## COMPREHENSIVE EVERGLADES RESTORATION PLAN (CERP) PROJECT GENERATIONS

### WHAT IS CERP?

The Comprehensive Everglades Restoration Plan (CERP) contains a bold outline for returning the lifeblood of the Everglades – water – to its historic quantity, quality, timing and distribution. The Water Resources Development Act of 2000, the Congressional legislation that approved 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. It will be, however, vastly superior to the current system. 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.

#### CERP GOALS AND OBJECTIVES

**CERP GOAL: Enhance Ecological Values** 

- Increase the total spatial extent of natural areas
- Improve habitat and functional quality
- Improve native plant and animal species abundance and diversity
- **CERP GOAL: Enhance Economic Values and Social Well-Being** Increase availability of fresh water (agricultural/municipal and industrial)
- Reduce flood damages (agricultural/urban)
- Provide recreational and navigation opportunities
- Protect cultural and archaeological resources and values

#### WESTERN EVERGLADES **RESTORATION PROJECT (WERP) & CERP**

Since 2000, considerable progress has been made implementing CERP. First and second generation CERP projects are authorized by Congress and are either operational, under construction, or being designed. The Central **Everglades Planning Project is** currently awaiting congressional authorization. All of these CERP projects contribute significant ecological benefits to the system and the specific regional habitats in which they are located.

#### One of the next steps for implementation of CERP is to identify opportunities within the tributary areas of Water Conservation Area (WCA) 3A to restore natural areas within with Big Cypress Seminole **Indian Reservation and adjacent** portions of Big Cypress Natio Preserve (BCNP) and the Miccosukee Indian Reservation.

**US Army Corps** 

of Engineers ®



Above-ground Storage Reservoirs Stormwater Treatment

Areas

 Decompartmentalization Operational changes Seepage management Aquifer, Storage and

Recovery



The CERP, comprised of more than 50 projects and 68 components, includes an array of project features to achieve a restored **Everglades ecosystem such** 







WESTERN EVERGLADES 1-75 RESTORATION PROJECT PRELIMINARY **STUDY AREA** 



BIG CYPRESS

US-41





## WESTERN EVERGLADES RESTORATION PROJECT (WERP) BACKGROUND

### WERP FEATURES IN CERP

The original CERP project identified to restore and reconnect the western Everglades ecosystem was called the Big Cypress/L-28 Interceptor Modification Project. The purpose of this project, as defined within the CERP, is to reestablish sheetflow from the West Feeder Canal across the Big Cypress Seminole Indian Reservation and into BCNP, while maintaining flood protection on the Seminole Tribal lands, and ensuring that inflows to the North and West Feeder Canals meet applicable water quality definitions.



Project features considered under the CERP include modification of levees and canals, water control structures, pumps, and stormwater treatment areas providing a total storage capacity of 7,600 acre-feet. These features were located within and adjacent to the Miccosukee and Seminole Indian Reservations in Collier and Hendry counties.

This concept from CERP will serve as the starting point for the WERP and will be refined through the planning process.

#### WERP PRELIMINARY **PURPOSE STATEMENT**

The purpose of the WERP is to improve the quantity, quality, timing and distribution of water needed to restore and reconnect the western Everglades ecosystem.

### WERP PRELIMINARY PROJECT OBJECTIVES

- ground and surface water elevations.



CONCEPTUAL **RENDERING:** IG CYPRESS -28 INTERCEPTOR MODIFICATIONS 1999)

Restore and improve seasonal hydroperiods and freshwater distribution to support a natural mosaic of wetland and upland habitat in the western Everglades ecosystem.

Reestablish and improve sheetflow patterns and surface water depths and durations in the study area to reduce soil subsidence and the frequency of damaging peat fires. Reduce water loss out of the natural system to prevent over-drainage and improve

### ENVIRONMENTAL CONSIDERATIONS NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

#### WHAT IS NEPA?

NEPA is a federal law enacted in 1969. Under NEPA, federal agencies are required to evaluate the potential environmental impacts that a future project or action may cause. These findings are captured in a detailed statement and are available for public review and comment before any decisions or actions are taken. Not all federal actions require a full Environmental Impact Statement (EIS). Due to the size and scope of the Western Everglades Restoration Project (WERP), the environmental documentation will be in the form of an EIS.

#### ENVIRONMENTAL FRAMEWORK FOR PROJECT DEVELOPMENT AND IMPLEMENTATION

**COORDINATION** with applicable environmental regulatory agencies

**AVOIDANCE AND MINIMIZATON** of environmental impacts to the maximum extent practicable

MITIGATION AND MONITORING where unavoidable impacts occur



#### PUBLIC INVOLVEMENT IS KEY

Public input is vital to the success of a project. Inherent to NEPA, as well as the USACE planning process, are established opportunities for public input during project development.



Project information and dates of related public forums for the WERP, will be accessible via the project's website.







Examples include public workshops and meetings elated to the coping portion of the NEPA process, development of project alternatives and releases of draft reports (such as the EIS and the project implementation eport)



WESTERN EVERGLADES 1-7 RESTORATION PROJECT PRELIMINARY **STUDY AREA** 



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# **COMPREHENSIVE EVERGLADES RESTORATION PLAN** WESTERN EVERGLADES RESTORATION PROJECT









### HUMAN & NATURAL ENVIRONMENT EVALUATING POTENTIAL BENEFICIAL & ADVERSE IMPACTS

Some of the human and natural environmental considerations that will be evaluated as part of the WERP and included in the EIS include:

#### NATIVE AMERICANS

Both the Seminole Tribe of Florida and the Miccosukee Tribe of Indians of Florida have historically utilized the Western Everglades region and continue to use and maintain a strong connection to the area. The Seminole Tribe's Big Cypress Reservation and the Miccosukee Tribe's Alligator Alley Reservation are located central to the Everglades. Traditional activities such as hunting, fishing subsistence agriculture, and related customs and practices of living are exercised on these reservations and other leased and owned Tribal lands. Modern activities such as ranching, entrepreneurship, and various tourism related businesses are also undertaken throughout the region.

#### CULTURAL RESOURCES

Evidence of human occupation in South Florida extends back 14,000 years ago This is evident in the hundreds of prehistoric and historic archaeological sites that dot the landscape. These include historic properties eligible for listing in the National Register of Historic Places and properties listed or eligible for listing on th Seminole Tribe's Tribal Register of Historic Places. Archaeological sites in the region range from prehistoric mounds and shell middens to post-European contact sites associated with the Seminole Wars and the 19<sup>th</sup> and early 20<sup>th</sup> century occupation of the area.

#### WILDLIFE AND THEIR HABITAT

The project area includes a varied mix of habitat providing food, cover, nesting and roosting for a variety of fish and wildlife resources. Wetland communities include sawgrass marshes, wet prairies, cypress domes and hardwood swamps. Upland communities include pine flatwoods, and hardwood hammocks.

#### **ENDANGERED SPECIES**



Federally listed threatened and endangered species inhabit the project area and subsequently may be affected by the project. Examples include the Florida panther, wood stork, Audubon's Crested Caracara, and eastern indigo snake

#### LAND USE

The Water Conservation Area (WCA) 3 tributary basins include the C-139, Feeder Canal, L-28 Interceptor, and L-28 Gap basins which encompass approximately 440,000 acres. Generally lands within these basins have three classifications: 1) agricultural (vegetable, sugar cane, and citrus); 2) cow-calf operations; and 3) wetlands and native areas. Agricultural land dominates the C-139 and Feeder Canal Basins. The L-28 Interceptor Basin land use is split between wetlands and agriculture. The L-28 Gap Basin consists almost entirely of wetlands. Urban land use occupies a small portion of the project area.

#### WATER QUALITY

Natural drainage patterns in the region have been disrupted by the extensive array of levees and canals and, as a result, stormwater runoff now enters the system in many areas. Phosphorous is considered the most important contributor to water quality degradation in the area.

#### **INVASIVE SPECIES**

Many non-native invasive species are flourishing in a variety of habitats and are negatively affecting the ecology throughout the watershed. Non-native invasive plant species are most frequently encountered in disturbed areas and areas where water quality has been impacted by increased nutrient loads. Examples invasive species throughout the watershed includes Brazilian pepper, melaleuca Australian pine, Old World climbing fern, water hyacinth, water lettuce, torpedograss, and cogongrass.

#### WATER SUPPLY & FLOOD PROTECTION

The Water Resources Development Act of 2000 requires Comprehensive Everglades Restoration Plan (CERP) projects to identify water needed for the natural system to achieve CERP restoration goals and protect it from other potentially competing uses. At the same time, existing legal sources of water supply for municipal and agricultural needs must also be protected. In addition, CERP implementation cannot reduce existing levels of service for flood protection.







**EXCAVATING SHEL** MIDDEN SITE





