water to the Ten Thousand Islands National Wildlife Refuge. Additionally, the project will significantly increase the size of wetlands and improve major wetland ecosystems in adjacent lands including the Fakahatchee Strand State Preserve, Florida Panther National Wildlife Refuge, and Collier Seminole State Park,

benefiting threatened and endangered species such as the Florida panther and the red cockaded woodpecker. Water quality and volume delivered to coastal estuaries will be improved by the moderation of large salinity fluctuations caused by freshwater flowing from the Faka Union Canal into the estuaries. The project will also maintain existing flood protection for the Northern Golden Gate Estates and provide public access and recreational opportunities. Construction is scheduled to be completed in 2009.

2.5.1.6 Biscayne Bay Coastal Wetlands – Phase 1

This project included in the CERP, a portion of which is being designed and constructed through the state's Acceler8 initiative, will expand and restore the wetlands adjacent to Biscayne Bay in Miami-Dade County, enhancing the ecological health of Biscayne National Park. The project consists of the design and construction of two essential components, Deering Estates Flow-way and Cutler Ridge Wetlands, and restores the quantity, quality, timing, and distribution of freshwater to Biscayne Bay and Biscayne National Park. It will also improve salinity distribution near the shoreline, which will reestablish productive nursery habitat for shrimp and shellfish. In addition, the project will capture, treat, and redistribute freshwater runoff from the watershed into Biscayne Bay, creating more natural water deliveries, expanding spatial extent and connectivity of coastal wetlands, and providing improved recreational opportunities in Biscayne Bay and adjacent wetlands. Construction is scheduled to be completed in 2008.

2.5.1.7 C-111 Spreader Canal

This project included in the CERP, which is being designed and constructed through the state's Acceler8 initiative, is a multipurpose project that provides for ecosystem restoration of freshwater wetlands, tidal wetlands and near-shore habitat, maintenance of flood protection, and recreational opportunities. Located in southern Miami-Dade County, project works include pump stations, culverts, spreader canal, water control structures, and a STA. In addition, an existing canal and levee will be degraded to enhance sheetflow across the restored area. The project will provide more natural sheetflow to Florida Bay by eliminating harmful point source discharges of freshwater through C-111, and rehydrating and reestablishing sheetflow and hydropatterns that will sustain ecosystems in the Southern Glades and Model Lands. Additionally, the project will restore the quantity, quality, timing, and distribution of freshwater to the estuarine systems of Manatee Bay and Barnes Sound, while providing public access and recreational opportunities. Construction is scheduled to be completed in 2008.

2.5.1.8 C-51 and L-8 Basin Reservoir, Phase 1 (PBA)

This project included in the CERP, a portion of which is being designed and constructed through a state initiative, will implement a portion of the North Palm Beach County Project - Part 1, earlier than currently scheduled. The construction of up to 47,000 acre-feet of storage with associated inflow and pumping infrastructure is scheduled to be complete in 2008, resulting in time savings of approximately 6 years over the conceptual schedule outlined in the Plan. By utilizing a phased approach to the construction, approximately 18,000 acre feet of discharge capacity has been made available for interim water management benefits in the L-8 Basin area and this capacity will increase every year until completion.

2.5.2 CERP Projects and Feasibility Studies

The projects and feasibility studies in this section will be implemented during the next reporting period.

2.5.2.1 Three ASR Pilot Projects (Caloosahatchee River (C-43), Lake Okeechobee, and Hillsboro)

ASR facilities are proposed to maximize the storage benefits associated with the proposed reservoirs. A pilot project is necessary to identify the most suitable sites for the ASR wells in the vicinity of the reservoir, to determine the optimum configuration, and to determine appropriate water treatment requirements. The pilot project will provide information regarding the characteristics of the aquifer system in South Florida as well as determine the hydrogeological and geotechnical characteristics of the upper Floridan Aquifer. Each pilot project will also determine site-specific water quality characteristics of (1) the surface waters available for storage, (2) the native waters within the aquifer, and (3) the waters recovered from the aquifer. Each pilot project will also determine the amount of stored waters that can be efficiently recovered. Congressional appropriations were received in FY06 to initiate installation and operational testing of the ASR pilots (Caloosahatchee (C-43), Hillsboro, and Lake Okeechobee). A status report will be provided in the next report to Congress.

2.5.2.2 Melaleuca Eradication and Other Exotic Plants

The Melaleuca Eradication and Other Exotic Plants project is a two-part plan that enhances efforts to control invasive exotic plant species in South Florida. The two parts include (1) mass rearing and controlled release of biological agents throughout South Florida, and (2) preparation of a report to further define the overall problem with exotic invasive plants and to make a recommendation regarding further federal involvement. The mass rearing and controlled release of biological agents is to be implemented concurrent with development of a system-wide plan for exotics.

2.5.2.3 Winsberg Farm Wetlands Restoration

In an effort to reduce the amount of treated water from the Southern Region Water Reclamation Facility that is currently disposed of through injection wells, the Palm Beach County Water Utilities Department plans to further treat and recycle this water. This project proposes construction of an additional 175 acres of wetlands on the Winsberg property, which will serve to not only recycle and preserve additional water for future use, but will also link the Wakodahatchee and Winsberg Farms facilities and provide additional green space in an area currently under heavy development. Approximately six to eight million gallons per day of reclaimed water from the Southern Region Water Reclamation Facility would be applied to the area. The wetland would be planted to maximize the diversity of native plant material and enhance the habitat for various species of wildlife.

2.5.2.4 L-31N Seepage Management Pilot

The purpose of this pilot project is to determine the appropriate technology needed to control seepage from the ENP and to provide the appropriate amount of wet season

groundwater flow needed to minimize potential impacts to Miami-Dade County's West Wellfield and freshwater flows to Biscayne Bay. In order to reduce levee seepage flow from the ENP, it is anticipated that a levee cut-off wall (vertical subsurface barrier with a confining layer at its base) will be installed. During the wet season, groundwater will be captured by groundwater wells and diverted into a buffer area adjacent to ENP where sheetflow will be reestablished.

2.5.2.5 Lakes Park Restoration

Lakes Park is located east of Cape Coral in Lee County, just west of Highway 41. Lee County has developed the area as a regional park with a bathing area along shores of mining pits developed as lakes. Adjacent to the developed area, the remaining natural habitat contains pine flatwoods with some cypress heads. The pits capture runoff from the surrounding developed area (commercial, industrial, and residential) and county monitoring has indicated a decline in water quality in the lakes. The lakes are infested with hydrilla and adjacent uplands and islands are covered with exotic plant species such as Australian pine and Brazilian pepper. This project is expected to enhance surface water runoff quality by creating a meandering flow way with shallow littoral zones and removing aquatic and upland exotic vegetation. The littoral zone will be harvested periodically to remove excess nutrients from the system. Exotic vegetation will be removed and replaced with native vegetation.

2.5.2.6 Florida Bay/Florida Keys Feasibility Study

The study goal for the Florida Bay/Florida Keys (FB&FK) Feasibility Study is to evaluate Florida Bay and its connections to the Everglades, the Gulf of Mexico and the Florida Keys marine ecosystem to determine the modifications that are needed to successfully restore water quality and ecological conditions of the Bay, while maintaining or improving these conditions in the Keys' marine ecosystem.

The FB&FK Feasibility Study will comprehensively examine the FB&FK marine environments and the upstream activities and land uses to determine the modifications that are needed to successfully restore water quality and ecological conditions of the Bay. The study may also include analyses of alternatives for restoration of the marine environment surrounding the Florida Keys, if there are positive impacts on Florida Bay.

2.5.2.7 Southwest Florida Feasibility Study

The Southwest Florida Feasibility Study (SWFFS) will investigate water resources problems and opportunities in all or parts of Lee, Collier, Hendry, Glades, Charlotte, and Monroe Counties. The purpose of the study is to determine the feasibility of making structural, non-structural, and operational modifications and improvements in the region in the interest of environmental quality, water supply, and other purposes. The SWFFS will develop a comprehensive regional plan of action to address the health of aquatic and upland ecosystems; the quantity, quality, timing, and distribution of water flows; agricultural, environmental, and urban water supply; the sustainability of economic and natural resources; flood protection; fish and wildlife; biological diversity; and natural habitat. Completion of this study, now scheduled for 2009, has been delayed due to

difficulties in obtaining and reconciling necessary data for the Southwest Florida region and in developing and calibrating new hydrologic models.

2.5.2.8 Comprehensive Integrated Water Quality Feasibility Study

The purpose of the Comprehensive Integrated Water Quality Feasibility Study (CIWQFS) is to develop a comprehensive plan for addressing the water quality problems and opportunities within all of South Florida. This study will include water quality targets, recommendations regarding water quality management measures in CERP projects, and a recommended conceptual plan that may include both new projects and additions/changes to CERP projects. The end product of Phase I of the CIWQFS will be a report with a conceptual plan for further plan development in Phase II and/or recommendations for other water quality improvement features.

The CIWQFS will focus on the development of water quality targets in order to evaluate various management measures that benefit the ecosystems of South Florida by improving water quality, protecting fish and wildlife and their associated habitat, managing wetland and associated upland ecosystems, and sustaining economic and natural resources. The CIWQFS will include an evaluation of existing and future water quality concerns/issues that will result in the development of water quality targets to achieve restoration objectives that will be incorporated into other PIRs, as appropriate.

2.5.2.9 Aquifer Storage and Recovery Contingency Plan

During the planning of CERP, alternative ASR capacities were considered and the effects of reduced ASR capacity were evaluated. The need for an ASR Contingency Plan was identified to evaluate alternative solutions for maintaining overall CERP performance in case the ongoing ASR Regional Study and planned ASR Pilot Projects determine that CERP proposals for large-scale ASR are not technically feasible. In 2005, an independent scientific review panel of the National Academies of Science and the CROGEE submitted their report entitled *Re-Engineering Water Storage in the Everglades: Risks and Opportunities*, which supported the need of an ASR Contingency Plan. Completion of the ASR Contingency Plan is projected to occur during the next reporting period.

3. PROGRAM COORDINATION

3.1 INTRODUCTION

Successful implementation of the Comprehensive Everglades Restoration Plan (CERP or the Plan) requires that consistent guidance be provided across the many plan elements and planning teams. This guidance includes strategic direction for the sequence of project implementation, resource allocation, and goals against which progress of the restoration is measured, and the feedback processes to identify any shortfalls in progress and allow them to be addressed. The process to provide this guidance is referred to herein as Program Coordination.

COMPLETED:

PROGRAMMATIC REGULATIONS
PRESIDENT/GOVERNORS AGREEMENT
DISPUTE RESOLUTION AGREEMENT
MISP VERSION 1.0

In the Water Resources Development Act (WRDA) of 2000, Congress approved the Plan and required the promulgation of Programmatic Regulations to ensure that the goals and purposes of the Plan are achieved. The Programmatic Regulations require the development of Program Coordination processes and products such as the *Master Implementation Sequencing Plan (MISP)*, Pre-CERP Baseline, Guidance Memoranda, Interim Goals (also required by WRDA 2000) and Interim Targets, and Initial CERP Update (ICU). The interagency process used to develop these products resulted in both better products and improved working relationships that will ensure timely reviews and implementation of the CERP projects. The interagency process will also continue to enhance future collaboration. Many of the Program Coordination activities are discussed in this section. While Program Coordination has been a large part of the initial CERP start-up effort it is expected to gradually decline as a percentage of the total CERP effort as design activities are completed and the number of construction activities increase. Sections 3.3 and 3.4 describe the Program Coordination activities that have been accomplished during the initial five years and that are to be accomplished in the next five-year reporting period.

3.2 ADAPTIVE MANAGEMENT

Adaptive Management, one of the keys to success in implementation of the Plan, has been established to measure the effect of each project on the system as the projects are implemented. As project implementation progresses, system measurements are to be regularly taken according to the Monitoring and Assessment Plan (MAP) to evaluate if projects are meeting objectives and if the natural system is responding as expected. Interim Goals and Interim Targets provide a means to assess performance of the plan in providing for both the restoration of the environment and for the other water related

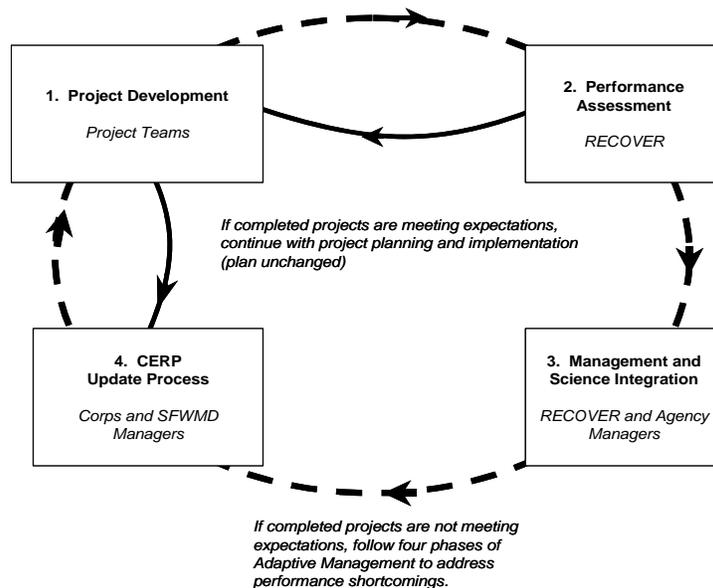


Figure 5: Adaptive Management Process

needs of the region. Improving the performance of the Plan as projects go through a more detailed analysis was envisioned from the Plan's inception. The process to evaluate this analysis is known as Adaptive Management. Adaptive Management is the continuous process of seeking a better understanding of the natural system and human environment in the South Florida ecosystem and seeking continuous refinements in, and improvements to, the Plan. Adaptive Management is a critical element of the Plan as a response to new information to ensure that the goals and purposes of the Plan are fulfilled and that the benefits to the natural system and the human environment are achieved. An essential element of Adaptive Management is the development and conduct of a scientifically rigorous assessment program to analyze and understand responses of the system to implementation of the Plan. In the context of CERP, the overall Adaptive Management process includes four basic components and steps as shown in Figure 5.

Collectively, these components and steps are necessary to design and implement the system-wide MAP, to design and activate a data management and data analyses protocol, to interpret and report system responses, and to identify opportunities for making improvements to the Plan.

3.3 PROGRAM COORDINATION ACCOMPLISHMENTS DURING THE PAST FIVE YEARS

3.3.1 Programmatic Regulations Requirements

The Programmatic Regulations require the development of the following products:

- Six Program-Wide Guidance Memoranda
- Pre-CERP Baseline
- Interim Goals and Interim Targets
- Interim Goals Agreement
- Initial CERP Update
- Master Implementation Sequencing Plan
- Three CERP Reports (Report to Office of Management and Budget, Five Year Report to Congress, and Report to Public)

The South Florida Water Management District (SFWMD) and the United States Army Corps of Engineers (USACE or the Corps) have developed Six Draft Program-Wide Guidance Memoranda, a draft Pre-CERP Baseline, a draft ICU, and MISP in consultation with their federal, state and tribal partners and the Task Force. This approach, coupled with a more extensive stakeholder involvement process, resulted in better and more inclusive final products. The Six Draft Program-Wide Guidance Memoranda and draft Pre-CERP Baseline, which will require concurrence of the Secretary of the Interior and the Governor of Florida, are being developed using a collaborative interagency process with staff from U.S. Department of the Interior (DOI), the U.S. Fish and Wildlife Service, the National Park Service, and the Florida Department of Environmental Protection (FDEP). The collaborative process being used to develop the Six Program-Wide Guidance Memoranda and the Pre-CERP Baseline has taken longer than anticipated, but

will produce better consensus based documents that will result in more efficient and effective CERP implementation.

3.3.1.1 Six Program-Wide Guidance Memoranda

The Programmatic Regulations require the development of Six Program-Wide Guidance Memoranda by December 13, 2004. The Guidance Memoranda, fundamental to the integrated framework, provide direction for using tools for planning, implementation, and evaluation; and provide assurances that the benefits of the Plan will be achieved. The Guidance Memoranda address the following topics:

- General format and content of Project Implementation Reports (PIRs)
- Instructions for formulation and evaluation of alternatives developed for PIRs, their cost effectiveness, and impacts
- General content of operating manuals
- General directions for the conduct of the assessment of activities of the interagency REstoration COordination and VERification (RECOVER) team
- Instructions relevant to PIRs for identifying the appropriate quantity, timing, and distribution of water to be dedicated and managed for the natural system
- Instructions relevant to PIRs for identifying whether an elimination or transfer of existing legal sources of water will occur as a result of implementation of the Plan

These Guidance Memoranda have been compiled into one document entitled, “Six Program Wide Guidance Memoranda.” The Draft Guidance Memoranda document was released for informal public comment in November of 2004. Informal comments were addressed and a revised draft was formulated. The notice of availability for review of the final document was published in the Federal Register in May 2005. The Guidance Memoranda are expected to be finalized early in 2006.

3.3.1.2 Pre-CERP Baseline

The Pre-CERP Baseline is one of the tools developed to ensure that CERP projects comply with section 601 (h) (5) of WRDA 2000 (commonly referred to as the “Savings Clause”). This section states that until a new source of water supply of comparable quantity and quality as that available on the date of enactment of the Act is available to replace the water to be lost as a result of implementation of the Plan, the Secretary and the non-federal sponsor shall neither eliminate nor transfer existing legal sources of water, nor reduce levels of service for flood protection. The USACE and SFWMD use the Pre-CERP Baseline to evaluate projects in determining if, as a result of their implementation, existing legal sources of water will be eliminated or transferred, or levels of flood protection will be reduced. The Programmatic Regulations required the development of the Pre-CERP Baseline by June 14, 2004. During development of the Pre-CERP Baseline the interrelationship between the Pre-CERP Baseline and the Guidance Memoranda was recognized. As a result, these documents were developed together. The Pre-CERP Baseline was released for informal public comment in November 2004 and the notice of availability for review of the final document was

published in the Federal Register in May 2005. The Pre-CERP baseline is expected to be finalized early in 2006.

3.3.1.3 Interim Goals and Interim Targets

WRDA 2000 and the Programmatic Regulations require the establishment of Interim Goals to evaluate restoration success as the Plan is implemented. The Programmatic Regulations also require establishment of Interim Targets to evaluate the success of the Plan in providing for other water-related needs of the region including water supply and flood protection throughout the implementation process. The Programmatic Regulations required the execution of an Interim Goals Agreement by December 13, 2004 and publication of the notice of availability in the Federal Register of the Interim Targets by December 13, 2004.

It was originally anticipated that the Interim Goals and Interim Targets would utilize updated models produced for the ICU along with the MISP. Due to challenges in updating the model and coordinating these challenges with the agencies and stakeholders, the completion of the ICU has been delayed. To avoid further delays in completion of the Interim Goals and Interim Targets, the RECOVER interagency team used the existing modeling and project sequencing from the Plan to complete their Interim Goals and Interim Targets recommendations. In February 2005, the RECOVER interagency team provided its final set of recommendations (required by the Programmatic Regulations no later than June 14, 2004) for Interim Goals and Interim Targets to the USACE, the DOI, and the SFWMD in *The RECOVER Team's Recommendations for Interim Goals and Interim Targets for the Comprehensive Everglades Restoration Plan*. An Interim Goals Agreement between the Secretary of the Army, the Secretary of the Interior, and the Governor of the State of Florida establishing the Interim Goals is presently under development and is expected to be executed early in 2006. The Secretary of the Army and the Governor are also expected to establish the Interim Targets early in 2006.

3.3.1.4 Master Implementation Sequencing Plan

The *Master Implementation Sequencing Plan* describes the sequencing and scheduling for implementation of all of the projects of the Plan, including pilot projects and operational elements, based on the best scientific, technical, funding, contracting, and other information available, including the effect of the state's Acceler8 initiative, all of which are consistent with the Plan.

The Programmatic Regulations required the MISP to be developed by December 13, 2004. The MISP Version 1.0 dated March 2005, was developed using the best available information to sequence projects to maximize the achievement of the goals and purposes of the Plan at the earliest possible time and in the most cost-effective way. The MISP development would have taken into account Interim Goals and Interim Targets as well as updated modeling of the Plan, however, these items were not available but will be utilized during future MISP refinement. The sequencing is consistent with the requirement that each project be justified on a next-added increment basis.

The sequencing in the MISP Version 1.0 is based on the sequencing contained in the Plan and an updated schedule that was released in 2001. Different from previous sequencing efforts, the MISP Version 1.0 does not contain a detailed schedule listing many tasks for

each project. MISP Version 1.0 lists each project once and groups projects by the five-year period, or Band, in which construction is expected to be completed. Bands provide a clearer view of project completion and sequencing. Band 1 contains all or part of seven of the ten full-scale projects authorized in WRDA 2000, with the completion of two of the remaining authorized full-scale projects in Band 2, and the third completed in Band 3. The Plan also proposed six pilot projects which were authorized in WRDA 1999 and WRDA 2000, four of which are scheduled in Band 1 with the remaining two scheduled in later bands based upon input related to technical constraints and updated costs provided by project teams.

Development of the MISP Version 1.0 included consideration of technical relationships, the status of scientific research in various disciplines, the resources available to implement projects, and other factors that together resulted in the collection of projects in each Band. In addition to benefits analysis refinement, it is recognized in the MISP Version 1.0 that if additional funding becomes available at least some elements of projects that show demonstrable benefits to the natural system as well as significant stakeholder support could be sequenced earlier. Those projects include the Indian River Lagoon – South Natural Areas, Everglades National Park Seepage Management Project, and the WCA 3 Decompartmentalization and Sheetflow Project. The USACE and the SFWMD, along with its agency partners and its stakeholders, will continue to evaluate opportunities for the earliest possible implementation of CERP projects. Changes in schedules from those in the Plan are reflected in MISP Version 1.0 dated March 2005.

3.3.1.5 REstoration COordination and VERification (RECOVER)

A program that is known as RECOVER was envisioned in the Plan to ensure that a system-wide focus is maintained throughout the ongoing planning and implementation of the Plan. RECOVER is a partnership among federal, state and local agencies, and tribal governments designed to organize and provide the highest quality scientific and technical support during the implementation of the Plan. It is the role of RECOVER to ensure that science continues to guide implementation. RECOVER affords the opportunity to participate in an ongoing process of assessment and refinement of the Plan. Additionally, RECOVER provides opportunities for stakeholders to participate in the review of RECOVER work products. During this reporting period, RECOVER was formally established and played a major role in developing and implementing system-wide tools and guidance, and also provided scientific expertise for the implementation of the projects.

3.3.1.6 Adaptive Assessment and Monitoring (AA&M)

One of the more significant accomplishments during the past five years is the development and publication of the Monitoring and Assessment Plan by RECOVER in January of 2004. The MAP is the primary tool by which RECOVER will assess the performance of the Plan. The goal in developing and implementing the MAP is to have a single, integrated, system-wide monitoring and assessment plan that will be used and supported by all participating agencies to track and measure system-wide responses to the implementation of CERP. Preparation of the MAP involved participation by numerous individuals from federal and state agencies and tribal governments, local agencies, and

stakeholders, interest groups, and the public over a three-year period. Information gathered from monitoring described in the MAP will provide necessary information to determine if responses to implementation of the Plan are desirable, to determine progress toward reaching Interim Goals and Interim Targets, and to evaluate if revisions and refinements of the Plan are needed to improve performance. The MAP is designed to provide assessment information to measure how well the CERP is meeting its performance objectives and provide annual reports to the Adaptive Management program, a critical element of CERP.

3.3.2 Additional CERP Program Accomplishments

3.3.2.1 Interagency Modeling Center

A collaborative state and federal interagency effort, the Interagency Modeling Center (IMC), was established in 2003 to provide a centralized pool of resources and expertise to promote greater efficiency and consistency in the hydrologic and ecologic modeling that supports CERP planning. It provides, coordinates, and oversees the modeling needs and efforts for CERP both at the Program Coordination level, such as modeling that will be needed for the MISP Version 1.0 updates, and modeling needs for individual project analyses.

System-wide computer models are important tools used to simulate South Florida hydrology and water management, and to evaluate the system-wide performance of the Plan. The primary models that are now being used to evaluate the Plan as projects are being evaluated and implemented are the South Florida Water Management Model and the Natural Systems Model. Next generation models are being developed that will provide more accurate predictions of system-wide performance under CERP.

3.3.2.2 Additional CERP Guidance Memoranda

In addition to the Six Program-Wide Guidance Memoranda required by the Programmatic Regulations, the USACE and the SFWMD have jointly published thirty-six CERP Guidance Memoranda that standardize technical, managerial, reporting, and public outreach issues related to the management of work shared by these two agencies. Issues addressed have included water quality, land survey, geographic information systems (GIS) data, project modeling, environmental monitoring, a common structure for project schedules, change control measures, Internet publishing, and environmental justice.

3.3.2.3 Geodetic Vertical Controls Survey

A Geodetic Vertical Controls Survey was completed in 2003 that established a network of horizontal and vertical survey control points that serve as the common reference for data collection efforts required to plan, design, and construct the CERP and monitor operations. In particular, this survey control effort facilitates data collection required for the development of the next generation of water management models and GIS for various ecosystem and other analyses. It also facilitates interagency data sharing and data evaluation as part of the ongoing collaborative efforts required for Adaptive Management.

3.4 PROGRAM ACCOMPLISHMENTS EXPECTED OVER THE NEXT FIVE YEARS

3.4.1 Initial CERP Update (ICU)

The ICU which was required by the Programmatic Regulations to be completed by June 14, 2004, is a part of the Adaptive Management process developed to ensure that new information is regularly considered and incorporated into plan implementation. Scheduled for completion by the RECOVER team in 2005, the ICU will evaluate performance of the Plan using new or updated modeling that includes the latest scientific, technical, and planning information. Significant challenges have been encountered in updating the modeling. The Draft ICU Report and accompanying 2004 Planning Aid Report (dated 2004), provided by the Fish and Wildlife Service, identified shortfalls in the update. This report along with agency and stakeholder involvement led to technical improvements to the ICU which are documented in a revised Draft ICU Report and Planning Aid Report dated 2005. The results of the performance evaluation of the Plan through the ICU effort will be used to determine if the goals and purposes of the Plan are achieved or if improvements are warranted. Should the USACE and SFWMD, in consultation with other state and federal agencies and stakeholders, determine that changes to the Plan are necessary, a Comprehensive Plan Modification Report would be prepared.

3.4.2 MISP Updates

MISP 1.0 will be further refined as Interim Goals and Interim Targets are established and additional models are developed. Next generation models are currently being developed to improve the benefits analysis. These models will be used by the RECOVER team to evaluate the MISP to determine projected performance of the CERP over time. Additionally, the affects of MISP sequencing to the achievement of the Interim Goals and Interim Targets will be evaluated.

MISP 1.0 refinement will also take into account assessments of incremental system-wide benefits, expected storage to be made available, and Savings Clause concerns. An improved methodology is under development as part of the procedures for formulation and evaluation for CERP and will be used to evaluate the incremental system-wide benefits. A separate methodology described in the Guidance Memoranda will be used to identify incremental increases in water to be made available for restoration and other purposes and to evaluate Savings Clause protection over time. Taken together, these models and methodologies will allow the MISP to serve as a framework for implementing and seeking continuous improvements to the Plan.

3.4.3 Interim Goals and Interim Targets Updates

During the next five years, the Interim Goals and Interim Targets, which will be established in the Interim Goals Agreement and in the agreement on Interim Targets, will be updated as new information becomes available. The initial set of Interim Goals and Interim Targets is based on hydrologic modeling conducted during the development of the Plan. Over the next five years, the Interim Goals will be revised to incorporate improved CERP modeling information produced as part of the ICU and to reflect updated

Plan implementation scheduling from the MISP Version 1.0. Other new information that may necessitate Interim Goals and Interim Targets updates in the next five years would include improved scientific information and ecological modeling resulting from assessment and monitoring activities, or CERP Modification Reports that may be deemed necessary. The RECOVER report identified needed ecological models. These models will serve as predictive tools for additions to the initial set of Interim Goals. Work will continue in developing these models as well as water quality models. As more is learned about system responses to CERP, through monitoring and adaptive assessment, predictions for these responses may become more informed, and the Interim Goals will be revised based on this new information.

3.4.4 Adaptive Assessment and Monitoring

During the next five years, an adaptive assessment protocol will be developed and fully implemented for analyzing the data generated from the MAP and other relevant monitoring data to understand how the South Florida ecosystem is responding to implementation of the CERP. This technical protocol will provide additional information beyond that presented in Guidance Memorandum #6, "Assessment Activities for Adaptive Management," and will provide the building blocks for future revisions to the assessment portion of the MAP.

The assessment protocol will be used by the RECOVER team to interpret the responses by natural and human systems during and following the implementation of the Plan. The assessments will be used as a basis for identifying opportunities for refining the plan and for recommending any necessary changes that will produce the desired achievement of CERP goals. Although not mandated, the RECOVER team intends to issue an annual assessment report, or Report Card, on system-wide responses to the Plan for a critical set of the MAP elements being monitored. It will describe how well the Plan components are meeting their targets, based upon system responses measured against restoration targets.

In order to measure performance in the next Report to Congress, baseline information must be developed. To detect changes in the ecosystem as a result of the implementation of CERP projects, baseline conditions of indicators for water quality, hydrology, and ecological characteristics will be established prior to project construction. Monitoring efforts throughout the CERP process will collect the data needed for comparison to the baseline at five-year intervals. These comparisons will allow the RECOVER team to evaluate how much the system has changed from its pre-CERP condition and what progress has been made towards achieving the Interim Goals. The MAP is now producing data to establish baseline conditions for assessing change in ecosystem indicators.

3.4.5 Master Recreation Plan

A significant part of recreation in South Florida is water based. As CERP projects are implemented, the impact to recreation opportunities will be addressed along with the additional recreation opportunities that may be made available by the CERP. A Master Recreation Plan is under development that will identify the best locations for regional recreation sites within the CERP area. This programmatic need was not initially identified but this plan will ensure the public opportunities to directly enjoy the benefits from the Everglades restoration. The interagency team working on this plan will identify

today's recreation opportunities based on existing recreation areas, and will forecast the future needs. Although an additional program cost, the Master Recreation Plan will assist individual project teams with the incorporation of recreation planning that is consistent with the goals and objectives of CERP in their site-specific design work.

3.4.6 Outreach and Assistance Activities

The next five years are expected to be a period of even more interest and involvement for CERP outreach and assistance. Planning will continue on the specific CERP projects throughout the 16-county area, with each requiring local outreach efforts. Pilot projects for aquifer storage and recovery, and seepage management will conclude, requiring the communication of the results to the public. For many, CERP will become a reality as construction activities increase, bringing associated job and contracting opportunities.

3.4.7 Review of the Programmatic Regulations

The Programmatic Regulations will be reviewed and, if necessary, revised at least every five years. In addition, the Secretary of the Army may review and revise the regulations whenever the Secretary believes such review is necessary to attain the goals and purposes of the Plan. Any revisions to the regulations shall be promulgated after notice and opportunity for public comment with the concurrence of the Secretary of the Interior and the Governor, and in consultation with the Seminole Tribe of Florida, The Miccosukee Tribe of Indians of Florida, the Administrator of the Environmental Protection Agency, the Secretary of Commerce, and other federal, state, and local agencies.

4. PROGRESS TOWARD INTERIM GOALS AND INTERIM TARGETS

As stated earlier in this report, in February 2005 the RECOVER interagency team provided its final set of recommendations for Interim Goals and Interim Targets to the U.S. Army Corps of Engineers, the U.S. Department of the Interior, and the South Florida Water Management District in *The RECOVER Team's Recommendations for Interim Goals and Interim Targets for the Comprehensive Everglades Restoration Plan*. An Interim Goals Agreement between the Secretary of the Army, the Secretary of the Interior, and the Governor of Florida, which will contain the Interim Goals, is presently under development and is expected to be completed in early 2006. The Secretary of the Army and the Governor are also expected to establish the Interim Targets in early 2006.

During the period covered by this initial Report to Congress, CERP efforts have focused on identification of Interim Goals and targets and required design studies. CERP performance based on construction and operational changes completed during the next five year reporting period will be evaluated in the second Report to Congress in accordance with the CERP Programmatic Regulations requirements listed below:

- Progress towards the Interim Goals established for assessing progress towards achieving the benefits to the natural system,
 - A discussion of the performance that was predicted to be achieved in the last periodic Report to Congress,

- A discussion of the steps taken to achieve the Interim Goals since the last periodic Report to Congress,
 - If performance did not meet the Interim Goals, a discussion of the reasons for such shortfall,
 - Recommendations for improving performance, and
 - The Interim Goals to be achieved in the next five years, including any revisions to the Interim Goals, reflecting the work to be accomplished during the next five years, along with a discussion of steps to be undertaken to achieve the Interim Goals.
- Progress towards Interim Targets for other water related needs of the region provided for in the Plan and established for assessing progress towards achieving the benefits to the human environment
 - A discussion of the expected and actual performance of the Plan in achieving Interim Targets since the last periodic Report to Congress, including the reasons for any deviations from expected performance; and
 - A discussion of the Interim Targets expected to be achieved during the next five years, including specific activities to achieve them and any recommendations for improving performance.

5. FINANCIAL SUMMARY

5.1 COST ESTIMATE UPDATE

The Plan presented to Congress in 1999 included a baseline cost estimate for projects (including pilot projects and feasibility studies) of \$7.8 billion (rounded) at October 1999 price levels. In addition, the Plan also included a baseline cost estimate for adaptive assessment and monitoring (AA&M) of \$387 million. This resulted in a total cost for the Plan of \$8.2 billion to be cost shared 50/50 between the federal government and multiple local sponsors.

Table 5-1 below shows the overall Comprehensive Everglades Restoration Plan (CERP or the Plan) cost estimate at October 1999 and October 2004 price levels. Tables 5-2, 5-3, and 5-4 show specific information on price level adjustments and scope changes for projects, AA&M, and Program Coordination, respectively.

According to Table 5-1, current cost estimates for the Plan are \$10.9 billion (rounded) at October 2004 price levels. The cost estimate increase is due to (1) \$1.6 billion (rounded) in price level (inflation) adjustments from October 1999 to October 2004, (2) \$571 million (rounded) in scope changes based on decision documents with Chief's Reports (IRL – South and Picayune Strand), and (3) \$500 million (rounded) in scope changes for additional requirements per Water Resources Development Act of 2000 (WRDA 2000) and other programmatic needs. Of the \$1.6 billion in price level adjustments, \$1.5 billion is associated with projects and \$.1 billion is associated with AA&M.

Table 5-1: CERP Cost Estimate Update Summary

	Updated Cost Estimate Summary (in millions) (Rounded)	
	Oct 99 Price Level	Oct 04 Price Level
Projects (1)	\$ 7,820	\$ 9,881
AA&M (2)	\$ 387	\$ 496
Program Coordination (3)	\$ 0	\$ 500
TOTAL (4)(5)	\$ 8,207	\$ 10, 876

Note:

- (1) October 99 Price Level information from the C&SF Project Comprehensive Review Study, Final Integrated Feasibility Report and Programmatic Environmental Impact Statement (Yellow Book), Volume 1, page 9-56, Section 9.9.1 Initial Costs, and page 9-57, Table 9-2, Estimated Initial Cost for Construction Features. It also includes scope changes totaling approximately \$571 million for IRL-S and Picayune Strand projects per approved decision documents.
- (2) October 99 Price Level information from the Yellow Book, Volume 1, page 9-56, Section 9.9.2 Adaptive Assessment and Monitoring Costs, and page 10-31, Figure 10-6, Line 4, Restoration and Coordination Verification Team.
- (3) Added per WRDA 2000 requirements.
- (4) This table reflects October 2004 dollars using OMB inflation indices based on CERP Plan (April 1999) or authorized project costs contained in decision documents.
- (5) Table 9-1 of the CERP Report dated April 1999, identifies the estimated real estate to be acquired to implement each project at the time of the report, while Table 9-2 provides the cost estimates for this real estate. The final real estate requirements for each project may vary from what was shown in Table 9-1 due to a refinement of the real estate needs during PIR development and detailed design.

The estimated cost of the Comprehensive Everglades Restoration Plan was based on the best available information at the time. Appropriate contingency factors were used to reflect the uncertainties inherent at that stage of the program. The cost risk associated with each feature was appraised separately and, due to the lack of design information, was generic rather than site specific. It was anticipated that the cost of the plan would be modified as pilot projects and individual Project Implementation Reports were completed. A Contingency Management Plan is now being developed to address the degrees of risk associated with the numerous and varied projects in CERP.

As stated above, Table 5-2 shows cost increases associated with projects. One source of project cost increase is that associated with real estate acquisition. These costs are captured in this report within project scope changes. The Plan estimated a total real estate cost of approximately \$2.4 billion at 1999 price levels (see Table 9-2 in the Plan) for 220,141 acres of land (see Table 9-1 in the Plan). The total number of acres now estimated for CERP implementation is approximately 400,000 acres. This increase in required land acquisition is reflected in the Project Implementation Reports (PIRs) for Indian River Lagoon-South, Picayune Strand Restoration, and Everglades Agricultural Area projects. As stated previously in this report approximately 51% of the lands required for CERP have been acquired at a cost of approximately \$1.09 billion. (For additional detail regarding individual CERP projects and their cost estimates at October 1999 and October 2004 price levels, see Appendix D.)

As noted above, approximately \$1.5 billion in price level adjustments occurred during the first five years of CERP or approximately \$300 million per year in cost increases. Increased federal funding can compliment state initiatives to accelerate CERP implementation and reduce future cost increases due to inflation.

As noted above, Table 5-3 shows price level adjustments associated with AA&M. Table 5-4 shows a current cost estimate of \$500 million that is a scope increase for the estimated budget for federal and non-federal Program Coordination initiatives to comply with WRDA 2000 and for additional program controls and management activities necessary for successful CERP implementation. This \$500 million cost estimate for Program Coordination is based on a funding level of 5% of the total program cost of approximately \$10 billion.

More specifically, program management activities required by WRDA 2000 included costs for the preparation of the Master Program Management Plan, the Master Agreement, the President and Governors Agreement, development of Interim Goals, report on Miami Dade ASR, reports to Congress occurring, at a minimum, every five years, Annual Reports to Office of Management and Budget (OMB) and the public, and coordination with Army Audit and others on work in kind efforts by the sponsors.

WRDA also required preparation of the Programmatic Regulations which, in turn, resulted in the development of Six Guidance Memoranda, the development and update of the *Master Implementation Sequencing Plan*, development and periodic updating of the Master Recreation Plan, coordination, development and updating of the Interim Goals and Targets, development of an Interim Goals Agreement and preparation of Comprehensive Plan Modification reports.

Also directed by WRDA 2000 are Public Outreach and Environmental and Economic Equity (EEE) efforts to engage the public, particularly socially and economically disadvantaged people, including those operating small business concerns and those with limited English proficiency, in the overall restoration effort. These efforts also attempt to facilitate effective collaboration among the many stakeholders including federal, state, local, and tribal governmental entities participating in the design and implementation of CERP.

Some programmatic costs were not specifically dictated by WRDA but are essential to effectively executing the program and ensuring effective coordination among parties. These include costs associated with Fish and Wildlife Coordination activities for program level actions, preparation of the special report on Exotic Species, and preparation of special agreements. Recently, it has been determined that a Contingency Management Plan is needed. The cost of this activity was not anticipated within the Plan. To further facilitate interagency collaboration a common data management system and related databases were established as was an Interagency Modeling Center for development and operation of system wide models, used in assessing project performance.

Program controls are also part of these programmatic costs, including the development of the 40+ CERP Guidance Memoranda (CGMs) for Project Delivery Teams, development and update of standard schedule and budget controls and procedures such as standardized project templates and milestones. Program controls also includes the establishment of a common geodetic control network. This has been accomplished with the establishment of the survey grid for South Florida that links all planned and existing projects to a common survey to enhance regional modeling accuracy.

Table 5-2: CERP Cost Estimate Update for Projects

CERP Projects (in 1,000s)					
FY	Price Level Date	Cost Estimate (1)	Adjustments		Revised Estimate for next FY
			Price Level	Scope Changes (2)	
2000	Oct-99	\$7,819,548	\$304,794	\$0	\$8,124,342
2001	Oct-00	\$8,124,342	\$299,963	\$0	\$8,424,305
2002	Oct-01	\$8,424,305	\$307,853	\$0	\$8,732,158
2003	Oct-02	\$8,732,158	\$297,788	\$0	\$9,029,945
2004	Oct-03	\$9,029,945	\$279,653	\$571,422	\$9,881,020
2005	Oct-04	\$9,881,020			
		Totals	\$1,490,051	\$571,422	

Note:

(1) Individual projects include Contingency amounts for design and construction that vary depending on the degree of technical uncertainty in individual project features. Total Contingency amounts included in the project cost estimates in October 99 equaled \$729,985 (10.3% of Projects baseline cost estimate), and in October 04 equal \$1,090,575.

(2) Scope Changes are noted per final PIRs and USACE Chief's Reports for Indian River Lagoon-South (\$239,593) and Picayune Strand Restoration (\$331,829) for a total of \$571,422).

Table 5-3: CERP Cost Estimate Update for Adaptive Assessment & Monitoring

Adaptive Assessment & Monitoring (AA&M) (in 1,000s)					
FY	Price Level Date	Cost Estimate	Adjustments		Revised Estimate for next FY
			Price Level	Scope Changes	
2000	Oct-99	\$387,000	\$18,956	\$0	\$405,956
2001	Oct-00	\$405,956	\$17,768	\$0	\$423,724
2002	Oct-01	\$423,724	\$20,859	\$0	\$444,583
2003	Oct-02	\$444,583	\$27,228	\$0	\$471,811
2004	Oct-03	\$471,811	\$24,011	\$0	\$495,822
2005	Oct-04	\$495,822			
		Totals	\$108,822	\$0	

Note:
AA&M estimates do not include a Contingency amount.

Table 5-4: CERP Cost Estimate Update for Program Coordination

Program Coordination (Includes WRDA 2000 Requirements) (in \$1,000s)			
Program Activity	Estimated Total Need for CERP (1)	Expenditures Through FY04 (USACE & SFWMD)	Projected Remaining Funds Needed for CERP
Program Management	\$187,014	\$37,705	\$149,309
Program Controls	\$40,054	\$12,249	\$27,805
Geodetic Survey	\$3,180	\$3,180	-
Public Outreach	\$48,988	\$6,989	\$41,999
Environmental & Economic Equity	\$3,937	\$787	\$3,150
Data Management	\$37,547	\$9,655	\$27,892
Interagency Modeling Center	\$63,302	\$5,955	\$57,347
Master Recreation Plan	\$2,716	\$354	\$2,362
Programmatic Regulations	\$1,480	\$1,480	-
RECOVER	\$111,782	\$18,909	\$92,873
TOTAL	\$500,000	\$97,262	\$402,738
<p>Note: Program Coordination initiatives are estimated to require approximately \$403 million (at October 2004 price levels) for the balance of CERP. This is derived by subtracting the approximately \$97 million expended to date from the \$500 million estimated total Program Coordination costs for CERP. The \$500 million cost estimate is based on a funding level of 5% of the total cost of approximately \$10 billion.</p> <p>(1) These estimates do not include a Contingency amount.</p>			

5.2 EXPENDITURES THROUGH FY04

Federal and South Florida Water Management District (SFWMD) creditable expenditures for CERP implementation through the end of Fiscal Year (FY) 2004, as shown in Table 5.1 totals approximately \$104.3 million and \$105.2 million, respectively. Accomplishments to date and forecast accomplishments are discussed in earlier sections of this report. Creditable expenditures through FY04 have been well balanced with the two partners spending 49.8% and 50.2%, respectively, of the total expenditures. In addition to these creditable expenditures, SFWMD has expended \$800 million through FY04 for advance land acquisition and other efforts which support the Plan. It is anticipated that some or all of these expenditures will be counted for cost share credits, if authorized by Congress, based on anticipated recommendations in relevant decision documents (PIRs or PPDRs) already submitted or under development. Not included in Table 5-5 are federal government land grants to the state totaling over \$259 million which were made under authorities other than WRDA 2000.

Table 5-5: CERP Cumulative Creditable* Expenditures through FY04

	Cumulative Creditable* Expenditures through FY04 (in millions)		
	USACE	SFWMD	TOTAL
Projects (1)	\$ 56.78	\$ 39.83	\$ 96.61
AA&M	\$ 5.86	\$ 9.81	\$ 15.67
Program Coordination (2)	\$ 41.68	\$ 55.58	\$ 97.26
TOTAL	\$ 104.32	\$ 105.22	\$ 209.54
Cost Share Percentage (%) of Expenditures to Date	49.78 %	50.20 %	
(1) Projects total includes Feasibility Studies (2) Program Coordination includes Interagency modeling Center			

* Note: Subject to audit.

5.3 ANTICIPATED FUNDING FOR FY05 THROUGH FY09

Table 5-6, shows estimated funding needs to support CERP FY05 through FY09 per *Master Implementation Sequencing Plan Version 1.0* (MISP). The MISP utilized a maximum \$200 million per year federal funding target. It must be noted that this does not represent the President's budget request and is not a commitment by the federal government. The Secretary of the Army plans to implement the project through the normal budget process at the appropriate time, considering national priorities, and the availability of funds.

The forecast for SFWMD funding includes \$1.5 billion for Acceler8 projects which is in addition to the \$200 million per year state funding plan for the CERP. This table shows a gradual increase in United States Army Corps of Engineers (USACE or the Corps) expenditures from FY05 to FY09. It is recognized in the MISP Version 1.0 that if additional funding becomes available, at least some elements of projects that show demonstrable benefits to the natural system as well as significant stakeholder support could be sequenced earlier. Those projects include the Indian River Lagoon – South Natural Areas, Everglades National Park Seepage Management Project, and the Water Conservation Area (WCA) 3 Decompartmentalization and Sheetflow Project.

Table 5-6: CERP Funding Required to Support the Master Implementation Sequencing Plan from FY05 through FY09

CERP Funding Required to Support the Master Implementation Sequencing Plan from FY05 through FY09						
(in millions)						
	FY05	FY06	FY07	FY08	FY09	5-Yr Total
USACE	\$ 59	\$ 68	\$ 118	\$ 180	\$ 200	\$ 625
SFWMD	\$ 329	\$ 329	\$ 288	\$ 737	\$ 767	\$ 2,450
Palm Beach County*	\$.97	\$1.88	\$2.62	\$0	\$0	\$5.47
Lee County*	\$0.05	\$0.09	\$0.09	\$0	\$0.02	\$0.25
GRAND TOTAL	\$ 389	\$ 398	\$ 409	\$ 917	\$ 967	\$ 3,080

* Note: Anticipated funding for Palm Beach and Lee Counties are from associated project PMPs.

During development of the CERP, it was assumed that several Foundation Projects which aid Everglades restoration would be completed prior to, or very early during, CERP implementation. These Foundation Projects include the Kissimmee River Restoration project, Central and Southern Florida project modifications for the Modified Water Deliveries to Everglades National Park project, and various other modifications to the Central and Southern Florida project such as the C-51 and C-111 projects discussed earlier in this report. The above projects are forecast to be largely completed by 2010 and they are being implemented concurrently with early design and construction activities. Timely funding and implementation of these Foundation Projects are critical to future CERP implementation progress and success.

5.4 COST SHARE CREDITING FOR CERP PROJECTS

WRDA 2000 makes no provision for credit for any construction the non-federal sponsor undertakes in advance of project authorization. Credit for construction accomplished by the SFWMD in advance of project authorization requires Congressional authorization. Accordingly, each PIR will include an evaluation of the state's planned Acceler8 project and is expected to include a recommendation that Congress provide credit for work done by the non-federal sponsor that the Secretary of the Army determines to be necessary, integral to the plan, technically sound, environmentally acceptable, and of a reasonable cost. Similarly, the state will not be granted credit for advanced land acquisition until appropriate project cooperation agreements (PCAs) are in place.

6. LOOKING FORWARD

The United States Army Corps of Engineers (USACE or the Corps), the U.S. Department of the Interior (DOI), and their partners have identified an immediate strategy to achieve the goals and benefits of the Plan for the next five years, and a long-term vision for the implementation of restoration in South Florida. This South Florida restoration strategy builds upon the completion of the Foundation Projects (Kissimmee River Restoration Project, Modified Water Deliveries to Everglades National Park Project, modifications to the C-111 Project, Critical Restoration Projects Program, Everglades Construction Project, and C-51/STA-1E Project) concurrent with ongoing state and federal efforts to implement the Comprehensive Everglades Restoration Plan (CERP or the Plan), including streamlined federal processes and state actions such as the Acceler8 initiative.

The USACE and the state are proceeding with streamlined federal processes and state actions such as Acceler8 to implement projects identified in Band 1 of the *Master Implementation Sequencing Plan* (MISP). Communication between all partners involved in the implementation of CERP is crucial and ongoing, with both formal and informal communication forums well established. This strategy will continue to utilize the partnerships and collaborative efforts that were established during the development of the Plan, and will continue to be modified as CERP is implemented and additional opportunities and challenges arise.

The strategy outlined in the Plan is based on authorization, funding and resource assumptions for both the federal government and its non-federal partners. In the first five-year period, the State of Florida and the federal government undertook an initiative to expedite the implementation of CERP. This initiative has led to an overall streamlining of the CERP process and will result in achieving the benefits of the Plan sooner than would otherwise be possible. Increases in federal funding and resources beyond those identified in this report, and in addition to the expanded commitment already made by the State of Florida through its Acceler8 initiative and real estate acquisition, could result in the further acceleration of some portions of the Plan with important natural system benefits. The implementing agencies will continue to evaluate opportunities to streamline processes to implement the Plan more efficiently.

The Strategy for Restoration of the South Florida Ecosystem (described in the South Florida Ecosystem Restoration Task Force's *COORDINATING SUCCESS: Strategy for Restoration of the South Florida Ecosystem*, dated 2004), of which the Plan is a major part, will enhance the natural and human environment for years to come. Through continued collaboration between agencies, stakeholders, and the general public, the Plan can be implemented efficiently with all of the benefits that are expected. In this way, implementation of the Plan will not only accrue benefits to the natural and human environment, but it will build the relationships needed between agencies, stakeholders, and the public to maintain the Plan's positive momentum.

APPENDIX A
DESCRIPTIONS OF FOUNDATION PROJECTS

APPENDIX A

CERP builds upon certain federal and state Everglades restoration projects (referred to as Foundation Projects) that were assumed to be complete during the planning processes for the CERP. The full suite of benefits from the implementation of all of the CERP projects depends on the successful completion of the Foundation Projects. Projects such as the federally authorized Kissimmee River Restoration Project, the Modified Water Deliveries to Everglades National Park Project, Modifications to the C-111 Project, the Critical Restoration Projects, and the C-51/STA-1E Project, as well as the State of Florida's Everglades Construction Project, form this foundation and are described in this appendix.

A.1 DESCRIPTION OF FOUNDATION PROJECTS

While the primary focus of this report is on the past and future accomplishments of CERP implementation, it is useful to also look at the broader South Florida Ecosystem Restoration Program to better understand the context in which CERP exists. The South Florida Ecosystem Restoration Program consists of a number of projects that are designed to improve the conditions of different aspects of the greater Everglades ecosystem. The CERP builds upon these Foundation Projects and achievement of the full suite of CERP benefits depends on their successful completion. For the significant work that has already been accomplished and progress that has been made in implementing these projects, some of which are already providing benefits to the natural system, much credit is due the multitude of agencies and stakeholders who have been involved. A few of these projects are described briefly in the following subsections to set the stage for the significant role that CERP will play in the greater South Florida Ecosystem Restoration.

A.1.1 The Modified Water Deliveries to Everglades National Park Project

The Modified Water Deliveries to Everglades National Park Project (Mod Waters) is key to providing the foundation for the CERP. Completion of the Mod Waters Project is the federal government's highest restoration priority. Authorized by Congress in 1989, the project authorizes the USACE, in consultation with the DOI, to modify the C&SF Project in order to restore hydrologic conditions in the Everglades National Park (ENP). Completion of the project will improve conditions over 190,000 acres of habitat within the ENP, assist in the recovery of threatened and endangered species, and lay a strong foundation for future restoration efforts under the CERP.

Real estate acquisition in the 8.5-square-mile area will be completed in 2006, with construction of the flood mitigation components to be completed in 2007. In addition, two spillways and one pump station have been completed, four miles of the L-67 extension levee have been removed, and the Tigertail Indian Camp has been raised. The Mod Waters Project is not only critical to restore more natural flows to ENP, but also provides much of the early increase in sheetflow. Early increase in sheetflow can also be attributed to early phases of the Water Conservation Area 3 Departmentalization and Sheetflow Enhancement Project. As noted in Section 601(b)(2)(D)(iv) of WRDA 2000, no federal funds can be appropriated for the construction of the Water Conservation Area 3 Decomartmentalization and Sheetflow Enhancement Project (including component AA; component QQ, Phases 1 and 2; and component SS) until the Mod Waters Project is completed.

Assuming continued Congressional funding support, the Mod Waters Project will be completed in 2009. The fiscal year (FY) 2006 Budget appropriation includes \$60 million (\$25 million for the National Park Service and \$35 million for USACE) to continue work. An additional \$160,000,000 will be necessary to complete the project. The recommended plan for Tamiami Trail modifications in the *Final Revised General Reevaluation Report/Second Supplemental Environmental Impact Statement for the Tamiami Trail Modifications, Modified Water Deliveries to Everglades National Park, U.S. Army Corps of Engineers and South Florida Water Management District, December 2005* was adopted in January 2006 following the completion of a Record of Decision.

A.1.2 Kissimmee River Restoration

As the headwaters of the Everglades system, the health of the 3,000-square-mile Kissimmee River is crucial to the health of the South Florida ecosystem. That health will be assured by the reestablishment of more natural flow characteristics in the Kissimmee River by reestablishing historic hydrologic conditions, recreating the historical river/floodplain connectivity, recreating the historic mosaic of wetland plant communities, and restoring the historic biological diversity and functionality. Restoration will be accomplished by backfilling 22 miles of the C-38 canal and recarving nine miles of the historic river channel that was channelized. Seven of the 22 total miles of river restoration have currently been backfilled and 1.25 miles of the river have been recarved resulting in restoration of flows to 15 contiguous miles of the historical river channel. Over 50 percent of planned structure modifications have also been completed. These modifications have already returned a more natural flow to the basin resulting in increases in wetland vegetation, particularly broadleaf marsh species and buttonbush, and a dramatic return of migratory and wading birds to the basin. This is a powerful example of how the ecosystem is responding to work efforts that eliminate or mitigate disruptive human influences. The Kissimmee River Restoration Project will be completed by 2011, subject to appropriations.



Kissimmee River Prior to Restoration



Restored Kissimmee River

A.1.3 Modifications to the C-111 Project

While completion of the Modified Waters Deliveries to Everglades National Park Project will provide significant benefits directly to the ENP, the Modifications to the C-111 Project will improve hydrologic conditions in Taylor Slough, located in the eastern panhandle of the ENP. This project will also maintain flood protection for development and agricultural interests in south Miami-Dade County. Both of these projects will also significantly enhance restoration of the remaining Everglades outside of the ENP by reducing damaging high water levels and allowing flows that are more natural in the Everglades ecosystem to the north of the ENP. To date three interim pump stations and one permanent pump station have been completed, along with construction of three detention areas, replacement of the Taylor Slough Bridge, and removal of Spoil Mounds along lower C-111. Modifications to the C-111 Project are expected to be completed by

2010, subject to appropriations. A Combined Structural and Operational Plan (CSOP) for the Mod Waters Deliveries Project and the C-111 Project is currently being developed. The CSOP will ensure that the Mod Waters and C-111 Projects are operated consistent with project purposes in order to achieve the intended benefits while protecting the quality of water entering Everglades National Park.

A.1.4 The Critical Restoration Projects Program

The Everglades and South Florida Ecosystem Restoration Critical Projects were authorized by WRDA 1996, with modification in WRDA 1999. These projects were required to produce immediate, independent, and substantial restoration benefits, and to be consistent with the Conceptual Plan of the Governor's Commission, which was created to promote a sustainable South Florida ecosystem. Seventy-five million dollars in federal funds was authorized for appropriation to be matched by local sponsors, while the maximum federal expenditure on any one project was capped at \$25 million. To assist with implementation of these Critical Projects, \$7 million in federal funds for land acquisition were transferred to the state through a grant administered by the DOI.

During the initial reporting period, the Department of Community Affairs, the SFWMD, the Seminole Tribe of Florida, and the USACE completed the Florida Keys Carrying Capacity Study, the East Coast Canal Structures Project, and the Western C-11 Water Quality Improvement Project while making substantial construction progress on others. By the end of 2008, construction will be complete on the following projects: Seminole Big Cypress Water Conservation Plan, Lake Okeechobee Water Retention and Phosphorus Removal, Ten Mile Creek, and Lake Trafford. Cost estimates for the projects have increased since the start of the program because of escalation, unexpected site conditions, design modifications necessary to meet the project goals, and bids for construction higher than those estimated. Under current federal appropriation authority, federal contributions will not be sufficient to share construction costs with the SFWMD on Southern CREW, Lake Trafford, and Tamiami Trail Culverts. SFWMD is proceeding with construction on all or a portion of these projects with its own funding. Recently introduced WRDA bills include language that would raise the federal program cap from \$75 million to \$95 million and per-project cap from \$25 million to \$30 million. Raising federal contribution caps on the program and its projects would allow USACE to share increased project costs.

The Critical Projects have produced better tools for evaluating the effects of local public policies in the Florida Keys related to dry-season water table, reduced fresh water losses from the Pensucco Wetlands, and reduced discharges of nutrients and other pollutants from populated areas into Water Conservation Area 3A.

As the remaining projects are completed, they are expected to restore more natural flows into estuaries, filter nutrients from flows into Lake Okeechobee, regain lost freshwater storage, and rejuvenate wetlands in South Central Florida.

A.1.5 Everglades Ecosystem Water Quality

In the last decade, the State of Florida has made significant progress to improve the quality of the water entering the Everglades. The primary focus of the state effort is reducing phosphorus levels in discharges to the Everglades Protection Area (EPA) including the Author R. Marshall Loxahatchee National Wildlife Refuge, the WCAs and ENP.

Measures being undertaken by the state to improve the quality of water entering the Everglades are the subject of the Everglades Forever Act (EFA), Section 373.4592, Florida Statutes, and a 1992 Consent Decree that settled water quality litigation between the United States and the State of Florida related to the quality of water entering the federal areas. The EFA requires construction of approximately 45,000 acres of stormwater treatment areas (STAs). To complement the state STAs, the federal government has constructed C-51/STA-1E. The state has established a new numeric phosphorus criterion for the EPA of ten parts per billion total concentration of phosphorus. This criterion has been approved by the United States Environmental Protection Agency (USEPA) as protective of the designated uses of the EPA. In addition to EFA and Consent Decree requirements, the State of Florida has many Class III water quality criteria for parameters other than nitrogen and phosphorus for the EPA.

Both the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida have established water quality standards in accordance with section 518 of the Clean Water Act. The Miccosukee Tribe of Indians of Florida's water quality standards for the tribe's federal Indian reservation established a ten parts per billion (ppb) criterion for total phosphorus in tribal waters in 1997. In 1999 the Miccosukee Tribe of Indians of Florida's water quality standards were established for the Miccosukee Reserved Area and the border near Everglades National Park and approved by the Environmental Protection Agency. The Seminole Tribe of Florida's water quality standards were approved by the Environmental Protection Agency in 1997 for the Big Cypress Reservation and in 1998 for the Brighton Reservation.

The Department of the Interior and Related Agencies Appropriations Act, 2004, Public Law 108-108, requires the submission of a report prepared by the Departments of the Interior, Army, and Justice and the Environmental Protection Agency, concerning the quality of the water entering A.R.M. Loxahatchee National Wildlife Refuge (Refuge) and the Everglades National Park (Park). The federal agencies were charged with assessing the status of the water entering the Refuge and the Park with applicable Class III water quality standards and with the requirements of the 1992 Consent Decree entered in *United States v. South Florida Water Management District*. The requested report, entitled *Joint Report to Congress Everglades Water Quality August, 2005*, was submitted to Congress on September 21, 2005.

The report notes that the State of Florida has made significant progress in achieving phosphorus load reductions entering the Everglades, including the Refuge and the Park. The state and federal partners are cooperatively implementing projects to realize additional improvements. The report finds that the water entering the Refuge and the Park is generally in compliance with most Class III water quality standards, with excursions reported for six identified water quality constituents other than phosphorus. These

excursions are considered to be minor and not a significant threat to the federal resource and efforts are underway to address these issues.

With respect to the requirements of the 1992 Consent Decree, the report finds that although the interim phosphorus concentration limits for the Park are being achieved, there have been periodic exceedances of the interim phosphorus concentration levels for the Refuge since they went into effect in 1999. Although significant progress has been made in implementing the Consent Decree requirements, additional work is required to meet long-term phosphorus concentration limits in the Refuge and the Park. The report notes that the additional capacity of Stormwater Treatment Areas 1E and 3/4 should assist in providing additional treatment capacity. Based on the results contained therein, the report states that the Department of the Interior, Environmental Protection Agency, Department of Justice and the Army believe that progress is being made in realizing improved water quality for the EPA and that additional work is underway to meet the applicable legal requirements for water quality.

A.1.5.1 The Everglades Construction Project

As of June 2004, over 35,000 acres of STAs had been constructed by the SFWMD. Almost 30,000 acres were in flow-through operation, removing total phosphorus that otherwise would have gone into the EPA. In a single year, several STAs removed more than 87 metric tons of total phosphorus, bringing the total removal to over 425 tons since 1994. The SFWMD began the design and implementation of enhancements to STA-3/4, intended to further lower phosphorus levels. These enhancements along with enhancements to the other five STAs, will continue through the end of 2006 and are fully described in SFWMD's Long Term Plan for Achieving Water Quality Standards and are in addition to the expansion of the STAs being undertaken through the state's Acceler8 initiative.

A.1.5.2 C-51/STA-1E

The construction of C-51/STA-1E was substantially completed by the USACE in June 2004. Depending on growth of vegetation, a six- to eighteen-month vegetation start-up period is anticipated before expected water quality improvements are realized in the STA-1E discharges to the ARM Loxahatchee National Wildlife Refuge. In order to meet the water quality targets for Everglades restoration, it is necessary to reduce the phosphorus concentrations in runoff waters to very low levels (10 ppb or less) prior to releasing these waters into natural areas. Preliminary small scale studies indicate a Periphyton-based Stormwater Treatment Area (PSTA) may be a cost effective way to

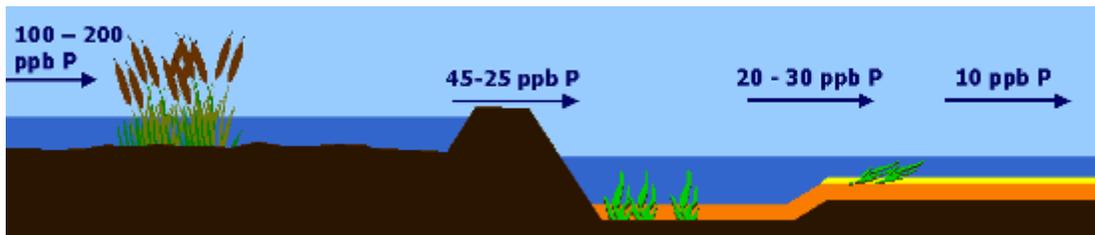


Figure 6: Depiction of Phosphorus Reduction Flow

greatly reduce phosphorus levels. Design work is in progress for a field scale PSTA test. Construction is scheduled for completion in 2006 followed by operation and monitoring

at a total cost of \$5,000,000. Figure 6 shows the reduction in phosphorus concentrations as water flows through the STA.

A.1.6 Invasive Plant Research Laboratory

The development of CERP included a feature to evaluate Melaleuca Eradication and Other Exotic Plants. The CERP feature will utilize a research laboratory, the Melaleuca Quarantine Facility that was constructed in 2005 by the USACE under a separate authority with primary funding from the DOI, and a funding contribution from the SFWMD. This facility will significantly increase the capability to evaluate new biological controls for use in the control of exotic and invasive plant species.

APPENDIX B

PAST AND FUTURE ACCOMPLISHMENTS TABLES

APPENDIX B1: FOUNDATION PROJECT ACCOMPLISHMENTS

APPENDIX B2: CERP PROJECT ACCOMPLISHMENTS

APPENDIX B

Section 601(h) of WRDA 2000 and § 385.40(c) of the Programmatic Regulations set forth reporting requirements for CERP. These include providing descriptions of planning, design, and construction work completed during the period covered by the report and the work anticipated to be accomplished during the next five years. As a quick reference, Appendix B provides a listing of this work divided into two primary categories, Foundation Project Accomplishments (Appendix B-1) and CERP Project Accomplishments (Appendix B-2). Each category is further divided into Accomplishments To Date (i.e. this reporting period) and Accomplishments in the Next five years.

For the purposes of this report, Foundation Projects are those that aid Everglades restoration and are anticipated to be completed prior to, or very early during, CERP implementation. Timely funding and implementation of these Foundation Projects are critical to future CERP implementation progress and success. (See Appendix A for detailed descriptions of progress made on Foundation Projects and Section 2.0 for CERP project implementation accomplishments.)

Note: All items in the following tables are complete unless otherwise stated. Asterisks indicate projects authorized in WRDA 2000 subject to approval by Congressional Committees.

APPENDIX B1
FOUNDATION PROJECT ACCOMPLISHMENTS

Foundation Project Accomplishments to Date
<p>Construction Activities:</p> <p>Kissimmee River Restoration</p> <ul style="list-style-type: none"> • S65 Addition (Spillway) • C35/36 Enlargement • Reach 1 Backfilling • S65 A Tieback Levee Degradation • US Highway 98 Bridge Relocation and Highway Modifications • S65A Road/Guard Rail Installation • Avon Park Fence/Levee Degradation (West)
<p>Everglades & South Florida Ecosystem Restoration/Critical Projects</p> <ul style="list-style-type: none"> • Florida Keys Carrying Capacity Study • East Coast Canal Structures <ul style="list-style-type: none"> ○ S-380 Structure on C-4 • Western C-11 Water Quality <ul style="list-style-type: none"> ○ Pump Station S-9A ○ S-381 Divide Structure • Seminole Big Cypress <ul style="list-style-type: none"> ○ Conveyance Canal System ○ Canal Pump Stations • Southern CREW <ul style="list-style-type: none"> ○ Kehl Canal Weir • Ten Mile Creek WPA – 80 to 90% Complete • Lake Okeechobee Water Retention and Phosphorus Removal <ul style="list-style-type: none"> • Taylor Creek STA – 80% Complete • Nubbin Slough STA – 60% Complete • Western Tamiami Trail Culverts - 43% Complete
<p>Everglades Construction Project</p> <ul style="list-style-type: none"> • All Stormwater Treatment Areas (STAs) constructed with effective treatment area of 36,098 acres
<p>Modified Water Deliveries to ENP Project</p> <ul style="list-style-type: none"> • S-355A & S-355B Structures construction • S-356 Pump Station construction • Degradation of 4 miles of L67 extension • Elevation of Tiger Tail Camp • Real Estate Acquisition – 8 ½ Square Mile Area (SMA) (Complete or in Final Acquisition Process)
<p>Modifications to C-111 Project</p> <ul style="list-style-type: none"> • S-332B Pump Station construction • S-332C Pump Station construction • S-332D Pump Station construction • S-332 Pump Station construction • Taylor Slough Bridge • C-109 canal plugs • Detention areas S-332B north & west • Detention area S-332C • Detention area S-332D
<p>C-51/STA-1E</p> <ul style="list-style-type: none"> • STA-1E construction completed
<p>Planning & Design Activities:</p> <p>Biscayne Bay Feasibility Study</p> <ul style="list-style-type: none"> • Phase 1 hydrodynamic/salinity model and associated surface and groundwater model of the study area.

CERP 2005 Report to Congress

Foundation Project Accomplishments in Next Five Years	
Construction Activities:	
Kissimmee River Restoration	
	<ul style="list-style-type: none"> • S84 Addition (Spillway) • S65D Additions (Spillway) • Monitoring wells installation • S65B Radio Tower • C36/37 Improvement (Terminated) • S83 Addition (Spillways) • CSX Railroad Bridge Over Historic Channel • S68 Modification • Istokpoga Canal Improvement • Basinger Grove Levee • Reach 4 Backfilling Phases I & II – Includes Avon Park Fence • River Acres Flood Protection Levees, Bridge, and Canals • Pool D Oxbows & Berms • Reach 2 Backfilling (2011)
Everglades & South Florida Ecosystem Restoration/Critical Projects	
	<ul style="list-style-type: none"> • Seminole Big Cypress <ul style="list-style-type: none"> ○ Basins 1, 2, 3, & 4 ○ Inverted siphons across West Feeder Canal • Southern CREW <ul style="list-style-type: none"> ○ Removal of Man-Made Features • Lake Okeechobee Water Retention and Phosphorus Removal <ul style="list-style-type: none"> ○ Taylor Creek ○ Nubbin Slough • Ten Mile Creek Water Preserve Area • Lake Trafford
Everglades Construction Project	
	<ul style="list-style-type: none"> • Enhancements complete in 2006
Modified Water Deliveries to ENP	
	<ul style="list-style-type: none"> • S-357 Pump Station construction • STA • Seepage canal/levee for 8.5 SMA • Conveyance features in L67A • L67C and L29 levees and canals • Modifications to Tamiami Trail • Combined Structural & Operating Plan (CSOP) • Real Estate Acquisition – 8 ½ Square Mile Area (SMA) (Completion of Final Acquisition Process)
Modifications to C-111 Project	
	<ul style="list-style-type: none"> • S-332A Pump Station construction • Permanent S-332B and S-332C structures • Discharge canals for S-332A, B, C, & D • S-332 connector canal • Levees from detention areas to 8.5 SMA STA • Culverts to connect C-111 to S-332 • Back fill of L31W borrow canal • C-111 plugs and mods to existing C-111 berms • Overflow weir to L31W tieback • Combined Structural & Operating Plan (CSOP)
STA-1E	
	<ul style="list-style-type: none"> • STA-1E operational • Periphyton Stormwater Treatment Area (PSTA) Operational

Foundation Project Accomplishments in Next Five Years – Continued
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Planning & Design Activities:
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Biscayne Bay Feasibility Study

- Phase 2 water quality model
- Phase 3 biological model, including plant and animal communities.

C-7, C-8, C-9 – Awaiting Funding

APPENDIX B2
CERP PROJECT ACCOMPLISHMENTS

CERP Project Accomplishments to Date
Planning & Design Activities:
<p>Project Implementation Reports Completed (* = authorized in WRDA 2000 subject to PIR approval by Congressional Committees)</p> <ul style="list-style-type: none"> • Indian River Lagoon South (* C-44) • Picayune Strand Restoration
<p>Project Implementation Reports Initiated (* = authorized in WRDA 2000 subject to PIR approval by Congressional Committees)</p> <ul style="list-style-type: none"> • Acme Basin B Discharge • Biscayne Bay Coastal Wetlands • Broward County WPA(* only C-9, C-11, & WCA 3A/3B Levee Seepage Management) • C-111 Spreader Canal* • C-43 Basin Storage Reservoir – Part 1 • Everglades Agricultural Storage Reservoirs – Phase 1* • Lake Okeechobee Watershed (* only Taylor Creek Nubbin Slough) • Melaleuca and Other Exotic Plants • North Palm Beach County - Part 1 • Site 1 Impoundment* • Strazzulla Wetlands • WCA 3 Decomp & Sheetflow Enhancement Part 1 (* only Eastern Tamiami Trail/Fill Miami Canal, & North New River) • Winsberg Farms Wetlands Restoration
<p>Pilot Project Design Reports Completed</p> <ul style="list-style-type: none"> • Aquifer Storage and Recovery (ASR) Pilots <ul style="list-style-type: none"> ○ Caloosahatchee (C-43) ASR ○ Hillsboro ASR ○ Lake Okeechobee ASR
<p>Pilot Project Design Reports and Regional Studies In Progress</p> <ul style="list-style-type: none"> • L-31N Seepage Management • Master Recreation Plan
<p>Feasibility and Regional Studies In Progress</p> <ul style="list-style-type: none"> • CERP ASR Regional Study • Florida Bay/Florida Keys Feasibility Study • Comprehensive Integrated Water Quality Feasibility Study • Southwest Florida Feasibility Study
<p>Project Management Plans In Progress</p> <ul style="list-style-type: none"> • Lakes Park Restoration

Note: * = authorized project.

CERP Project Accomplishments in Next Five Years
Construction Activities:
<p>Construction To Be Completed in Next Five Years</p> <ul style="list-style-type: none"> • Acme Basin B Discharge • Biscayne Bay Coastal Wetlands • Broward County WPA • C-111 Spreader Canal • C-4 Eastern Structure • Caloosahatchee (C-43) ASR Pilot • Everglades Agricultural Area Storage Reservoirs – Part 1, Phase 1 • Hillsboro ASR Pilot • Indian River Lagoon South <ul style="list-style-type: none"> ○ C-44 Reservoir ○ Natural Area Phase 1 Acquisition • Lakes Park Restoration • L-31N Seepage Management Pilot • Lake Okeechobee ASR Pilot • Melaleuca and Other Exotic Plants (Rearing and release of biological agents.) • Picayune Strand Restoration • Site 1 Impoundment • Winsberg Farms Wetlands Restoration • Henderson Creek/Belle Meade Restoration • WPA Conveyance
<p>Construction to Begin in Next Five Years</p> <ul style="list-style-type: none"> • C-43 Basin Storage Reservoir – Part 1
<p>Project Implementation Reports To Be Completed</p> <ul style="list-style-type: none"> • Acme Basin B Discharge • Biscayne Bay Coastal Wetlands • Broward County WPA • Broward Secondary Canal System • C-111 Spreader Canal • C-43 Basin Storage Reservoir – Part 1 • Everglades Agricultural Area Storage Reservoirs – Phase 1 • Everglades National Park Seepage Management • Indian River Lagoon North • Lakes Park Restoration • Lake Okeechobee Watershed • Melaleuca and Other Exotic Plants • North Palm Beach County - Part 1 • Site 1 Impoundment • Strazzulla Wetlands • WCA 3 Decomp & Sheetflow Enhancement Part 1 • Winsberg Farms Wetlands Restoration
<p>Pilot Project Design Reports and Regional Studies To Be Completed</p> <ul style="list-style-type: none"> • L-31N Seepage Management
<p>Feasibility and Regional Studies To Be Completed</p> <ul style="list-style-type: none"> • ASR Regional Study (will complete 1 year after ASR Pilots) • Florida Bay/Florida Keys Feasibility Study • Comprehensive Integrated Water Quality Feasibility Study • Southwest Florida Feasibility Study

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APPENDIX C
MASTER IMPLEMENTATION SEQUENCING PLAN
BANDS
BY CONSTRUCTION COMPLETION DATES

APPENDIX C

Appendix C contains the Bands arranged by construction completion date and as they are shown in MISP Version 1.0 (April 1, 2005).

Different from previous sequencing efforts, the MISP Version 1.0 does not contain a detailed schedule listing many tasks for each project. MISP Version 1.0 lists each project once and groups projects by the five-year period, or Band, in which construction is expected to be completed and benefits start to be realized. Bands provide a clearer view of project completion and sequencing. Band 1 contains all or part of seven of the ten full-scale projects authorized in WRDA 2000, with the completion of two of the remaining authorized full-scale projects in Band 2, and the third completed in Band 3. The Plan also proposed six pilot projects which were authorized in WRDA 1999 and WRDA 2000, four of which are scheduled in Band 1 with the remaining two scheduled in later bands based on input from project teams.

CERP 2005 Report to Congress

Component/ Project Name	Construction Completion Dates		
	Comp Plan (April 1999)	MISP Phase 1	MISP Streamlined (current)
Caloosahatchee (C-43) River ASR Pilot	Oct-02	Sep-06	2006
Hillsboro ASR Pilot Project	Oct-02	Dec-06	2006
Melaleuca Eradication and Other Exotic Plants (PIR)	Sep-11	Nov-13	2007
Winsberg Farm Wetlands Restoration	Dec-05	Jul-14	2008
L-31N (30) Seepage Management Pilot	Oct-02	Jul-08	2008
Lake Okeechobee ASR Pilot	Dec-01	Sep-08	2007
Biscayne Bay Coastal Wetlands (Phase 1)	May-18	May-11	2008
Picayune Strand (Southern Golden Gate Estates) Hydrologic Restoration	Jun-05	2009	2009
Indian River Lagoon - South			
- C-44 Reservoir*	Jun-07	Oct-09	2009
- Natural Areas Real Estate Acquisition (Phase 1)		Band 5	2009
Broward County WPA			
- C-9 Impoundment*	Sep-07	Jul-11	2009
- C-11 Impoundment*	Sep-08	Jul-11	2009
- WCA 3A-3B Levee Seepage Management*	Sep-08	Jul-10	2008
Acme Basin B Discharge	Sep-06	Jul-09	2007
Site 1 Impoundment*	Sep-07	Dec-09	2009
C-111 Spreader Canal	Jul-08	Dec-10	2008
North Palm Beach County - Part 1			
- C-51 and L-8 Basin Reservoir, Phase 1 (PBA)	2011	2008	2008
EAA Storage Reservoir			
- Part 1, Phase 1*	Sep-09	Dec-09	2009
Lake Okeechobee Watershed			
- Lake Istopoga Regulation Schedule	Dec-01	2008	2008
Modify Rotenberger Wildlife Management Area Operation Plan		Jul-09	2009
Lakes Park Restoration	Jun-04	Dec-14	2009
C-43 Basin Storage Reservoir	Mar-12	Band 2	2010

Band 1
(2005-2010)

Grey shading indicates construction by SFWMD

* indicates initially authorized project

CERP 2005 Report to Congress

Component/ Project Name	Comp Plan (April 1999)	MISP Phase 1	MISP Streamlined (current)	
Indian River Lagoon - South				Band 2 (2010-2015)
- C25 Reservoir and Northfork/Southfork Basin	May-10	Band 7	Band 2	
- C-23/24 STA		May-16	Band 2	
- C-23/24 North	May-09	Mar-17	Band 2	
- C-23/24 South		Mar-17	Band 2	
- Natural Areas Real Estate Acquisition (Phase 2)		Band 5	Band 2	
Strazzulla Wetlands	Oct-07	Apr-10	Band 2	
ASR Regional Study		Band 2	Band 2	
EAA Storage Reservoir				
- Part 1, Phase 2*			Band 2	
North Palm Beach County - Part 1				
- Lake Worth Lagoon Restoration	Mar-11	Band 2	Band 2	
- Pal-Mar/Corbett Hydropattern Restoration		Band 2	Band 2	
- C-17 Backpumping	Oct-08	Band 3	Band 2	
- C-51 Backpumping and Treatment	Oct-08	Band 3	Band 2	
- L-8 Basin Modifications	Sep-11	Band 2	Band 2	
Florida Keys Tidal Restoration	Aug-05	Band 3	Band 2	
Lake Okeechobee Watershed				
- Tributary Sediment Dredging	Sep-05	Band 2	Band 2	
- Water Quality Treatment Facilities	Sep-10	Band 2	Band 2	
- North of Lake Okeechobee Storage	Sep-15	Band 2	Band 2	
- Taylor Creek/ Nubbin Slough*	Jan-09	Sep-11	Band 2	
Henderson Creek/ Belle Meade Restoration	Dec-05	Band 3	Band 2	
Modify Holey Land Wildlife Management Area Operation Plan		Band 2	Band 2	
C-4 Eastern Structure	Jul-05	Band 2	Band 2	
Everglades National Park Seepage Management (Phase 1)	Oct-10	Band 2	Band 2	
Biscayne Bay Coastal Wetlands (Phase 2)	May-18	Band 2	Band 2	
WCA 3 Decompartmentalization and Sheetflow Enhancement				
- Physical Models	N/A	N/A	Band 2	
- North New River Improvements*	Jan-09	Band 3	Band 2	
WPA Conveyance				
- Dade-Broward Levee and Canal		Band 2	Band 2	
Broward Secondary Canal System	Jun-09	Band 3	Band 2	

Grey shading indicates construction by SFWMD

* indicates initially authorized project

CERP 2005 Report to Congress

Component/ Project Name	Comp Plan (April 1999)	MISP Phase 1	MISP Streamlined (current)	
Flows to Northwest and Central WCA 3A				Band 3 (2015-2020)
- G-404 Pump Station Modifications	Mar-09	Band 3	Band 3	
- Flows to NW and Central WCA 3A	Apr-09	Band 3	Band 3	
Miccosukkee Water Management Plan	Band 1	Band 3	Band 3	
Indian River Lagoon - South				
- Natural Areas Real Estate Acquisition (Phase 3)		Band 5	Band 3	
EAA Storage Reservoir				
- Part 2	Dec-15	Band 3	Band 3	
WPA Conveyance				
- North Lake Belt Storage Area (Turnpike Deliveries)	Sep-08	Band 3	Band 3	
Palm Beach County Agricultural Reserve Reservoir - Part 1	Aug-13	Band 3	Band 3	
Palm Beach County Agricultural Reserve ASR - Part 2		Band 4	Band 3	
Wastewater Reuse Pilot				
- South Miami Dade Reuse Pilot	Sep-05	Band 3	Band 3	
WCA 3 Decompartilization and Sheetflow Enhancement				
- Miami Canal		Band 3	Band 3	
- Canal and Levee Modifications in WCA 3		Band 3	Band 3	
- WCA 3A & 3B Flows to CLB	Feb-16	Band 3	Band 3	
- Eastern / Western TT			Band 3	
Everglades National Park Seepage Management (Phase 2)	Dec-13	Band 3	Band 3	
Lake Belt In-Ground Reservoir Technology Pilot Project	Dec-05	Band 3	Band 3	
Flows to Eastern WCA	Feb-17	Band 3	Band 3	
Seminole Tribe Water Conservation Plan	Jun-08	Band 3	Band 3	
North Palm Beach County - Part 1				
- C-51 and L-8 Basin Reservoir, Phase 2	Sep-11	Band 3	Band 3	
North Palm Beach County - Part 2				
- L-8 Basin ASR		Band 3	Band 3	
- C-51 Regional ASR	Sep-13	Band 4	Band 3	
Caloosahatchee Backpumping with STA	Sep-15	Band 4	Band 3	
Loxahatchee National Wildlife Refuge Internal Canal Structures	Jul-03	Band 4	Band 3	
Lake Okeechobee ASR				
- Lake Okeechobee ASR - Part 1	Jun-20	Band 4	Band 3	
C-43 Basin ASR	Mar-12	Band 3	Band 3	

Grey shading indicates construction by SFWMD

* indicates initially authorized project

CERP 2005 Report to Congress

Component/ Project Name	Comp Plan (April 1999)	MISP Phase 1	MISP Streamlined (current)	
Big Cypress/ L-28 Interceptor	Sep-16	Band 4	Band 4	Band 4 (2020-2025)
Indian River Lagoon - South				
- Natural Areas (Complete Construction)		Band 5	Band 4	
- Muck Remediation		Band 6	Band 4	
Restoration of Pineland & Hardwood in C-111 Basin	Mar-06	Band 4	Band 4	
South Miami-Dade County Reuse	Jun-20	Band 4	Band 4	
West Miami-Dade County Reuse	Jun-20	Band 4	Band 4	
Lake Okeechobee ASR				
- Lake Okeechobee ASR - Part 2		Band 5	Band 4	
Hillsboro ASR	Oct-14	Band 4	Band 4	
WCA 2B Flows to Everglades National Park				
- WCA 2B Flows to CLB (L-30 Improvements)		Band 4	Band 4	
- WCA 2B Flows to CLB		Band 5	Band 4	
Lake Okeechobee ASR				
- Lake Okeechobee ASR - Part 3		Band 5	Band 5	
North Lake Belt Storage Area - Phase 1	Feb-21	Band 5	Band 5	
Central Lake Belt Storage Area - Phase 1	Feb-21	Band 5	Band 5	
North Lake Belt Storage Area - Phase 2	Jun-36	Band 7	Band 7	Band 7 (2035-2040)
Central Lake Belt Storage Area - Phase 2	Dec-36	Band 7	Band 7	

Grey shading indicates construction by SFWMD

* indicates initially authorized project

Note: Band 6 is not shown because no construction completions are scheduled for that five-year period however, project implementation continues during this band.

APPENDIX D
UPDATED COST ESTIMATES BY PROJECT
(FY04 PRICE LEVELS)

APPENDIX D

Section 601(h) of WRDA 2000 and § 385.40(c) of the Programmatic Regulations set forth reporting requirements for CERP. This includes an updated estimate for the total cost of the plan and individual component costs. Appendix D shows project/component groupings beginning with The Plan (at October 1, 1999 price levels) and as reconfigured according to CERP Guidance Memorandum 2.02 and adjusted to October 1, 2004 price levels.

CERP 2005 Report to Congress

BASELINE per CERP Report Table 9-2 (APR 99) (Costs in \$1,000s)			RECONFIGURED BASELINE per CGM 002.02 (Costs in \$1,000s)				Change in 1 Oct 99 to 1 Oct 04 Price Levels (Costs in \$1,000)
CERP Component	PROJECT NAME	TOTAL ESTIMATED COSTS	CERP Component	PROJECT WBS # AND NAME	TOTAL ESTIMATED COSTS (at 1 Oct 99 Price Levels)	COSTS (at 1 Oct 04 Price Levels)	
A	North of Lake Okeechobee Storage Reservoir	284,854	A, W, OPE (LOWQFT), OPE (LOTS), OPE (LIRS)	WBS 1 Lake Okeechobee Watershed	455,878	556,374	100,496
W	Taylor Creek/Nubbin Slough Storage & Treatment Area	104,026					
OPE	Lake Okeechobee Watershed Water Quality Treatment Area	62,248					
OPE	Lake Okeechobee Tributary Sediment Dredging	4,700					
OPE	Lake Istokpoga Regulation Schedule	50					
GG	Lake Okeechobee Aquifer Storage & Recovery	1,116,312	GG	WBS 3 Lake Okeechobee Aquifer Storage & Recovery	1,097,312	1,223,431	126,119
			PILOT	WBS 32 Lake Okeechobee ASR PILOT	19,000	21,796	2,796
D	C-43 Basin Storage Reservoir and Aquifer Storage and Recovery	446,195	D_P1	WBS 4 C-43 Basin Storage Reservoir Part 1	205,438	254,309	48,871
			D_P2	WBS 5 C-43 Basin Aquifer Storage and Recovery - Part 2	234,757	260,652	25,895
			PILOT	WBS 33 Caloosahatchee (C-43) River ASR PILOT	6,000	6,784	784
DDD	Caloosahatchee Back pumping With Stormwater Treatment	82,894	DDD	WBS 56 Caloosahatchee Back pumping With Stormwater Treatment	82,894	96,962	14,068
B	C-44 Basin Storage Reservoir	112,563	B, UU	WBS 7 Indian River Lagoon - South	822,785	1,262,709	439,924
UU	C-23/C-24/C-25/Northfork and Southfork Storage Reservoirs	710,223					
G	Everglades Agricultural Storage Reservoirs	436,648	G_P1 & G_P2	WBS 8 Everglades Agricultural Area Storage Reservoirs - Part 1 & 2	436,648	512,186	75,538
CCC	Big Cypress / L-28 Interceptor Modifications	42,751	CCC	WBS 10 Big Cypress / L-28 Interceptor Modifications	42,751	49,994	7,243
OPE	Seminole Tribe Big Cypress Water Conservation Plan (East & West)	75,288	OPE (STBCR)	WBS 96 Seminole Tribe Big Cypress Water Conservation Plan (East & West)	75,288	87,206	11,918
II & RR	Flow To Northwest & Central Water Conservation Area 3A	30,877	II & RR	WBS 11 Flow To Northwest & Central Water Conservation Area 3A	30,877	35,424	4,547
HHH, BBB, OPE	Palm Beach County Wetlands Based Water Reclamation (WWR Tech Pilot)	27,700	AA, QQ, SS,	WBS 12 Water Conservation Area 3 Decompartmentalization and Sheetflow Enhancement - Part 1 & 2 & PILOT	27,700	315,169	75,782
AA, QQ, SS	Water Conservation Area 3 Decompartmentalization and Sheetflow Enhancement	211,687	PILOT (WWRReuse)		211,687		

CERP 2005 Report to Congress

BASELINE per CERP Report Table 9-2 (APR 99) (Costs in \$1,000s)			RECONFIGURED BASELINE per CGM 002.02 (Costs in \$1,000s)				Change in 1 Oct 99 to 1 Oct 04 Price Levels (Costs in \$1,000)
CERP Component	PROJECT NAME	TOTAL ESTIMATED COSTS	CERP Component	PROJECT WBS # AND NAME	TOTAL ESTIMATED COSTS (at 1 Oct 99 Price Levels)	COSTS (at 1 Oct 04 Price Levels)	
KK	Loxahatchee National Wildlife Refuge Internal Canal Structures	7,669	KK	WBS 14 Loxahatchee National Wildlife Refuge Internal Canal Structures	7,669	8,834	1,165
OPE	Micosukee Water Management Plan	24,459	OPE (MWMP)	WBS 90 Micosukee Water Management Plan	24,459	28,310	3,851
			DD	WBS 15 Modify Holey Land Wildlife Management Area Operation Plan	0	0	0
			EE	WBS 16 Modify Rotenberger Wildlife Management Area Operation Plan	0	0	0
OPE	Pal-Mar and J.W. Corbett Wildlife Management Area Hydropattern Restoration	10,500	K_P1, GGG, X, Y, OPE (PAL MAR), OPE (LWL)	WBS 17 North Palm Beach County - Part 1	436,775	517,571	80,796
OPE	Lake Worth Lagoon Restoration	2,300					
K & GGG	Water Preserve Areas / L-8 Basin	415,182					
X	C-17 Backpumping and Treatment	20,191					
Y	C-51 Backpumping and Treatment	32,631					
OPE	Acme Basin B Discharge	20,100	OPE (ABBD)	WBS 38 Acme Basin B Discharge	20,100	24,241	4,141
OPE	Winsburg Farms Wetland Restoration	14,140	OPE (WFW)	WBS 91 Winsburg Farms Wetland Restoration	14,140	16,736	2,596
LL	C-51 Regional Groundwater Aquifer Storage and Recovery	132,336	LL, K_P2	WBS 18 North Palm Beach County - Part 2	176,365	198,847	22,482
VV	Palm Beach County Agricultural Reserve Reservoir and Aquifer Storage and Recovery	124,099	VV_P1	WBS 20 Palm Beach County Agricultural Reserve Reservoir - Part 1	80,614	100,720	20,106
			VV_P2	WBS 21 Palm Beach County Agricultural Reserve Aquifer Storage and Recovery - Part 2	43,485	48,369	4,884
OPE	Protect and Enhance Existing Wetland Systems along Loxahatchee National Wildlife Refuge including the Strazzulla track	52,772	OPE (SW)	WBS 39 Strazzulla Wetlands	52,772	67,390	14,618
M	Site 1 Impoundment and Aquifer Storage and Recovery	140,379	M_P1	WBS 40 Site 1 Impoundment	38,514	47,456	8,942
			M_P2	WBS 22 Hillsboro Aquifer Storage and Recovery - Part 2	92,865	102,396	9,531
			PILOT	WBS 34 Hillsboro Aquifer Storage and Recovery PILOT	9,000	10,118	1,118
CC	Broward County Secondary Canal System	12,898	CC	WBS 24 Broward County Secondary Canal System	12,898	15,062	2,164

CERP 2005 Report to Congress

BASELINE per CERP Report Table 9-2 (APR 99) (Costs in \$1,000s)			RECONFIGURED BASELINE per CGM 002.02 (Costs in \$1,000s)				Change in 1 Oct 99 to 1 Oct 04 Price Levels (Costs in \$1,000)
CERP Component	PROJECT NAME	TOTAL ESTIMATED COSTS	CERP Component	PROJECT WBS # AND NAME	TOTAL ESTIMATED COSTS (at 1 Oct 99 Price Levels)	COSTS (at 1 Oct 04 Price Levels)	
O & Q	Western C-11 Diversion Impoundment and Canal and Water Conservation Areas 3A and 3B Levee Seepage Management	225,172	R, Q, O	WBS 45 Broward County (WPA) Water Preserve Areas	314,318	392,755	78,437
R	C-9 Stormwater Treatment Area/ Impoundment	89,146					
XX	North Lake Belt Storage Area	536,061	XX_P2	WBS 25 North Lake Belt Storage Area - Phase 1	251,532	298,852	47,320
			BB, XX_P1	WBS 25 North Lake Belt Storage Area - Phase 2	270,310	321,574	51,264
BB	Dade-Broward Levee/Pennsuco Wetlands	18,779	PILOT	WBS 35 Lake Belt In- Ground Reservoir Technology PILOT	23,000	26,023	3,023
			PILOT	WBS 36 L-31 N Seepage Management PILOT	10,000	11,267	1,267
YY & ZZ	Diverting Water Conservation Area 2 and 3 flows to Central Lake Belt Storage	79,657	ZZ	WBS 12 Water Conservation Area 3A/3B flows to Central Lake Belt Storage	785	940	155
			YY, S_P1	WBS 48 Water Conservation Area 2B flows to Everglades National Park (ENP)	446,498	524,373	77,875
S & EEE	Central Lake Belt Storage Area	502,861	S_P2	WBS 26 Central Lake Belt Storage	128,410	150,982	22,572
			EEE	WBS 23 Flows to Eastern Water Conservation Area	6,825	7,833	1,008
T	C-4 Control Structures	2,329	T	WBS 46 C-4 Control Structures	2,329	2,729	400
U	Bird Drive Recharge Area	124,084	V & FF & U	WBS 27 L-31N Levee Improvements for Seepage Management and S-356 Structures & Bird Drive Recharge Area	308,301	377,001	68,700
V & FF	L-31N Levee Improvements for Seepage Management and S-356 Structures	184,218					
HHH	West Miami-Dade County Reuse	439,538	HHH	WBS 97 West Miami-Dade County Reuse	439,538	505,325	65,787
FFF / OPE	Biscayne Bay Coastal Wetlands	299,583	FFF / OPE (BBCW)	WBS 28 Biscayne Bay Coastal Wetlands	299,583	372,184	72,601
BBB	South Miami-Dade County Reuse	363,024	BBB	WBS 98 South Miami- Dade County Reuse	363,024	419,858	56,834
OPE	Restoration Of Pineland & Hardwood Hammocks In C-111 Basin	600	OPE (PHR)	WBS 92 Restoration Of Pineland & Hardwood Hammocks In C-111 Basin	600	689	89
WW	C-111 N Spreader Canal	94,034	WW	WBS 29 C-111 N Spreader Canal	94,034	114,007	19,973
OPE	Southern Golden Gate Estates Restoration	15,550	OPE (SGGEHR)	WBS 30 Southern Golden Gate Estates Hydrologic Restoration	15,550	17,590	2,040

CERP 2005 Report to Congress

BASELINE per CERP Report Table 9-2 (APR 99) (Costs in \$1,000s)			RECONFIGURED BASELINE per CGM 002.02 (Costs in \$1,000s)				Change in 1 Oct 99 to 1 Oct 04 Price Levels (Costs in \$1,000)
CERP Component	PROJECT NAME	TOTAL ESTIMATED COSTS	CERP Component	PROJECT WBS # AND NAME	TOTAL ESTIMATED COSTS (at 1 Oct 99 Price Levels)	COSTS (at 1 Oct 04 Price Levels)	
OPE	Southern CREW Project Addition	33,538	OPE (SCPA)	Southern CREW Project Addition	33,539	42,691	9,152
OPE	Lake Trafford Restoration	15,408	OPE (LTR)	Lake Trafford Restoration	15,408	17,787	2,379
OPE	Henderson Creek / Belle Meade Restoration	4,805	OPE (HCBM)	WBS 93 Henderson Creek / Belle Meade Restoration	4,805	5,622	817
OPE	Lakes Park Restoration	5,166	OPE (LRP)	WBS 94 Lakes Park Restoration	5,166	5,928	762
OPE	Florida Keys Tidal Restoration	1,251	OPE (FKTR)	WBS 31 Florida Keys Tidal Restoration	1,251	1,414	163
OPE	Melaleuca Eradication And Other Exotic Plants	5,772	OPE (MEL)	WBS 95 Melaleuca Eradication And Other Exotic Plants	5,772	6,554	782
FEAS	Additional Feasibility Studies	20,300	FEAS (SFFS)	Southwest Florida Feasibility Studies	8,100	8,100	0
			FEAS (FBFS)	Florida Bay Feasibility Study	4,100	4,100	0
			FEAS (CIWQP)	Comprehensive Integrated Water Quality Plan	8,100	8,100	0
			(WBS 3, 5, 18, 21, 22)	WBS 44 ASR Regional Study	0	70,421	70,421
TOTALS		7,819,548	TOTALS		7,819,549	9,583,745	1,764,196

APPENDIX E
PUBLIC OUTREACH
AND
ENVIRONMENTAL AND ECONOMIC EQUITY

APPENDIX E

Section 601(h) of WRDA 2000 and § 385.40(c) of the Programmatic Regulations set forth reporting requirements for CERP related to planning, design and construction. Further, sub-section 385.40(4) of the Programmatic Regulations requires a “review of activities performed by the Secretary pursuant to section 601(k) of WRDA 2000 and § 385.18 and 385.19 as they related to socially and economically disadvantaged individuals and individuals with limited English proficiency.” Appendix E describes the public outreach efforts accomplished to date, and those anticipated over the next five years. Future efforts will give particular attention to small and minority owned businesses, socially and economically disadvantaged individuals, and individuals with limited English proficiency.

PUBLIC OUTREACH

Introduction

Public outreach is the means by which the public is informed and engaged in planning and decision-making processes. Reaching those who have the potential to be affected by CERP, either collectively or individually, is a primary goal of this activity. Creative methods of communication and public involvement were proactively used to engage diverse groups: from school children to retirees; from those who need very basic information to those who require highly technical and scientific information; those who are socially or economically disadvantaged; and those who need their information in other languages, such as Spanish or Creole. Stakeholders include those who live and work in the project areas, as well as those representing a broad variety of interests: agricultural, environmental, recreational, tribal, business and property owners, utilities, elected officials, and local, state and federal agencies. For the U.S. Army Corps of Engineers (USACE) and the South Florida Water Management District (SFWMD), public outreach is a process by which all interests have the opportunity to both learn about and participate in the Comprehensive Everglades Restoration Plan (CERP).

Diverse participation opportunities through public outreach keeps citizens informed, encourages involvement, creates a better project and ensures responsible use of taxpayer funds. Effective public outreach results in more thorough understanding and broader support of CERP projects.

Accomplishments for the Last Five Years (FY99-FY04) and Ongoing Activities

The USACE and SFWMD have implemented a multi-faceted CERP public outreach program since 2001. Two separate and simultaneous levels of public outreach have been employed:

- Program-level outreach: Long-term, system-wide issues at an overarching program level, such as general outreach, RECOVER, environmental equity and other CERP issues that span the life of the 30+ year plan.
- Project-level outreach: Targeted outreach for the 50+ specific CERP components: the individual reservoirs, underground storage wells, filtering wetlands, and other local project features. A custom outreach plan is developed for each individual CERP project. While program and project outreach activities are considered separate, there is often a great overlap of materials, tools and techniques. The same overarching CERP messages apply to both program and project level outreach activities.

Seeking public input is the cornerstone of the outreach efforts. Thus, outreach plans for both program and project levels have been developed with public input. In 2001, the Corps and SFWMD developed a Public Outreach Program Management Plan for CERP. This plan describes the long-range outreach goals throughout the life of CERP. This program management plan was developed over a period of 18 months and included two rounds of public input. Each updated draft was placed on the Internet for public review. More than 200 people attended workshops and focus group meetings to comment on the Outreach Program Management Plan. In 2003, the Corps and SFWMD asked the public

for additional input on the plan as it was being implemented, inviting more than 500 stakeholders to provide their feedback on the CERP outreach efforts thus far.

Providing information to all those interested in or affected by CERP is very important to the USACE and SFWMD. Consequently, a wide range of types of activities has been used to raise public awareness of CERP in South Florida. One of our first goals was to create an identity through a partnership logo and slogan: *The Journey to Restore America's Everglades*. Accompanying brochures, displays, folders, specialty items, and other products carried this new brand. A CERP outreach team planned and conducted more than 150 community events. Educational resources included a dramatic set of colorful displays, informative printed materials, and creative take home items.

In the past three years, the USACE and SFWMD have expanded their environmental education efforts and developed two educational supplements about CERP and the Everglades. *The Everglades: An American Treasure*, was distributed in Palm Beach County in 2002, along with lesson plans for middle and high school teachers. A more comprehensive booklet, entitled *The Journey of Wayne Drop to the Everglades*, was developed for 4th and 5th graders in 2004. This booklet introduces animated water drop characters and explains how water flows to and through the Everglades system. It also describes how agencies are working together to restore the system. The product is the result of collaboration between USACE, National Park Service, and SFWMD. The USACE has printed over 200,000 copies of the product, along with corresponding teacher guides and lesson plans, for distribution to every 4th grade class throughout CERP's 16-county region in 2005. The program will eventually be made available nationwide via the evergladesplan.org web site.

In 2002, a popular quarterly newspaper, *Community Outreach in Action*, was introduced as a tool to provide CERP news and information to the minority community. In its first year, over 100,000 copies were printed and distributed to the community via African-American owned newspapers, the National Association for the Advancement of Colored People and community events throughout the 16-county South Florida region. Today, this publication is distributed biannually in African-American oriented newspapers and has a distribution quantity of over 80,000 copies per publication. Also published was a biannual Spanish edition of the *Community Outreach in Action* with over 20,000 copies of each issue produced and delivered to the Hispanic community.

At the project level, each custom CERP outreach plan is also subject to public review as part of the larger Project Management Plan. Each project-specific outreach plan describes public involvement and information efforts for the life of the project. These project outreach efforts have included public meetings of differing size and design to explain and receive comments on specific CERP projects in various stages of development during the Project Implementation Reports (PIR). Hundreds of these face-to-face meetings have resulted in people knowing about and understanding CERP. These meetings also provided strategic opportunities for the public to be involved with the development of CERP. Detailed maps were created and provided for use at these meetings, to help people locate their property or other areas of interest or concern within or adjacent to the project areas. These maps personalize CERP for members of the public and help ensure that they have the opportunity to participate in the CERP project development process in a knowledgeable and meaningful way.

The result of this detailed public involvement planning is a well-coordinated outreach effort that communicates the important, and sometimes complex, goals of CERP to the public while ensuring effective involvement. Evaluation and assessment are also included to ensure outreach programs are analyzed and adjusted as needed. Past lessons are learned, documented and applied to continuously improve the program. Since 2001, a wide variety of creative, informative and effective outreach products and programs were developed and implemented in six categories: *General Public Information, Multi-Media Materials, Minority Community Outreach, Environmental Education, Stakeholder Information and Involvement, and Small and Minority-Owned Business Outreach.*

ENVIRONMENTAL AND ECONOMIC EQUITY

Introduction

Environmental and economic equity connects all ethnic, cultural and economic groups to CERP. Reviewing the behavioral, historical, social and economic impact of CERP on all communities can minimize potentially adverse social or economic impacts. As CERP is implemented, South Florida citizens' concerns, needs, and recognition of their economic livelihoods must be considered and integrated into project development processes.

Over the past few years, strategies have been employed to ensure that the process to implement CERP is open to all audiences. These efforts include town hall meetings to inform and involve the community in issues such as Programmatic Regulations. Additionally, the CERP outreach team participated in one-on-one sessions and public meetings to educate various communities about the importance and impact of CERP. Several meetings were held in minority and "front porch" communities in areas such as Goulds, Overtown, Hialeah, Opa-Locka and Lauderdale Lakes, and others. Additionally, presentations to community groups in empowerment zones and economically-disadvantaged communities such as South Bay, Belle Glade and Pahokee were made. Many other meetings were conducted in Spanish and Creole to reach Hispanic and Haitian residents throughout CERP's 16-county region. Environmental justice and economic equity was also at the forefront of discussions with various chambers of commerce and business groups, such as the National Audubon Society's African American Environmental Leadership Council.

Environmental justice (EJ) issues in CERP are addressed through efforts at both the program and project levels. At the program level, U.S. Environmental Protection Agency (USEPA) training and standards for population census analysis formed the basis for each project's EJ success. The USACE and SFWMD participated in the development of the USEPA's own EJ Collaborative Training program. Outreach staff is equipped to teach the EJ training, and have partnered with USEPA to deliver EJ training to USACE and SFWMD project managers and involved community members. The sensitivity and knowledge training was augmented by development of a "how to" training module, applied in the Corps planning process.

USACE and SFWMD have developed custom made maps using USEPA thresholds for interpretation of 2000 census data, to show the locations of low income and minority communities. These have been posted on the public web site and have helped project managers, team members and the public see where projects and populations of concern intersect. These maps were well received in the mapmaking community and were judged exemplary by peers in the 2004 ESRI conference.

At the project level, project managers utilize the training and standard census analysis to consider potential inequity of impacts and environmental justice responsibilities. Early involvement of the community, facilitated by outreach, allows the project managers to be introduced early in the process to equity concerns and to ensure these concerns are considered in the development of the project.

Outreach to Minority-Owned Business

CERP will have a direct impact on regional economy, through the creation of jobs and contracting opportunities. The USACE and SFWMD use established programs to ensure that small and minority-owned businesses are aware of these opportunities and given the opportunity to do business with their respective agencies. Information about contracting opportunities is distributed through many channels. Staff participated in job fairs, expositions and workshops with potential contractors and small business owners.

The goal of the USACE Small Business Program is to ensure that all types of small businesses receive their fair share of government contract dollars. The USACE seeks to provide information to small businesses owned and operated by socially and economically disadvantaged individuals who have qualified for certification under the U.S. Small Business Administration (SBA) Section 8(a) Program. This program is designed to provide business development assistance and technical assistance to help socially and economically disadvantaged American businesses gain access to the mainstream American economy. In order to identify businesses that are socially and economically disadvantaged, the USACE has an aggressive outreach program that includes: educational programs, conferences and trade fairs, educational series through the Procurement Technical Assistance Center, Small Business Development Center, one-on-one counseling, Matchmaker, and the Business Issues Community Dialogue Outreach Program.

To date, the USACE has awarded over fifteen CERP and CERP-related contracts, valued at over \$40 million, to socially and economically disadvantaged firms to provide supplies, services, Architect-Engineering and construction services. All of these contracts are SBA-certified section 8(a) contractors. In order to continue to reach out and educate newly qualifying companies about contracting opportunities with the USACE and other federal government agencies, the USACE has participated in over 70 different business outreach events in South Florida. These events allow us to explain the process of 8(a) certification and to provide information on other programs for small businesses. In the continuing effort to reach out to individual communities, USACE has begun a new program called the Business Issues Community Dialogue Outreach Program. This aggressive business outreach effort proactively seeks to identify and invite community and small business leaders to small group workshops to discuss opportunities and to learn how to do business with the USACE.

Looking Forward

Future outreach initiatives to expand efforts focus on innovative and creative ways to reach, inform, and engage the public. Some of the efforts include the Wayne Drop Story, an educational piece for elementary school children across the nation; interactive CERP kiosks placed in a variety of public sites; updates to the Everglades web site; Haitian-American radio shows; community dialogues and business issue forums; and expanding partnerships to achieve a wider distribution of materials and penetration into the various demographic regions affected by CERP.

The next five years are expected to bring even more interest and involvement through CERP outreach. Planning will continue on specific CERP projects throughout the 16-county area, with each requiring local outreach efforts. CERP will start to become a

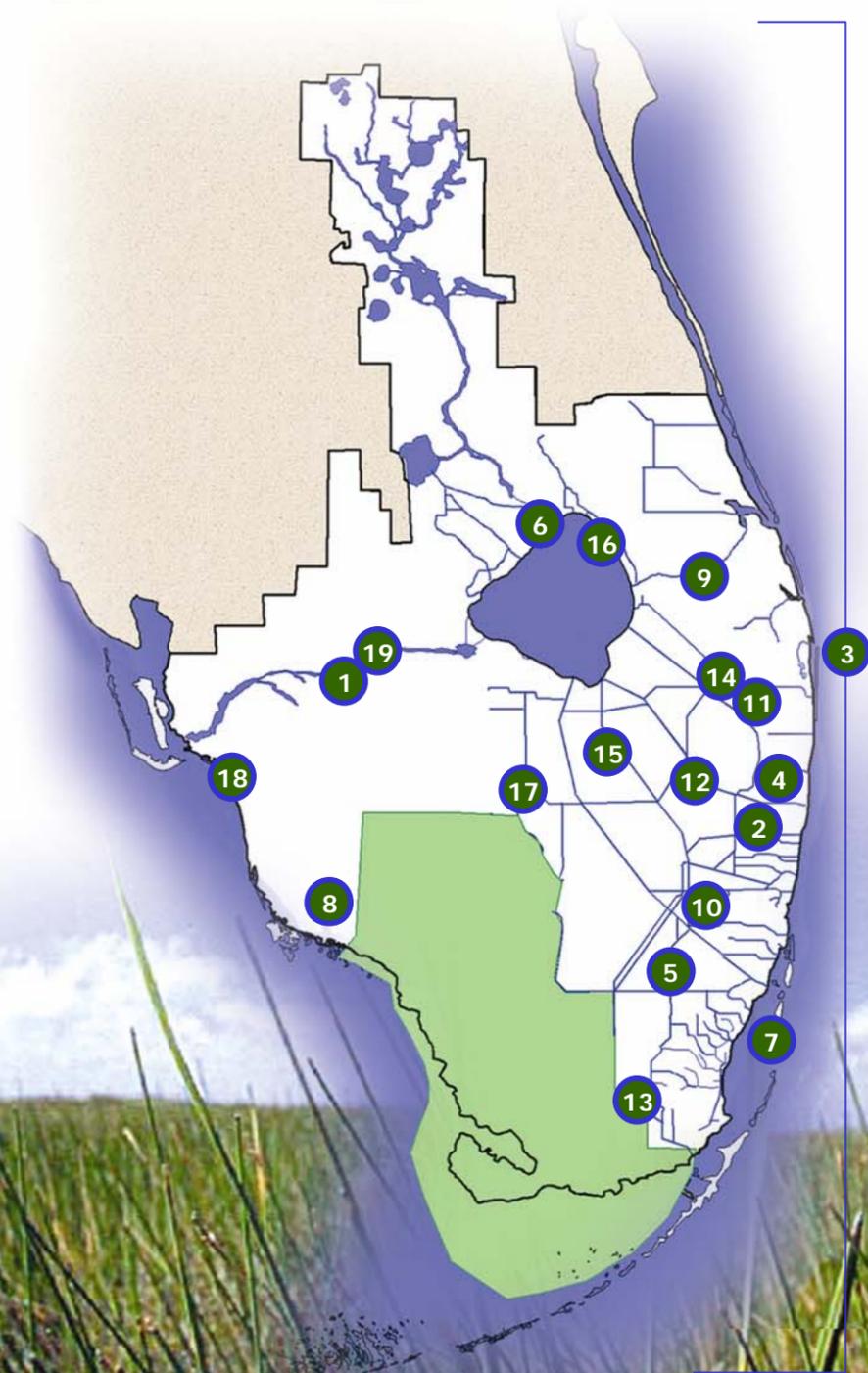
reality as ground is broken on projects and associated job and contracting opportunities are made available.

As the journey to restore America's Everglades continues to capture the nation's attention, the implementing partners will continue to emphasize the vital public outreach component of the Everglades restoration program, and lead the way in implementing creative outreach strategies.

COMPREHENSIVE EVERGLADES RESTORATION PLAN - 2005 REPORT TO CONGRESS

CERP Restoration Projects to be Completed by 2010

1. Caloosahatchee (C-43) River ASR Pilot
2. Hillsboro ASR Pilot Project
3. Melaleuca Eradication and Other Exotic Plants (PIR)
4. Winsberg Farm Wetlands Restoration
5. L-31N Seepage Management Pilot
6. Lake Okeechobee ASR Pilot
7. Biscayne Bay Coastal Wetlands (Phase 1)
8. Picayune Strand Hydrologic Restoration
9. Indian River Lagoon – South (C-44 Reservoir; Natural Areas Real Estate Acquisition - Phase 1)
10. Broward County WPA (C-9 Impoundment, C-11 Impoundment, WCA 3A-3B Levee Seepage Management)
11. Acme Basin B Discharge
12. Site 1 Impoundment
13. C-111 Spreader Canal
14. North Palm Beach County – Part 1 (C-51 and L-8 Basin Reservoir, Phase 1 - PBA)
15. EAA Storage Reservoir (Part 1, Phase 1)
16. Lake Okeechobee Watershed (Lake Istokpoga Regulation Schedule)
17. Modify Rotenberger Wildlife Management Area Operation Plan
18. Lakes Park Restoration
19. C-43 Basin Storage Reservoir



An Overview

Central and Southern Florida Project

COMPREHENSIVE EVERGLADES RESTORATION PLAN

2005 Report to Congress

Beyond the Crossroad

The Everglades is an international treasure. This wetland ecosystem was not always so valued, however. For decades throughout the 19th and early 20th centuries, the Everglades was viewed as a swampland of no significant value to mankind. For one hundred years, the Everglades came under constant assault as people drained its wetlands and altered its natural water flow with manmade canals and structures to enable urban and agricultural use. Today, our understanding and respect of the value of natural ecosystems has grown and we are now in a race against time to restore and protect the remaining Everglades.

On December 11, 2000, standing at a crossroad to either act or lose this wondrous treasure, the U.S. Congress enacted the Water Resources Development Act (WRDA) of 2000. This historic legislation approved the Comprehensive Everglades Restoration Plan.

Today, five years later, due to the efforts of many, we have moved beyond the crossroad, toward restoration of the Everglades and the South Florida ecosystem.





Restoration Vision

The majesty of America's Everglades, even though greatly diminished, still strikes awe and inspiration in those who look upon its serene expanse and make the bold commitment to restore this national treasure.

A vision of the restored Everglades, one that is not an exact replica of the original, but one that exhibits the same historic characteristics and functions was the fuel for development of the Comprehensive Everglades Restoration Plan (CERP).

The CERP contains a bold outline for returning the lifeblood of the Everglades – water – to its historic quantity, quality, timing and distribution.

WRDA 2000, the Congressional legislation that approved the CERP, states that “the overarching objective of the Plan is the restoration, preservation, and protection of the South Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection.”

The restored Everglades will not be exactly the same as the original. Although smaller than the pre-drainage system, it will be a successfully restored Everglades having recovered those hydrological and biological patterns that defined the original Everglades and that made it unique among the world's wetland systems.



Achieving the Vision

2000 through 2005

A Foundation for the Future

In the first five years since authorization of the Comprehensive Everglades Restoration Plan (CERP), work has focused on building critical “foundation projects,” and adopting regulations and policies constituting the legal and process framework for ensuring restoration success .

Pre-CERP Foundation Projects: Achieving the full array of CERP benefits depends on the early completion of a group of projects referred to as “foundation projects.” Examples of foundation projects include the Kissimmee River Restoration and Modified Water Deliveries to the Everglades National Park. The Kissimmee River Restoration has already resulted in an abundant return of wading birds to the project area.

CERP Project Implementation: Scores of individuals have been actively coordinating the more than 20 Project Implementation Reports (PIRs) initiated during this period. A PIR presents the alternative designs evaluated in developing the project plan to be recommended to Congress for construction authorization. Recently completed PIRs include Picayune Strand and Indian River Lagoon – South.

Program Coordination: In an effort as massive as saving the Everglades, how are proper coordination and the correct restoration goals achieved? The drafters of WRDA 2000 recognized the need for policies, guidelines, and regulations that would effectively guide restoration work. Today, interagency teams have completed many of these requirements, which include:

- **President/Governor Agreement** - President Bush and Florida Governor Jeb Bush signed an agreement ensuring that “new” water made available by restoration projects will be reserved for environmental restoration, and that the water resource allocation process will be managed consistent with WRDA 2000;
- **Outreach Activities** - WRDA 2000 required that socially and economically disadvantaged communities learn about CERP and the business opportunities that would arise from its projects;
- **Programmatic Regulations and the Master Implementation Sequencing Plan (MISP)** – WRDA 2000 required regulations to ensure that the goals and purposes of CERP are achieved. Within the programmatic regulations is the requirement to develop a Master Implementation Sequencing Plan (MISP). The MISP, illustrated to the right, details the progressive order that projects will be put in place for the natural and human environments in order to fully realize the benefits of the Plan.

Ecosystem Restoration	
Band 7 Projects	2035 - 2040
Band 6 Projects	2030 - 2035
Band 5 Projects	2025 - 2030
Band 4 Projects	2020 - 2025
Band 3 Projects	2015 - 2020
Band 2 Projects	2010 - 2015
Foundation + Band 1 Projects	2005 - 2010
Foundation Projects	2000 - 2005



St. Lucie Inlet

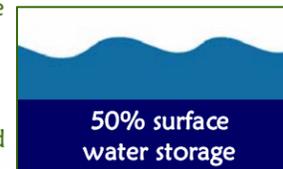


2005 through 2010

Ground Floor Restoration – Staged to Reap the Benefits

The plan for meeting the overall vision consists of implementing a series of carefully sequenced projects that contribute to “getting the water right.” By building upon the processes developed and activities initiated during the first five year period, including the streamlined processes and Acceler8 initiative, major strides will occur in completion of Project Implementation Reports (PIRs) and construction during the second five years. Central to “getting the water right” are the concepts of **quality, quantity, timing, and distribution**. As planned, by 2010, the completion of foundation projects and Band One CERP projects, should result in significant improvements in the natural environment in immediate project areas:

Quantity: Full implementation of major water storage projects such as the C-44 component of Indian River Lagoon - South, C-43 and Everglades Agricultural Area (EAA) Phase I reservoirs will provide 50% of total surface water storage. This is the first step in capturing the water presently released to tide that can be utilized by the natural and human environments.



Quality: Full implementation of projects such as C-51/STA-1E will provide large reductions in urban and agricultural runoff entering the Everglades, thereby improving Everglades water quality.



Timing & Distribution: While working in concert with quality and quantity-related projects, full implementation of projects such as the Kissimmee River Restoration, Modified Water Deliveries to ENP, and Picayune Strand will be major steps to Everglades Restoration. The Picayune Strand project alone will result in the restoration of over 55,000 acres of wetland habitat, supporting over 15 threatened and endangered species.



(Note: The complete array of projects included in Band One are listed and mapped on the back of this document.)

Adaptive Management

- ← As projects are constructed and water deliveries improve, continuous monitoring and assessment of the natural and human environments will provide data for refinement of the Plan. This process, adaptive management, is critical to ensuring that the goals, purposes and benefits of the Plan are achieved. RECOVER (Restoration, Coordination, and Verification) is an interdisciplinary, interagency partnership established to conduct system-wide evaluation, assessment, planning and integration, using the best science and information available to support adaptive management.



Restoration Requires Everyone

Like the intricate network of ridges and sloughs that define the Everglades, there is a network of individuals and organizations at work pursuing the restoration vision. With this network, the restoration vision will be achieved through the implementation of more than 50 projects over a 30+ year timeframe.

A successful partnership has been developed between the Federal Government and the State of Florida. Through this partnership, restoration relies on the collective effort of Tribal, State and local agencies and organizations, as well as the grassroots efforts and input from the public.

The continued successful implementation of CERP will require these established relationships to continue and remain firm. It will also require a long term, sustained commitment from Congress and the State of Florida in the form of continuing appropriations to support plan implementation as well as authorization of individual projects. Agencies will also need to have the appropriate direction and support from Congress, the Executive Branch and the State to remain engaged in implementing the Plan.

everglades Restoration



Pocket for CERP Overview Brochure

