



Water Supply Planning for the Lower East Coast

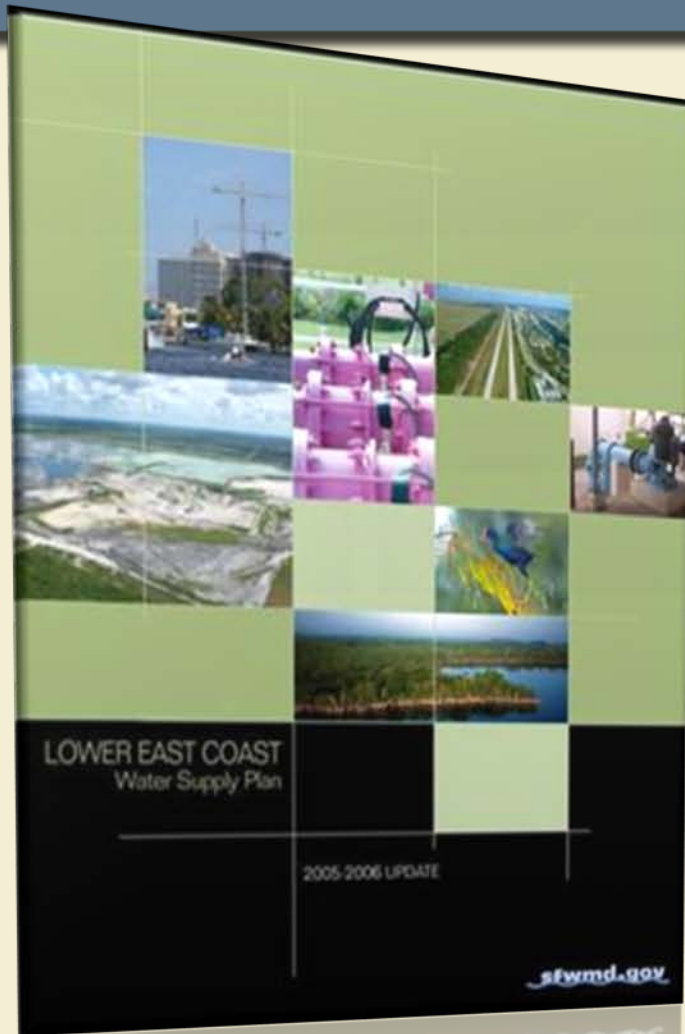
John Mulliken

Water Supply Planning

Water Resources Advisory Commission

February 3, 2012

Past LEC Water Supply Plans



- **2005-2006 Update**
- **2000 Original Plan**
- **1998 Interim LEC Plan**
- **Previous Planning Efforts**
 - 1977 District Water Supply Study
 - 1968 U.S. Army Corps of Engineers Report

LEC Trivia

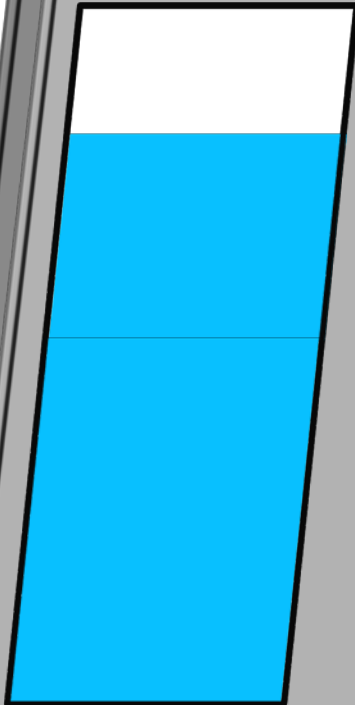
Which of the following were considered in the LEC water supply studies in the 1960s and 1970s?

- a) Raise Lake Okeechobee schedule to 21.5 ft.
- b) Store stormwater in the Water Conservation Areas
- c) Subsurface storage and retrieval
- d) Cloud seeding
- e) ET reduction
- f) All the above



WATER SUPPLY CONTROL PANEL

SUPPLY



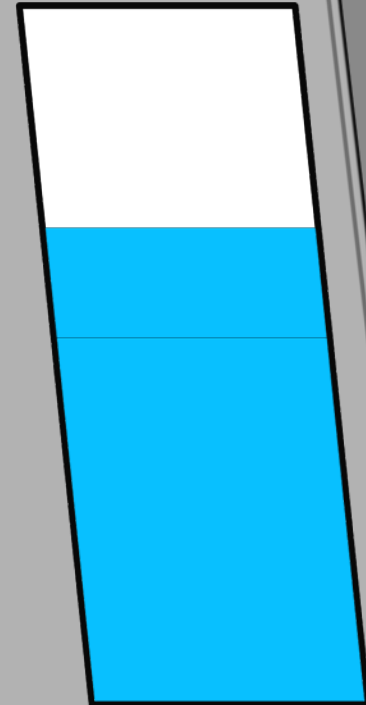
RAINFALL



EVAPOTRANSPIRATION



FREQUENCY



ALTERNATIVE SUPPLY



STORAGE



OPERATIONS



WITHDRAWALS



2000 LEC Plan Process

- Major, decade-long planning initiative
- Focused on increased regional storage to capture excess water in wet season
- In mid-1990s, water storage options moved from LEC plan to Restudy
- Developed initial performance targets for water users and natural systems
- Proposed rules which are basis of today's water use regulations, including natural resource protection



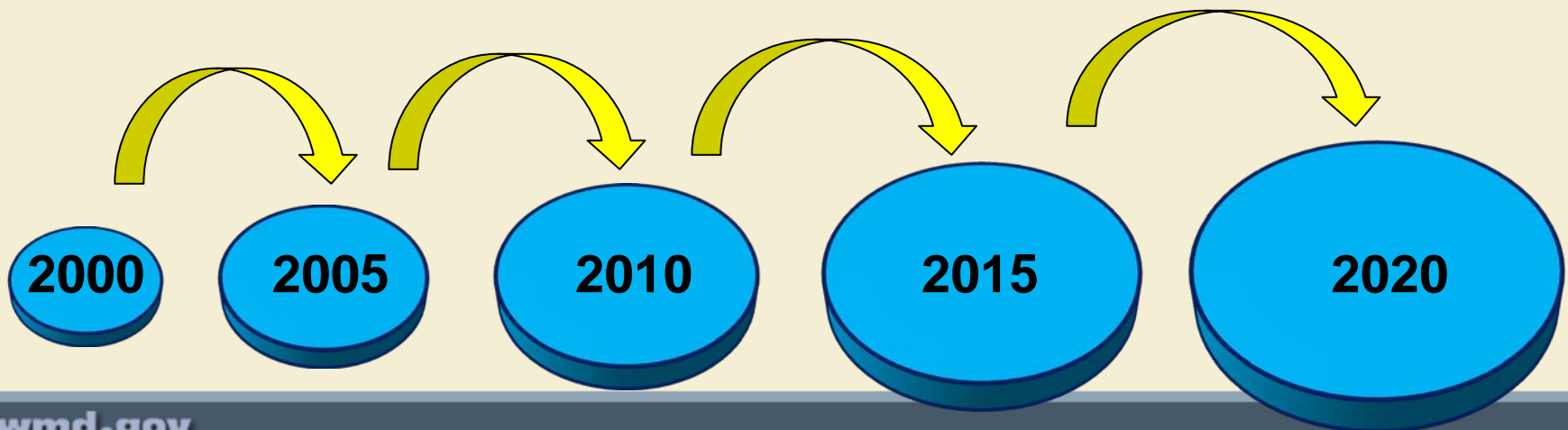
2000 LEC Plan Selected Recommendations

- **46 recommendations**
- **CERP and other water storage projects**
- **Water use rulemaking**
 - Level of certainty (1 in 10 year)
 - 20 year permit duration
 - Resource protection criteria
 - MFLs developed for 8 priority water bodies
 - Diversion and impoundment criteria
 - Regional water availability (2007)



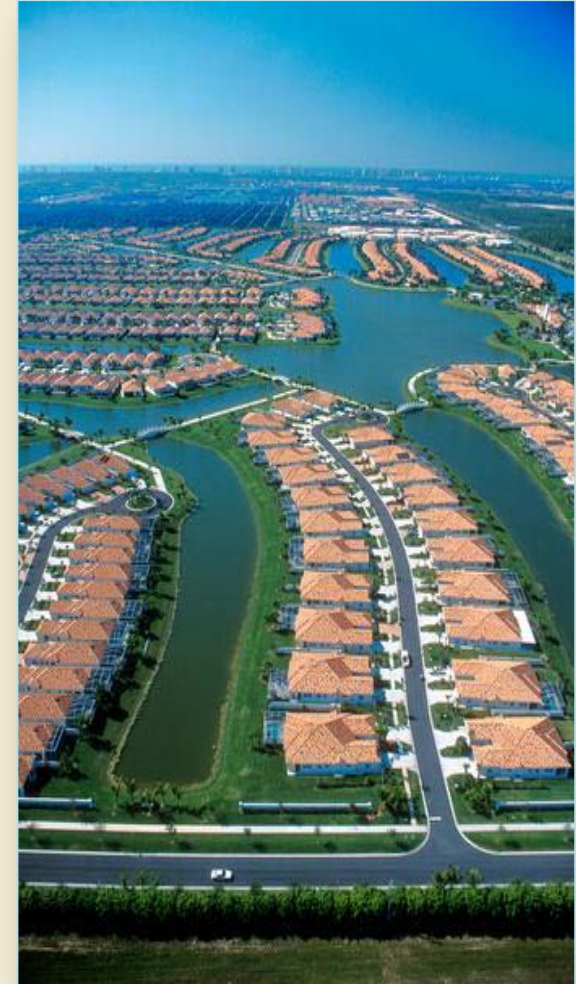
LEC Plan and CERP

- **2000 Water Supply Plan verified that sequencing of CERP projects through 2020 would:**
 - Provide water for natural system
 - Protect existing legal water users
 - Provide for future reasonable-beneficial uses
- **Goal: “Make Water Pie Bigger”**



Changes after 2000 LEC Plan

- **CERP storage projects delayed**
 - Water pie had not grown
 - Population and demands were growing
 - Everglades MFL recovery strategy
- **New or expanded uses of traditional water sources facing new limits**
 - Everglades MFL/restoration issues
 - Lake Okeechobee levee concerns



Changes after 2000 LEC Plan (Cont.)

- **State legislature amended Chapter 373:**
 - Modified role of water supply plans
 - Required local government's to update Comprehensive Plans consistent with Water Supply Plans
 - Emphasized alternative water supply (AWS) sources
 - Avoid conflict between water users and natural systems
 - Increased funding from state and District revenues



2005-2006 LEC Plan Update

- **Planning horizon 2005 – 2025**
- **Overall water demands expected to increase by 27%**
- **Agriculture demands projected to decrease 9%**
- **Population projected to increase by 36% (~ 7.3 million total)**
- **Public water supply projected to increase by 35%**
 - **More than 300 million gallons per day additional water**
- **Recommended 115 alternative water supply projects to provide 565 million gallons per day**



2005-2006 LEC Plan Conclusions

- No additional water from regional water storage
- Timing of CERP water storage projects and increased water availability uncertain
- C-51 reservoir proposal needed additional analysis
- Future urban water demands would require alternative water sources and treatment
- Develop Comprehensive Water Conservation Program



Implementation of Recommendations

- **Comprehensive Water Conservation Program**
 - Year-round Landscape Irrigation Rule
- **Water Savings Incentive Program (WaterSIP)**
- **Desalination in LEC**
 - 13 Floridan aquifer facilities; capacity ~ 80 million gallons per day
- **Reuse in LEC**
 - Utilizing 71 million gallons per day

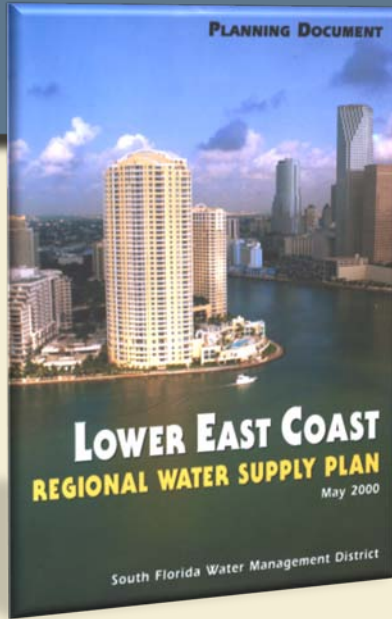
The screenshot displays the website's header with navigation links: Home, Residents, Businesses, Agriculture, Utilities, Government, Teachers, News Media, and What We're Doing. The main content area features several sections:

- In the News**: A new comprehensive Water Efficiency Resource Library website.
- Tell Us What You Think**: Comment on year-round irrigation limits.
- Proposed Year-Round Water Conservation Measures**: Two-day per week irrigation will reduce overuse of water for irrigation, and stretch limited regional supplies.
- Comprehensive Water Conservation Program**: Instilling a water conservation ethic to preserve our shared regional water supply.

Visual elements include a large image of a green leaf with a water droplet, a graphic that says "REDUCE YOUR WATER USE no excuse!", and three smaller images: a yellow hose nozzle, two pink flamingos, and a garden sprinkler. A footer contains the text "MyFlorida.com | Disclaimer | User Survey".



Summary

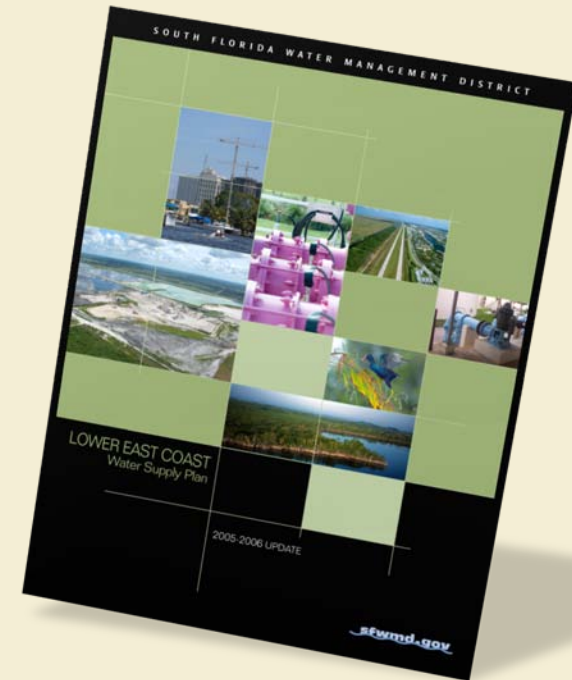


2000 LEC Plan

- Strategic driver
- 46 recommendations

2005-2006 LEC Plan Update

- Implemented 2005 legislation's water supply requirements
- Assumed no additional allocations of water from regional system or CERP projects
- Future demand projected using data during a period of exceptional growth



Questions?

