



Utilities Department

Water Conservation Program

*Saving Water for a Sustainable
Orange County*

November 14, 2017



Presentation Overview

- Background
- Water Use Profiles
- Program Activities
- Summary



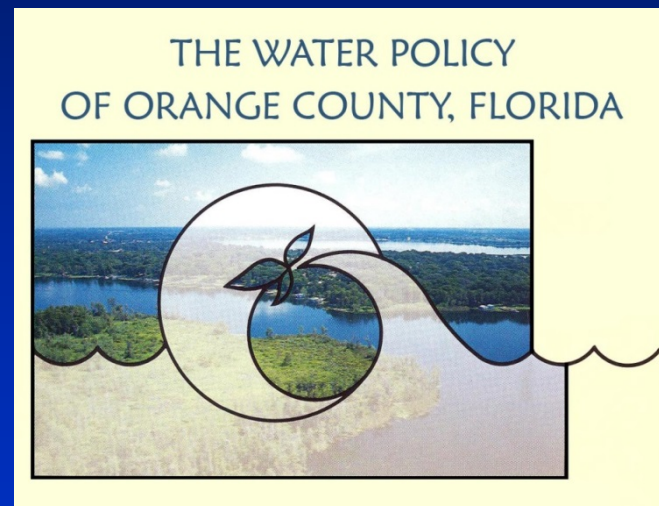
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Background

Program Timeline

- Late 1980's initiated a Youth Conservation Program
 - Blue Thumb Jr. Detective
- 1992 developed the Orange County Water Policy
- 1993 Water Conservation Ordinance adopted
- 1993 - 2000 focused primarily on education



Background

Program Timeline



- Between 2000 and 2006
 - Water Shortage Order issued by districts
 - Began 2-day per week irrigation requirement
 - Water Watch Program initiated
 - Initiated Incentive Program to support compliance (MIL Audits)



Background

Program Timeline

- Since 2006
 - Expanded devices replacement programs
 - Began the use of the Code Enforcement Process
 - Adopted revisions to Water Conservation and Landscape Ordinances
 - Smart Irrigation Technology



Background

Program Timeline

- CUP Conservation Plan
 - System audit
 - Meter survey
 - Leak detection audit if >10% unaccounted water
 - Meter replacement program
 - Conservation education program
 - Rate structure promoting conservation
 - Outdoor water use reduction program



Background

A Sustainable Water Supply = A Sustainable Orange County

- Focus areas of the Mayor's Sustainability Plan have identified conservation strategies
 - Natural Resources
 - Built Environment



Healthy • Prosperous • Connected
Orange County, Florida



Background

Keys to Success

- Maintain focus on the value of water
- Seek collaborative opportunities
- Continue investment in cost-effective and water-efficient technologies
- Modify behaviors and practices
- Invest in new technologies to reduce water consumption
- Pursue funding source for regional projects



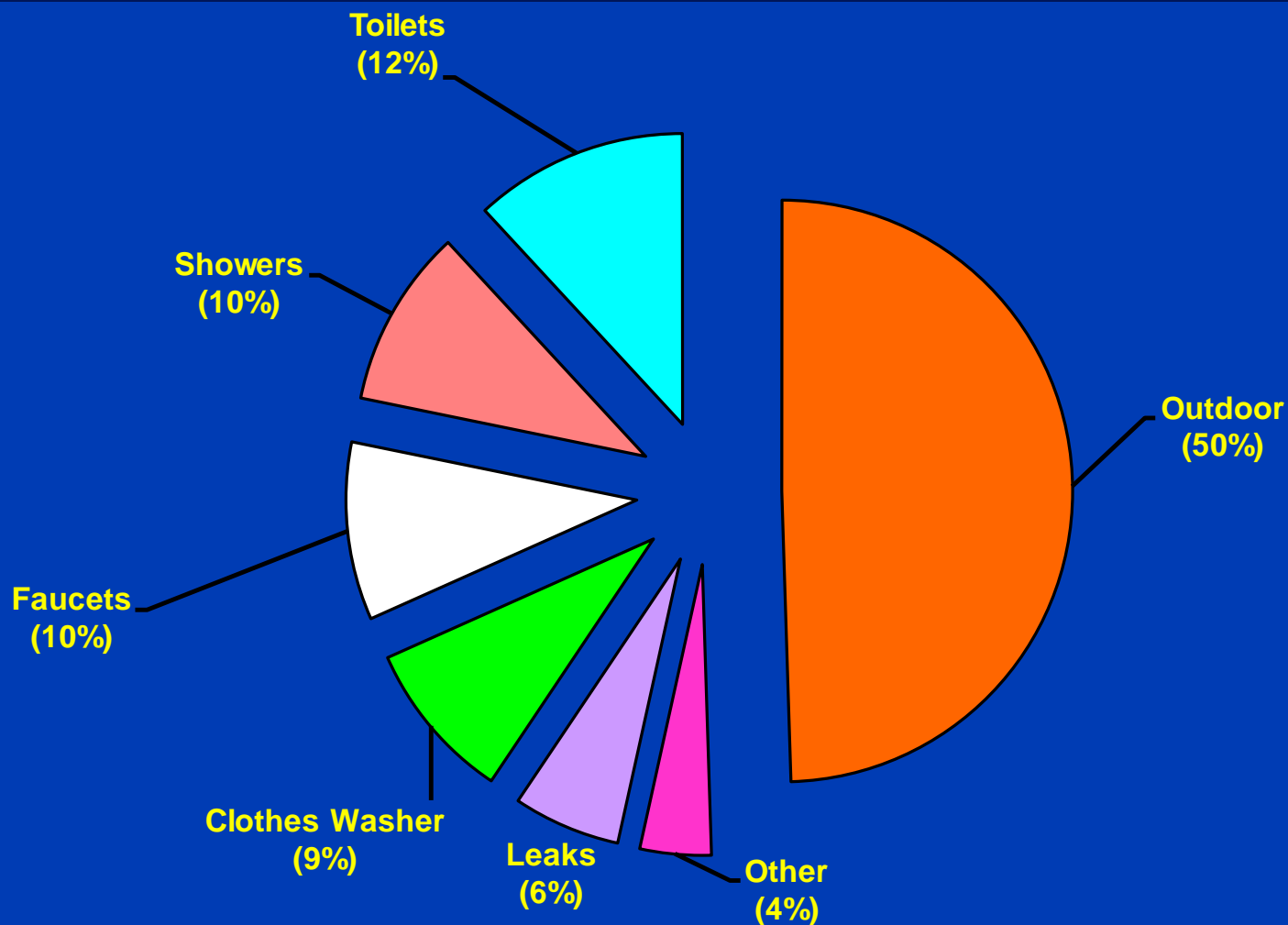
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Water Use Profiles

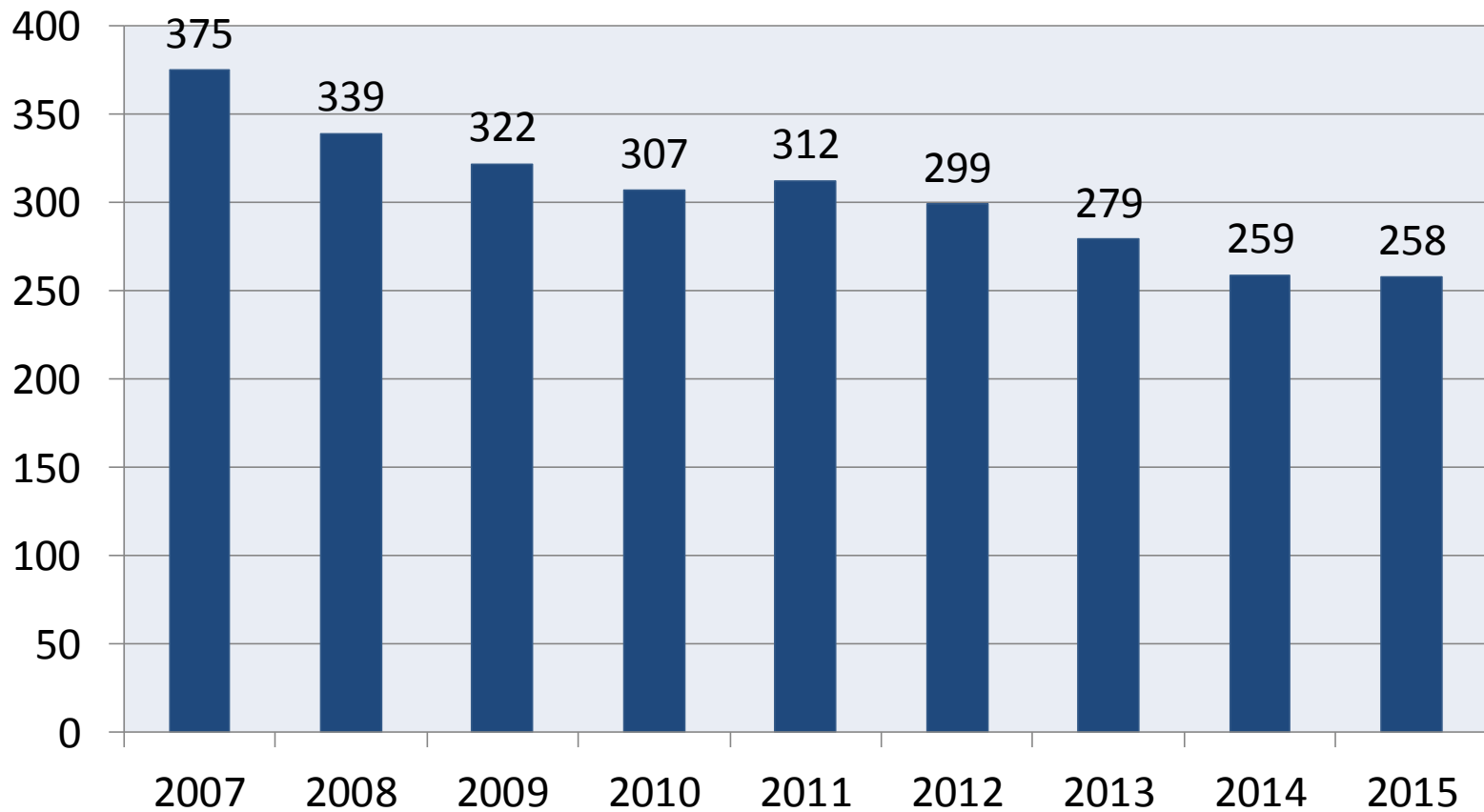
Typical Household Water Usage





Water Use Profiles

**Residential Water Use - Single Family Homes
Consumption (gallons per day per connection)**





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Program Activities

School Programs

- *Blue Thumb Junior Detective Program* in elementary schools since 1993
- *Touring the Water Facts Program* for middle school students since 2003
 - Partnership with the Orlando Science Center
- *Wonder of Water Program* for high school students since 2007





Program Activities

School Programs

- **Waterwise Resource Action Program**
 - School-based method that
 - Builds student knowledge
 - Provides high-efficiency devices to families
 - Serves as an effective community outreach program

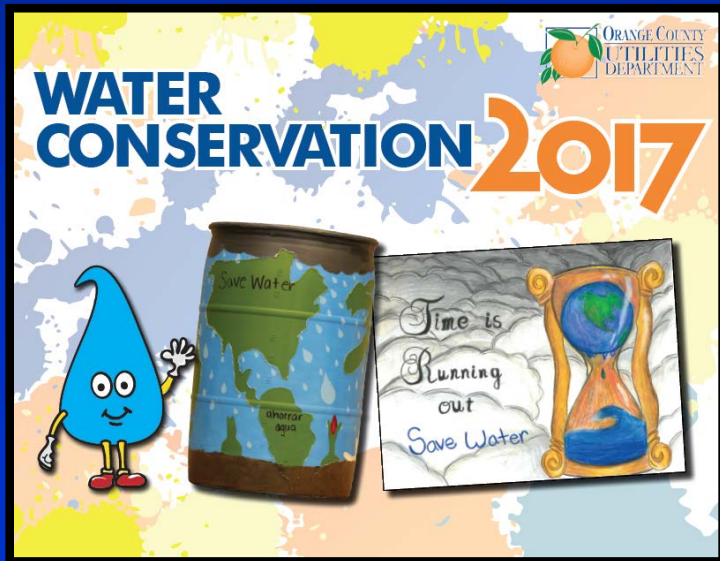




Program Activities

Water Conservation Calendar

- Partnership with Orange County Public Schools
- K-12th grade students – artwork
- 6-12th grade students – paint rain barrels





Customer Outreach

- Drinking water report
- Bill inserts
- Public information campaigns
- Published research
- Social media
- Orange TV





Program Activities

Citizen Education Programs

- Homeowners associations and civic group presentations
- Florida-Friendly landscape seminars
- How-To Clinics at home improvement centers
- Displays and presentations at local libraries





Program Activities

Florida-Friendly Landscape Gardens

- Orange County Utilities Administration Building
- West Orange Trail butterfly garden
- Elementary and middle school demonstration gardens

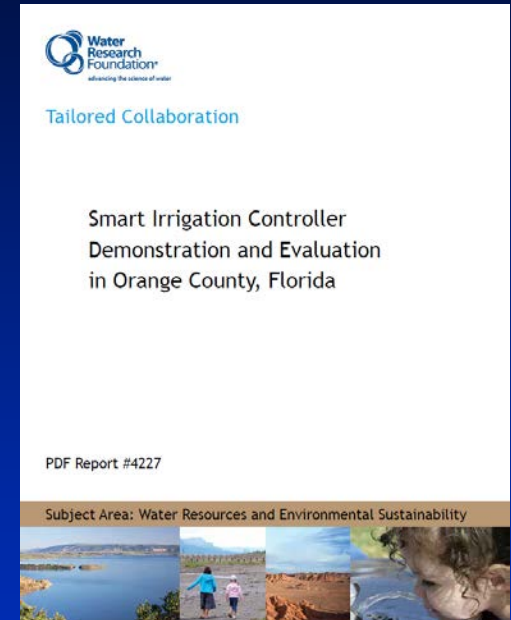




Program Activities

Industry Education

- Smart Irrigation Technology Controllers
- Orange County Utilities research project
- 2009 through 2014
- SIT Controllers reduced irrigation by 18% - 42% in 2 predominant soil types in Orange County
- Results published by the Water Research Foundation in 2016

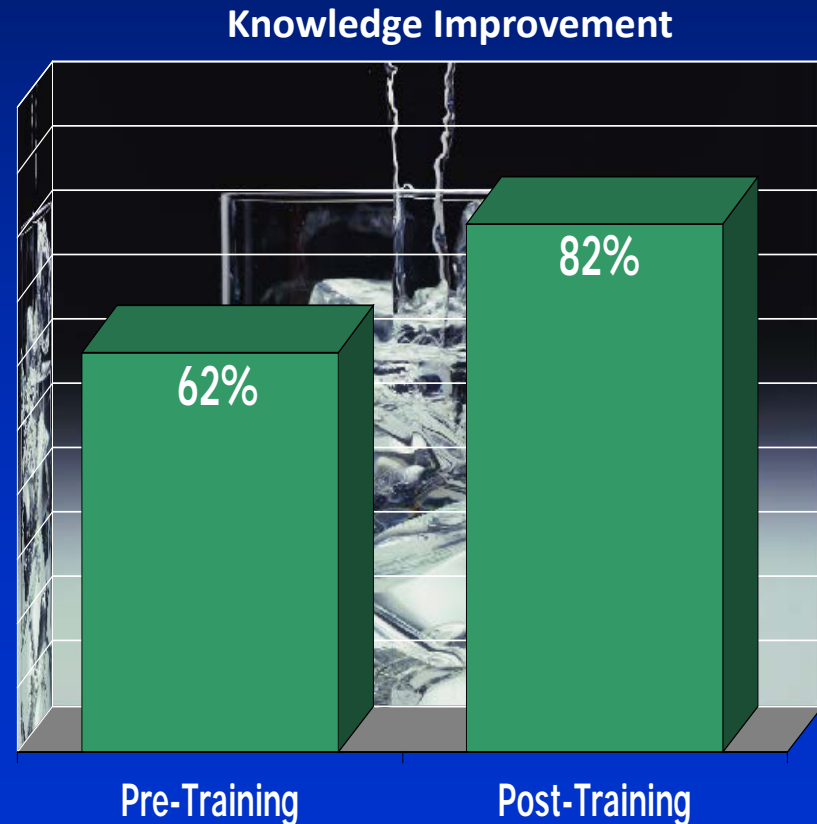




Program Activities

Educational Analytics

- Home Improvement and Garden Centers
 - Trained 142 employees
 - Customer Impact
 - Garden Shops
200-250/day
 - Plumbing Dept.
300-350/day





Program Activities

Water Wise Neighbor Program

- Best Management Practices to help our customers become as water efficient as possible
- 3 levels of voluntary participation
- Basic, Advanced and Ambassador
 - Recognition during April Water Conservation Month
 - Flexible, customizable
 - Financially supported by SJRWMD





Program Activities

Current Devices and Elements in the Water Wise Neighbor Program

- Toilet Voucher Incentive Program
- Showerhead and aerator replacement
- Efficient irrigation nozzles
- Rain sensors
- Rain sensor media replacement
- Hose bib timers
- Smart irrigation technology controllers





Program Activities

Mobile Irrigation Lab Audits

- Evaluation of customer irrigation systems
- Approximately 95 audits per year
- Recommendations for improving system efficiency
 - Average water savings after the audit is approximately 25%





Program Activities

Conservation Water Rates

- Provides price signal to wisely use water
- Inclining block rate structure
- Water use decreases as the price of water increases

Orange County Utilities

Water, Wastewater & Reclaimed Water Rates

Effective October 1, 2017

**2017
Rain Barrel
Contest Winner**



Freedom Middle School
Kareena Bhatia, Grade 8
Dylan Larez, Grade 8
Jocelyn Ponce, Grade 8

Orange County Utilities
9150 Curry Ford Road, Orlando, FL 32825
On the corner of Curry Ford Road
& Econlockhatchee Trail

Website: www.ocfl.net/utilities/
Email: Utilities.Information@ocfl.net

If you have questions, please call
our customer service line at:
407-836-5515



Program Activities

Conservation Ordinance

- Section 37 – articulates the Water Conservation Rules
- Provides uniformity in water use restrictions
- Reclaimed water is exempt
- New sod is exempt
- Maximum 2-day-per-week irrigation schedule
- Only one form of irrigation allowed per area





Program Activities

Conservation Ordinance

- **Mandatory irrigation restrictions:**
 - 2 days or 1 day per week depending on DST or EST
 - No watering between 10:00 a.m. and 4:00 p.m.
- **Rain sensors as required by Florida law (1991) must be working**
- **Compliance fee of \$25**



Program Activities

Water Watch Enforcement

- Patrol day and evening, 7 days a week
- 5 dedicated Water Watch staff
- Door hangers and written notifications
- Appeal cases heard by Special Master
- 70% compliance after 1st warning
- Additional 15% compliance after 1st fine



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Summary

- Residential customers are the largest customer classification and water usage
 - 50% water use is for irrigation
 - Water use increases with lot size
- Water conservation programs are key to achieving a sustainable water supply
- Overall water use in Orange County has decreased since 2007 despite a 10.5% increase in connections
- Cultivating a community that values water



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