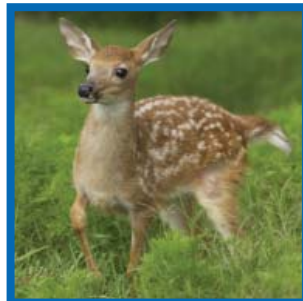


2006

2006

An Annual Update **Comprehensive Everglades Restoration Plan**



A journey is under way to restore the Everglades. This journey includes the **Comprehensive Everglades Restoration Plan (CERP)**, the largest environmental restoration program in history. This effort will not only enhance the Everglades and associated lakes, rivers and bays in south Florida, but it will also enhance the quality of life for people and wildlife. CERP is more than just a collection of projects to capture and store water, it is a program that revitalizes south Florida's natural environment. This publication is the first in a series of annual reports to the public, and reflects CERP restoration efforts through February 2006.

Additional information can be found at the following Websites:
www.evergladesplan.org and
www.evergladesnow.org

or by contacting:

U.S. Army Corps of Engineers
Jacksonville District
904-232-2568
South Florida
Water Management District
561-686-8800

the journey to restore

**America's
Everglades**

A partnership of the
U.S. Army Corps of Engineers, the
South Florida Water Management District,
and many other federal, state, local and
tribal partners.



**US Army Corps
of Engineers**
Jacksonville District



sfwmd.gov

The Everglades

is a wetland of international significance. Rare and endangered plants and animals have their homes there. Birds migrating from North to South America rest in its marshes and uplands along their journey. The fabled ecosystem draws visitors from around the globe.

In the United States, the Everglades contains the nation's third largest park in the lower 48 states. Like the Rocky Mountains and Mississippi River, the Everglades is part of the American landscape.

Over time, however, that unique ecosystem has experienced the negative affects of human development – loss of 50 percent of its wetlands, disrupted timing and flows of water, deterioration of water quality, reductions in wading birds, declining lake and estuary health, and loss of native habitat to exotic species.

There are many independent initiatives already under way to protect and restore individual parts of the South Florida ecosystem, including restoring the Kissimmee River, improving water flows to Everglades National Park, and building treatment marshes to improve water quality.

What is CERP?

The federal government and the state of Florida have entered into an unprecedented 50/50 partnership to restore the Everglades. Costs will be shared equally by the federal and state governments. The U.S. Army Corps of Engineers (USACE) is the lead federal agency and the South Florida Water Management District (SFWMD) is the lead state agency for the effort.

The \$10.9 billion Comprehensive Everglades Restoration Plan (CERP) is largely based upon a series of projects designed to “get the water right” in south Florida. To accomplish this, CERP will address four major characteristics of water flow: quantity, quality, timing and distribution.

The complex, multi-year undertaking has two distinct levels of activity:

Program-level coordination fosters productive working relationships and understanding among the various federal, state, local, tribal and stakeholder partners involved in CERP implementation. In addition, other key activities that span the life of CERP include ongoing efforts such as data collection, computer modeling, studying the response of the natural environment to CERP activities, addressing recreational opportunities, and science, outreach and economic issues.

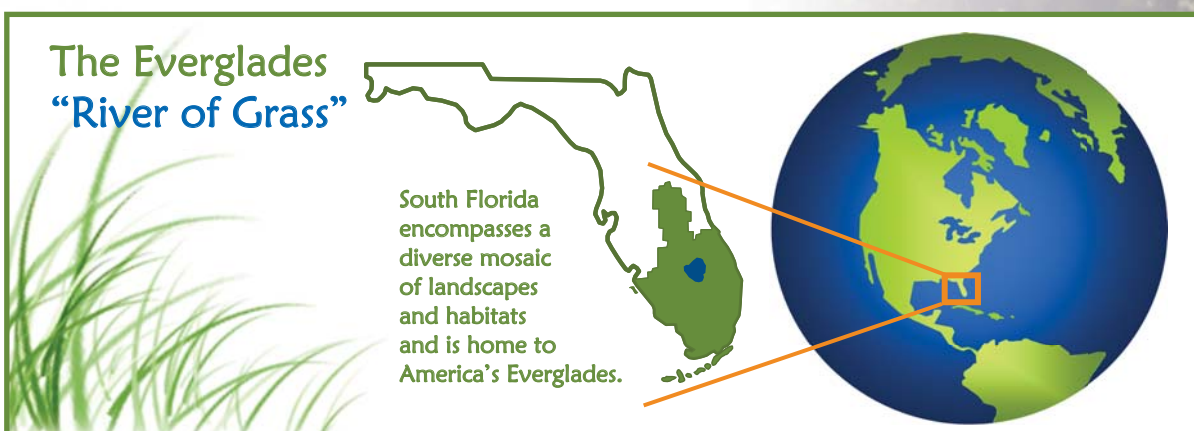
Project-level activities are the land acquisition, planning, designing and constructing of more than 50 individual projects. Through the State's Acceler8 (**ACCELER8**) initiative, some project components are being expedited and are expected to be operational by 2011. Most of the identified restoration projects are scheduled to be finished by 2020.

Approved in 2000 by Congress, CERP takes a watershed approach and is considered the largest environmental restoration program in history. CERP will build upon and work with other state and federal efforts to revitalize the wetlands, lakes, bays and estuaries of south Florida's ecosystem. Together, these efforts will not only improve the Everglades, but will help ensure we have the water needed for the future.

What is Acceler8?

Florida is fast-tracking eight critical multi-component Everglades restoration projects to achieve benefits ahead of schedule. Known as Acceler8, these projects will play an important role in restoring America's Everglades. This Florida initiative is financing, designing and constructing projects, or portions of projects, identified in the CERP to provide a wide variety of restoration benefits to both the natural and the human environment sooner than would otherwise be possible. Most of the land for the Acceler8 projects is already in public ownership.

Water is the lifeblood of the Everglades. With all of the improvements in place to capture, store, treat and deliver more natural flow, the ecosystem will become healthier and more resilient. The water management system will provide fresh water, flood control, recreation and many other benefits essential to our overall quality of life.



Alligator hatchlings resting alongside their mother.



From Concept to Completion CERP Project Development

The CERP project development process is shown in the graphic on the right. These activities include:

Planning - A Project Implementation Report (PIR) is developed that includes all of the engineering and environmental studies, project alternatives, evaluation and testing results, and summaries of public input. Next, a "Recommended Plan" is identified as the alternative that best meets the goals and objectives of the project. The PIR is sent for state and federal approvals, authorizations and funding.

Design - During design, investigations are conducted to provide the information needed to develop detailed final plans and specifications which will be used to build the project.

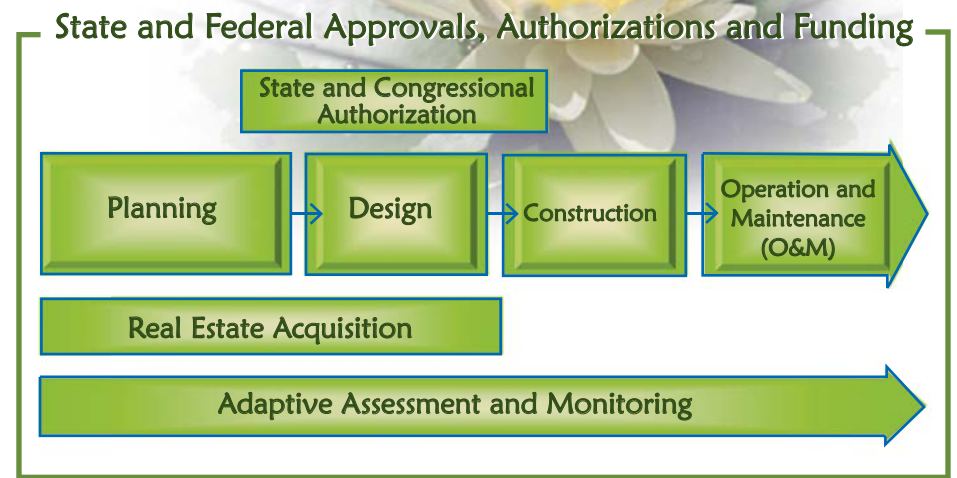
Construction - The construction period extends from the awarding of a construction contract through completion, including construction, supervision and inspection.

Operation and Maintenance (O&M) - Each project has an Operations Plan that outlines operating schedules and criteria designed to achieve optimum results. Based on routine review and analyses, operations may be fine-tuned for improved performance.

Real Estate Acquisition - Many restoration projects require land to be acquired. To date, more than 51 percent of lands needed for CERP implementation have been acquired.

Adaptive Assessment and Monitoring (AA&M) - This ongoing process measures the effect of restoration efforts on the greater Everglades ecosystem so, if needed, changes can be made to ensure CERP projects meet intended objectives.

Acceler8 (ACCELER8) - The intent of this Florida initiative is to design and construct projects, or portions of projects, identified in the CERP to provide restoration benefits earlier.



Current CERP Projects

# on map	Project Name and Description	Project Features	Planning	Design
Lake Okeechobee Region				
1	Lake Okeechobee Aquifer Storage and Recovery (ASR) Pilot This project tests the use of large-scale underground water storage and withdrawal in the vicinity of Lake Okeechobee.		Complete	In Progress
2	Lake Okeechobee Watershed This project consists of five components including the north of the Lake Okeechobee and Taylor Creek/Nubbin Slough reservoirs, the Lake Okeechobee Watershed Water Quality Treatment Facilities, the Lake Okeechobee Tributary Sediment Dredging effort and the Lake Istokpoga Regulation Schedule.		In Progress	
Caloosahatchee Region				
3	Caloosahatchee (C-43) River ASR Pilot This project tests the use of underground water storage and withdrawal near the Caloosahatchee River.		In Progress	
4	C-43 Basin Storage Reservoir - Part 1 This project consists of a large above-ground storage reservoir located along the Caloosahatchee River. This project includes an ACCELER8 component.		In Progress	
St. Lucie Region				
5	Indian River Lagoon - South This project consists of several above-ground reservoirs and stormwater treatment areas and has been revised from the 1999 plan. The revised plan includes reduced storage in reservoirs, increased use of constructed wetlands and removal of muck from the St. Lucie River and Estuary.		Complete	In Progress
6	C-44 Reservoir As a component of Indian River Lagoon – South, this project consists of a large above-ground storage reservoir and stormwater treatment area near the St. Lucie River. This project includes an ACCELER8 component.		Complete	In Progress
Lower East Coast Region				
7	Hillsboro ASR Pilot This project tests the use of underground water storage and withdrawal near the Hillsboro Canal on Florida's east coast. The South Florida Water Management District (SFWMD) is implementing this project.		Complete	In Progress
8	North Palm Beach County - Part 1 This project includes several components described in CERP including Water Preserve Areas / L-8 Basin, C-17 and C-51 Backpumping and Treatment, Lake Worth Lagoon Restoration and the Pal-Mar and J.W. Corbett Wildlife Management Area Hydropattern Restoration.		In Progress	
9	Broward County Secondary Canal System This project includes a series of water control structures, pumps, and canal improvements located in the C-9, C-12 and C-13 Canal Basins and east basin of the North New River Canal in central and southern Broward County.		In Progress	
10	Broward County Water Preserve Areas (WPAs) This project will serve as a buffer between developed urban areas and the Everglades. It consists of multiple components: C-9 Stormwater Treatment Area/Impoundment, Western C-11 Diversion Impoundment and Canal, and Water Conservation Areas 3A and 3B Levee Seepage Management. This project includes an ACCELER8 component.		Complete	In Progress
11	Acme Basin B Discharge This project includes construction of a wetland and a storage reservoir located adjacent to the Loxahatchee National Wildlife Refuge in Palm Beach County. The CERP component was temporarily suspended in 2006. The Acceler8 portion of this project is proceeding with design and construction of a 400-acre natural area, pump stations, and C-1 Canal improvements. This project includes an ACCELER8 component.		Temporarily Suspended	
12	Site 1 Impoundment (this is a component of #10 above) This project consists of an above-ground reservoir to reduce the water storage demands on Lake Okeechobee and the Loxahatchee National Wildlife Refuge. This project includes an ACCELER8 component.		Complete	In Progress
13	Strazulla Wetlands This project includes water control structures and the acquisition of over 3,300 acres of pristine wetlands located in Palm Beach County. This expansion of wetland areas will provide connections between vital habitats for species that require large tracts of land for survival.		Temporarily Suspended	
14	Biscayne Bay Coastal Wetlands This project will expand and restore wetlands adjacent to Biscayne Bay in Miami-Dade County, enhancing the ecological health of Biscayne Bay National Park. This project includes an ACCELER8 component.		In Progress	
15	Winsberg Farms Wetlands Restoration This project will add a 175-acre wetland in a heavily urbanized area of south Florida.		In Progress	
16	Lake Belt In-ground Reservoir Technology Pilot This project evaluates the use of reservoirs in areas where lime rock mining has occurred. In 2004, work on this project was rescheduled to occur later in the CERP sequencing plan so available resources could be directed to projects that would ensure more rapid achievement of maximum benefits.		Temporarily Suspended	
17	Wastewater Reuse Technology Pilot This project investigates water quality issues associated with using treated reuse water to replace and augment freshwater flows to natural areas. Work on this project was temporarily suspended in 2005.		Temporarily Suspended	

Note: One Acceler8 project (Everglades Agricultural Area Stormwater Treatment Area Expansion) does not represent a CERP component and is not included in this table.

Cost Estimate Update

The Comprehensive Everglades Restoration Plan (CERP) total cost was estimated to be \$8.2 billion in 1999. Estimates are updated annually to account for inflation adjustments and changes in CERP projects as documented in final Project Implementation Reports (PIRs). The October 2004 estimate is \$10.9 billion. The increase of \$2.7 billion includes inflation adjustments of approximately \$1.6 billion for projects and adaptive assessment and monitoring, a \$500 million increase for program coordination efforts required by Congress in 2000, and project changes of nearly \$600 million based on two final PIRs. The recommended project changes amount to \$239.6 million for the Indian River Lagoon-South project and \$331.8 million for the Picayune Strand Restoration Project (refer to project descriptions for details).

CERP Cost Estimate	October 1999	October 2004
Projects	\$ 7.80 billion	\$ 9.90 billion
Adaptive Assessment and Monitoring	\$.40 billion	\$.50 billion
Program Coordination	\$ 0 billion	\$.50 billion
TOTAL	\$ 8.20 billion	\$ 10.90 billion












Fiscal Year 2007 Budget Request

The President's Budget Request for Fiscal Year 2007 (which starts October 1, 2006) includes 64 million federal dollars for work on CERP implementation. In FY07, the U.S. Army Corps of Engineers (USACE), together with the South Florida Water Management District (SFWMD) and other local sponsors, is expected to continue ongoing Feasibility Studies, installation and testing of the Aquifer Storage and Recovery (ASR) Pilot Projects, PIR studies, data collection and analyses for Adaptive Assessment and Monitoring and other activities.

The Governor's FY06-07 budget proposal includes \$135 million toward land acquisition to support Everglades Restoration initiatives. The Florida Forever Program, the largest conservation program of its kind in the world, will add approximately \$25 million in FY07. In addition to the Governor's proposed budget, the SFWMD's FY07 plan includes approximately \$111 million for the implementation of CERP and Acceler8, plus approximately \$235 million in funding for Acceler8 construction.



Current CERP Projects

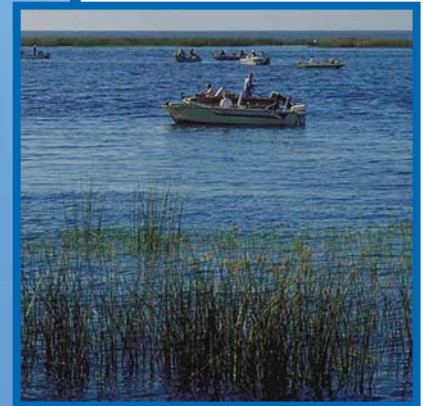
# on map	Project Name and Description	Project Features	Planning	Design
Everglades Agricultural Area Region				
18	Everglades Agricultural Area Storage Reservoir This project consists of a large above-ground storage reservoir in former farm lands. This project includes an ACCELER8 component.		In Progress	
Everglades Natural Areas Region (Water Conservation Areas, Everglades National Park, Big Cypress National Preserve)				
19	Water Conservation Area 3 Decentralization and Sheetflow Enhancement - Part I This project includes the construction of new water control structures and the modification or removal of levees, canals, and water control structures in Water Conservation Area 3A and 3B located in western Broward County.	xxxxxxx 	In Progress	
20	L-31N Seepage Management Pilot This project studies proposed technologies needed to control levee seepage from Everglades National Park (ENP), as well as the appropriate amount of groundwater flow needed to minimize potential impacts to Miami-Dade County's West Wellfield and Biscayne Bay.		In Progress	
21	Everglades National Park Seepage Management This project will evaluate technologies of the L-31N Improvements, S-356 Structure Relocation and Bird Drive Recharge Area components that may be implemented to reduce seepage losses.		In Progress	
Florida Bay/Florida Keys Region				
22	C-111 Spreader Canal This project will enhance freshwater wetlands in the Southern Glades and Model Lands. This project includes an ACCELER8 component.	xxxxxxx	In Progress	
23	Florida Keys Tidal Restoration This project includes the use of bridges and/or culverts to restore the tidal connection between Florida Bay and the Atlantic Ocean in Monroe County.		In Progress	
Southwest Region				
24	Lakes Park Restoration This project consists of creating a meandering 40-acre flow way with shoreline vegetation and by removing aquatic and upland exotic vegetation.		In Progress	
25	Henderson Creek/Belle Meade Restoration This project includes a marsh filtering system; four culverts under State Road 951; hydrologic restoration around Manatee Basin, ditching, removal of some roadbed; invasive, exotic plant removal; a public access point and interpretive boardwalk; construction of a swale and spreader system and removal of the Road-to-Nowhere.	xxxxxxx	In Progress	
26	Picayune Strand Hydrologic Restoration This project will restore wetland function to over 55,000 acres in Collier County. The revised plan will reduce over-drainage in Southern Golden Gate Estates and adjacent natural and public lands, restore and enhance additional wetlands, and also improve the water quality of coastal estuaries. This project includes an ACCELER8 component.	xxxxxxx	Complete	In Progress
Other Projects/Studies				
	Melaleuca and Other Exotic Plants Eradication This initiative develops innovative methods to reduce the rapid invasion of unwanted plants and trees in the Everglades.		In Progress	
	Aquifer Storage and Recovery (ASR) Regional Study This study evaluates the effects of extensive ASR use as proposed in the CERP.		In Progress	
	Florida Bay/Florida Keys Feasibility Study This study will evaluate Florida Bay and its connections to the Everglades, the Gulf of Mexico, and the Florida Keys marine ecosystem to determine changes needed to restore the water quality and ecological conditions of the bay adversely impacted by the construction of U.S. Highway 1 to Key West.		In Progress	
	Southwest Florida Feasibility Study This study will determine the feasibility of making structural, non-structural and operational modifications and improvements in the regional water control system in the interest of environmental quality, water supply, and other purposes by investigating water resource problems and opportunities in all or parts of Lee, Collier, Hendry, Glades, Charlotte and Monroe counties.		In Progress	
	Comprehensive Integrated Water Quality Feasibility Study This study will develop a comprehensive plan that presents an array of recommendations to achieve and sustain water quality sufficient to support ecosystem restoration in south Florida.		In Progress	

Note: One Acceler8 project (Everglades Agricultural Area Stormwater Treatment Area Expansion) does not represent a CERP component and is not included in this table.

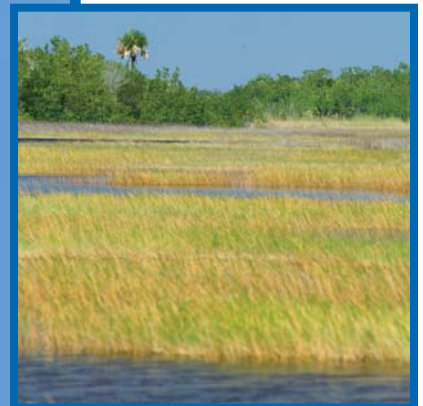
Current CERP Project Project Features



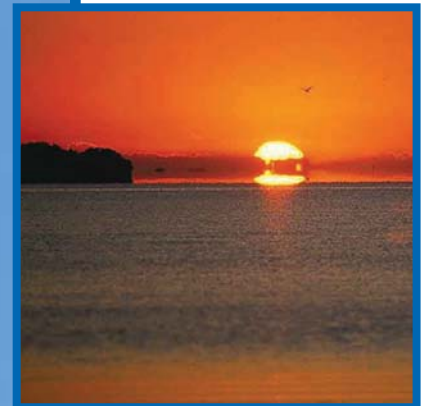
Lower East Coast



Lake Okeechobee



Southwest Coast



Florida Bay

Note: This map is intended for general illustration purposes and does not reflect exact region or project boundaries.

More than 50 projects make up the CERP effort, with many of these being very large and complex. Because of their size and complexity, several of these projects have multiple parts or components such as reservoirs and stormwater treatment areas. In total, there are 68 individual components that make up the 50+ projects in the plan. The projects described in this report are those that are currently active. A project sequencing plan coordinates project implementation and timing to ensure maximum benefits are derived from the total mix of projects – as additional projects start, their status will be included in future reports.

CERP gets the water right in south Florida by utilizing several basic features. These project features will ensure that we capture, store, treat and redistribute water through the natural ecosystem restoring much of the water back into the Everglades. Each CERP project falls into one or more of the following feature categories:



Surface Water Storage Reservoirs

More than 181,000 acres of above- and in-ground reservoirs are planned to store billions of gallons of water.



Aquifer Storage and Recovery

More than 300 underground water storage wells are proposed to store up to 1.6 billion gallons of treated water a day in confined aquifers.



Stormwater Treatment Areas

Almost 36,000 acres of manmade wetlands will be constructed to remove pollutants and other harmful contaminants from water before it is discharged to the Everglades.



Operational Changes

Changes will be made in the regional water management system to benefit the greater Everglades ecosystem.



Seepage Management

Barriers will be built to stop the rapid underground seepage of water out of the Everglades, which today results in the loss of millions of gallons of water each year.



Removing Barriers to Sheetflow

More than 240 miles of canals and levees may be removed to restore the historic overland flow through the Everglades wetlands. Sections of Tamiami Trail will be elevated to handle increased water flows contributed by other CERP components.



Other Identified Projects

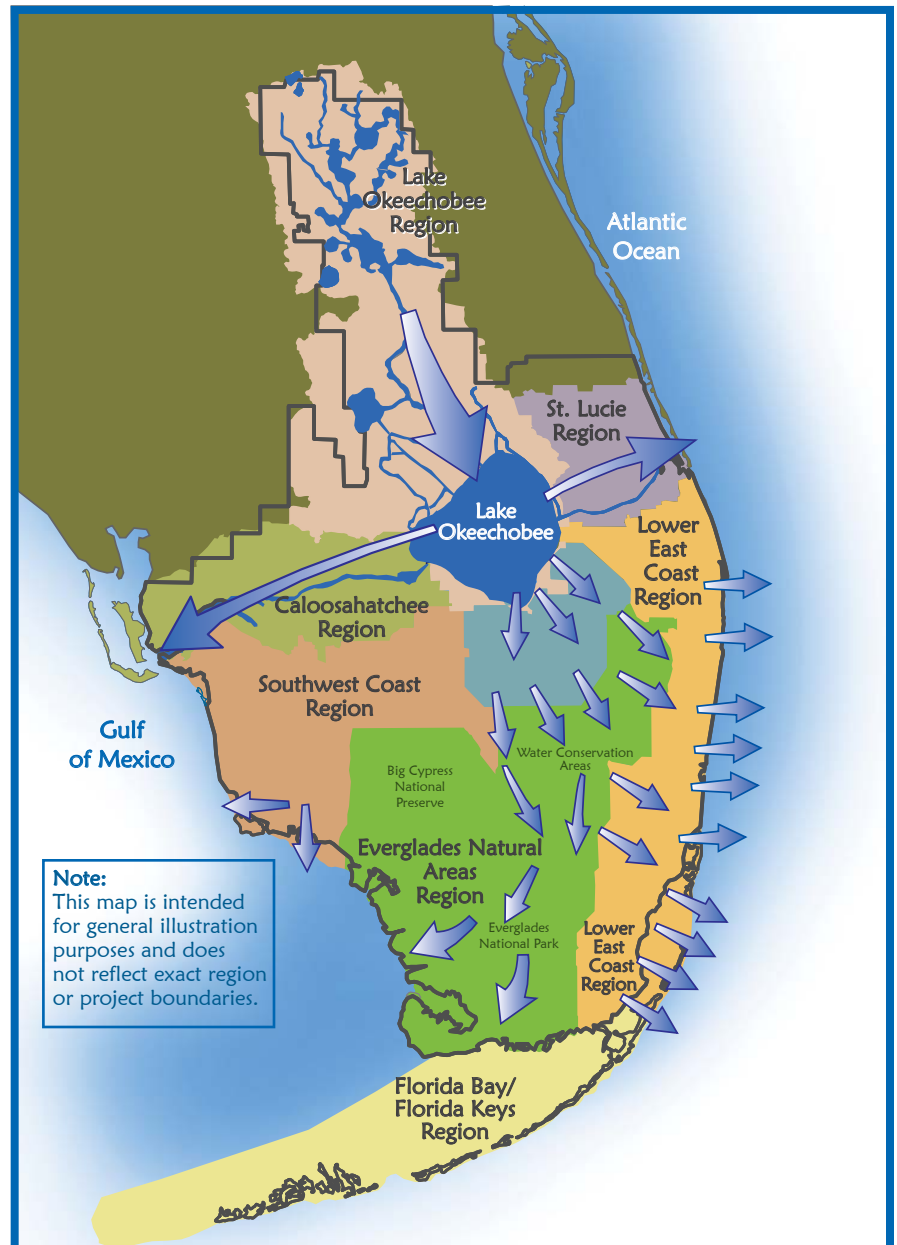
Other projects include invasive plant (Melaleuca) eradication, wetlands restoration and creation (including flow ways) and other project elements intended to increase spatial extent of wetlands that are not directly associated with other projects.

Determining a CERP Water Budget Distributing Water in South Florida

Once fully implemented, CERP will allow water deliveries and overland flow to follow patterns that are more natural throughout the south Florida ecosystem. Water managers will be better able to send water through canals than they are today, and store water for later use. CERP reservoirs will store excess water from Lake Okeechobee, receive flood control releases that would otherwise go to the estuaries, and collect stormwater runoff from developed areas. The stored water will then improve high and low water levels in Lake Okeechobee, help meet environmental targets in the estuaries, Everglades and other natural areas, and supplement urban and agricultural water supply. These benefits collectively achieve the goals of restoration for CERP.

The water budget shown in the map is a summary of the volumes of water that enter and leave various regions within south Florida in an average rainfall year. For water budget purposes, south Florida is divided into eight regions: Lake Okeechobee, St. Lucie, Caloosahatchee, Everglades Agricultural Area, Everglades Natural Areas (Water Conservation Areas, Everglades National Park and Big Cypress National Preserve), Lower East Coast, Southwest Coast, and Florida Bay/Florida Keys.

In developing a water budget map, the volumes and flows of water are calculated for various categories, including overland flow, water supply, flood control discharges from Lake Okeechobee and developed areas to the Atlantic Ocean and the Gulf of Mexico, groundwater flow, and others. In this map, these factors have been combined, with the arrows showing relative differences in flow volumes, as well as direction of flow.



Note: This map is intended for general illustration purposes and does not reflect exact region or project boundaries.

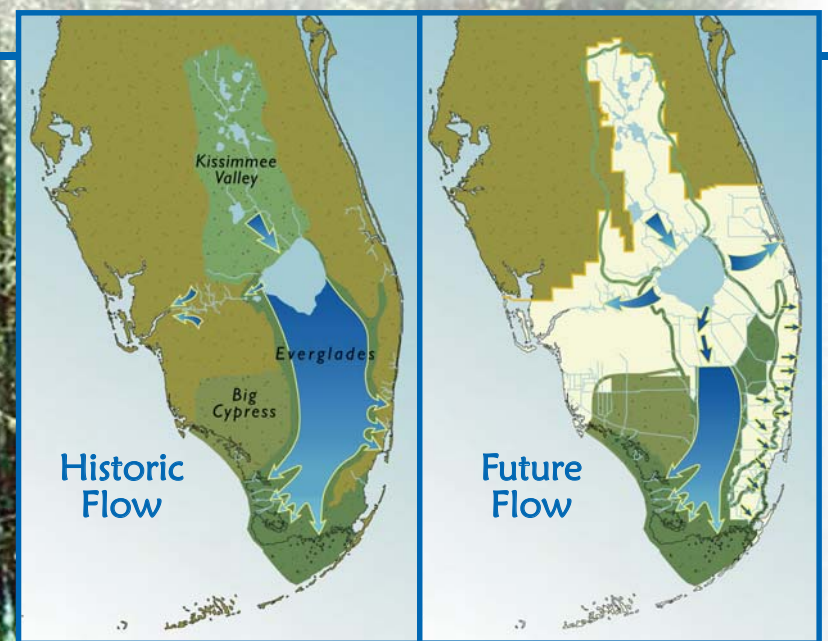
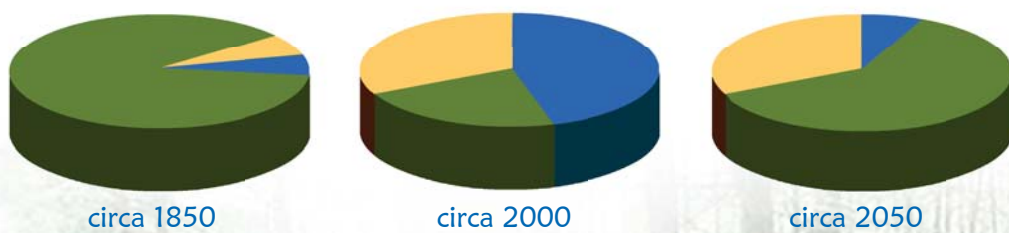
Current Flow through Ecosystem Regions

The objective of CERP is to find the correct balance among the flow types throughout all regions to ensure a healthy and sustainable natural and human environment. For example, a certain level of flow to the estuaries and bays maintains favorable conditions for oysters, shrimp and seagrasses. Too much flow to these areas, however, causes damage to native organisms.

The maps below depict how water flowed historically through the south Florida ecosystem, and how water will flow in the future after CERP projects have been constructed.

The charts below represent, for three different periods of time, estimates of water going to the environment, to developed areas and to the ocean and gulf.

■ Runoff to ocean or gulf ■ Developed areas ■ Environment



Protecting Water for the Environment

Upon federal authorization and prior to initiating construction, the State of Florida must reserve through adoption of water reservations, or otherwise legally allocate, the water for the natural system. As a requirement in the Project Implementation Report (PIR) for each CERP project, the quantity of water made available by each individual project for the natural system must be identified. This identification involves a technical evaluation of habitat restoration targets, changes resulting from project operations, and quantifying water going to natural areas. To date, individual PIRs are final for the Indian River Lagoon - South and Picayune Strand projects. When federal authorization for these projects has occurred, the South Florida Water Management District (SFWMD) will initiate protection procedures.

For further information, visit www.evergladesplan.org or www.evergladesnow.org