# Chapter 8F: The Lower East Coast Regional Water Supply Plan

Jim Jackson

## INTRODUCTION

The Lower East Coast Regional Water Supply Plan (LEC Plan) provides a blueprint to help meet South Florida's water resource needs through the year 2020.

By 2020, South Florida's population is projected to increase from 5 million to 7 million residents, with most people living along the coast. This population growth will create larger demands for both potable and irrigation water. In addition, environmental demands call for significant increases in water supply deliveries to sustain and restore South Florida's water resource-dependent natural systems. The South Florida Water Management District's governing board approved the LEC Plan in May 2000.

## 2003 LEC PLAN HIGHLIGHTS

In 2003, the Water Supply Department of the South Florida Water Management District (SFWMD or District) continued the implementation of several projects identified in the LEC Plan. Listed below, these projects complement the Comprehensive Everglades Restoration Plan (CERP) by increasing the amount of water available for urban users and agriculture as well as for the Everglades and other natural systems. The projects are designed to meet the future water supply demands of South Florida. The LEC Plan also includes additional water resource and water supply projects, related studies, and rule development that may be required to meet the region's future needs.

The 2003 LEC Plan implementation highlights are listed here:

- Adopted the St. Lucie Estuary Minimum Flows and Levels rule, which became effective in December 2002.
- Adopted the northwest fork of the Loxahatchee River Minimum Flows and Levels rule, which became effective in February 2003.
- Adopted the "B list" consumptive use permitting rules in June 2003, which became effective in September 2003. Consensus on the wording of the rules was developed through stakeholder workshops with the District's Water Resources Advisory Commission. The rules address numerous issues, including permit duration, supplemental irrigation requirements, pollution remediation, interference with existing legal uses, existing offsite land use impacts, pasture irrigation, reuse of reclaimed water, wellfield operational plans, diversion and

impoundment permits, permit renewal process, impact evaluations, local sources first, aquifer storage and recovery, wetland protection, areas with maximum developable limits, fees, and other review criteria and limiting conditions.

- Implemented the initial phase of the Northern Palm Beach County Comprehensive Water Management Plan with construction of the G-160 Loxahatchee Slough structure. Construction began in April 2003 and is scheduled for completion in December 2003. The preliminary design of the G-161 culvert under Northlake Boulevard is scheduled to be completed in November 2003.
- Completed construction by Palm Beach County of the Hillsboro Aquifer Storage and Recovery (ASR) facility, which was partially funded by the District. Requested authorization from the Florida Department of Environmental Protection (FDEP) to begin cycle testing.
- Continued water conservation partnerships with Palm Beach, Broward, Miami-Dade, and Monroe counties through grants to those counties. In 2003, eight new projects were selected; three of them were in the LEC region. These three projects will save 173,000 gallons per day.
- Continued the funding of two mobile irrigation laboratories in the Lower East Coast. These laboratories evaluated 243 irrigation systems, resulting in an estimated annual savings of 410 million gallons of water. In July 2003, the contract for another laboratory to serve Broward County was approved by the governing board, and start-up activities have been initiated.
- Continued the Alternative Water Supply (AWS) Grant Program with the selection and ranking of grants totaling $4.5 million. A total of 46 applications were received; 38 projects were deemed eligible for funding, and 30 projects were recommended to the governing board for funding in amounts ranging from $100,000 to $200,000. Seventeen of the projects are located within the LEC region and, when completed, will produce more than 54 million gallons per day of additional supply. The ranked list of projects will be submitted to the District's governing board for approval.
- Completed the Lake Worth Lagoon minimum and maximum flow targets final project report in May 2003. The final report was made available for CERP consultants to use in the sediment transport component of the North Palm Beach County CERP Project.

# CERP IMPLEMENTATION AND ITS EFFECT ON LEC PLAN IMPLEMENTATION

A critical part of the success of the LEC Plan depends on the implementation of many of the water resource development projects identified in CERP. Incremental, five-year modeling of the revised schedule for CERP implementation will take place in 2004. The incremental modeling of simulated water-availability projections will provide information for the water reservation process, for alternative resource development projects, and for interim performance goals as required by the Water Resources Development Act of 2000 (WRDA 2000). It will also provide a revised baseline that will be used in the 2005 LEC Plan Update, which will cover the period 2005 through 2025.

# RESERVATION OF WATER FOR THE ENVIRONMENT AND ASSURANCES FOR EXISTING LEGAL SOURCES

CERP implementation must be consistent with both state law and WRDA 2000. In general, WRDA 2000 requires quantification and protection of water made available for natural systems by CERP through the adoption of water reservations under state law. The state allows water management districts to reserve water for protection of fish and wildlife or for public health and safety. As a local sponsor, the District is required to participate in the development of CERP project components to ensure that the components meet all legal responsibilities under Chapter 373 of the Florida Statutes (F.S.) for water supply, water quality, flood protection, threatened and endangered species, and other water or natural resources. Federal law requires protection of existing local sources from elimination or transfer and protection of levels of service of flood protection existing as of December 2000. State law requires the identification of water from the increase in human and natural system water supplies resulting from the project components. State law also requires the adoption of water reservations and protection of existing legal users of water and protection of existing levels of flood protection.

Pursuant to state law, the District will make the reservations of water for the natural system. The District will accomplish the reservations through the governing board's rulemaking authority. State law on water reservations provides that when water is reserved, the District cannot allocate it to consumptive use permittees. Water reserved for the natural system is for the "protection of fish and wildlife." Water also can be reserved for public health and safety. Reservations are subject to periodic review based on changed conditions, such as the changes that will occur in the Central and Southern Florida (C&SF) Project, as CERP projects become operational. This provides flexibility to account for changes in implementation strategies and contingency plans during the life of the project.

In June 2003, the District's governing board approved the white paper, Water Resource Protection Strategies for the Implementation of CERP under Federal and State Law. The paper was a refinement of previous drafts prepared by an interagency team composed of representatives from the District, U.S. Department of Interior, Everglades National Park, U.S. Army Corps of Engineers, Florida Department of Environmental Protection, and U.S. Fish and Wildlife Service. The white paper outlines a process and methodology for providing assurances and for identifying and protecting water for the natural system made available through implementation of CERP, as well as other related concepts. The concepts and methodologies presented in the paper will be used as a starting point in the development of the CERP Guidance Memoranda. This document will involve assurances and the quantification of water made available by CERP and of water reserved for the natural system.