

Garden Club Presentation

November 5, 2014



**Palm Beach
CIVIC ASSOCIATION**
Improving Life in Palm Beach Since 1944



Civic Association Water Resources Committee

- Harvey L. Poppel, Chair
- Jack Borland
- Pat Cooper
- Harris Fried
- Terry Levine
- Brian McIver
- Deborah O’Kain
- Brandon Reid
- Bob Vila

Agenda

- Background
- Water Conservation In The Garden
- The Town's Water Conservation Ordinance
- What's Next?

Background

Water Supply & Demand Not a New Issue In Palm Beach

- 1999-Town & City of WPB Execute 30-Year Water Supply Agreement
- 2008/09-Town Council Consider Ways to Ensure Adequate Water Availability & Quality
- Several Options Advanced for New / Additional Water Supplies
- Options Entail Huge Long-Term Capital Obligations: \$100M - \$220M
- Civic Association Asked To Find Ways to Conserve Water To Help Defer Or Mitigate Future Expenditures
- 2014-City Of West Palm Beach Launches Water-Supply Planning Process

80% of Residential Water Use in Palm Beach is for Irrigation

- Key Statistics
 - \$13mm/year--was under \$5mm just six years ago
 - 7mm gallons/day
 - Has varied from 5.7mm to 8.3mm over past eight years
 - Variation more influenced by rainfall levels and water restrictions than pricing
 - 80%+ of residential use is for irrigation
- Over the past five years , the PBCA has initiated a flexible water ordinance aimed at conserving water, monitored supply-related activities by the City of WPB and most recently surveyed Town users

Water Conservation In The Garden

Irrigation Conservation Yields Multiple Benefits

- Lowers potential future capital outlays
- Saves consumers \$ on monthly bills (pay back in 8-18 months)
- Promotes healthier plant/lawn material
- Reduces polluting runoff & damage to hardscape
- Conserves an increasingly scarce natural resource—helps avoid water shortages

Garden Water Conservation Measures Are Both Old and New

- Rain barrels
- Recycled wastewater
- Clock-controlled zoned irrigation controllers
- Proper mulching
- Drought-resistant plant materials
- Irrigation leak detection and repair
- Drip irrigation
- Reduced lawn areas
- Rain gauges (must be checked bi-annually)
- High efficiency sprinkler nozzles
- Advanced (“Smart”) Irrigation Systems (AIS)

Irrigation—Clock Timers vs. Advanced Irrigation Systems

- Clock Timers: 1960s Technology – wasteful (likely what most PB residents have)
- Rain gauges—better (when operative) but not sufficient
- Advanced (“Smart”) Irrigation Systems (AIS): Newest Technology
 - Compatibility – Most Are Plug-Compatible With Existing Controllers
 - Scalable - Range of Sizes & Configurations Available
 - Custom Installation - Parameters Based on Unique Property Characteristics / Zones
 - Adaptable – Rain Gauges, Restricted Watering, Power Outages

Advanced Irrigation Systems (AIS) are the Most Powerful Means To Conserve Water

- AIS's irrigate only when weather and/or moisture-sensing determines watering is needed
- Includes both ET (evapotranspiration) downloads— temperature, humidity, wind, solar radiation--and moisture-sensing controlled irrigation systems
- Controllers must meet industry standards as spelled out in the ordinance
- All of our five program sponsors make compliant AIS models
- AIS controllers can range from modest add-ons to existing timer controllers (\$300+) to large modular systems (\$800+)

The Water Conservation Ordinance

If Widely Adopted, Newer Irrigation Measures Could Dramatically Reduce Palm Beach Water Consumption

- AIS Controllers 25%-50%+ Savings
- Rotating conservation sprinkler nozzles w/ larger drops 20%-40% Savings
- Automatic rain shut-off sensors, i.e. “gauges”
- Adjunct irrigation conservation concepts:
 - Drip
 - Monitoring irrigation function and leakage
- Together = 40% - 80% Irrigation Savings—1b+ gallons/yr

The Latest Ordinance Building Upon Two Earlier Ordinances Represents A Major Step Forward

- Some 10+ years ago, the Town passed an ordinance mandating rain gauges but its effectiveness has been questionable and it is not enforced
- In 2010, the Town passed an ordinance requiring all new construction and major renovations to include AIS
- In 2013, with the cooperation of SFWMD, the latest ordinance was passed to exempt AIS users who secure a Town permit from DOTW watering restrictions
- But to date, few AIS users have taken advantage of the exempting ordinance

Palm Beach Advanced Irrigation System (AIS) Users

207 Total AIS Properties of 3,400 Water Bills

87 Single-Family Homes

Single-Family Homes – Estates

- Steve Ross
- John Scarpa
- David Rosow
- Sydell Miller

Commercial

- Flagler Museum
- Worth Ave.
- Royal Poinciana Chapel
- Mar-a-Lago

Condos/Town Houses

- Dorchester
- Ambassador
- Villa Plati

Single-Family Homes

- Bob Vila
- Michael Ainslie
- Roger Lawson
- Terry Levine

Why is Adoption of AIS Systems So Slow?

- Lack of awareness
- AIS Permit Fee and Process
- Enforcement of rain gauge ordinance
- Relatively low water prices
- No push from irrigation contractors or landscapers
- Consumer inertia

Recent PBCA Survey:

Water Users Unsatisfied with the Current Water Situation and Wish to Intensify Conservation Efforts

- Relatively dissatisfied with water quality and price
- Highly pessimistic about future water availability, cost and quality
- Mixed awareness about irrigation conservation
- Over half would raise awareness “a great deal more”
- Over half would mandate AIS adoption and/or surcharge non-AIS users
- Respondents strongly oppose higher water prices to encourage conservation
- Respondents strongly agree the \$300 permit fee discourages AIS adoption

What's Next?

Expanded Advocacy Of Garden-Related Conservation Measures

- Sustain/intensify conservation awareness activities
- Lower barriers to AIS adoption (remove \$300 fee) Council member Michael Pucillo has placed on November agenda for consideration.
- Consider other financial incentives and regulatory requirements
- Spread the “word”
- Engage the help of the Garden Club of Palm Beach to achieve higher conversion to AIS in town.

The Garden Club Can Help Conserve Water

- Review your own irrigation system today
- If not an AIS, consider installing an AIS controller soon
- Tell your friends and neighbors about AIS and the ordinance benefits
- Register your system with the Town to get the exemption benefits (DOTW water restrictions)
- Let's work together (PBCA and Garden Club) and conserve water in Palm Beach!