

Water Resources in the Town of Palm Beach

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PRESENTATION TO THE TOWN OF PALM BEACH WATER
COMMITTEE WEDNESDAY, JANUARY 12, 2011

Palm Beach Civic Association Presentation To Town's Water Committee

- Agenda
 - Conservation Issues
 - Progress to date
 - Further Actions Needed For a Successful Conservation Program

The Conservation Issue

- Taking a long and strategic view, capital outlay for supplying water, and hence the cost to consumers, will always be a function of satisfying demand
- Our Committee's initial tasking by David Rosow going back to the fall of 2008 has been to critically examine the demand side
 - Estimate future demand
 - Recommend conservation measures

Progress To Date -- Findings

- Town Water Usage of 7mm Gallons/Day Is Sensitive To Watering Restrictions
- Payments To The City of WPB Have Escalated Sharply As Rates Have Nearly Doubled Over the Past Few Years

TOWN WATER USAGE HAS BEEN STRONGLY INFLUENCED BY WATERING RESTRICTIONS, BUT PAYMENTS TO THE CITY OF WEST PALM BEACH HAVE ESCALATED SHARPLY						
<u>Year Ending 9/30></u>	<u>2006</u>	<u>2007*</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	
Usage (ccf's mm's)	4.03	3.42	2.82	3.32	3.42	
Usage (gallons/day 000's)	8,260	7,010	5,780	6,800	7,010	
% change		-15.1%	-17.5%	17.7%	3.0%	
Top tier rate/ccf	\$2.20		\$2.34		\$4.58	
Billings To PB from WPB (mm's)			\$8.02		\$13.00	
Total WPB Revenue (mm's)	\$28.00	\$27.10	\$30.60	\$41.30	\$45.70	
			26.2%		28.4%	
*Watering restrictions initiated during 2007						

Findings - Continued...

- Smart Irrigation Technology (SIRT) Can Save 40%+
 - Smart controller
 - Rotating sprinkler nozzles
 - Automatic rain shut-off sensors (mandated by the Town for over 5 years but not effectively enforced)
 - Adjunct irrigation conservation concepts
 - Drip
 - Monitoring controller and sprinkler malfunctions

SIRT CAN REDUCE WATER USAGE BY OVER 40%				
YIELDING A VERY RAPID PAYBACK				
ONE PALM BEACH SINGLE-FAMILY RESIDENCE EXAMPLE				
			CCF's	\$'s
	12 months prior to install 12/08-11/09		888	2,848
	12 months after install 12/09-11/10		488	1,643
	Savings		400	1,205
	% Savings		45	42
	Initial Outlays			850
	Annualized ROI			142%

5 Benefits of Irrigation Conservation

- Lowers future capital outlays for the Town
- Saves consumers \$ on monthly bills
- Promotes healthier plant/lawn material
- Reduces polluting runoff
- Conserves an increasingly scarce natural resource

Progress to Date -- Actions

- Roughly 100+ SIRT installations and proposals
- New ordinance—SIRT mandated for new residences and major renovations
- But, momentum has waned

Actions Needed To Achieve Meaningful Conservation--Institutionalize SIRT

Any program must encompass 3 sets of stakeholders:

1. Regulators and Enforcers—

- 2009 State Enacted Florida Statute 373.62—no modifications to date—unresolved issue concerning which type(s) of SIRT installations are to be exempted from water restrictions
- Limited 2011 SFWMD “Watersip” Program
- Harbingers of tighter restrictions

Institutionalize SIRT - Continued...

2. Influencers

- Gardeners
- Irrigation contractors
- Landscape contractors
- Landscape architects
- Property managers

Issues are

- Need to educate these parties
- Means to encourage them to advocate SIRT
- Potential shortfall of installers

Institutionalize SIRT - Continued...

3. Users

- Stand-Alone Residences
- Multi-Residential Condo & Townhouses
- Commercial

3 Not-Mutually-Exclusive Options to Speed SIRT Conversion

- Mandatory Compliance - e.g. as with rain gauges
- Education & Encouragement
- Economic Incentives / Disincentives

A Temporary Rate Surcharge Would Fund a Program to Institutionalize SIRT

- Educational programs for influencers and users
- Administration of a user registry
- Enforcement of mandated equipment
- Some one-one-one advice to users
- Rebates and exemptions

Without a source of income, the Town (and especially the Public Works Department) would be hard pressed to perform any of these functions

A Temporary Rate Surcharge Would Fund a Program to Institutionalize SIRT - Continued...

Rates would be “tilted” to target heavier users – a relatively small % of town users account for a large % of total usage

A RELATIVELY SMALL % OF TOWN USERS ACCOUNT FOR A LARGE % OF TOTAL USAGE

<u>Percentile</u>	<u>Single Residential</u>	<u>Multi Residential</u>	<u>Commercial & Town</u>
0-60	22.4%	6.8%	3.2%
60-80	20.0%	17.1%	9.4%
80-90	17.0%	20.0%	12.2%
90-100	40.6%	56.1%	75.2%
TOTAL	100.0%	100.0%	100.0%

1/12/ Based On Year Ending 9/30/08

A Temporary Rate Surcharge Would Fund a Program to Institutionalize SIRT - Continued..

Even with a very modest temporary surcharge (3%-5%) to the upper tiers, our rates would be far less than certain other communities—especially those out west with an active and proven conservation program

**ALTHOUGH OUR RATES HAVE DOUBLED IN THE PAST FIVE YEARS,
WE PAY MUCH LESS THAN CERTAIN OTHER COMMUNITIES**

<u>Usage Level</u>	<u>Gal. Day</u>	<u>CCF/ Month</u>	<u>Town Percent ile</u>	<u>Monthly Bill</u>				
				<u>PB 2011</u>	<u>PB 2006</u>	<u>Sara sota 2011</u>	<u>Marin 2011</u>	<u>Tucson 2011</u>
Very high	2,800	112	90%	\$402	\$206	\$748	\$1,688	\$988
"Sample Household"	1,700	69	80%	\$231	\$118	\$532	\$814	\$509
Town Median	800	31	50%	\$100	\$51	\$132	\$170	\$128
Florida Median	200	8	10%	\$34	\$17	\$29	\$27	\$23

Conclusions & Next Steps

- Conservation is the only means to control water costs for consumers
- Widespread adoption of SIRT is a clear path to meaningful conservation
- Although some limited progress has been achieved, widespread adoption requires aggressive new actions by the Town Council
- The PBCA stands ready to support an aggressive conservation program