



# Lower West Coast Water Supply Plan Water Source Options

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# Today's Workshop

- **Water Source Options**
- **March Workshop Follow-up**
- **Water Resource and Supply Development**
- **Floridan Aquifer Hydrogeology**
- **ASR Systems in SW Floridan**
- **Local Utilities Current Status**
- **Conservation**
- **Review Drafts of Chapters 1 & 2**



# Water Supply Demands and Projections

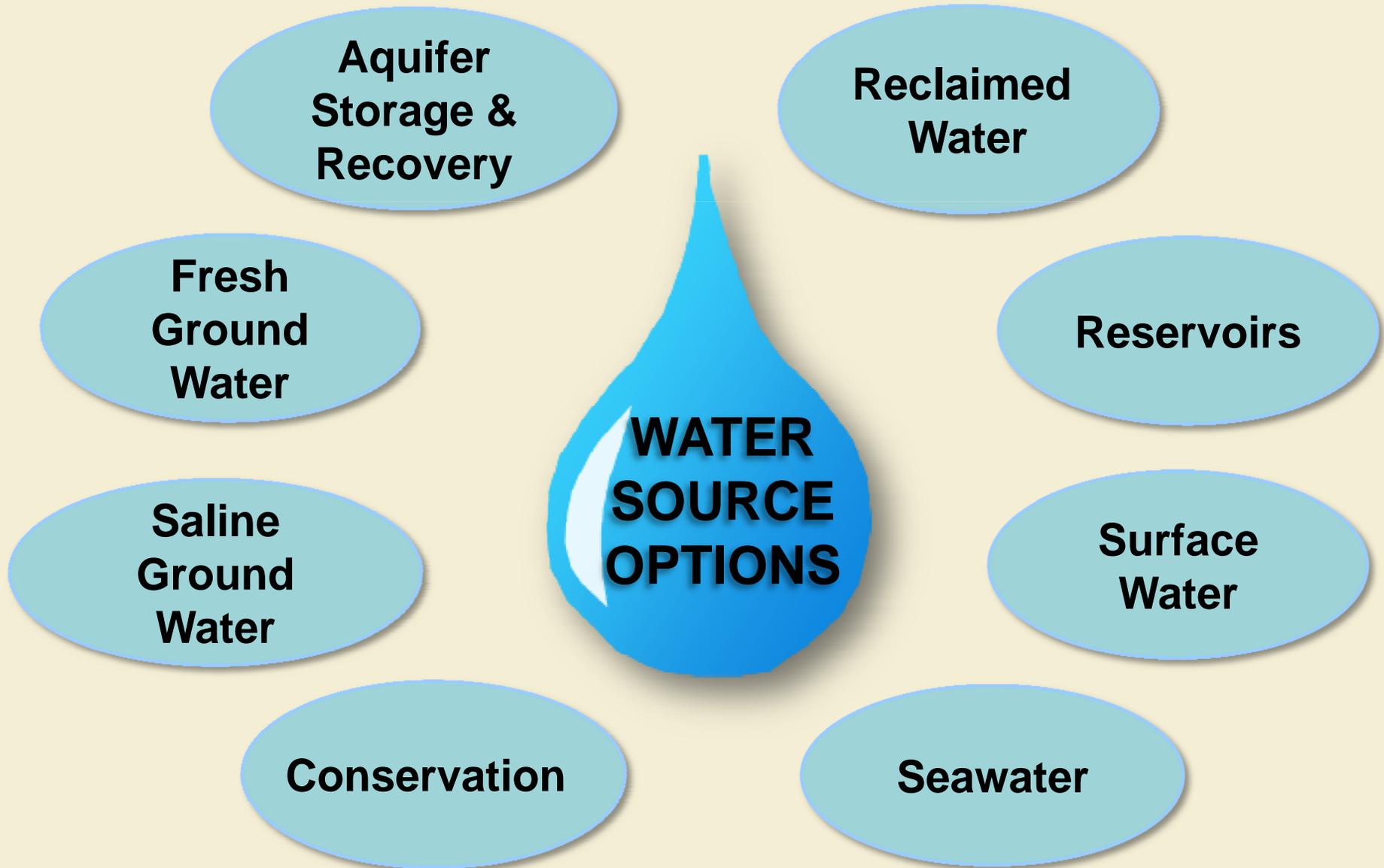
Category	Estimated 2005 (MGD)	2006 LWC 2025 (MGD)	2011 Draft LWC 2030 (MGD)
Agriculture Self-Supply	582	729	632
Public Water Supply	122	272	231
Domestic Self-Supply	15	31	24
Recreation/Landscape Self-Supply	83	167*	179
Power Generation Self-Supply	1	67	42
Commercial & Industrial Self-Supply	35	29	35
*adjusted Total Planning Area	838	1,298	1,144

# Water Supply Issues

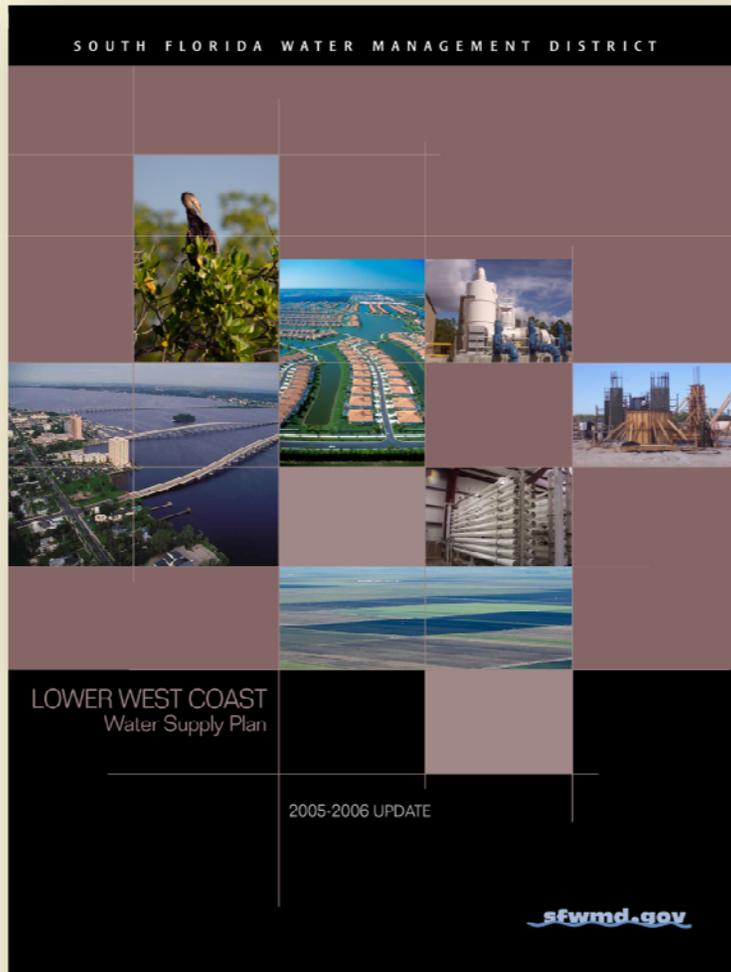
- **Increases in withdrawals from fresh water aquifers limited**
  - Wetlands
  - Salt water intrusion
  - Aquifer protection
- **Surface water availability (storage) limited**
- **Fresh water discharges affecting health of coastal resources**
  - Timing
  - Volume



# Water Source Options



# 2006 Lower West Coast Water Supply Plan



## Plan Conclusion

The needs of the region can continue to be met with **appropriate management and diversification** of water supply sources through 2025.

### ■ LWC Region Progress

- 48% of water treatment capacity is reverse osmosis using brackish water sources
- 90% of wastewater is reused

# Public Water Supply – 2006 LWCWSP for 2025

- **Public Water Supply**
  - Continued use of **fresh water aquifers**
  - Fresh water aquifer withdrawals maximized
    - No additional water available in coastal areas
  - Increased use of **Floridan aquifer**
  - Look for opportunities for increased efficiency through water **conservation**
  - Increase fresh water availability through **Aquifer Storage & Recovery** where appropriate



# Landscape Irrigation – 2006 LWCWSP for 2025

- **Landscape Irrigation**
  - Continued use of **fresh water aquifers**
  - Fresh water aquifers withdrawals maximized
    - Additional withdrawals in coastal areas limited
  - Increased use of **reclaimed water**, especially in areas where fresh water aquifers are maximized
  - Look for opportunities for increased efficiency through water **conservation**



# Agricultural Irrigation – 2006 LWCWSP for 2025

- **Agricultural Irrigation**
  - Continued use of **surface water and fresh water aquifers**
  - Increases in **storage** via CERP project and other options should enhance surface water availability
  - Look for opportunities for increased efficiency through water **conservation** and Best Management Practices (BMPs) Program
  - Stormwater retention/tailwater recovery where possible



# Natural Resources – 2006 LWCWSP for 2025

- **Natural Resources**
  - Implementation of surface water **storage** projects will improve water resource management
    - CERP Caloosahatchee River West Basin Reservoir Project
  - Established **Minimum Flows and Levels** to protect resources from significant harm



# LWCWSP Selected Per Capitas

Plan/Base Year Used	1994 Plan (1990)	2000 Plan (1995)	2006 Plan (2000)	2011 Plan (2005)
Collier	227	197	185	176
Marco Island	517	522	470	428
Naples	348	350	321	260
Bonita Springs	132	149	172	199
Cape Coral	171	117	135	101
Lehigh	92	59	101	113
Ft. Myers	143	148	140	133
Greater Pine Island	173	184	122	110
Island Water	541	458	493	377
Lee County	135	116	118	121
LWC Planning Area	194	167	176	151

# Conservation

## Public Water Supply

- Utility specific projects
- Year-round rule savings
- Conservation potential
  - Use Conserve Florida EZ Guide
- Case studies
  - Cost of Conservation vs other sources
  - Utility highlights



# Conservation (continued)

## Golf Courses

- Inventory courses and irrigated acreages
  - Existing conservation measures
  - Irrigation controllers



## Agriculture

- Enrollment in BMP Program & implementation



# Reclaimed Water

**Partner with wastewater utilities to:**

- **Estimate potential reclaimed water availability in 2030**
- **Identify current flows, uses and location of facilities**
- **Identify future flows, uses and projects**
- **Inventory existing, or the need for, local ordinances requiring the use of reclaimed water**
- **Efficiency**



# Floridan Aquifer

- Review previous LWCWSPs & analysis
- Review current water use permits
- Review water quality data



# Questions

