

*2012 Lower East Coast Water  
Supply Plan Update  
WORKSHOP #3  
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# Water Conservation

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# What We Used to Hear About Conservation

- ✓ It's not as certain or reliable as expanding plant capacity
- ✓ It's too small to matter
- ✓ It eats at revenue
- ✓ It's outside of our means



# What We Know About Conservation

- ✓ Less expensive than new sources
- ✓ Can be reliable
- ✓ Meet gap between supply and demand
- ✓ Reduces severity of water shortages
- ✓ Reduces wasteful use
- ✓ Lowers carbon footprint
- ✓ Reduces wastewater flows
- ✓ Reduces peak demands
- ✓ Reduce, defer or eliminate the need for capacity expansion



# Conservation

**Water Conservation** is any beneficial reduction in water loss, waste or use and typically includes:

- Incentive programs for high-efficiency devices
- Conservation rate structures
- Water audits
- Efficiency/conservation ordinances
- Public education campaigns



# Cost comparison per 1,000 gallons of water

	Hardware	Cost to Save or Create 1,000 Gallons
Water Conservation	High-efficiency fixtures/appliances	\$0.40 to \$3.00
New Facility Construction	Nanofiltration	\$3.42 to \$9.46
	Reverse osmosis (RO)	\$4.41 to \$11.33
Expansion of Existing Facility	Nanofiltration	\$3.13 to \$9.07
	RO	\$3.69 to \$10.38

Water Supply Cost Estimation Study and Phase II Addendum (2007) prepared by Camp Dresser & McKee, Inc.,

# Conservation Strategies

## Low Cost Measures:

- **Florida Water Star, WaterSense, ENERGYStar** based ordinances can reduce residential use by ~ 30% on new construction
- Conservation Rate Structures

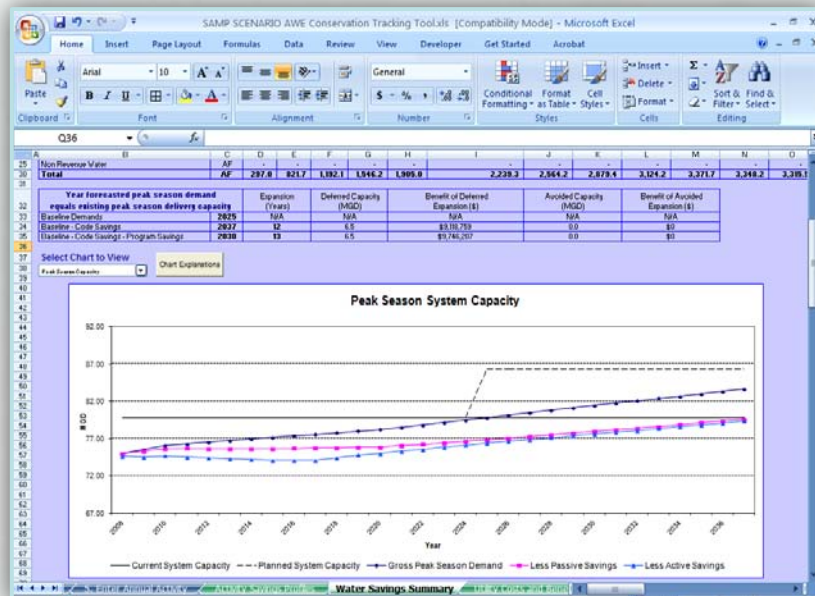
## For Other Measures:

- Costs can be offset by rebates, grant or cost-share programs
- Planning tools can help identify the most-cost effective approaches for individual service areas



# Utility Conservation Relies on Analysis and Planning

...Maximizing the benefits and reliability of conservation requires service-area specific analysis, goal-based planning implementation and monitoring



Fortunately, there are many **tools** and **resources** to help utilities plan, implement and track conservation programs

# Conservation Summary

County	2000 gpcd	2005 gpcd	2010 gpcd
Palm Beach	219	203	157
Broward	153	139	124
Miami-Dade	168	157	139
Monroe	216	211	198
LEC Planning Area Average	176	163	140

Increasing conservation will help to meet 2030 demand.

# Examples of Success

Utility	2006 gpcd	2010 gpcd
Miami-Dade WSD	153	142
Palm Beach County WUD	126	108
Pompano Beach	222	178
Cooper City	117	95

There are many factors affecting this decline, conservation is one of them.

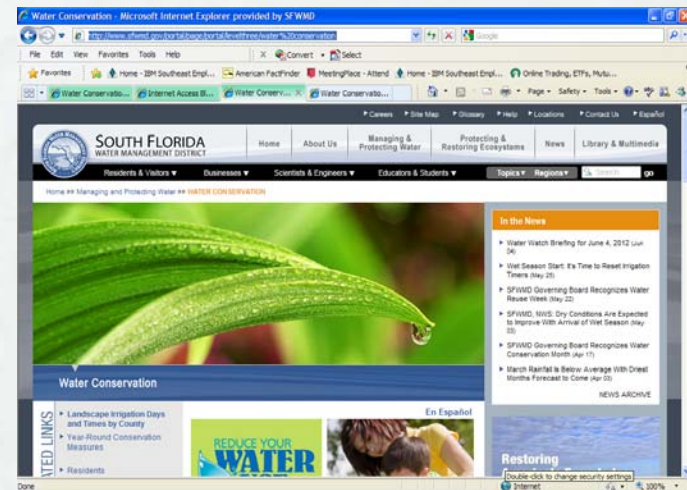
# SFWMD's Water Conservation Plan (2008)

- Drafted as per a stakeholder driven process which included representatives from:
  - Local governments,
  - Utilities
  - Commercial users
  - Developers
  - Environmentalists
- Contains a suite of measures
  - Education & Marketing
  - Voluntary & Incentive
  - Regulatory



# How the SFWMD Can Help

- Technical assistance & advice on conservation hardware, technology and program design
- Technical assistance on creating a goal-based conservation plans
- Model ordinances (conservation) and review of local ordinances for technical accuracy and standards
- WaterSIP cost-share program
- SFWMD's conservation webpage [www.savewaterfl.com](http://www.savewaterfl.com) provides comprehensive information for major user groups

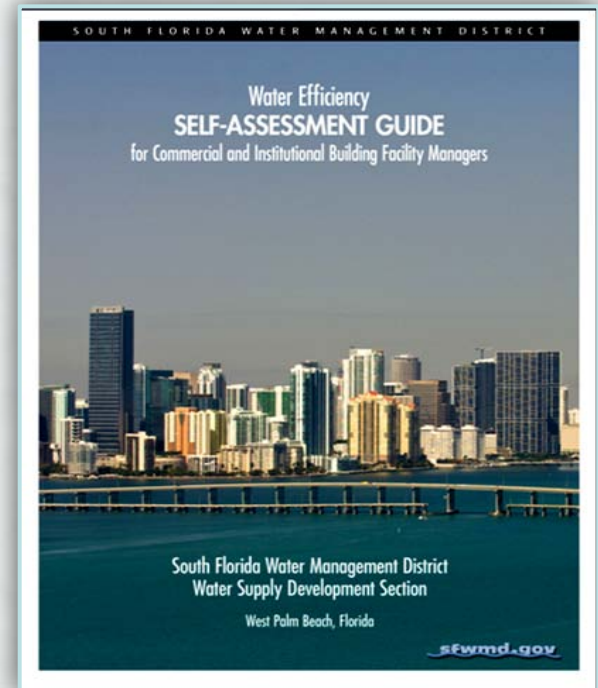


# How the SFWMD Can Help (cont.)

SFWMD staff available to train local staff to conduct water use assessments of municipal facilities

SFWMD's *Self-Assessment Guide for Commercial & Institutional* users is available free

Can be part of a utility's outreach to these users



# Contact Information

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*"When the well runs dry, we know the worth of water"*

*"A penny saved is a penny earned."*

*B. Franklin*