2018 Lower East Coast Water Supply Plan Update



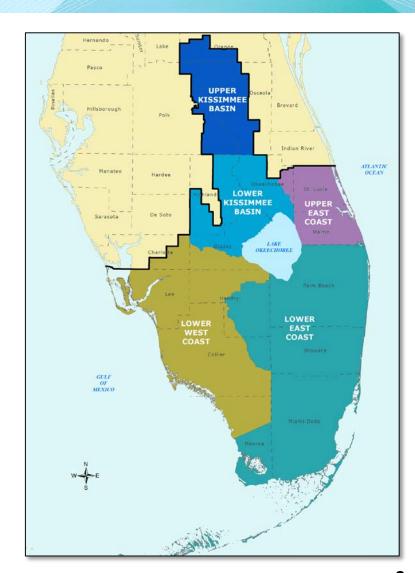
Mark Elsner, P.E. Bureau Chief – Water Supply

South Florida Regional Planning Council September 24, 2018



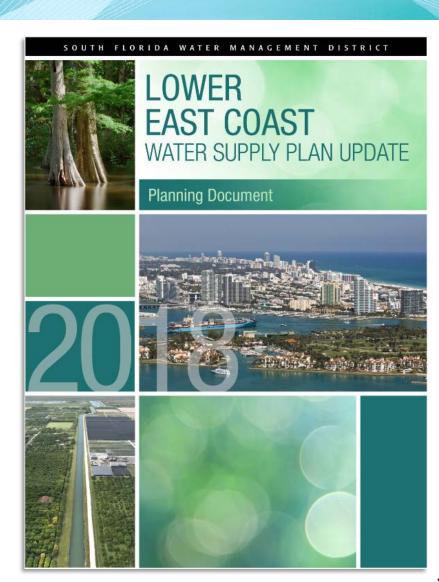
Water Supply Plan Requirements

- > 20-year planning period
- Demand estimates and projections
- Resource analyses
- > Issues identification
- > Evaluation of water source options
- > Water resource development
 - Responsibility of water management
- > Water supply development
 - Responsibility of water users
- Minimum Flows and Minimum Water Levels
 - Recovery and prevention strategies



Public Participation

- Stakeholder workshops (3)
- Technical Workshops (1)
- One-on-one discussions with stakeholders
- SFWMD Water Resources Analysis Coalition (WRAC)
- Governing Board presentations
- Draft documents posted on website for review and comment



Objectives of this Plan Update

- > Identify water supplies
- Increase water conservation & alternative water source development
- Protect & enhance natural systems
- Ensure compatibility and linkage with other efforts
- Provide linkage with local governments





Regional & Local Planning Linkage

Final plan for Governing Board approval November 8, 2018:

- ➤ Local governments have 18 months to amend their Comp Plan to incorporate a Water Supply Facilities Work Plan (by May 2020)
- Utilities identify the projects to be developed
- > Utility annual progress reports
 - Due in November
 - District on-line WaSUP database



Lower East Coast Planning Area



Planning Horizon 2016-2040

- Population:
 - 2016 6,027,190
 - 2040 7,570,351



26% increase

- Irrigated agricultural acreage:
 - 2016 581,470
 - 2040 550,080

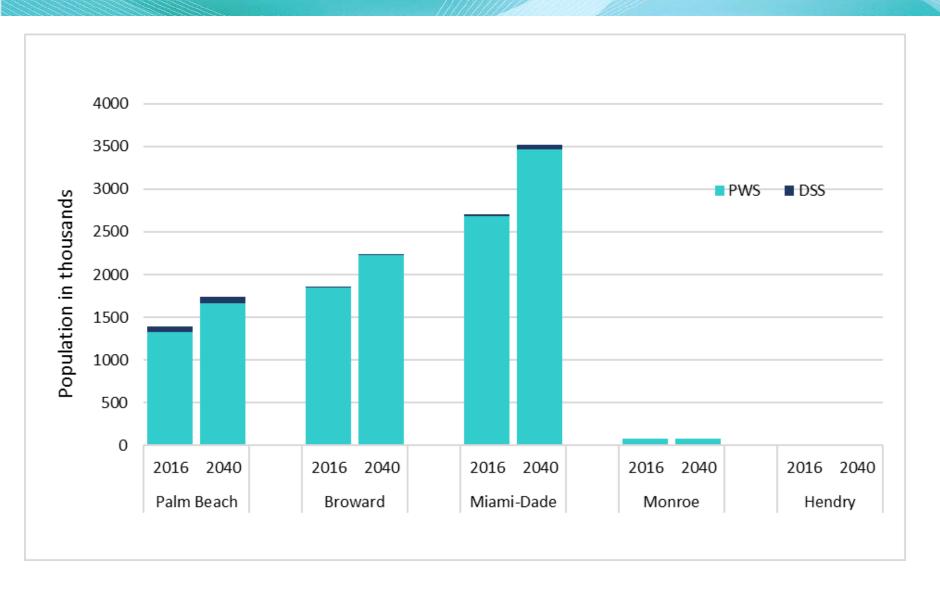


5% decrease

- Gross water demands:
 - 2016 1,757 mgd
 - 2040 2,005 mgd

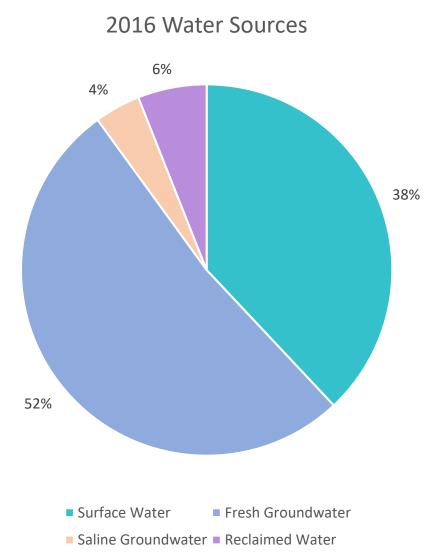
14% increase

Population Projections



Total Demand Projections

| Water Use Category | 2016 (mgd) | 2040 (mgd) | Change (mgd) |
|---|---------------|---------------|-----------------|
| Public Water Supply | 864 | 1,088 | +224 |
| Domestic & Small Supply | 12 | 16 | +4 |
| Agricultural Irrigation | 653 | 625 | -28 |
| Recreational/ Landscape Irrigation | 136 | 156 | +20 |
| Industrial/ Commercial/ Institutional | 52 | 67 | +15 |
| Power Generation | 40 | 53 | +13 |
| LEC Total | 1,757 | 2,005 | +248 |



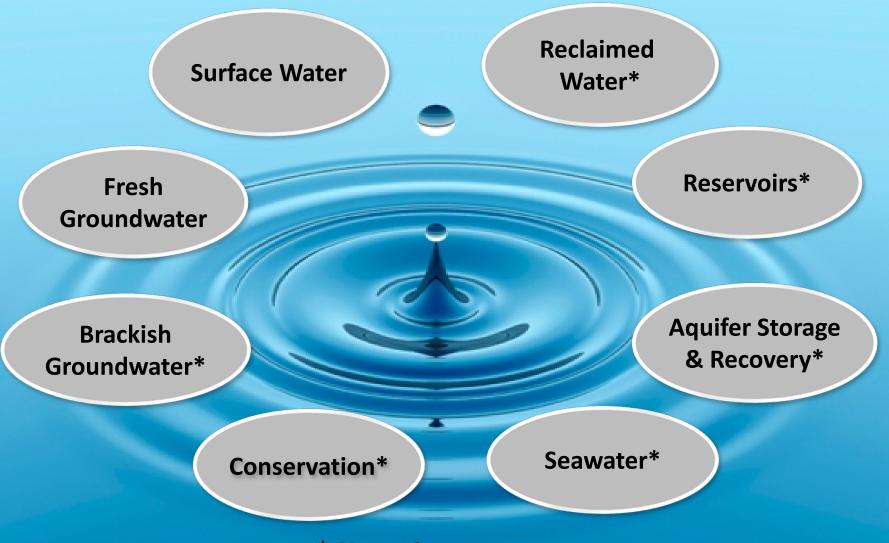
Water Supply Issues

- Increased use of surface water and surficial aquifer has regulatory limits
- Effects of climate change and sea level rise
- > Environmental water needs
- Freshwater sources alone are inadequate to meet water needs through 2040
- Long-term sustainability of saline sources





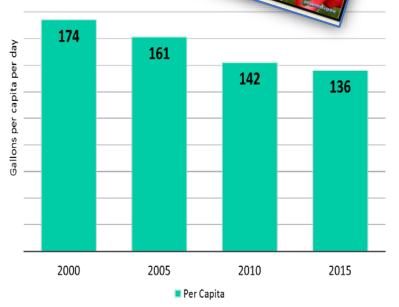
Water Source Options



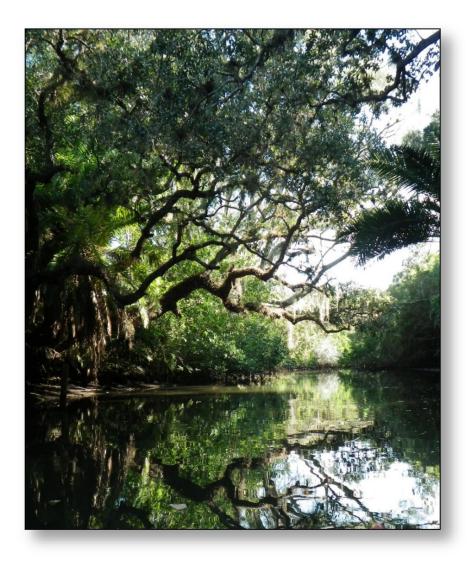
Demand Management: Water Conservation

Among the lowest cost solutions

- > Agriculture
 - FDACS Best Management Practices
 - More efficient irrigation systems
- > Public Water Supply
 - Indoor and outdoor programs §
 - Conservation rate structures
- ➤ 103 mgd potential savings through conservation
 - Urban 79 mgd
 - Agriculture 24 mgd



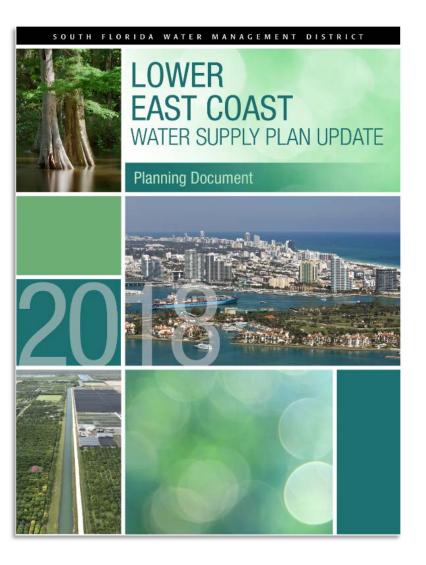
Environmental Water Needs



- Implementation of CERP and other projects
- Regulatory protection of water resources
 - Water use permitting program
 - Minimum Flows and Minimum Water Levels*
 - Water Reservations
 - Restricted Allocation Area rules
 - Water shortage criteria

*MFL Recovery and prevention strategies rely on CERP implementation.

Draft Plan Conclusion

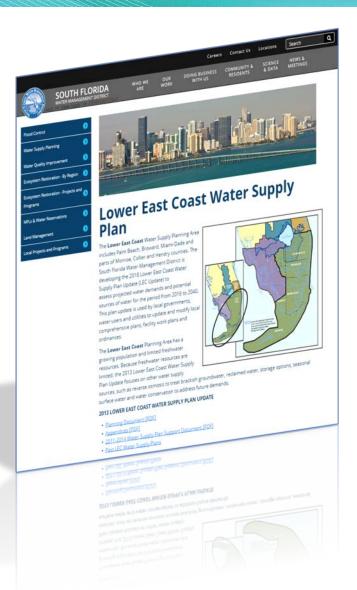


The future water demands of the region during 1-in-10 year drought conditions can be met through the 2040 planning horizon with appropriate management, conservation, and implementation of projects in this 2018 LEC Plan Update.

Depends on completion of:

- Identified CERP components and other projects to meet environmental needs
- Water supply development projects by utilities
- Completion of repairs to the Herbert Hoover Dike and implementation of a new Lake Okeechobee Regulation Schedule

Thank You



Plan information can be found at:

www.sfwmd.gov/lecplan

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