

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

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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. Development of the plan began in 1992, when the South Florida Water Management District (District or SFWMD), under the authority of state law, initiated an eight-year study of the region's future water needs.

Projections of the area's future population growth predict almost seven million residents by 2020, with the majority of the population living along the coastal areas. 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 natural systems. The District governing board adopted the LEC Plan in May 2000.

2002 LEC PLAN HIGHLIGHTS

In 2002 the District's Water Supply Department began the implementation of several projects (listed below) identified in the LEC Plan. These projects complement the Comprehensive Everglades Restoration Plan (CERP) by increasing the amount of water available for urban users, agriculture, and the natural system and are necessary to meet the needs of the Everglades and the future population of South Florida. The LEC Plan includes additional water resource and water supply projects, and related studies and rule development that are necessary to help meet the region's future needs. LEC Plan implementation highlights include the following:

- Completion of the Northern Palm Beach County Comprehensive Water Management Plan and startup of plan implementation, with widening of the M canal, design/permitting of the G-160 Loxahatchee Slough structure, and the start of the design for the G-161 culvert under Northlake Boulevard.
- Construction and near completion of the Eastern Hillsboro Regional Aquifer Storage and Recovery (ASR) Project.
- Drafted proposed rule for St. Lucie Estuary minimum flows and levels and held public workshops to finalize rule language for adoption in December 2002.
- Revised draft Loxahatchee River minimum flows and levels document and held public workshops.
- Began rule development for "B list" consumptive use permitting rules.

- Conducted public workshops on proposed revisions to rules concerning consumptive use permitting and water shortage plan.
- Initiated Water Conservation Incentive program partnerships with Palm Beach, Broward and Miami-Dade counties.
- Funded two mobile irrigation labs that evaluated 250 irrigation systems, resulting in annual savings of approximately 500 million gallons of water.
- Funded LEC feasibility analysis and master plan for a regional reclaimed water system in central and northern Palm Beach County.
- Completed feasibility report on the reverse osmosis (RO) treatment of seawater when co-located with power plants. Based on the findings, Lee County Utilities and Florida Power and Light (FP&L) are investigating construction of an RO facility at FP&L's Fort Myers power plant.

CERP IMPLEMENTATION AND ITS EFFECTS ON LEC PLAN IMPLEMENTATION

A critical part of the LEC Plan is the water resource development projects identified in CERP (see **Chapter 7** of the *2003 Everglades Consolidated Report*). The District's Water Supply Department reviewed the recent change in the CERP implementation schedule related to the completion of these projects. From this assessment of CERP-related project schedules, the Water Supply Department identified potential concerns regarding water supply availability in the 2010 through 2020 timeframe that are primarily due to rescheduling aquifer storage and recovery (ASR) implementation.

Incremental, five-year modeling of the new schedule for the CERP will take place in 2003. The incremental modeling of simulated water availability predictions will provide information for the water reservation process, alternative resource development projects, and interim performance goals as required by the Water Resources Development Act of 2000 (WRDA 2000).

As implementation of the LEC Plan continues, the Water Supply Department will continue to consider the CERP schedule changes and their implications for achieving hydrologic restoration targets for the Everglades and for the South Florida region's human water needs. The update for the LEC Plan, scheduled to begin in 2003, will cover the period from 2005 through 2025. The update will incorporate the revised schedules and operational plans for CERP.

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

CERP implementation must be consistent with state laws 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 the natural system so the water cannot be allocated for consumptive uses. As a local sponsor, the South Florida Management District is required to participate in the development of CERP project components to ensure they meet all legal responsibilities under Chapter 373, F.S., for water supply, water quality, flood protection, threatened and endangered species and other water or natural resources. 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.

The reservations of water for the natural system will be made by the District pursuant to state law. The District will accomplish the reservations through the SFWMD governing board's rulemaking authority. The state law on water reservations in Section 373.223(4), F.S. provides:

“The governing board or the department, by regulation, may reserve from use by permit applicants, water in such locations and quantities, and for such seasons of the year, as in its judgment may be required for the protection of fish and wildlife or the public health and safety...Such reservations shall be subject to periodic review and revision in light of changed conditions. However, all presently existing legal uses of water shall be protected so long as such use is not contrary to the public interest.”

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.” However, water can also be reserved for public health and safety. Reservations are subject to periodic review based on changed conditions, such as those 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 early 2002 the Water Reservations Evaluation Team, an interagency team, was formed to outline a process for identifying and protecting water made available through implementation of CERP for the natural system and human uses. This team effort is ongoing and consists of representatives from the following agencies: the South Florida Water Management District, the U.S. Department of the Interior (DOI), Everglades National Park (ENP or Park), the U.S. Army Corp of Engineers, the Florida Department of Environmental Protection, and the U.S. Fish and Wildlife Service.

Since March 2002, the key policy, technical, and process issues associated with water reservations and other resource protection tools have been presented at a number of interagency and public meetings. In June 2002 a draft white paper titled *Reservations of Water for the Environment and Assurances for Existing Legal Sources Consistent with Federal and State Law* was released to the public for review and comment. This paper outlines a process and methodology for identifying and protecting water for the natural system made available through implementation of CERP, and other related concepts.

A revised white paper is currently being prepared by the Water Reservations Evaluations Team, which will address many of the comments and issues raised by the June 2002 draft. This revised paper is scheduled for completion in early 2003.