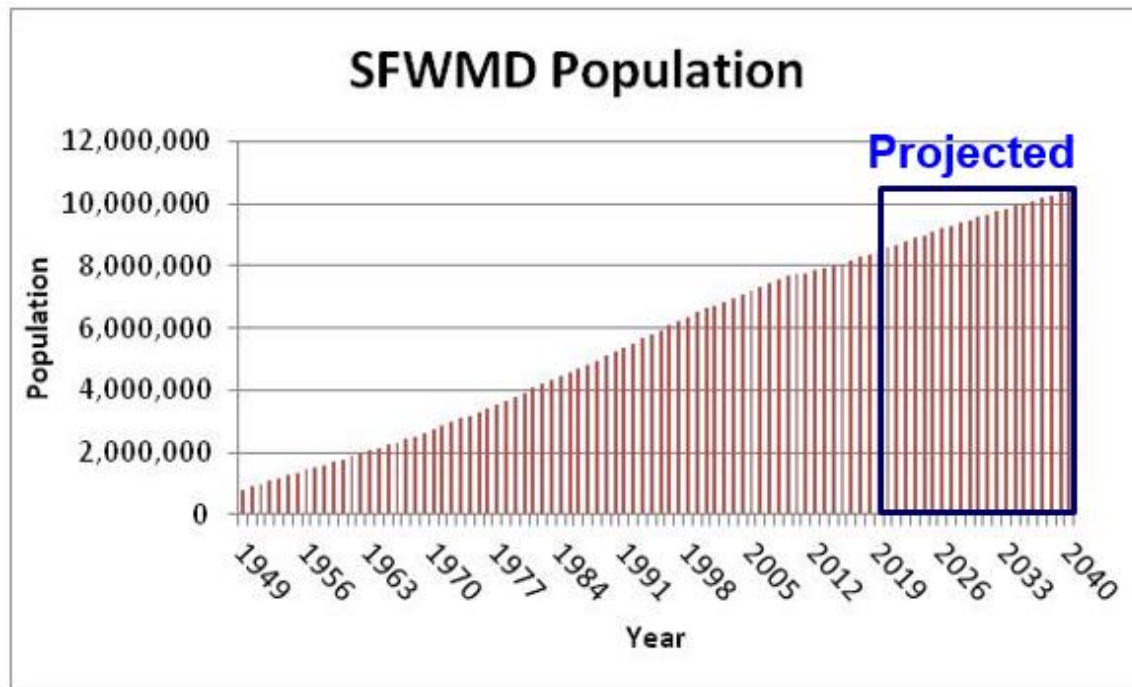


South Florida Water Management District's Water Conservation Program

Robert Wanvestraut
Palm Beach County Water Resources Task Force
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Why Conservation?

- 2015 SFWMD estimated water use: **3,427 MGD**
- 2035 SFWMD projected water use: **3,962 MGD**



Meeting Future Demands

Meeting future demands can happen only one of two ways:

1. Increasing Supply

2. Decrease Demand
(Conservation)



What is Water Conservation?

Water Conservation

- ◆ Using less water for a specific task
(Increasing water use efficiency)
- ◆ Reducing wasteful use



Why Water Conservation?

- ◆ Far less expensive than developing alternative water supplies (AWS)
- ◆ Easier to implement, relative to AWS development
- ◆ Reduces stress on natural systems
- ◆ Lower carbon & pollution footprint than AWS
- ◆ ***Can reduce, defer or eliminate the need to develop AWS***

Method	Hardware	Cost to Save or Create 1,000 Gallons
Water Conservation	High-efficiency irrigation systems fixtures/appliances/Incentive programs	\$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
	Reverse osmosis (RO)	\$3.69 to \$10.38

SFWMD Conservation Program

Primary Objective: *Promote and Foster Water Conservation by all users within the SFWMD*

Conservation initiatives:

- I. Education and Outreach
- II. Voluntary & Incentive-Based
- III. Regulatory



Education & Outreach

1. General (general public)

- a) Website
- b) Select events attended by Regional Representatives
- c) Fact Sheets and other outreach materials



Home >> Community residents >> WATER CONSERVATION

- Water Conservation
- Recreation
- Education Center
- What You Can Do

Water Conservation

South Florida is one of the wettest areas of the country that typically gets about 53 inches of rainfall a year. Approximately 90 percent of the water used in homes and businesses comes from groundwater sources called aquifers. The remaining 10 percent comes from surface waters such as lakes, community ponds and rivers. Both surface and groundwater supplies are primarily recharged by rainfall.

Even with our typical abundant annual rainfall, South Florida's weather can quickly change from deluge to drought. That's why conserving water year round is an integral part of managing and protecting South Florida's water supplies today and for our future generations.

By 2025, 6 million new residents are projected to make Florida their home, swelling the population to more than 24 million. More than half of the new residents will settle in South Florida. At the same time, South Florida's demand for freshwater is projected to increase to 4.3 billion gallons per day – a 22 percent increase over today's use.



Water Conservation Programs

District's **Comprehensive Water Conservation Plan** includes mandatory and incentive-based initiatives, regulatory work, education outreach. The amount of water used by the region's 8.7 million residents has fallen from near 180 gallons of water per person per 2000 to about 140 gallons in 2014. Other SFWMD actions include:

- Working with the University of Florida's Institute of Food and Agricultural Services to certify nine District facilities as having [a-Friendly Landscaping](#)

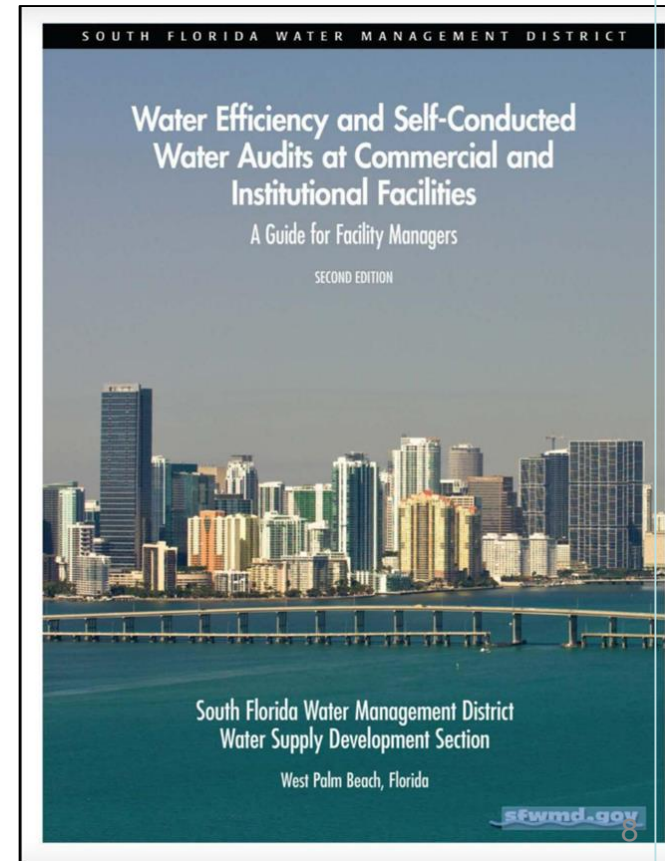


Education & Outreach

2. Specialized Technical Outreach & Education

Collaborative work, Water use efficiency promotion, Speaking events;

- a) Public and private water utilities
- b) Local governments
- c) Agricultural water users
- d) FL Nursery Growers & Landscapers Association
- e) FL Irrigation Society
- f) FL Home Builders Association
- g) FL Green Builders Association
- h) FL Dept. Ag. Consumer Services
- i) FL Golf Course Superintendents Association
- j) South Florida Manufacturers Association
- k) FL Restaurant & Lodging Association
- l) University of Florida – IFAS
- m) Audubon International
- n) General Public (Various groups)



Voluntary & Incentive

Objective: Encourage & support user groups to engage in water conservation actions

- ◆ Overlaps with outreach to collaborative work with groups listed on previous slide
- ◆ Includes trainings and conservation certifications
 - ◆ Florida Water Star Accredited Professional
- ◆ **Cooperative Funding Program (CFP)**
 - ◆ Supports local conservation & water use efficiency programs and projects
 - ◆ Application deadline for FY20 closed in August

Regulatory

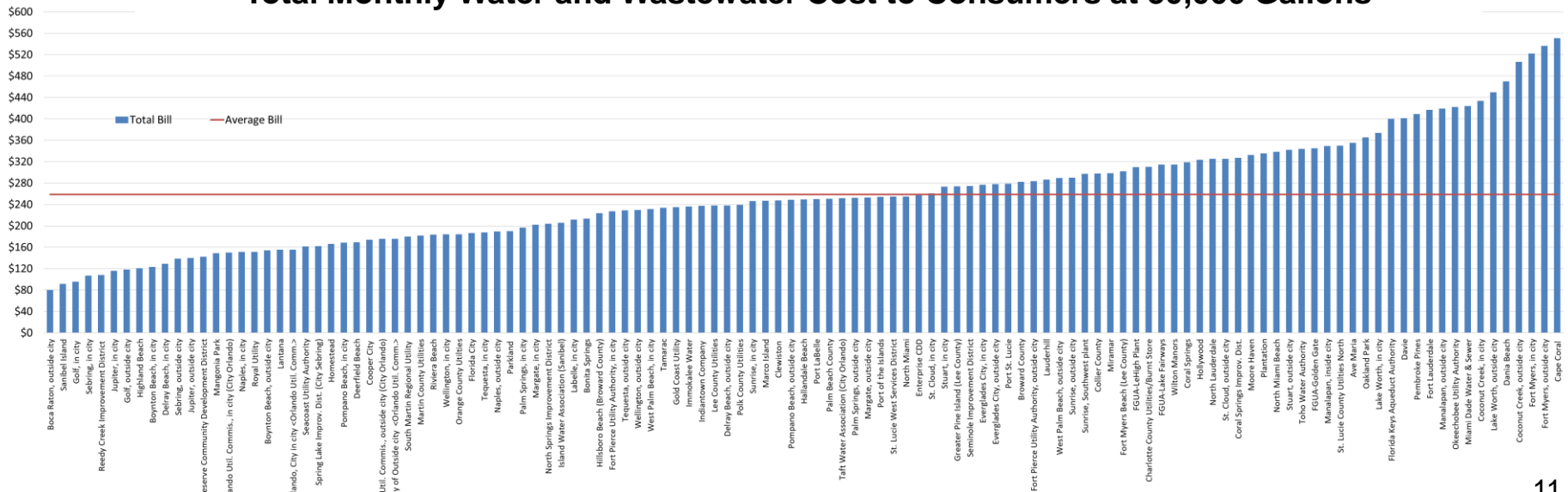
Objective: Support activities rooted in statute, District rules, and local ordinances

- ◆ Conservation Potential Analysis & Updates for Regional Water Supply Plan conservation chapters
- ◆ Local ordinance review for conservation measures
 - ◆ Florida-Friendly Landscaping
 - ◆ Water efficient new construction
 - ◆ Irrigation Restrictions
 - ◆ Water smart irrigation
- ◆ CUP Conservation Plan reviews (as requested)
- ◆ Review comprehensive plans' conservation elements
- ◆ Implementing the District's Year-Round Irrigation Rule
 - ◆ Limits irrigation to cooler daytime hours and to three-days per week by street address

Additional Supporting Work

- 💧 Demand management and other technical support to utilities and local governments (as requested)
- 💧 Conservation Utility Rate Survey (Annual)

Total Monthly Water and Wastewater Cost to Consumers at 30,000 Gallons



Additional Supporting Work

- ◆ SFWMD Produces a **Water Conservation Expo**
 - ◆ District-wide, annual event
 - ◆ Features speakers & technical experts from across the Florida & U.S.



- ◆ SFWMD establishing (Host) **South Florida Water Conservation & Sustainability Working Group**
 - ◆ Staff from South Florida utilities and local governments

Consumptive Use Permit

Standard Water Conservation Plan (5 Elements)

Applicant's Handbook for Water Use Permit Applications

WITHIN THE SOUTH FLORIDA WATER
MANAGEMENT DISTRICT

EFFECTIVE SEPTEMBER 7, 2015



sfwmd.gov

- I. A water conservation public education program
- II. An outdoor water use conservation program
- III. Water conservation rate structure
- IV. A water loss reduction program
- V. An indoor water conservation program

Goal-Based Water Conservation plan

- Submitted in lieu of a Standard Plan if one or more 'Standard' elements are not feasible
- Must provide explanation of divergence from Standard Plan element(s)

Consumptive Use Permit

Under Either Conservation Plan Type:

Applicant's Handbook for Water Use Permit Applications

WITHIN THE SOUTH FLORIDA WATER
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EFFECTIVE SEPTEMBER 7, 2015



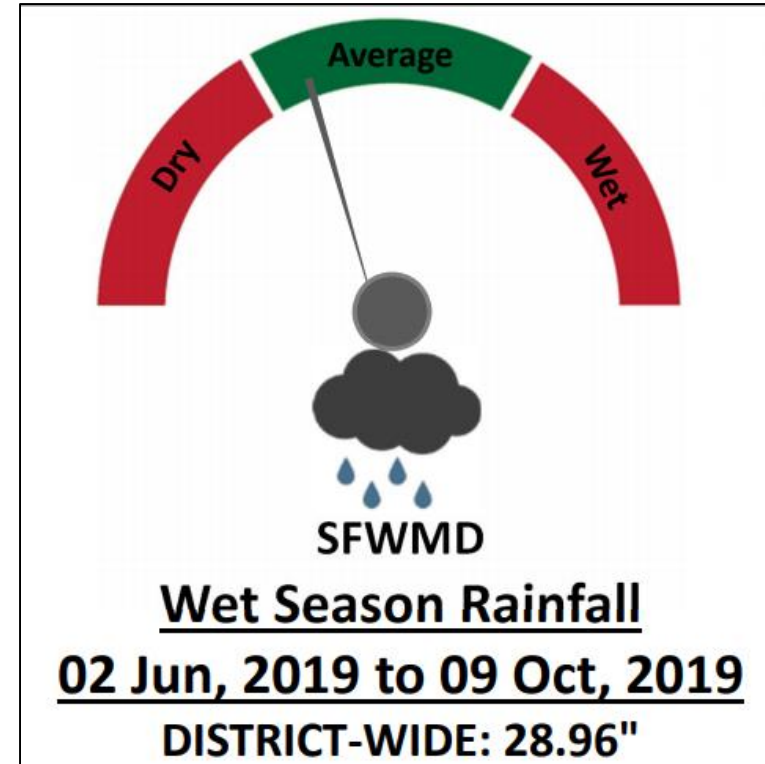
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- Public Water Supply permittee may receive a permit extension for quantifiable water savings attributable to water conservation
- Permittee may request the extension through a letter modification request

We're Entering the Dry Season

We Are Entering the Dry Season in a Slight Rainfall Deficit

- We have received 90% of average rainfall , -3.18" deficit
- Consistent water conservation can extend available freshwater supplies
- Water conservation must be a year-round ethic backed by tangible actions



What can PBC Utilities & Local Governments Do?

1. Decide water conservation is a focus of interest
2. Designate a 'Point-Person' to manage conservation efforts
3. Analyze current demands by use classes
4. Decide conservation goals & objectives
5. Decide which approaches are most feasible to achieve goals/objectives
6. Construct a conservation plan
7. Implement the plan
8. Monitor the activities, expenses, performance metrics

What can PBC Utilities & Local Governments Do?

Examples (in no specific order)

1. Year-Round Irrigation Rule (2010) adoption
(Ex. PBC ordinance currently restricts irrigation *times*, but allows irrigation seven days per week)
2. Water efficiency ordinances for new construction
(Florida Water Star)
3. Create a Conservation Consortium
(such as the Broward Water Partnership)
4. Target specific user groups or use areas
(Ex. consider programs for restaurant & lodging users; irrigation efficiency on county and/or residential properties etc.)

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The cheapest gallon of water is the gallon you don't use.