

Linking Water Supply & Land Use Planning

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sfwmd.gov

State Law Now Links Growth with Water Supply Components Water Availability



Linking Growth with Water Availability

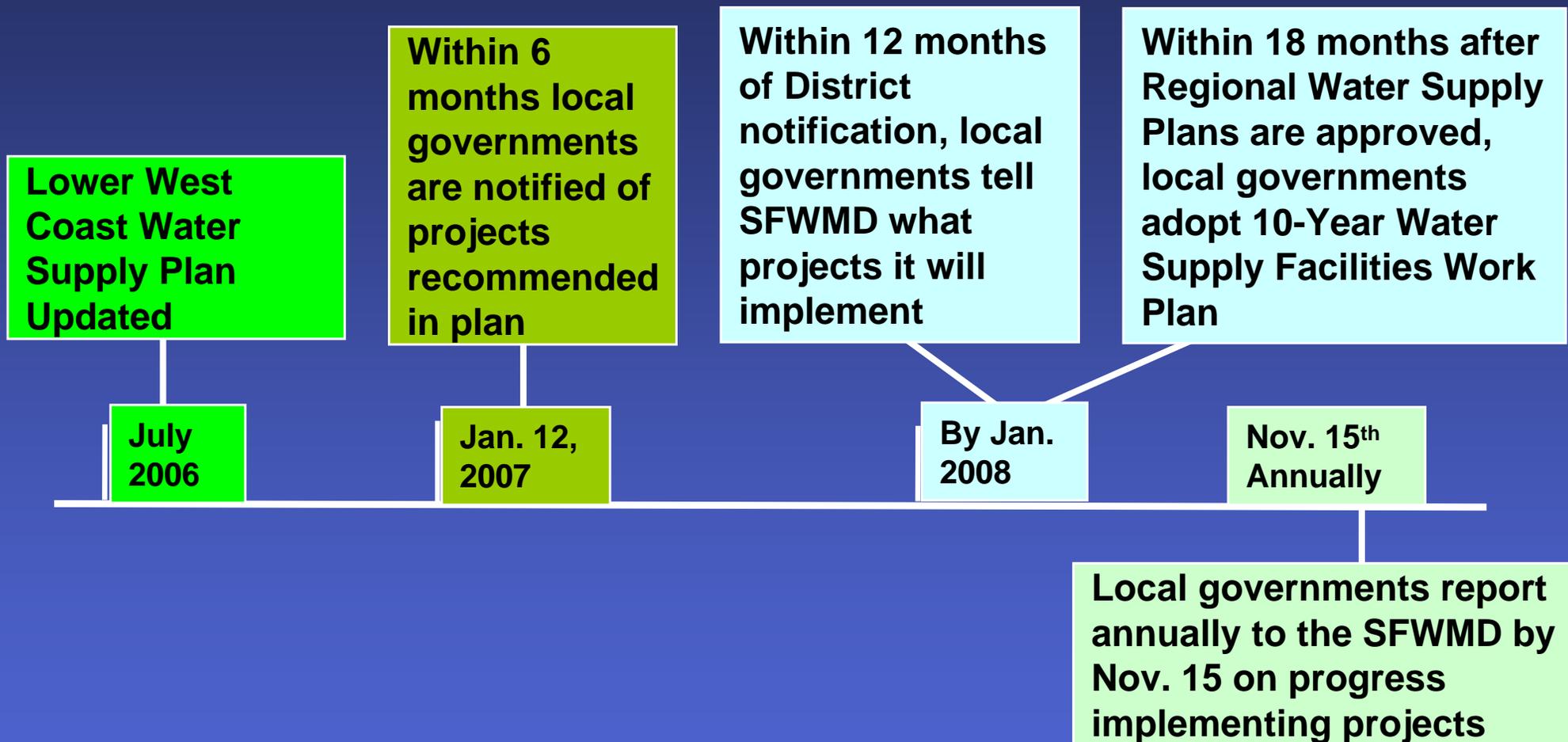
- Increased focus on alternative water supplies
- Improved communication between utilities and planning departments
- Strengthened link between water supply plans and land use planning

Why are Alternative Water Supplies Needed?

- Traditional sources are limited
- Proactive approach to meet future water needs
- Reduce potential impacts on and competition with natural resources
- One time use of water is no longer considered beneficial use



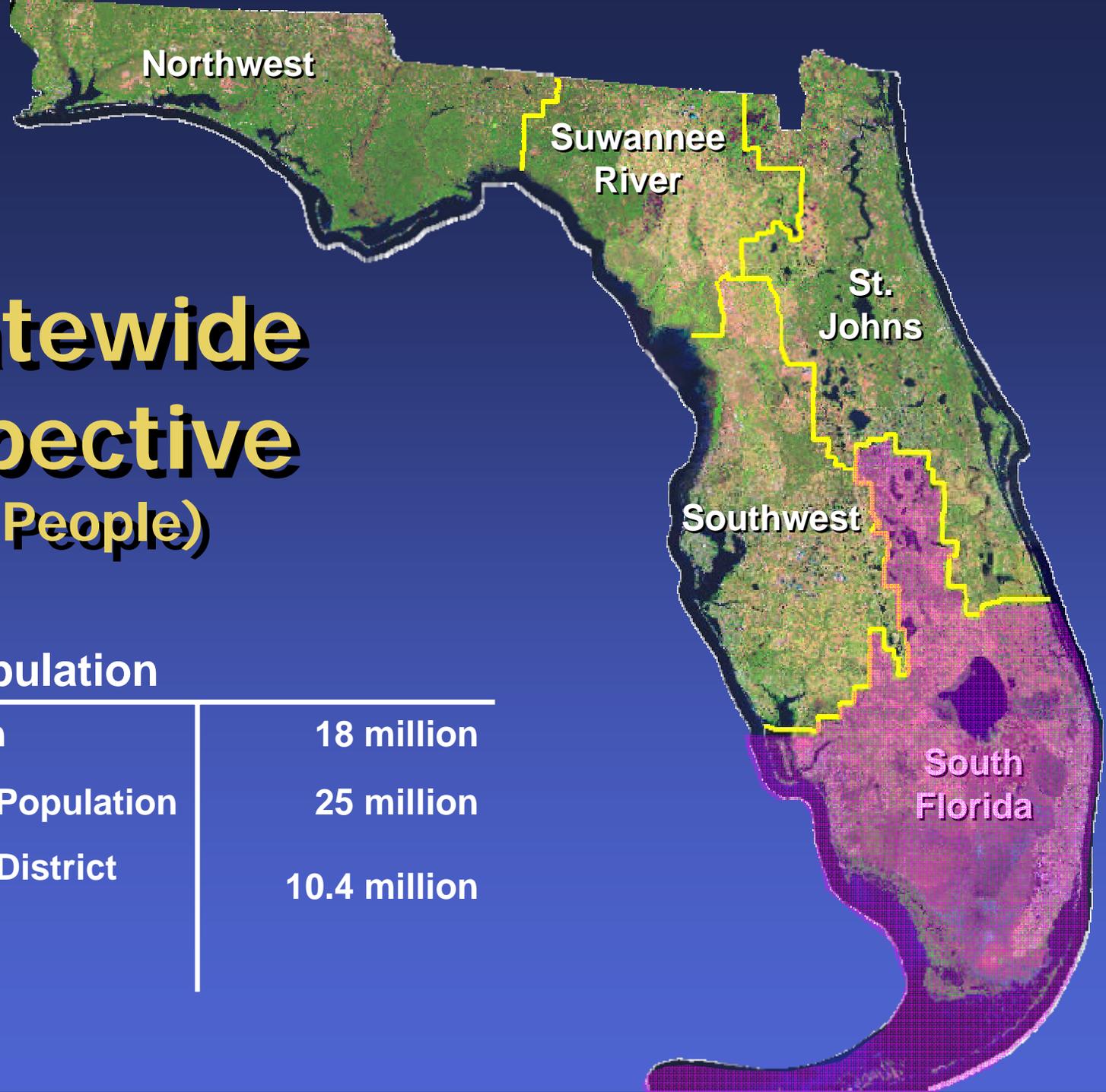
Linking Water Supply & Land Use Planning



Local Governments Are Required to Respond

- Within 12 months of receiving letter, Local Governments must notify SFWMD:
 - Which recommended projects will be built
 - Identify additional projects to replace or supplement recommended projects
 - Identify quantity of water to be produced
 - Provide status of implementing projects

A Statewide Perspective (The People)



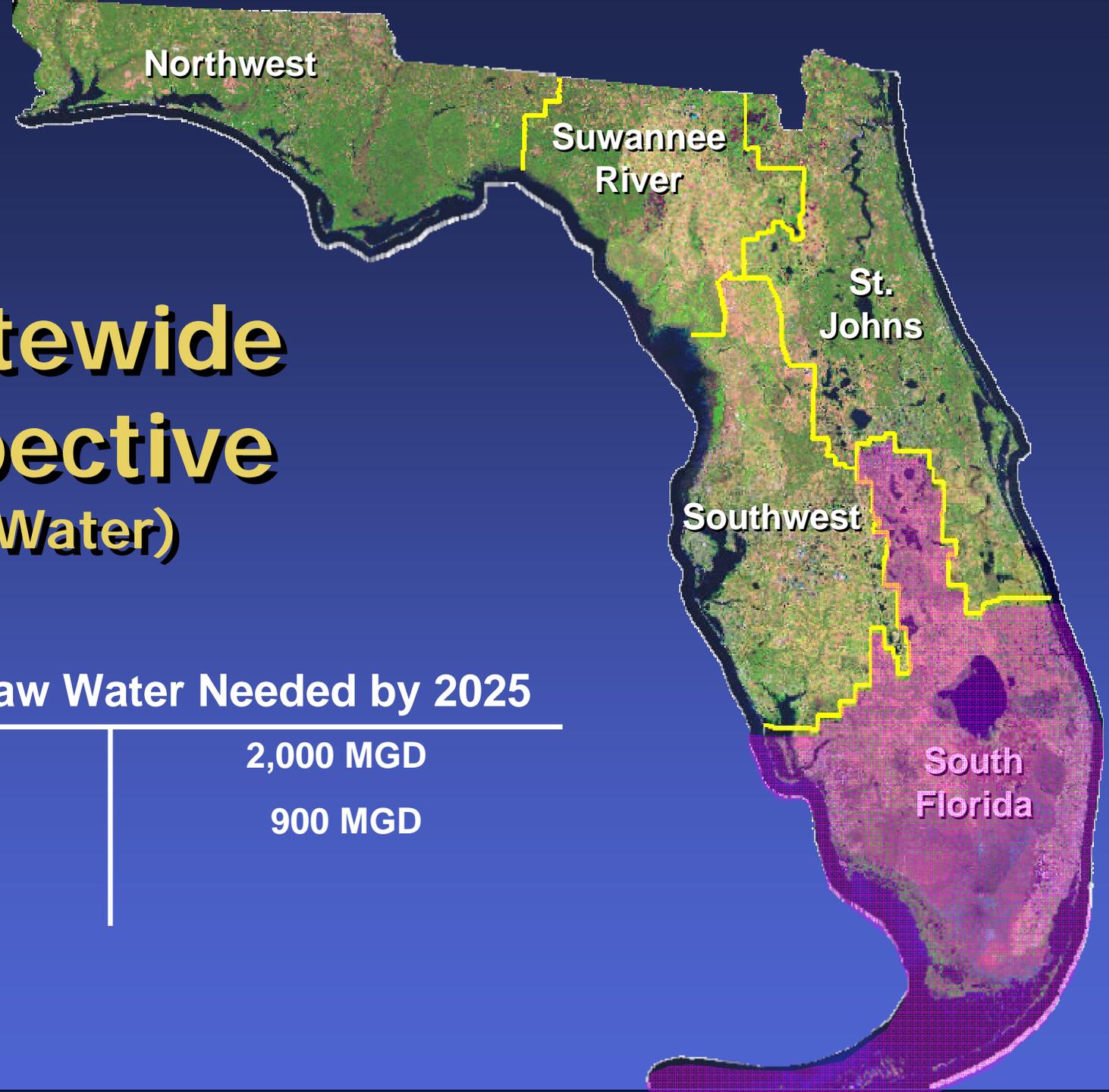
Florida's Population

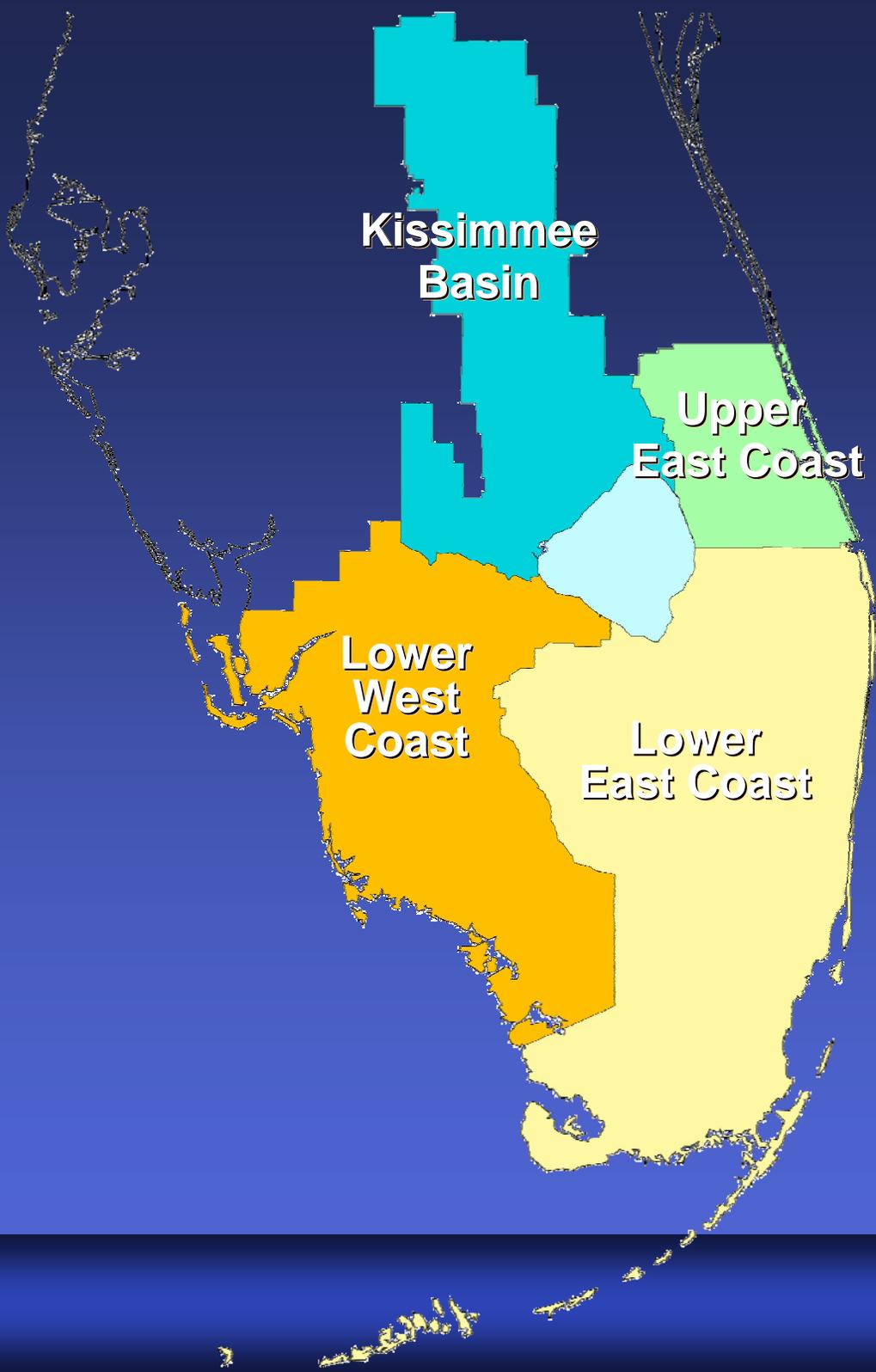
2005 Population	18 million
Projected 2025 Population	25 million
Projected 2025 District Population	10.4 million

A Statewide Perspective (The Water)

Additional Raw Water Needed by 2025

Statewide	2,000 MGD
SFWMD	900 MGD





**Kissimmee
Basin**

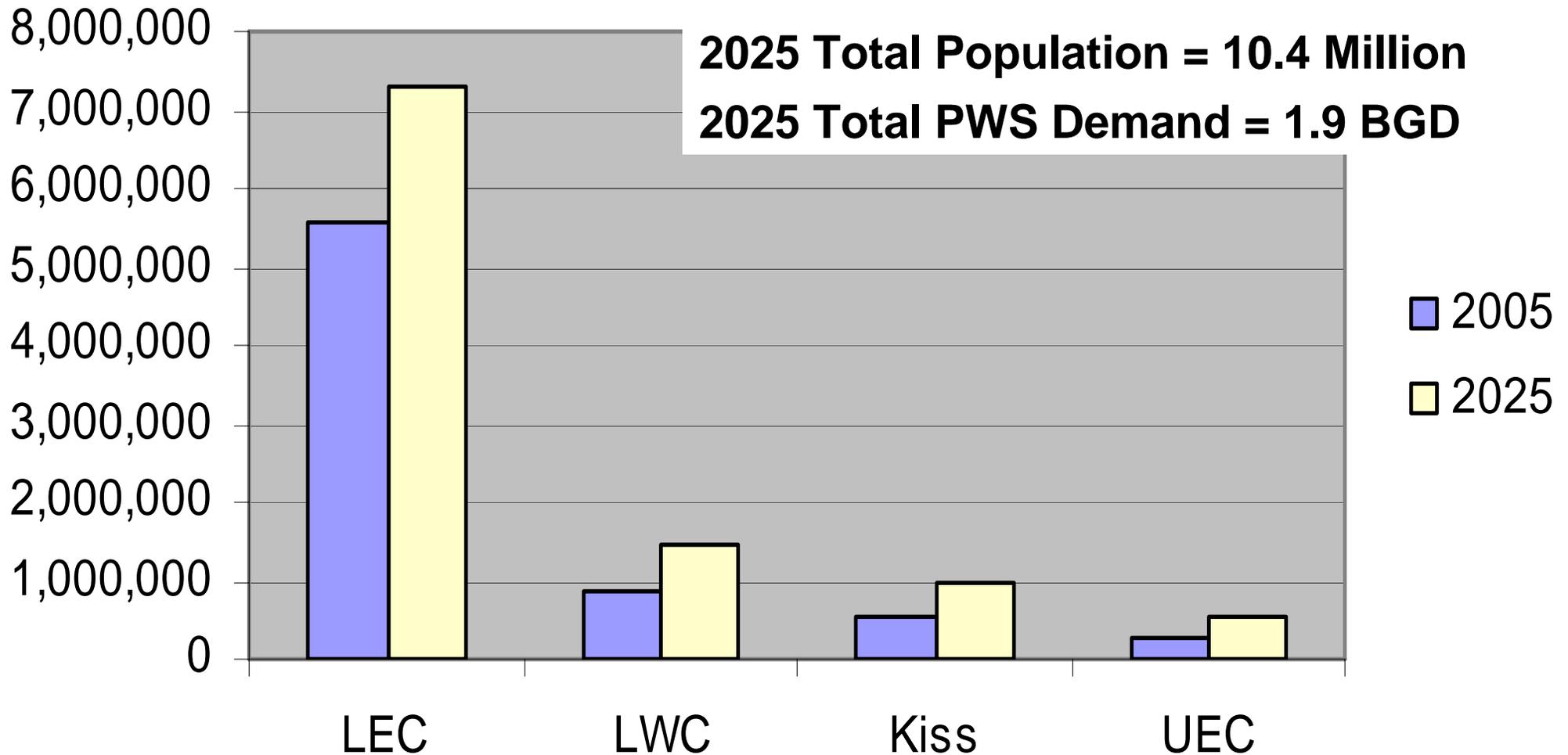
**Upper
East Coast**

**Lower
West
Coast**

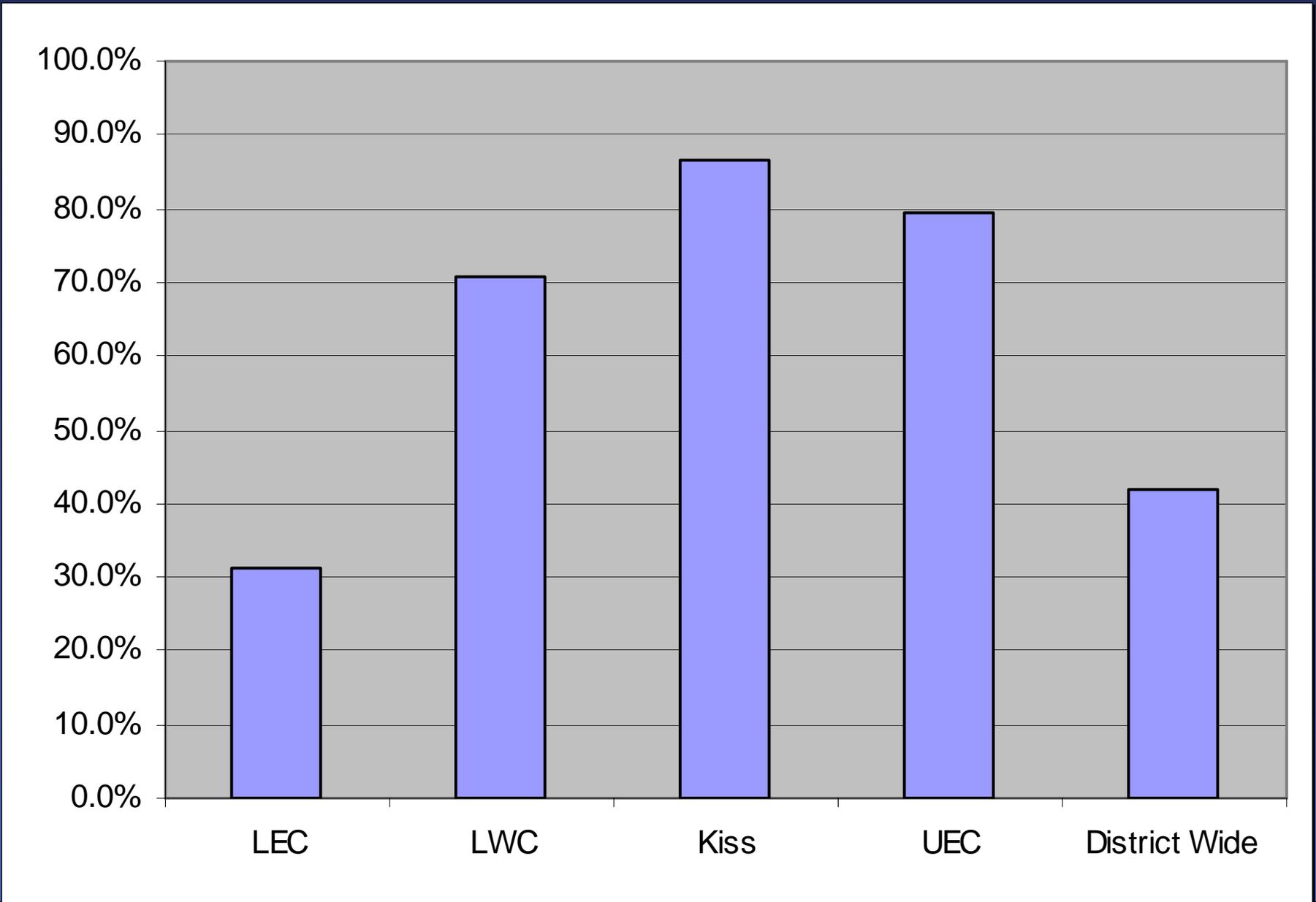
**Lower
East Coast**

Four Planning Regions

Population by Region



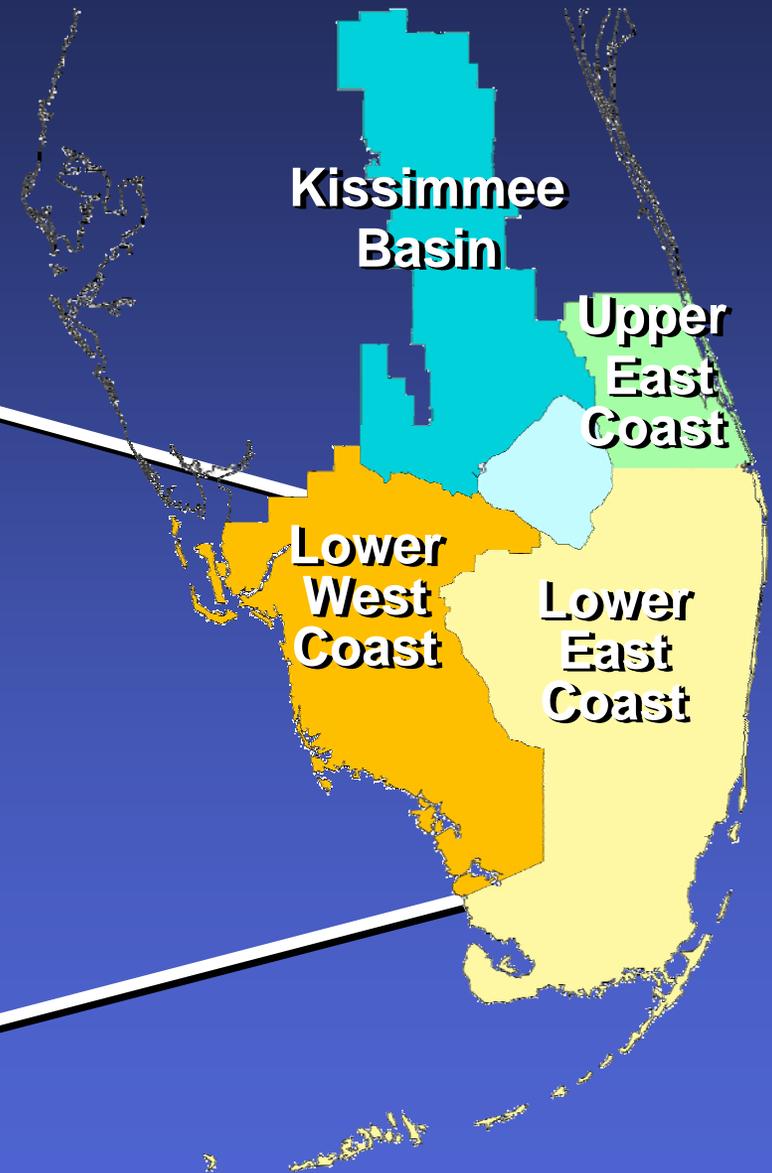
Percent Increase 2025 vs 2005 Population



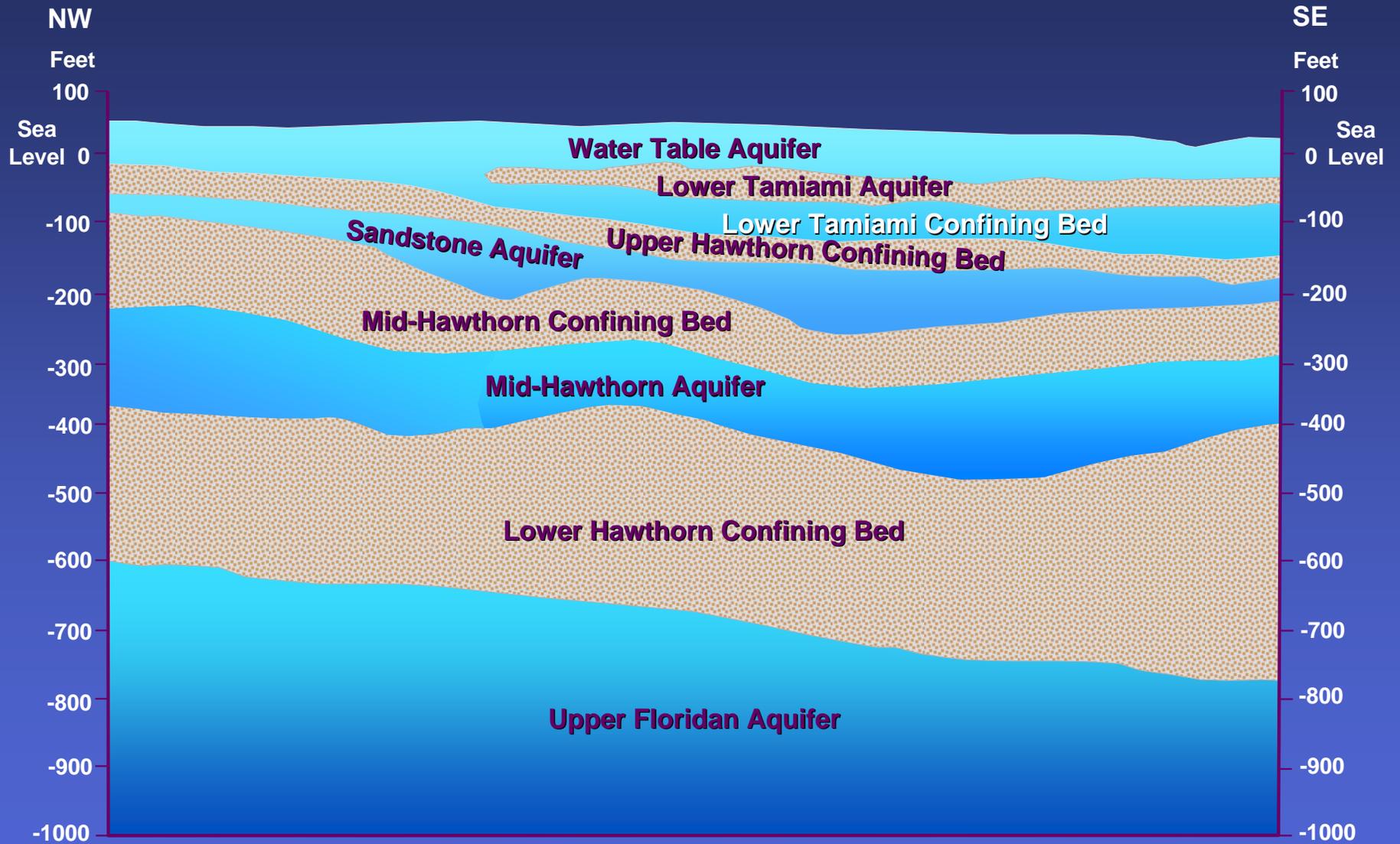
Public Water Supply Demands will be 1.9 Billion Gallons Per Day by 2025

	Current Demands	+ New Demands	= Total	
UEC (2000)	36.5	65.4	102 MGD	
Kiss (2000)	114	121	235 MGD	
LEC (2005)	912	375	1,287 MGD	
LWC (2005)	145	127	272 MGD	

Planning Region



LWC Cross Section



LWC Planning Region Population

2005	2025
	
908,542	1,582,584

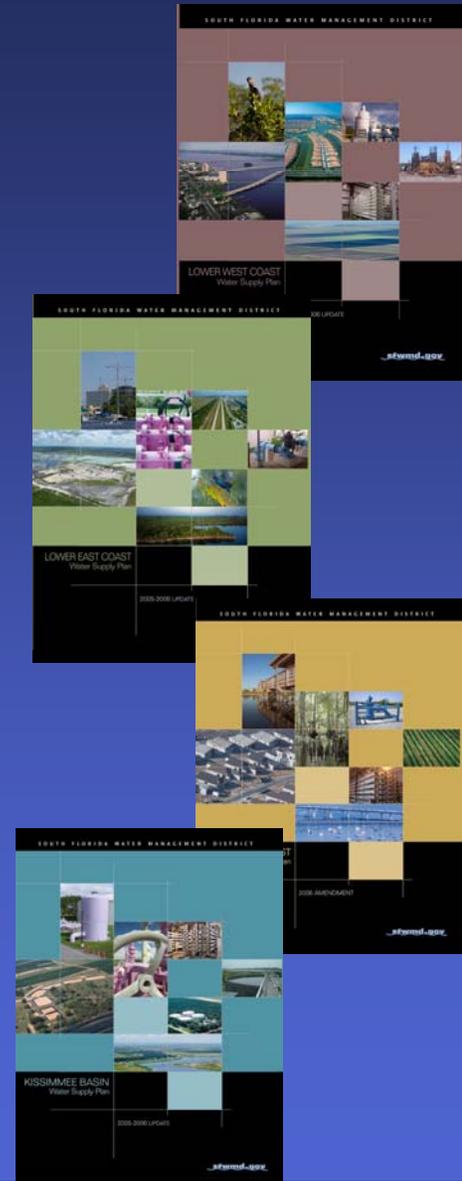
LWC Population and Demand Projections

- 674,000 New Residents
- 13,400 Acre Increase in Agricultural Lands
- 5 New Power Plants

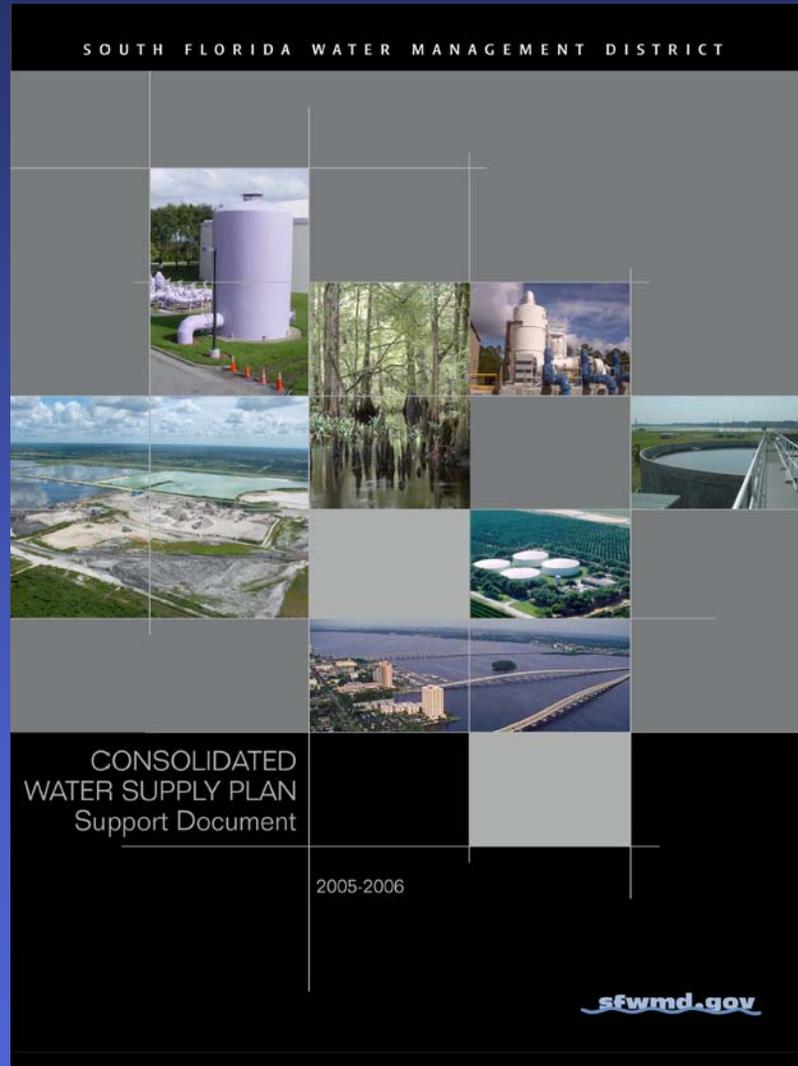
Category	Change by 2025 (MGD)
Urban	+146
Power Generation	+67
Agriculture	+31
Total	+244

Regional Water Supply Plans

- 20-year Planning Period
- 1-in-10 Level of Certainty
- Water Resource Development
 - Region-level Projects
- Water Supply Development
 - Local-level Projects
- Minimum Flows and Levels (MFLs)
- 5-year updates



Consolidated Water Supply Support Document



Regional 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

Regional 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. Rainfall Analysis
- G. Reg. Irrigation Dist. Phases 1, 2, & 3
- H. Cost Estimating and Economic Criteria
- I. Conservation

County

Supply Entity:

Service Area:

Population and Supply Summary:

Proposed supply projects by 2015: adequate inadequate

Proposed supply projects by 2025: adequate inadequate

The present supplies are comprised of 100 percent traditional fresh groundwater. The 2025 supplies are projected to be 64 percent traditional fresh groundwater and 36 percent AWS.

Item	2005 (Existing)	2015 (Projected)	2025 (Projected)
Population	56,722	65,587	75,625
Per Capita (gallons per day finished water)		321	
(Note: All potable volumes are finished water unless noted.)	MGD	MGD	MGD
Potable Water Demand (average annual)	19.6	21.3	24.6
Volume from Traditional Sources	18.1	18.1	18.1
Volume from Alternative Sources	0.0	10.0	10.0
Reclaimed Capacity Available ^a	9.0	11.7	11.7
Additional Potable Water Needed	0.0	0.0	0.0

a. Reclaimed capacity available for 2015 and 2025 includes 2.7 MGD from storm water capture project below.

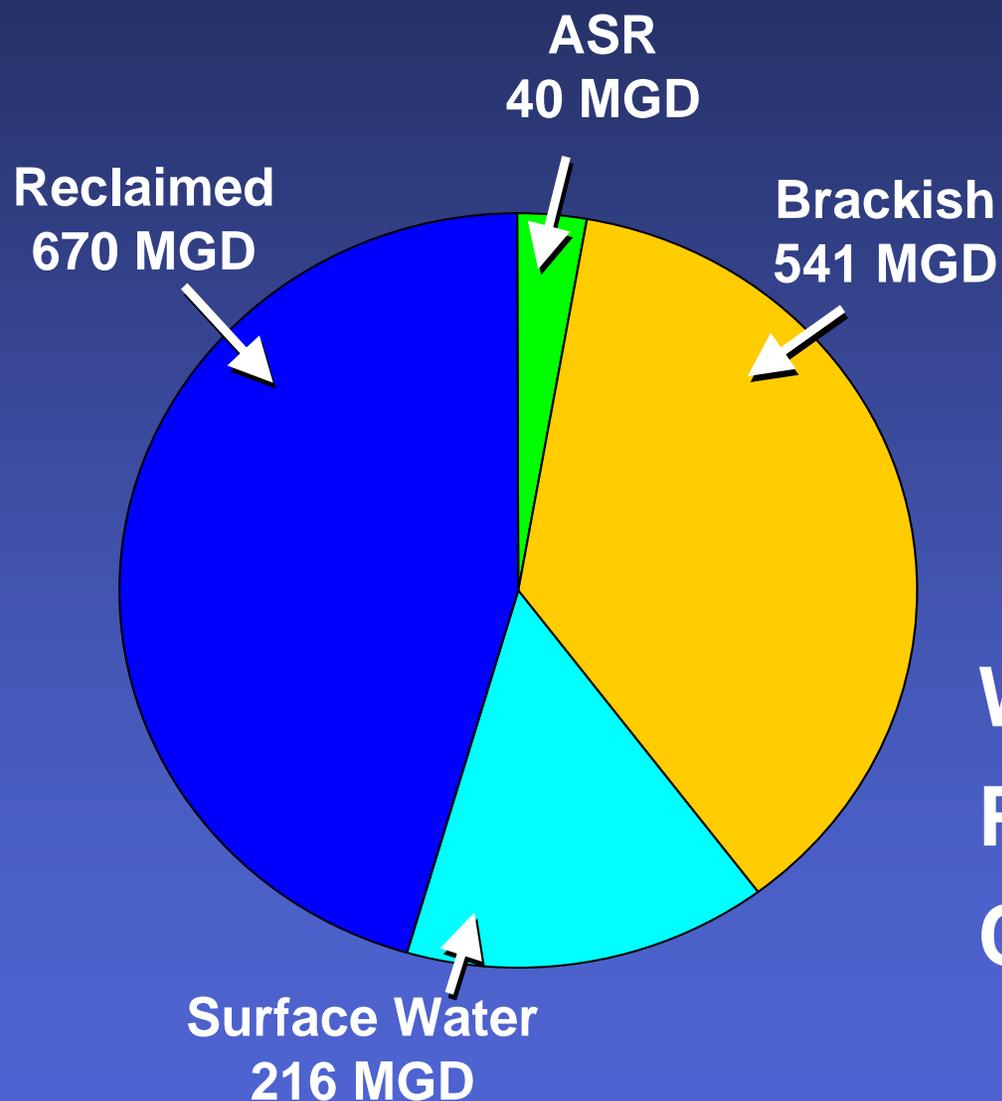
Project Summary:

Project Type	Gross Capacity (MGD)		Estimated Capital Cost (\$ million)
	2015	2025	
Traditional	0.0	0.0	\$0.0
Alternative			\$68.2
Captured Storm Water / Surface Water	2.7	2.7	
Brackish Water	10.0	10.0	
Seawater	0.0	0.0	
Reclaimed Water ^a	0.0	0.0	
Other (potable water ASR)	0.0	0.0	
Totals	12.7	12.7	\$68.2

a. Reclaimed water in some applications may reduce per capita demands or offset some limitations on resource availability. This will be examined on a case-by-case basis during the permitting process.

How Will Future Demands Be Met?

Alternative Water Supplies



Water: 1.5 BGD
Projects: 314
Cost: \$ 4.6 Billion

ASR – Aquifer storage and recovery

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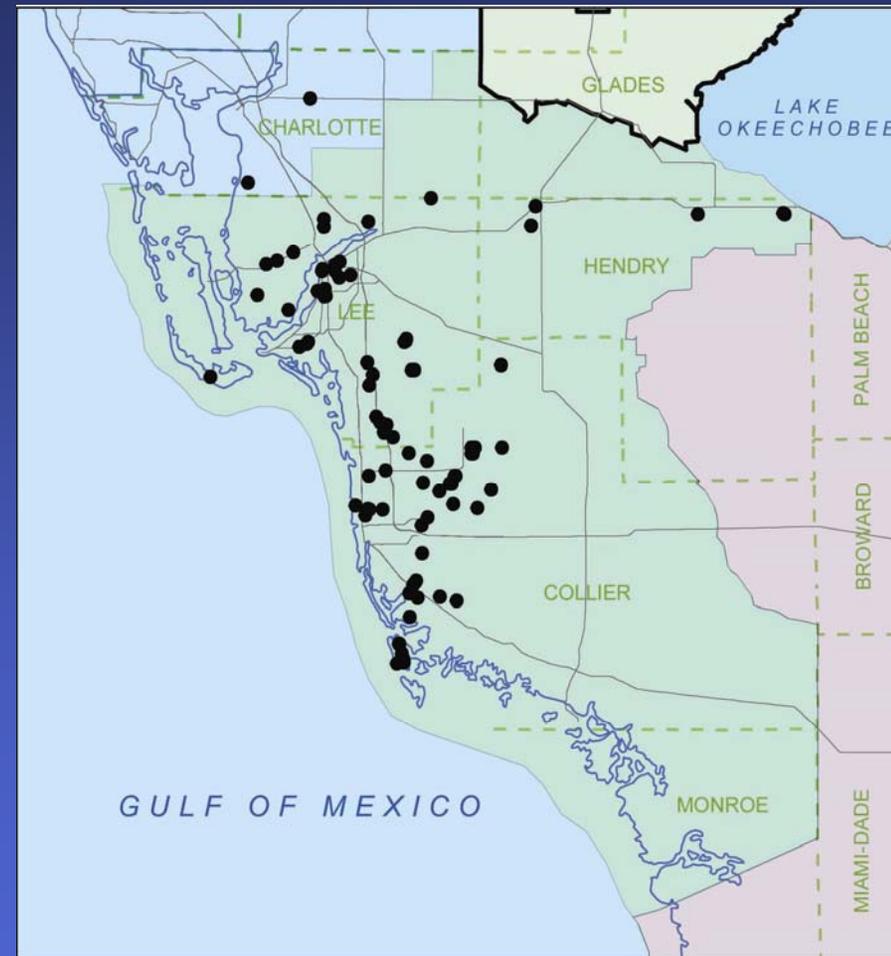
Future Sources

- **Focus on Alternative Water Sources & Conservation**
 - Brackish Groundwater
 - Seasonal Surface Water
 - Storage Options
 - Reclaimed

- **Limited Traditional Sources**
 - Fresh Groundwater
 - Fresh Surface Water (Caloosahatchee)

Lower West Coast Water Supply Plan Update

- 120 Projects in Plan
 - 82 AWS Proposed by Utilities
 - 4 proposed by District
 - 34 Existing AWS Projects



Questions?



LOWER WEST COAST
Water Supply Plan

2005-2006 UPDATE

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