



Water Conservation Successes

Response to Citizen Report

Drema Gross

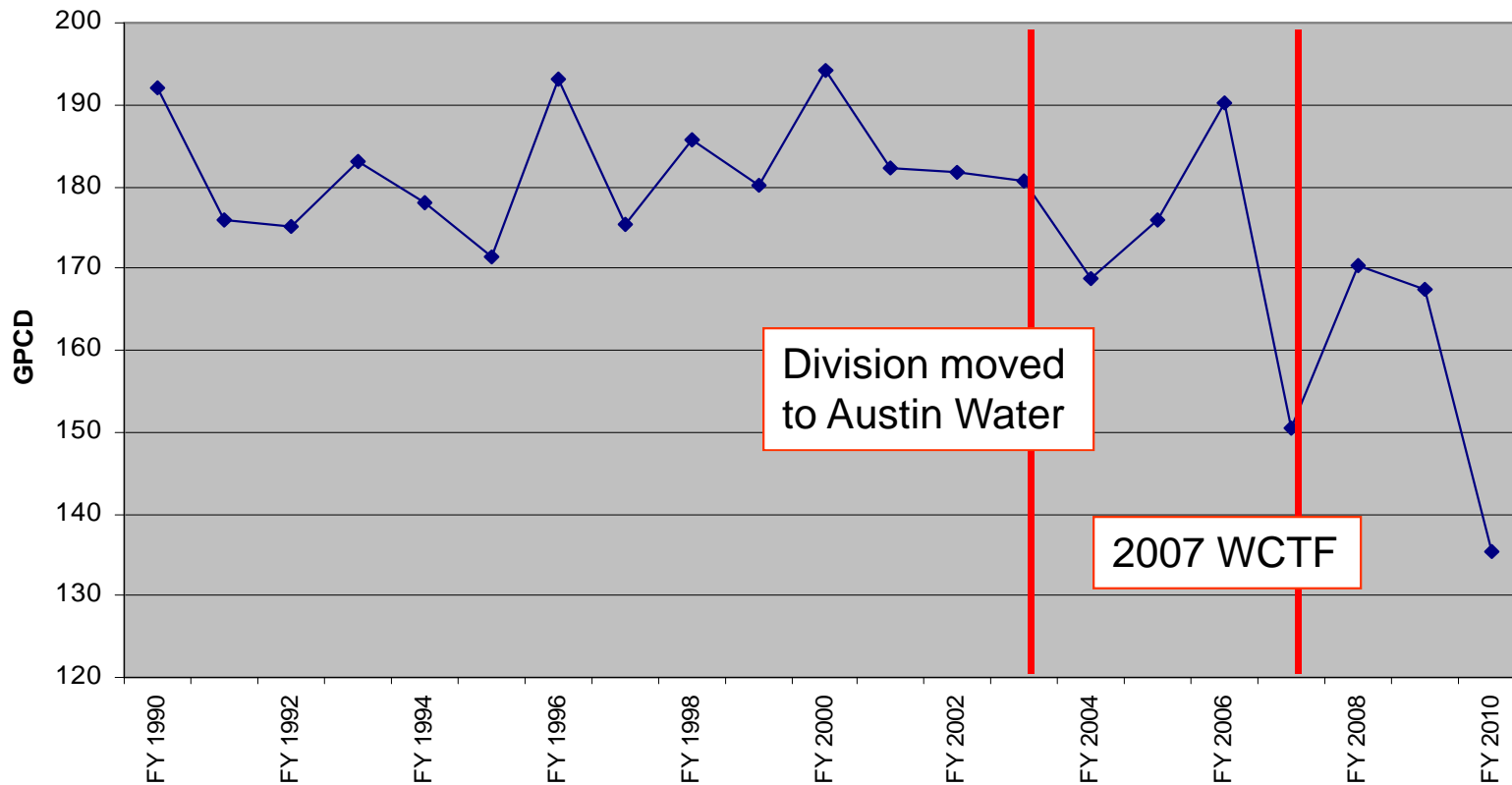
Resource Management Commission

June 21, 2011

Purpose of Presentation

- Context for discussion
 - Water Use Trends
 - Council Direction
- Response to citizen report
 - Overall Patterns
 - Existing Programs
 - 2007 Recommendations
 - 140 Plan
- Final comments

Context: Water Use (GPCD from FY 1990 to 2010)



Context: Council Direction

- May 2007
 - Water Conservation Task Force (WCTF) recommendations adopted
 - Designed to reduce peak day water use by 1% per year over 10 years
- August 2009
 - Directed to explore additional possible average day savings with Citizen's Task Force
- May 2010
 - Directed to develop a plan to reach 140 GPCD by 2020 that included quantifying over 100 Citizen's Task Force recommendations
- July 2010
 - RMC finalized report to Council on WCTF progress
- January 2011
 - Staff briefing to Council on 140 Plan
- February 2011
 - Staff returned to commissions as directed

Context: Citizen Report

- Contradictory phrasing
 - Cites history of “small but effective programs” and current stagnation, but acknowledges significant recent usage drop
 - Criticizes savings as both “overstated” & “conservative” for same program
 - Claims no new programs to “replace” savings, but mentions new/expanded programs and proposals in 140 plan
- Selective information
 - Based on Public Information Requests (PIRs)
 - Citizen declined offers to meet with conservation staff
 - Omits information provided in commission meetings and PIR responses

Overall Patterns: **Conflict of interest between conservation & utility**

- Recommends moving conservation out of Austin Water
 - Acknowledges that most utilities manage conservation (AE & SAWS)
 - Placement of conservation studied by City Manager
- Ignores marked improvements since 2003 transfer to Austin Water
 - Per capita consumption decreasing
 - Peak pumpage decreasing
 - Increased funding and staff
 - Integration with planning, operations, and finance
- Utility efforts directed by Council

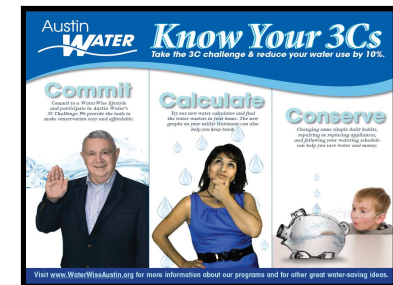
Overall Patterns:

Lack of savings methodology & local data

- Recommends better savings methodology
 - WCTF analyses done by consultant, reviewed by City Auditor
 - Ignores improvements in savings research & verification
 - Dedicated research staff
 - Key component of 140 Plan
 - Partnerships with Water Research Foundation, Alliance for Water Efficiency, University of Florida to support national & local research
- Recommends more locally-based data
 - In-house studies require adequate samples
 - Focusing efforts on areas with little or no reliable national data
 - Watering schedule & enforcement, irrigation evaluations, meter accuracy, irrigation PRVs, rainwater harvesting

General Criticisms: No new programs planned

- Saturation of current programs is a sign of success
- Ignores new programs in 140 Plan
- Does not acknowledge recent program changes:
 - 3C Challenge & 3C Business Challenges
 - Restructured Rainwater & Irrigation Rebate Programs
 - New Landscape Conversion Pilot Program
 - Changes to watering schedule variances
- Programs in development not provided as part of PIRs



Existing Programs

- Commercial Process Rebates
- Free Toilets & Toilet Rebates
- WashWise Rebates
- Irrigation Evaluations

Existing Programs: **Commercial Process Rebates**

- Lack of full-time staff acknowledged in 140 Plan
 - Facility audit RFP in process; expected Fall 2011
- Lack of proactive outreach addressed through:
 - 3C Business Challenge
 - Green Business Leader program
- Criticizes Spansion rebate for being too small – 11% of total cost
 - Contradicts financial balance concern
 - In line with touted AE programs
- Economic downturn
 - AE has seen a significant decline in participation by small businesses
 - Slower payback for water than energy

Existing Programs: **Free Toilet & Toilet Rebate Programs**

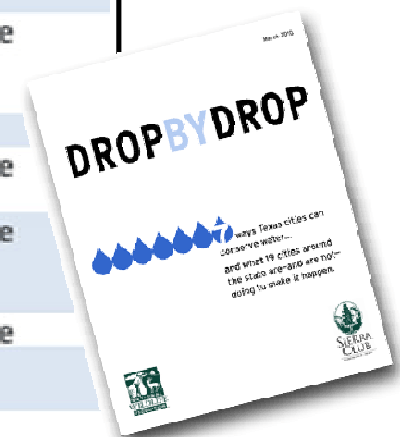
- Report focuses on discontinued programs
 - Free Toilet Program scheduled to end August 31, 2011
 - Toilet Rebate Program (single-family) ended June 2010
 - Toilet Rebate Program (multi-family) ended Dec 2009
- Main criticisms:
 - *Lack of financial balance*
 - In place since early 1990's
 - Cost-effective for long-term water savings
 - *Ineffective toilet recycling*
 - Recycling options investigated in 2008
 - Incorrect claims despite responsive information provided
 - *Ignores multifamily & commercial customers*
 - Acknowledges high saturation while claims considerable savings still exist
 - Free program available to MF/ICI customers
 - Rebates available through commercial retrofit program



Recommendations for Toilet Retrofits

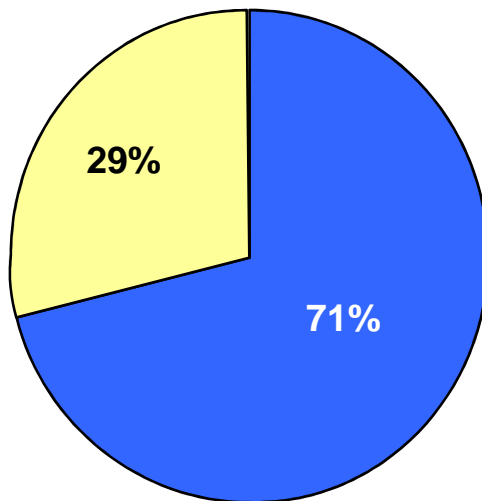
“... the utility should aim to retrofit at least **50 percent** of eligible single-family homes and multi-family units with the most efficient toilets” (2004 Texas Water Development Board BMPs, as cited in the Sierra Club & National Wildlife Federation report)

Arlington	Moderate
Austin	Strong
Beaumont	Weak
Brownsville	Weak
College Station	Moderate
Corpus Christi	Weak
Dallas	Moderate
El Paso	Moderate
Fort Worth	Moderate
Garland	Weak
Houston	Weak

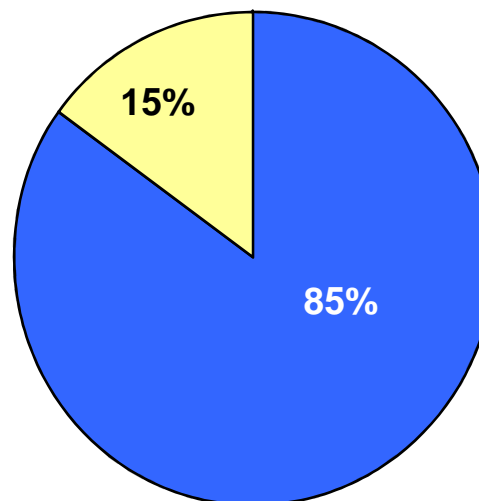


Saturation of Toilet Replacements

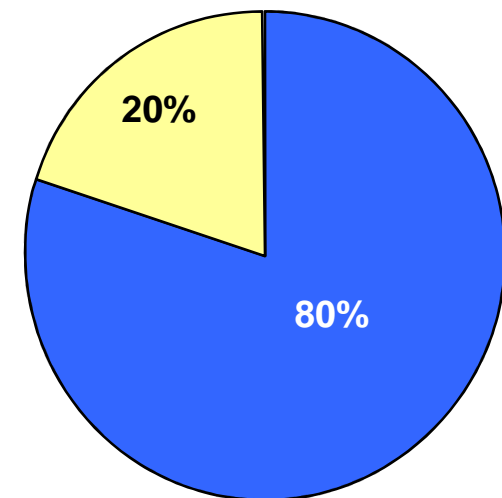
Commercial



Multi-family



Single-family

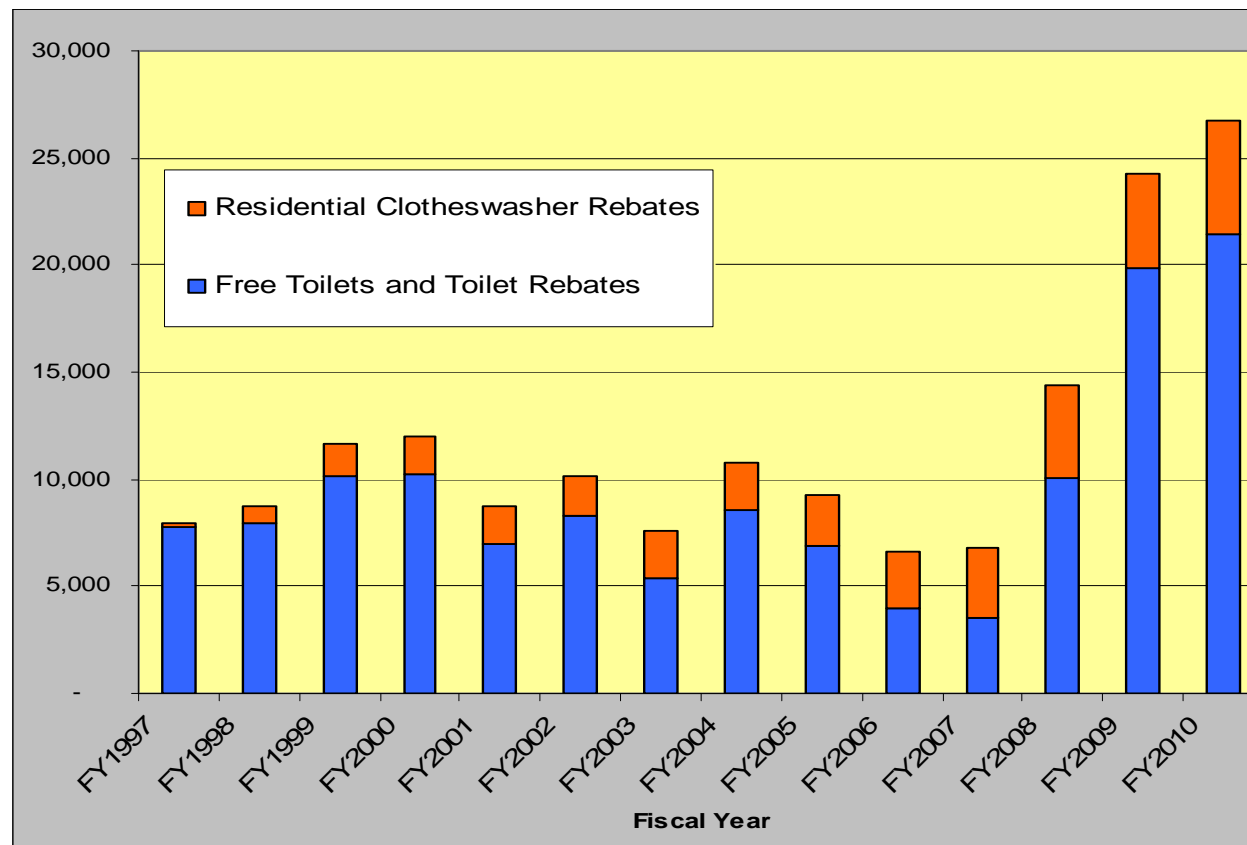


- % Replaced
- % Not Replaced

Existing Programs: **WashWise Rebate Program**

- Minimizes residential success
 - Criticizes lack of marketing, but cites high participation
 - Point-of-sale marketing is effective and very low cost
 - Recommends rebate amount should reflect efficiency level; staff have found it more effective to periodically raise minimum efficiency level
- Claims commercial sector is ignored
 - Current rebate of up to \$250 (energy and water)
 - Criticizes lack of data, but recommends increasing commercial marketing nonetheless
 - 3C Business Challenge, WaterWise Partner program and upcoming ICI contract will drive participants to available rebates

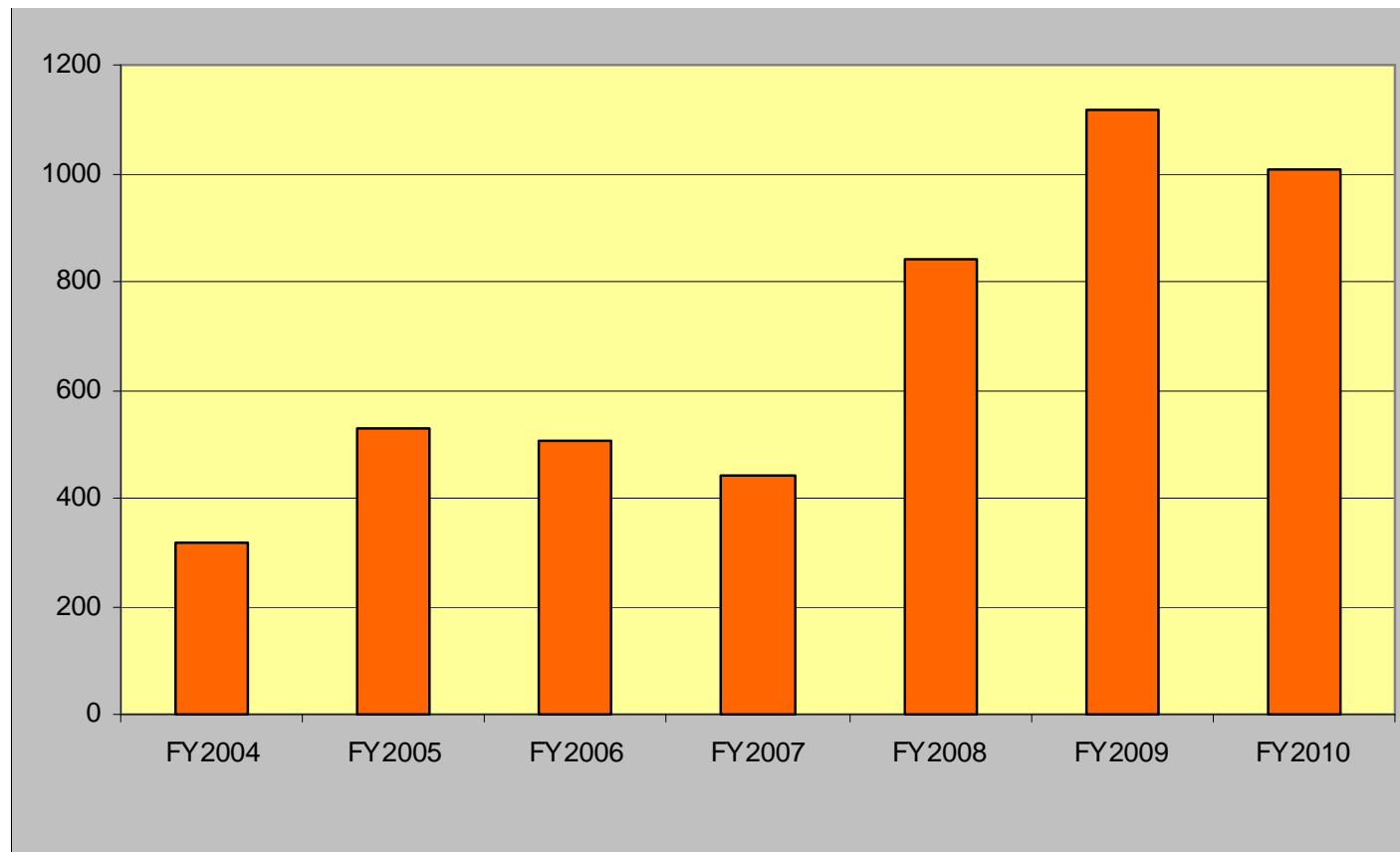
Participation in Rebate Programs



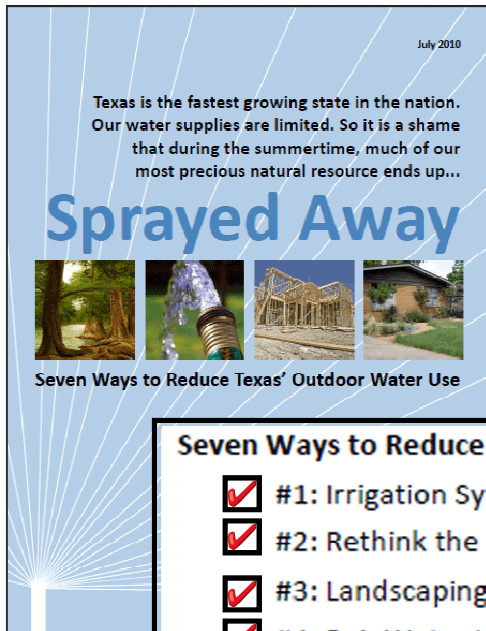
Existing Programs: **Irrigation Upgrade Program**

- Claims savings estimates are flawed
 - Methodology uses citywide consumption as proxy for weather and reflect recognized seasonal irrigation trends
- Doesn't recognize benefits of participation by lower volume users
 - Marketing focuses on high-volume users, but not turning away “low” use customers with high bill complaints or water waste violations
- Additional criticisms:
 - *Savings did not match real-world bills*
 - Citizen looked at limited sample of customers in low water use year
 - *Savings only last 3 years*
 - 33% rate of decay recommended by AWE

Number of Irrigation Audits Performed Per FY

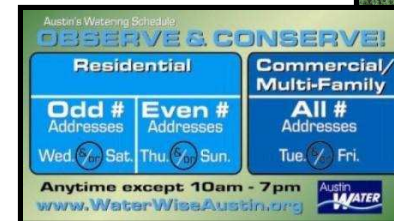


Other Outdoor Conservation Programs



Seven Ways to Reduce Texas' Outdoor Water Use

- ✓ #1: Irrigation Systems
- ✓ #2: Rethink the Lawn
- ✓ #3: Landscaping Rebate Programs
- ✓ #4: RainWater Harvesting
- ✓ #5: Rate Structures
- ✓ #6: Watering Ordinances
- ✓ #7: Education Programs



2007 Water Conservation Task Force: Overview

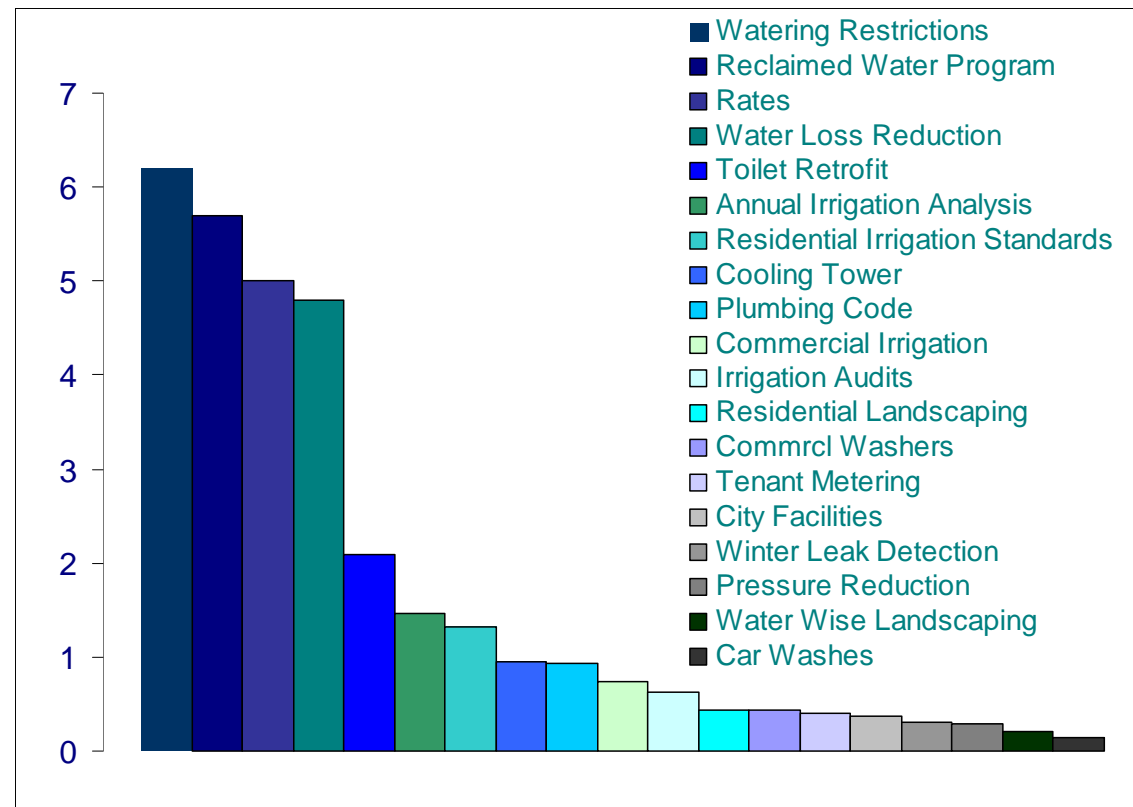
- General comments
- Peak day pumpage
- Savings by measure
- Specific measures
 - Water Use Management Ordinance
 - Reclaimed Water
 - Water Loss Prevention
 - Conservation Rate Structure

2007 Water Conservation Task Force: General Comments

- Claims only 7 recommendations have had some level of success
 - Of 25 items, 17 implemented in whole or in part
- Ignores new Council charge 2 years into implementation
 - 25 scheduled meetings and over 1,200 hours of staff time in FY10
- Not consistent with findings of RMC or CWCITF

2007 WCTF Recommendations by Savings

- Estimates prepared by consultant and verified by City Auditor's Office
- Prioritized least-cost, highest potential savings strategies
- Designed to realize peak-day savings over 10 years

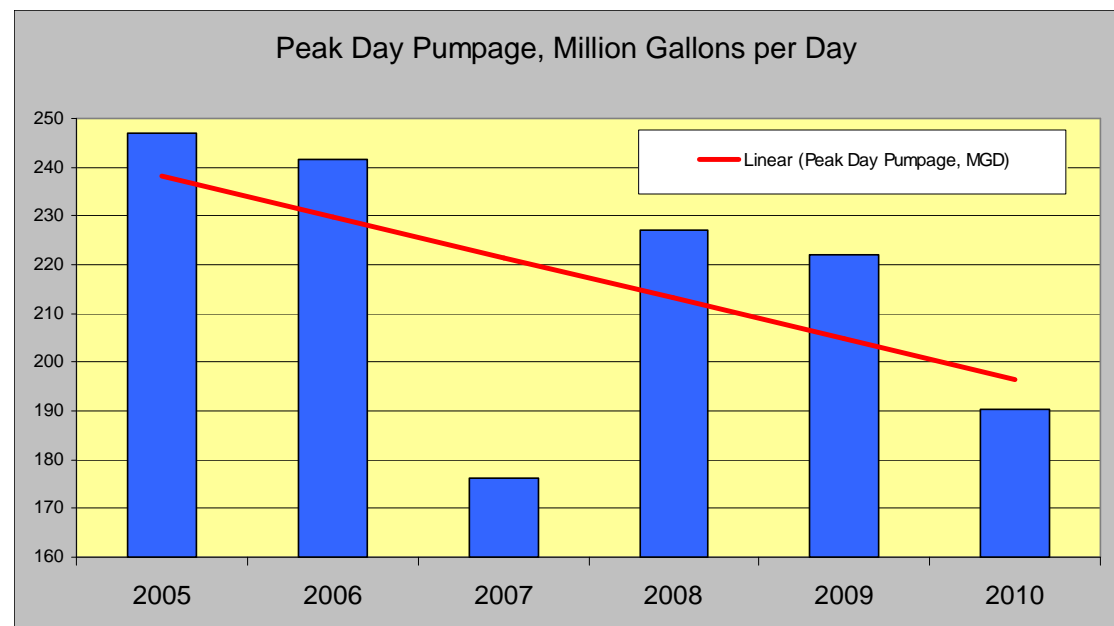


Decline in Peak Day Pumpage

Peak day reduction is
ultimate measure of
success

Goal: **1%** decrease/yr

Actual: **4%** decrease/yr



2007 Water Conservation Task Force: Water Use Management Ordinance (OU-2)

- Succeeding in meeting savings goals
- Claims “publicity and citations” kept usage down
- Award-winning campaign for Stage 2
 - IABC Austin Bronze Quill Award
 - Texas Public Relations Association 2010 Best of Texas Bronze Award
- Citizen criticisms:
 - *Only 2 staff – inspections done part-time & randomly*
 - Temporary staff & outside staff recruited as needed
 - Program Coordinator position filled in 2010
 - *Low citation rate in summer 2010*
 - Overall objective is compliance
 - Ignores impact of warnings
 - Enforcement increases in drought stages

Austin's Watering Schedule

Residential		Commercial/ Multi-Family
Odd # Addresses	Even # Addresses	All # Addresses
Wed.  Sat.	Thu.  Sun.	Tue.  Fri.

Anytime except 10am - 7pm
www.WaterWiseAustin.org 



2007 Water Conservation Task Force: Reclaimed Water Program (CI-2)

- Unrealistic projections about potential
 - Assumes 1:1 potable offset
 - Implementation plan includes 2007 WCTF recommendations
 - San Antonio completed in 2000, did not meet full demand until 2010
- Incorrectly states that future revenues not included in 140 Plan
 - Included at a 10% increase per year; new budget will increase to 15%

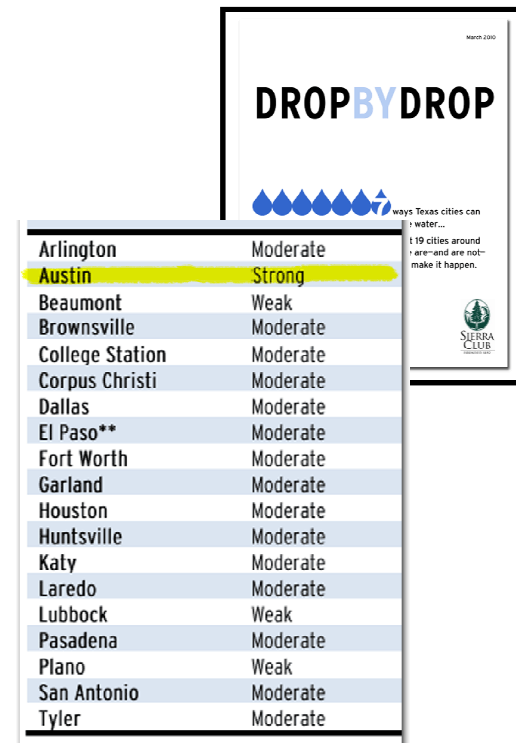


2007 Water Conservation Task Force: Water Loss Prevention (CI-2)

- Water loss levels within top-tier of AWWA ratings
- Implemented annual water loss evaluations with improved accuracy
- Subsurface leak detection efforts exceed recommendations of WCTF
- Focus on percentage of pipeline replaced is misleading
 - Replacement focuses on problem lines
 - Problems not necessarily correlated with age
 - Repair when possible, replace when necessary
 - Financially and environmentally responsible
 - Accounts for time and budget management

2007 Water Conservation Task Force: Conservation Rate Structure (CI-3)

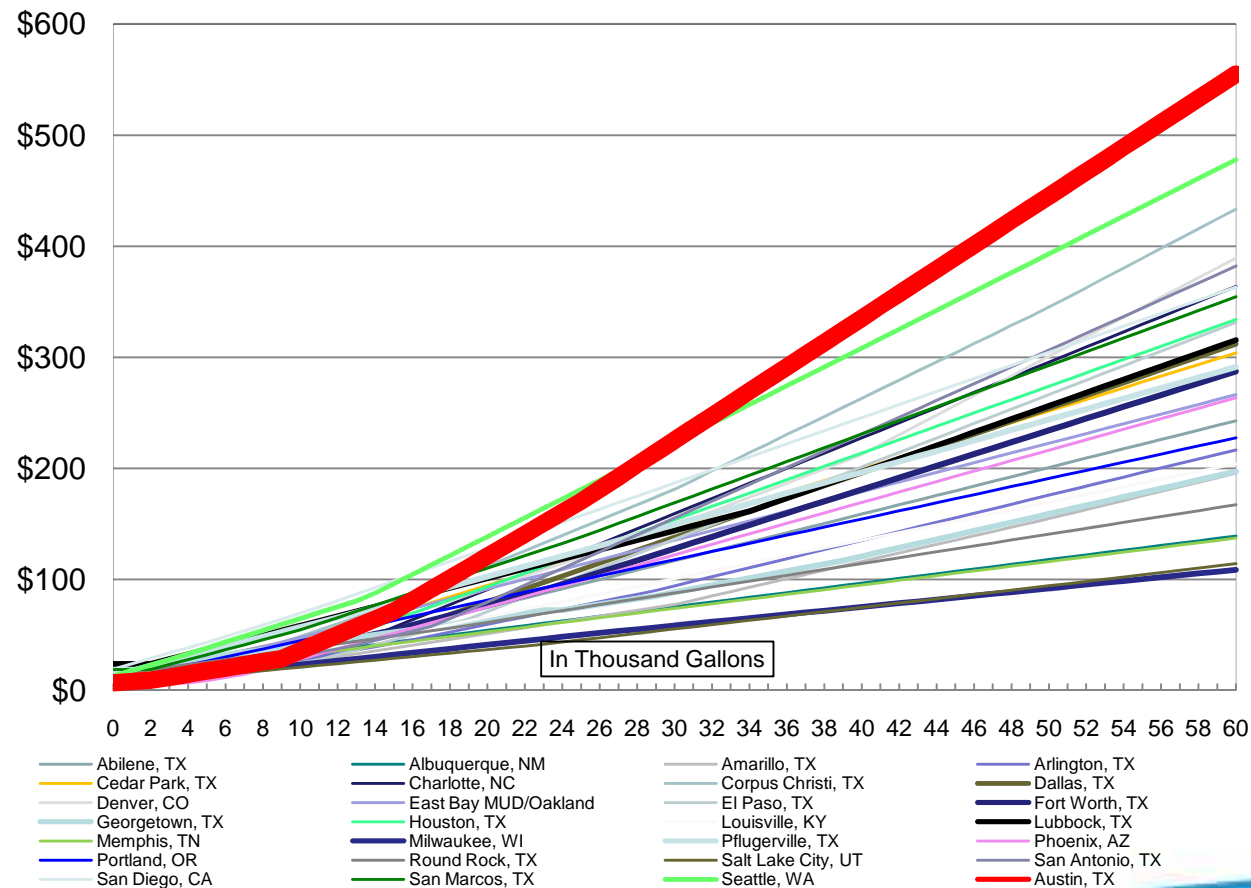
- Recognized leader in conservation rates
 - Affordable for low-volume users, discourages discretionary use
 - Only Texas city rated “strong” by Sierra Club & NWF
- Incorrectly states rates are highest in Texas
 - Methodology adds \$4 charge to bill
 - Mixes rates from different years
 - Uses incorrect averages for water and wastewater use
 - No basis for statement that rates do not “...appear to be steep enough...” to be effective



The image shows the cover of a Sierra Club report titled "DROP BY DROP" dated March 2007. The cover features a graphic of water droplets and a quote: "ways Texas cities can save water... at 19 cities around the state and are not making it happen." Below the cover is a table listing 19 Texas cities and their water conservation ratings.

Arlington	Moderate
Austin	Strong
Beaumont	Weak
Brownsville	Moderate
College Station	Moderate
Corpus Christi	Moderate
Dallas	Moderate
El Paso**	Moderate
Fort Worth	Moderate
Garland	Moderate
Houston	Moderate
Huntsville	Moderate
Katy	Moderate
Laredo	Moderate
Lubbock	Weak
Pasadena	Moderate
Plano	Weak
San Antonio	Moderate
Tyler	Moderate

Residential Water Bills 0 – 60,000 Gallons



Energy Use and GHGs

- *Uses 2% of the City's electricity*
 - Water treatment is an energy intensive practice
 - Pursued energy efficiency with treatment enhancements for decades
 - Maintained constant level of energy use despite 7% increase in service elevation
- *No comprehensive conservation plan*
 - Department Climate Protection Plan includes strategic audits & improvements in high-energy uses
 - Changing capital improvement culture to include life-cycle energy analysis
- *Delayed mandate to buy renewable energy*
 - GreenChoice availability in earlier “blocks” limited to private customers
 - Meeting Council deadline

140 Plan: General Comments

- Citizen report appears to agree with several recommendations
- Criticisms largely focused on presentation rather than content
 - Presentation was staff briefing to Council
 - Austin Water acknowledged several programs needed additional stakeholder input before moving forward
- Criticizes lack of public input prior to Council briefing
 - Extensive, open meetings during CWCITF process
 - Council directed staff to prepare plan based on publicly-vetted strategies
 - Council and CWCITF trusted staff to analyze strategies & develop action plan
 - Additional opportunities for stakeholder input as proposals move forward

What else have we been doing?

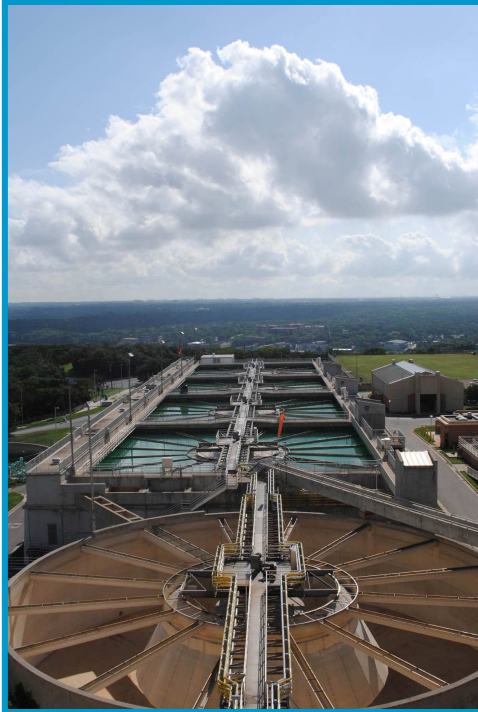
- Implemented Stage 2 drought restrictions
- Passed Commercial Landscape Ordinance (stormwater)
- Refined reporting processes and outdated savings estimates
- Restructured rebate programs and added new pilot programs
- Revised revenue projection methodologies
- Involved with LCRA Water Management Plan negotiations
- Working with TWDB Advisory Council on metrics and BMPs
- Partnering with national groups on research efforts
- Strengthened partnership with Grow Green programs
- Developed new tracking database
- Preparing for conversion to new billing system
- Hired new management and staff

Moving Forward

- Overall program goals:
 - Reach 140 GPCD by 2020
 - Reduce peak demand
 - Pursue cost-effective strategies
 - Ensure conservation reaches all customer sectors
 - Ensure consumer awareness of conservation
 - Promote innovation in water conservation
- Requires code changes, financial and staff investments, and cooperation and enthusiasm from a broad range of the citizenry
- Requires flexibility in implementation to adapt to changing conditions

Final Thoughts

- Sierra Club & National Wildlife Federation report concluded that:
*...it was clear that two cities stood out as having strong programs in most or all of the measures we looked at: San Antonio and Austin. San Antonio has long been a national leader in water conservation and has achieved impressive success. **Austin recently has begun to step up its programs.***
- Declining GPCD, declining peak day pumpage, and increased program participation indicate success of current programs **and direction for future**



Questions?

Drema Gross

Water Conservation Division Manager

(512) 974-2787

drema.gross@ci.austin.tx.us

www.waterwiseaustin.org