

Lower East Coast Plan Update and Water Supply Facilities Planning

***Barbara Powell, AICP
LEC Regional Coordinator
Water Supply Planning Division***

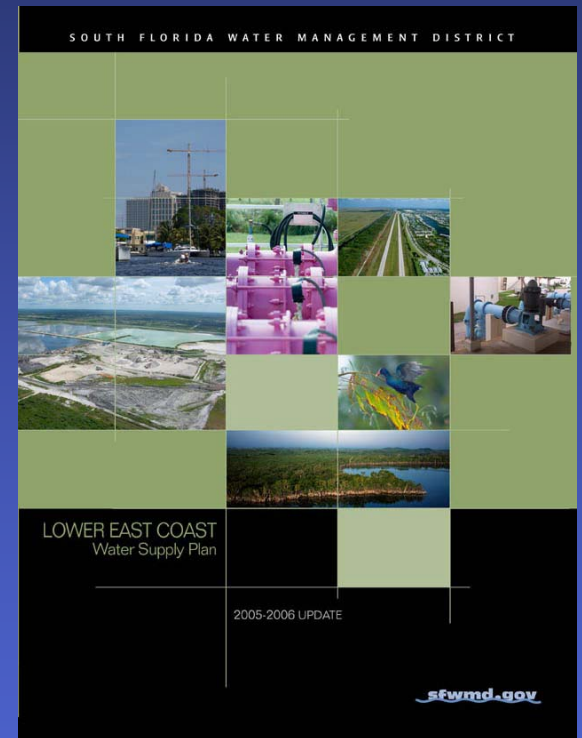
January 23, 2008



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Lower East Coast Water Supply Plan Update

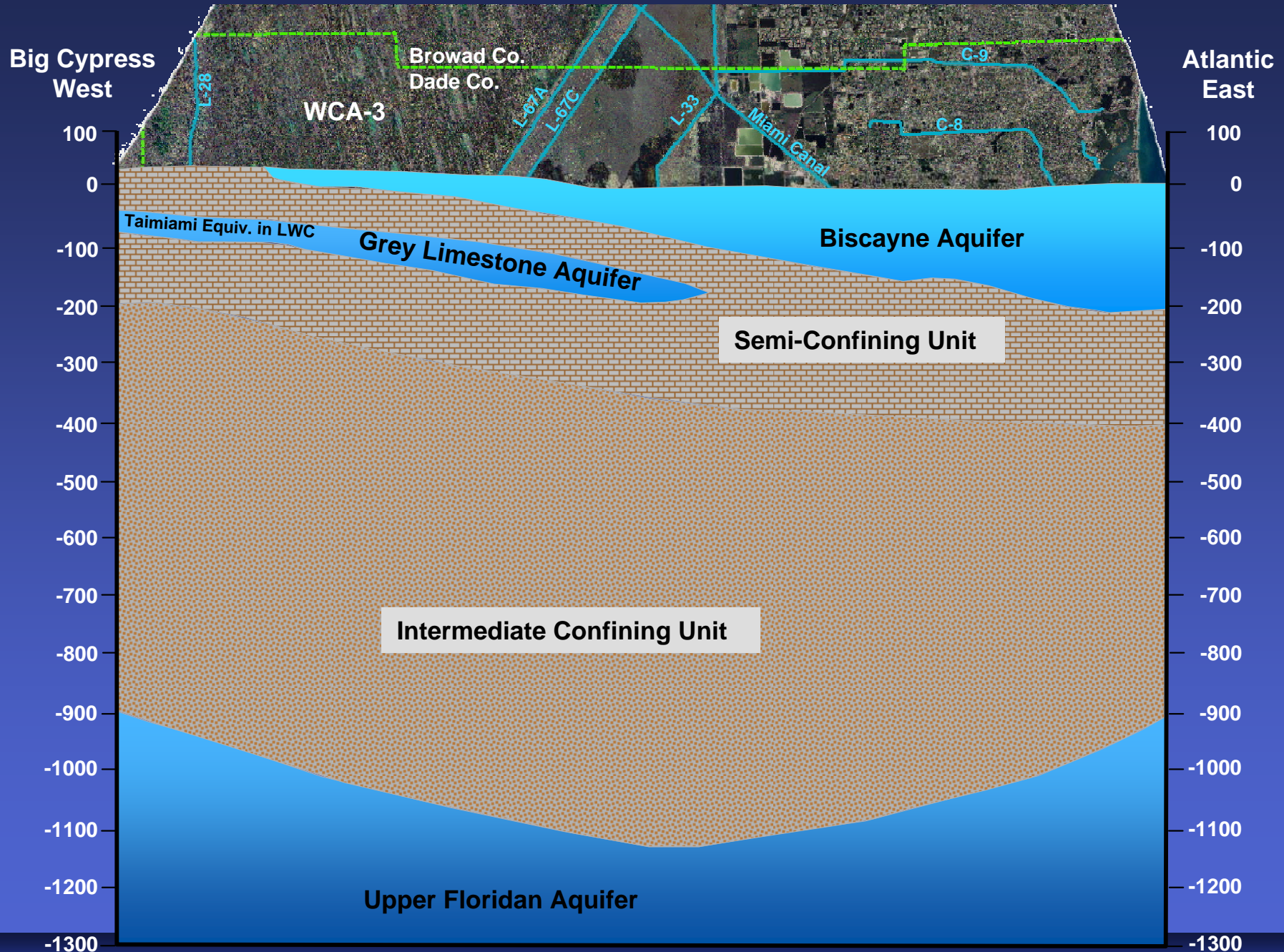
- Approved February 15, 2007
- Implements 2005 State Legislation (SB-444 & SB-360)
- Important deadlines:
 - June 22, 2008 - Selection of water supply projects from the LEC Water Supply Plan Update
 - August 15, 2008 - Adoption of Work Plan Amendment

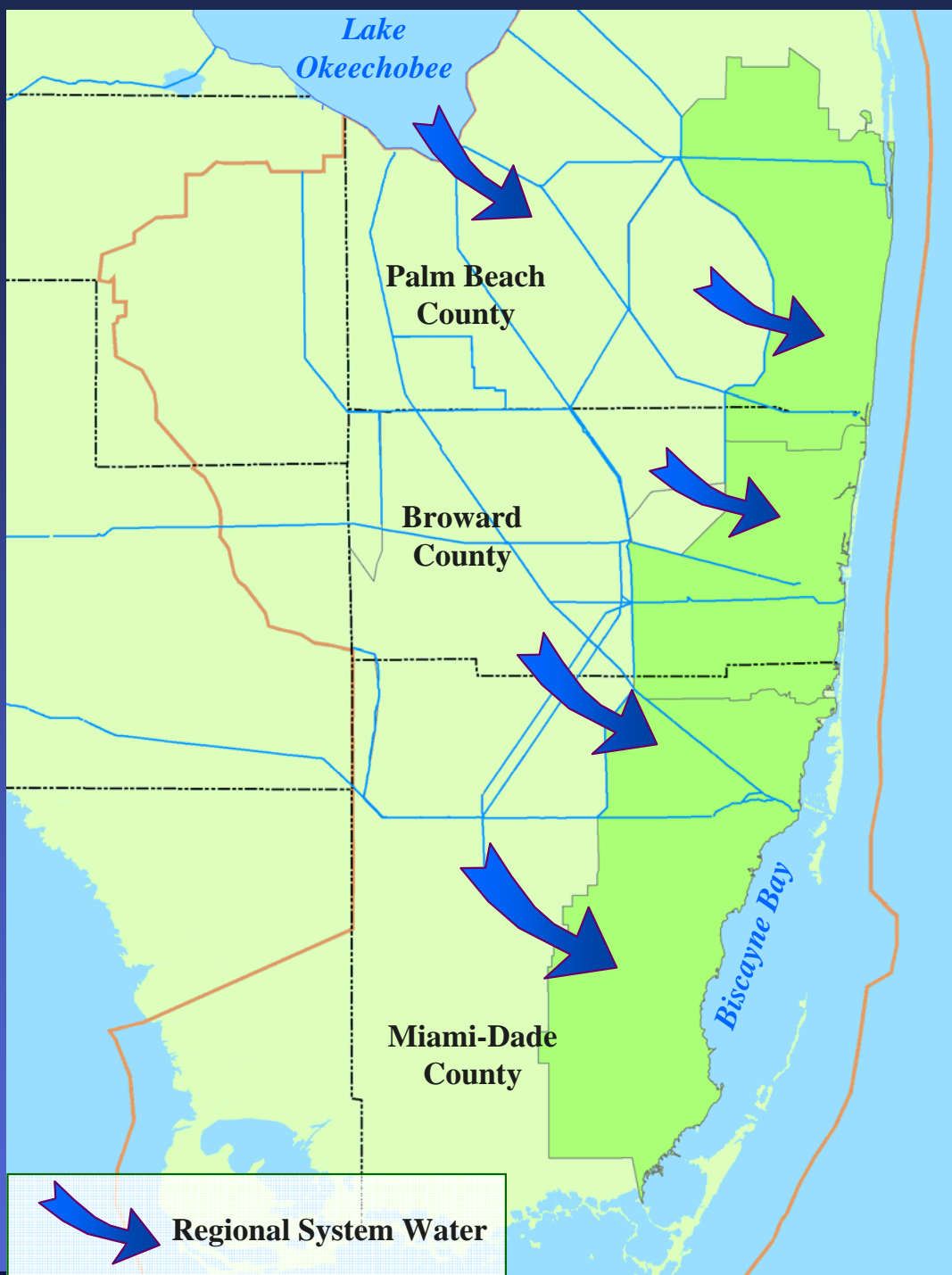


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Generalized Cross Section of the Lower East Coast



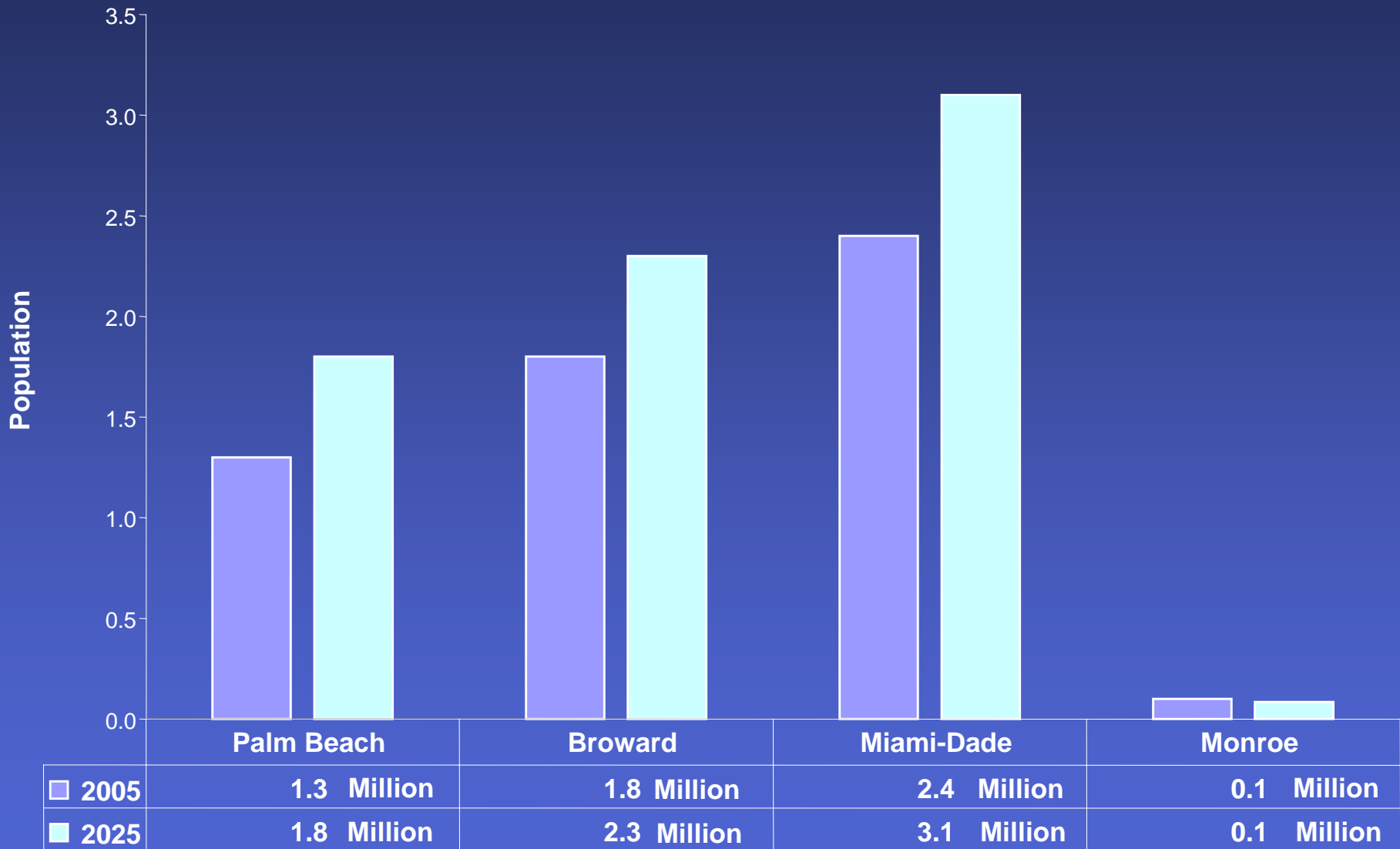


**Biscayne Aquifer
is recharged by both
local rainfall and the
Regional System**

**Water Availability
Rule approved also
on Feb. 15, 2007**

**Section 3.2.1.E(3)(a)
of the Basis of Review**

Lower East Coast Population



LEC Public Water Supply Demands by 2025

**Current LEC
Demands**

**+ New
Demands**

**= Total LEC PWS
Future Demands**

Palm Beach 232 MGD

+ 94 MGD



Broward 245 MGD

+ 106 MGD



Miami-Dade 375 MGD

+ 98 MGD



Monroe

17 MGD

+ 6.5 MGD



869 MGD

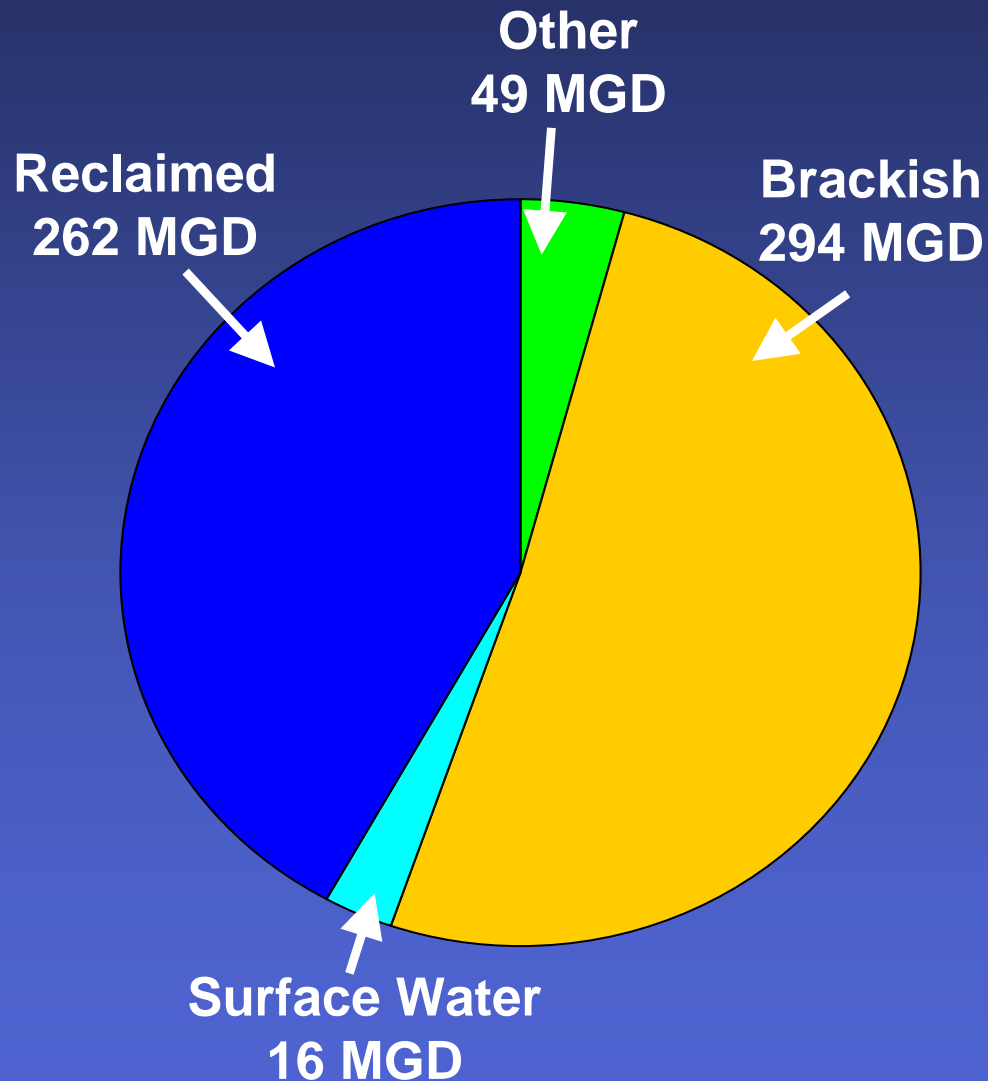
305 MGD

= 1,174 MGD



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Proposed LEC Alternative Water Supply Projects



Projects: 115

Cost: \$2.63 Billion

Total 621 MGD

(As of Jan. 3, 2007)

LEC Plan Update Outline

Chapter

- 1. Introduction**
- 2. Demand Estimates and Projections**
- 3. Resource Analysis**
- 4. Issue Identification**
- 5. Evaluation of Water Source Options**
- 6. Water Resource Development Projects**
- 7. Water Supply Development Projects**

UTILITY SUMMARY

MIAMI-DADE COUNTY

Supply Entity: Miami-Dade County Water and Sewer Department

Permitted Entity: Miami-Dade County Water and Sewer Department

Service Area: Miami-Dade County (See Appendix B, Table 2, for Complete Service Area)

Miami-Dade County Water and Sewer Department (WASD) is developing an alternative water supply plan to address its needs over the next 20 years. A variety of options include recharging surface waters with highly treated reclaimed water, development of brackish groundwater to be treated by reverse osmosis (RO), use of and expansion of the county's ASR, and blending network and regional reuse projects.

CURRENT AND PROJECTED WATER SUPPLY

Item	Actual	Projected	
	2005	2015	2025
Population	2,075,304	2,354,920	2,598,419
Per Capita (gallons per day finished water)		155	155
(Note: All potable volumes are finished water unless noted)	MGD	MGD	MGD
Potable Water Demands (daily average annual)	326.96	^a 365.01	^a 402.76
Water Source: Volume from Biscayne/Surficial	346.50	^b 346.50	^b 346.50
Volume from Floridan	0.00	22.20	27.20
Volume from Other	0.00	7.00	11.00
Volume from Reclaimed	0.00	^c 18.00	^c 28.00
Additional Potable Water Needed (after assessing historic use or proposed projects)	0.00	0.00	0.00

a. Assumes net bulk sales (6.00 MGD) to North Miami.

b. Based on Interim Consumptive Use Authorization and Agreement and reported 2005 water use.

c. These projects are assumed to be located in the same area and recharging the same source to offset the proposed increased use and will be designed to achieve a maximum offset. The reclaimed volume to offset allocations will be determined in the final permitting process.

PROJECT SUMMARY

Projects	Alt. Source	Total Cap. Costs	Total Design Capacity			
			2010	2015	2020	2025
Expanding Floridan RO Hialeah Facility	Brackish	\$118,000,000	0.00	10.00	15.00	15.00
Floridan Blending Wells & ASR	Brackish	\$10,200,000	7.40	7.40	7.40	7.40
Floridan Blending Hialeah/Preston	Brackish	\$5,200,000	4.80	4.80	4.80	4.80
Reuse Projects North District	Reclaimed	\$26,800,000	7.00	7.00	7.00	7.00

LEC Plan Appendices

- A: Water Supply Development Projects**
- B: Info. for Local Governments Comp. Plans**
- C: Accomplishments**
- D: Urban & Ag. Demand Projections**
- E: Potable and Wastewater Facilities**
- F: Conservation**
- G: Cost Estimating and Economic Criteria**

Major Plan Findings

- Additional demands from traditional sources are limited due to Everglades Restoration efforts
- Increased development of alternative water supplies are needed
- The use of reclaimed water is important in extending the existing traditional sources
- Lake Okeechobee dike and regulation schedule issues may limit water supply from Lake Okeechobee Service Area and coastal communities

Topics to Review for the Water Supply Facilities Work Plan

- Objective
- Elements to be addressed
- Coordination
- Level of detail necessary to meet the objective

Objective of a Water Supply Facilities Work Plan

A plan for building public, private, and regional water supply facilities to serve existing and new development within the local government's jurisdiction.

Key Elements in the Water Supply Facilities Work Plan

The existing and proposed:

- Traditional water supply projects
- Alternative water supply projects
- Bulk sale/purchased agreements
- Conservation and reuse programs

All facilities necessary to serve existing and future demands for at least a 10-year planning period

Coordination With Water Management District

- Population projections
- Areas served
- Consumptive Use Permit
 - Water source allocations, limitations, offsets
- Projects identified in the LEC Water Supply Plan Update

Coordination with Local Water Suppliers

- Population projections
- Areas served
- Water supply infrastructure
- Bulk sales/purchase agreements

Level of Detail Necessary

For your utility:

- Areas served and the existing and future populations
 - within your local government's jurisdiction
 - Outside your local government's jurisdiction

For other water suppliers within your jurisdiction:

- Areas served and the existing and future populations served

Consistent with the respective Consumptive Use Permits and
LEC Water Supply Plan Update

Level of Detail Necessary (cont.)

Treatment Facilities

- water treatment methods, losses
- DEP permitted capacities
- interconnects and distribution facilities

Responsibility for implementing new water supply projects

- planning
- financing
- construction
- operation

Technical Assistance to Help Bring the Pieces Together

- Barbara Powell, LEC Regional Coordinator
- E-mail: Bpowell@sfwmd.gov
- Phone: (561) 682-2236
- SFWMD website and assistance
 - www.sfwmd.gov/watersupply