

# Memorandum

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CITY SECRETARY  
DALLAS, TEXAS



CITY OF DALLAS

DATE February 6, 2015

TO Honorable Members of the Quality of Life & Environment Committee:  
Sandy Greyson (Vice Chair), Adam Medrano, Rick Callahan, Carolyn R. Davis, Lee M. Kleinman

SUBJECT Quality of Life & Environment Committee Meeting Agenda

**Monday, February 9, 2015, 9:00 a.m.**

Dallas City Hall - 6ES, 1500 Marilla St., Dallas, TX 75201

The agenda for the meeting is as follows:

- |   |  |
|---|--|
| 1. Call to Order  | Dwaine R. Caraway<br>Chair                                 |
| 2. Approval of January 26, 2015 Minutes                           | Dwaine R. Caraway<br>Chair                                 |
| 3. Dallas Animal Shelter Commission's<br>FY2013 -14 Annual Report | Mary Spencer<br>Chair, Dallas Animal Shelter<br>Commission |
| 4. Proposed Amendments to Animal Noise Ordinance                  | Kris Sweckard<br>Director, Code Compliance                 |
| 5. Water Conservation Program Update                              | Jody Puckett<br>Director, Dallas Water Utilities           |
| 6. Adjourn  | Dwaine R. Caraway<br>Chair                                 |

Please let me know if you have any questions.

A handwritten signature in black ink, appearing to read 'Dwaine R. Caraway'.

Dwaine R. Caraway  
Chair

c: Honorable Mayor and Members of the City Council  
A.C. Gonzalez, City Manager  
Warren M.S. Ernst, City Attorney  
Craig D. Kinton, City Auditor  
Rosa A. Rios, City Secretary  
Daniel F. Solis, Administrative Judge  
Ryan S. Evans, First Assistant City Manager

Eric D. Campbell, Assistant City Manager  
Jill A. Jordan, P.E., Assistant City Manager  
Mark McDaniel, Assistant City Manager  
Joey Zapata, Assistant City Manager  
Jeanne Chipperfield, Chief Financial Officer  
Sana Syed, Public Information Officer  
Elsa Cantu, Assistant to the City Manager – Mayor & Council

**NOTICE:** A quorum of the Dallas City Council may attend this Council committee meeting.

A closed executive session may be held if the discussion of any of the above agenda items concerns one of the following:

1. Contemplated or pending litigation or matters where legal advice is requested of the City Attorney. Section 551.071 of the Texas Open Meetings Act.
2. The purchase, exchange, lease or value of real property, if the deliberation in an open meeting would have a detrimental effect on the position of the City in negotiations with a third person. Section 551.072 of the Texas Open Meetings Act.
3. A contract for a prospective gift or donation to the City, if the deliberation in an open meeting would have a detrimental effect on the position of the City in negotiations with a third person. Section 551.073 of the Texas Open Meetings Act.
4. Personnel matters involving the appointment, employment, evaluation, reassignment, duties, discipline or dismissal of a public officer or employee or to hear a complaint against an officer or employee. Section 551.074 of the Texas Open Meetings Act.
5. The deployment, or specific occasions for implementation of security personnel or devices. Section 551.076 of the Texas Open Meetings Act.

# Quality of Life & Environment Committee Meeting Record

**DRAFT**

**Meeting Date:** January 26, 2015

**Convened:** 9:15 a.m.

**Adjourned:** 11:04 a.m.

**Members Present:**

Dwaine R. Caraway, Chair  
Adam Medrano  
Rick Callahan  
Carolyn R. Davis  
Sandy Greyson, Vice Chair

**Members Absent:**

Lee M. Kleinman

**Briefing Presenters**

Zaida Basora  
Assistant Director, Public Works

Jesse Dillard  
Senior Program Manager, Public Works

Forest E. Turner  
Chief Wellness Officer

Kelly High  
Director, Sanitation Services

Murray Meyers  
Senior Waste Diversion  
Coordinator, Sanitation Services

**Staff Present:**

Joey Zapata, Tammy Palomino, LaToya Jackson, Jesse Dillard, Ben Collins, Kelly High, Murray Meyers, Kimberley Mackey, Kris Sweckard, Zaida Basora, Barbara McAninch, Tyrone McGill, David Cossum, Frank Camp, Rick Galceran, Forest Turner, Casey Burgess, Larry Holmes, Karen Plunkett, Eric Izuora, Chris Soto

**Special Guests:**

Kathy Carlton, Apartment Association of Greater Dallas

**AGENDA:**

1. **Approval of January 12, 2015 Minutes**

**Presenter(s):**

A motion was made to approve the minutes of January 12, 2015.

**Action Taken/Committee Recommendation(s):**

**Motion made by:** Sandy Greyson

**Motion seconded by:** Adam Medrano

**Item passed unanimously:**

**Item passed on a divided vote:**

**Item failed unanimously:**

**Item failed on a divided vote:**

**2. City of Dallas 2014 Energy Management Update**

**Presenter(s):** Zaida Basora

**Information Only**

This briefing provided the committee a review of the City’s energy management program.

CM Callahan requested information on the LEED Certification plan for the Texas Horse Park.

**Action Taken/Committee Recommendation(s):**

**Motion made by:**

**Motion seconded by:**

**Item passed unanimously:**  **Item passed on a divided vote:**

**Item failed unanimously:**  **Item failed on a divided vote:**

**3. Waste Diversion Update**

**Presenter(s):** Kelly High

**Information Only**

This briefing discussed the City’s zero waste efforts and goals; listed current outreach programs, partnerships and policies to advance goals; and explained opportunities and policy matters for future consideration and development.

The Chair invited Kathy Carlton to comment.

The Chair requested to further discuss the City’s Zero Waste efforts during the next briefing from Sanitation Services.

**Action Taken/Committee Recommendation(s):**

**Motion made by:**

**Motion seconded by:**

**Item passed unanimously:**  **Item passed on a divided vote:**

**Item failed unanimously:**  **Item failed on a divided vote:**

**4. Rest Break Ordinance Update**

**Presenter(s):** Forest Turner

**Information Only**

A memo updating the committee on the status of Rest Break Ordinance discussions between stakeholders and staff was provided to the committee.

CM Medrano motioned to recommend adoption of the Austin rest break ordinance to the full council with the following additions: Require signage that includes instructions on how to confidentially report non-compliance and text that states that workers need water, rest, and shade to prevent heat related illnesses with an effective date of March 30, 2015 for a full council vote.

**Action Taken/Committee Recommendation(s):** Motion to move forward rest break ordinance for full council consideration.

**Motion made by:** Adam Medrano

**Motion seconded by:** Sandy Greyson

**Item passed unanimously:**

**Item passed on a divided vote:**

**Item failed unanimously:**

**Item failed on a divided vote:**

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**Councilmember Dwaine R. Caraway**  
Chair

# Memorandum



CITY OF DALLAS

DATE February 6, 2015

TO Honorable Members of the Quality of Life & Environment Committee: Dwaine R. Caraway (Chair)  
Sandy Greyson (Vice Chair), Adam Medrano, Rick Callahan, Carolyn R. Davis, Lee M. Kleinman

SUBJECT Dallas Animal Shelter Commission's FY2013-14 Annual Report

On Monday, February 9, 2015, the Quality of Life & Environment committee will be briefed on the Dallas Animal Shelter Commission's FY2013-14 Annual Report by Mary Spencer, Chair of the Dallas Animal Shelter Commission. The briefing and annual report are attached for your review.

Please contact me if you have any questions.

A handwritten signature in blue ink that reads "Joey Zapata".

Joey Zapata  
Assistant City Manager

## Attachment

c: Honorable Mayor and Members of the City Council  
A.C. Gonzalez, City Manager  
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# Dallas Animal Shelter Commission's FY2013 – 14 Annual Report

Presented to the Quality of Life &  
Environment Committee

February 9, 2015





# DALLAS ANIMAL SERVICES

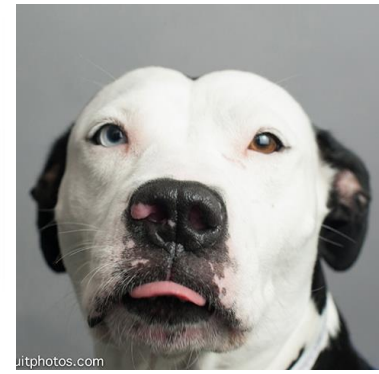
## ANNUAL REPORT FISCAL YEAR 2013 - 2014

### Live Release Rate

# 45.6 % - A New Record

## 8,192 Adoptions A New Record

## 1,686 Returns to Owner A New Record



Empty the Shelter Day – 149 adoptions in One Day



"Peanut"  
Lost a leg but found the perfect home



City of Dallas



Pets for Life Program touched over 1,000 pets & people





## Animal Shelter Commission Priorities for FY 2014 - 15

- Further our guidance and support of our community and DAS' efforts toward sustainable programs which address the issues pertaining to animals in our communities, as we help continue the increased growth of the shelter's **Live Release Rate** - through increasing partnerships, community outreach, adoptions, returns to owners, transfers to other non-profit animal welfare organizations and enforcement efforts.
- Support Dallas citizens through Outreach Efforts in working towards a sustainable solution to the loose neighborhood dog issues.
- Continue to actively engage City Council with the Quality of Life issues for animals and people. Work strategically together in achieving these mutual goals and to obtain the necessary funding to obtain the goals for both the Field and Shelter initiatives that our community demands.

# The transformation of DAS is beginning its 4<sup>th</sup> year.

## Shelter Successes include:

- **Adoptions are up higher than ever!** 1,385 more animals found homes!  
The PetSmart EAC set national records for most animals adopted!
- **LRR continues to climb.** 45.6% for FY 2014/14 – an increase of 12% from FY 2009/10 when new management team began. Definitely a gain from 2007-08, at 13% LRR.
- **Almost 10,000 animals were altered at DAS.** This figure includes every adopted pet from the shelter and those pets belonging to owners needing free surgeries which were provided at Spay Days at DAS!
- **Many Outreach services** such as low cost vaccine clinics have been offered to pet owners in low-income area, providing free resources, which help these owners be able to keep their pets at home and not surrender to the shelter.
- **Over a million dollars in grants** have been awarded to DAS from local and national organizations as a result of this work.

**The Community supports and funds saving lives.  
We, the City, must fund Animal Control.**

# Field Initiatives and the Loose / Wandering Dog Issues in Dallas

Critical to the success of the Mayor's "Grow South" plan is "Culture of Clean" and Strengthening the Neighborhoods by helping others out and creating a culture of accountability.

## Strategies which were Enhanced to Reduce Loose Dogs Substantially

- Smart Sweep vs. old way of thinking of "Round Ups" of Loose Dogs
- HSUS Pets for Life (PFL) Outreach Program launched in 75216
- Work with the 311 call system to capture valuable info. to enhance effectiveness
- Big Fix for Big D – Free Spay Neuter Program to include officer incentives
- Community Networking Programs
- Crime Watch and Neighborhood Association Intervention
- Technology assessment to enhance efficiencies

**It will take focused community efforts to solve this decade-old problem of loose dogs in a long-term substantial manner.**

Providing DAS with the tools to collect accurate and consistent data regarding the loose / wandering dog issues is essential to meet our goals.

***Computers and software must communicate and work together,  
not as stand alone programs.***

- **If the City is serious about resolving systemic issues with animals which have plagued the Dallas community, they must commit the resources.**
- **Continuing to use “hand-me-down” computers and archaic software will not provide the information needed to address the issues in effective ways.**

Establish the infrastructure consistent with other priority response departments and reporting data in similar formatting to the Police Department’s data, in a similar format to gauge the successes of community policing in animal control – thus keeping all reporting consistent, fluid and easy to analyze and compared; which , then could to be more effectively presented at Crime Watch and HOA meetings.

## What is *SUCCESS*?

**City Council, the Commission and the Community must reach common ground on what is determined to mean “Success”.**

- Some want more lives saved and to stop EU of healthy and treatable animals.
- Some want loose dogs off the streets – even though many of these animals are owned by neighbors who don’t abide by the city’s ordinances.

**WE MUST MAKE A COMMITMENT TO OUR CITIZENS  
AND THOSE OF US IN THE COMMUNITY WORKING DAY AND NIGHT  
TO MAKE THIS SITUATION BETTER**

A decision must be made to make this a priority for the City. We must demonstrate that commitment to “success” by the Council and City Administration, declaring this a priority through actions and funding for DAS rather than unrealistic demands of existing resources.

- Adequate funding for operations to support acceptable Live Release Rates
- Adequate funding for staff to support the operations of both the shelter services and field services which will make Dallas proud.
- The Nation and Dallas have made a commitment to the community policing model and the Commission believes that commitment to this model and the associated resources for both Dallas’ pet over-population and people issues could be solved, thus resulting in a higher and better quality of life for all.

**Which could mean *“No More Loose Dog Reports to Councilmembers!”*  
Resulting in Better Sleep for ALL!**

# **Commission's Role in the Budget Process**

2013-14 was the second year of Commission lobbying to Council for additional funding.

Code requested an additional \$1.47M and thanks to Council and City Manager support, DAS received \$1.2M.

The Commission will continue to attend Neighborhood Association and Town Hall sessions and meet with Council to discuss the budget and request additional funds.

**We are excited about city management changes.**

**Kris Sweckard working with DAS.**

**Joey Zapata back - over-seeing Animal Control.**

**We thank them for their efforts in helping DAS and understanding the issues - working with us for sustainable solutions.**



# PETS FOR LIFE & GROW SOUTH KICK-OFF

Saturday, April 26, 2014

Beckley Saner Recreation Center  
Dallas, Texas

450 Pet owners

283 Pets Vaccinated

154 Pets Microchipped

875 lbs. of Pet Food Given Away

202 Spay/Neuter Vouchers Given Out

100+ Tennis Balls Rehomed

67 AWESOME volunteers!







**THANK YOU for YOUR SUPPORT  
from the Pets  
and the People of Dallas  
  
It Takes a Community!**



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TO Honorable Members of the Quality of Life & Environment Committee: Dwaine R. Caraway (Chair)  
Sandy Greyson (Vice Chair), Adam Medrano, Rick Callahan, Carolyn R. Davis, Lee M. Kleinman

SUBJECT Proposed Amendments to Animal Noise Ordinance

On Monday, February 9, 2015, the Quality of Life & Environment committee will be briefed on Proposed Amendments to Animal Noise Ordinance. The briefing is attached for your review.

Please contact me if you have any questions.

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Joey Zapata  
Assistant City Manager

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# Proposed Amendments to Animal Noise Ordinance

City of Dallas

Quality of Life & Environment Committee

February 9, 2015



# Purpose

- ▶ Provide and review requested changes to ordinances regulating noise disturbances by animals requested by the Committee on November 10, 2014

# Requested Changes

- ▶ Change the ordinance definition of barking, howling, crowing or other noise that is "unreasonable"
  - ▶ Proposal: Lower the standard from 15 to 5 continuous minutes in duration

# Requested Changes

- ▶ Per Committee request, written policy will:
  - ▶ Require site inspection upon receipt of third complaint in one calendar month
    - ▶ Continue compliance verification for animal registration, vaccination, spay/neuter and noise regulations
    - ▶ Utilize civil citations as needed
  - ▶ Not factor whether an animal is being provoked into barking in order to establish a violation

# Requested Changes

- ▶ Not require two additional, non-related witnesses for complaints filed by complainants with the City Attorney
  - ▶ Option 1: Decrease to one non-related witness
  - ▶ Option 2: Remove outside complaint process for animal noise
  - ▶ Option 3: No change

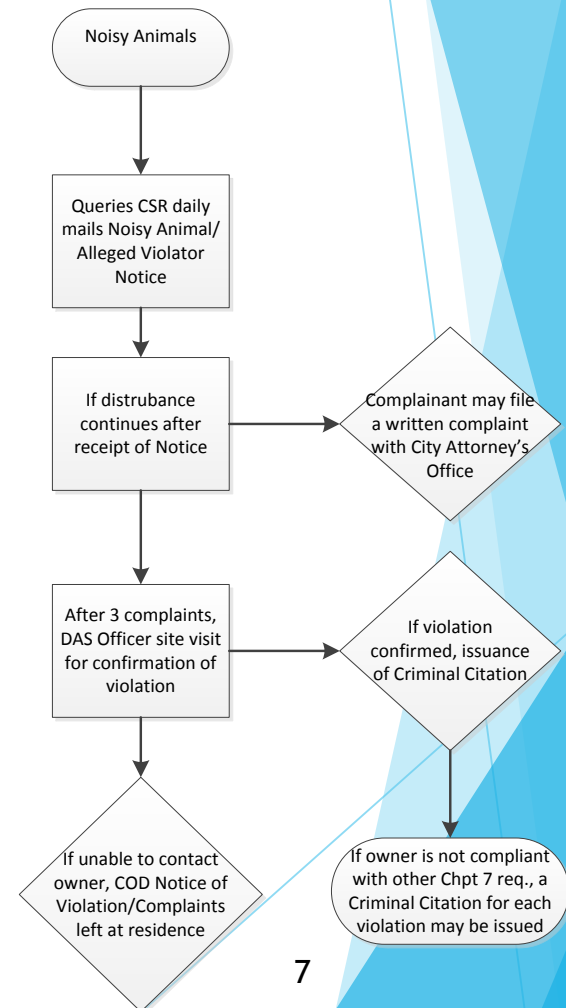
# Next Steps

- ▶ With Committee recommendation, draft an ordinance for City Council consideration for March 25, 2015



# Appendix: Current Process for Disturbances by Animals

- ▶ Complaint based
- ▶ Letter sent to identified owner and complainant
- ▶ Three complaints triggers DAS Officer site visit
- ▶ If violation confirmed, criminal citation issued
  - Criminal citations may be issued for other Chapter 7 violations as well



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Dwayne R. Caraway (Chair), Sandy Greyson (Vice-Chair), Rick Callahan,  
Carolyn R. Davis, Lee M. Kleinman, Adam Medrano

SUBJECT **Dallas Water Utilities Water Conservation Program Update**

Attached is a briefing that will be presented to the Quality of Life & Environment Committee on Monday, February 9, 2015. The briefing will provide an update on the status of current water conservation programs and topics under review for development of the 2015 Water Conservation Five-Year Strategic Plan Update, currently scheduled for final consideration in early June.

Please let me know if you should need additional information.

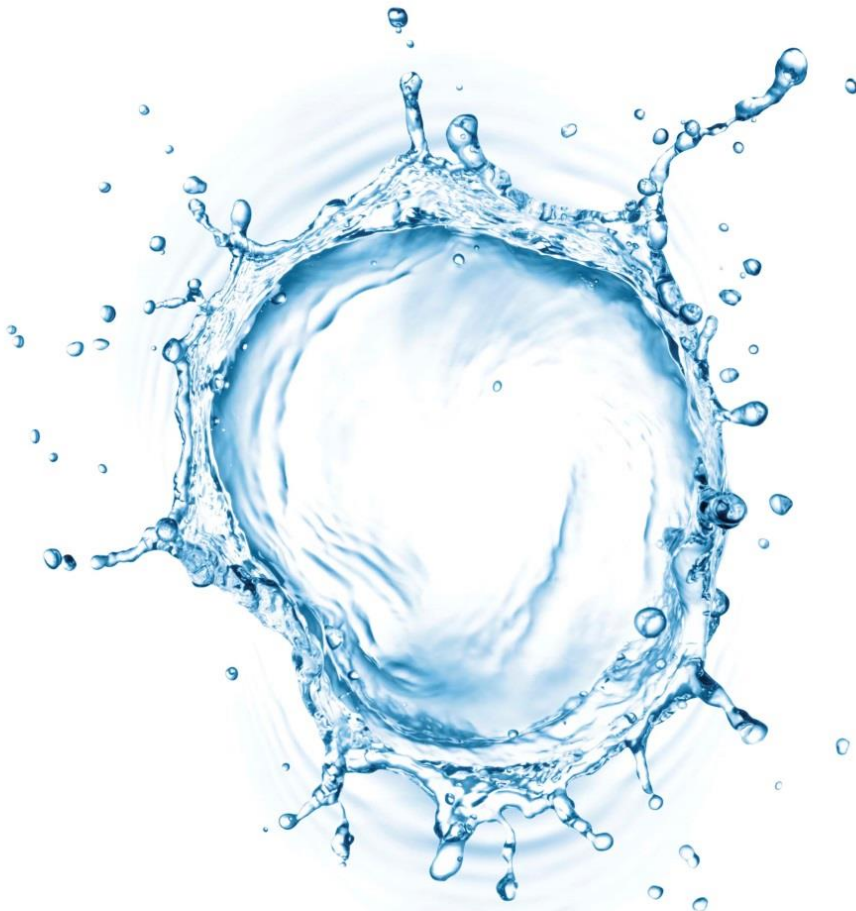
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Mark McDaniel  
Assistant City Manager

c: The Honorable Mayor and Members of the City Council  
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Elsa Cantu, Assistant to the City Manager – Mayor and Council  
Jo M. (Jody) Puckett, P.E., Director of Dallas Water Utilities

# Dallas Water Utilities

## Water Conservation Program Update



**Quality of Life & Environment Committee  
February 9, 2015**



# Briefing Purpose



- Provide an overview and update on:
  - Status of current water conservation programs
  - Topics under review for 2015 Water Conservation Five-Year Strategic Plan Update



# Outline

- Water Conservation Program Background
- 2015 Water Conservation Five-Year Strategic Plan Update
- Summary and Timeline
- Appendix

# Water Conservation Program Background



# Water Conservation Program Background

- The 2000 Long Range Water Supply Plan recommended that aggressive water conservation measure be implemented and funded to reduce per capita consumption (GPCD) and water demand
- In 2001 Water Conservation Ordinance passed to change behavior and to reduce peak usage
- In 2004, Dallas continued to pursue water conservation by:
  - Expanding public awareness campaign
  - Developing technical studies
  - Developing a Five-Year Strategic Plan on Water Conservation

# Water Conservation Five-Year Strategic Plan



- First Plan adopted by City Council in 2005
  - Defined goals for a five year period ending in FY 2009
- 2010 Strategic Plan Update adopted to:
  - Build on accomplishments of the original plan
  - Set new goals and programs for period ending in FY 2015



# Strategic Approach to Achieve Water Conservation Goals



- Ordinance changes
- Programs to reshape behaviors
  - Public education and outreach
  - Rebate and incentive programs
- Programs impacting structural changes
  - Water loss/leak detection
  - Main replacement program
  - Toilet replacement programs
  - ICI and irrigation audit programs

# Conservation Accomplishments

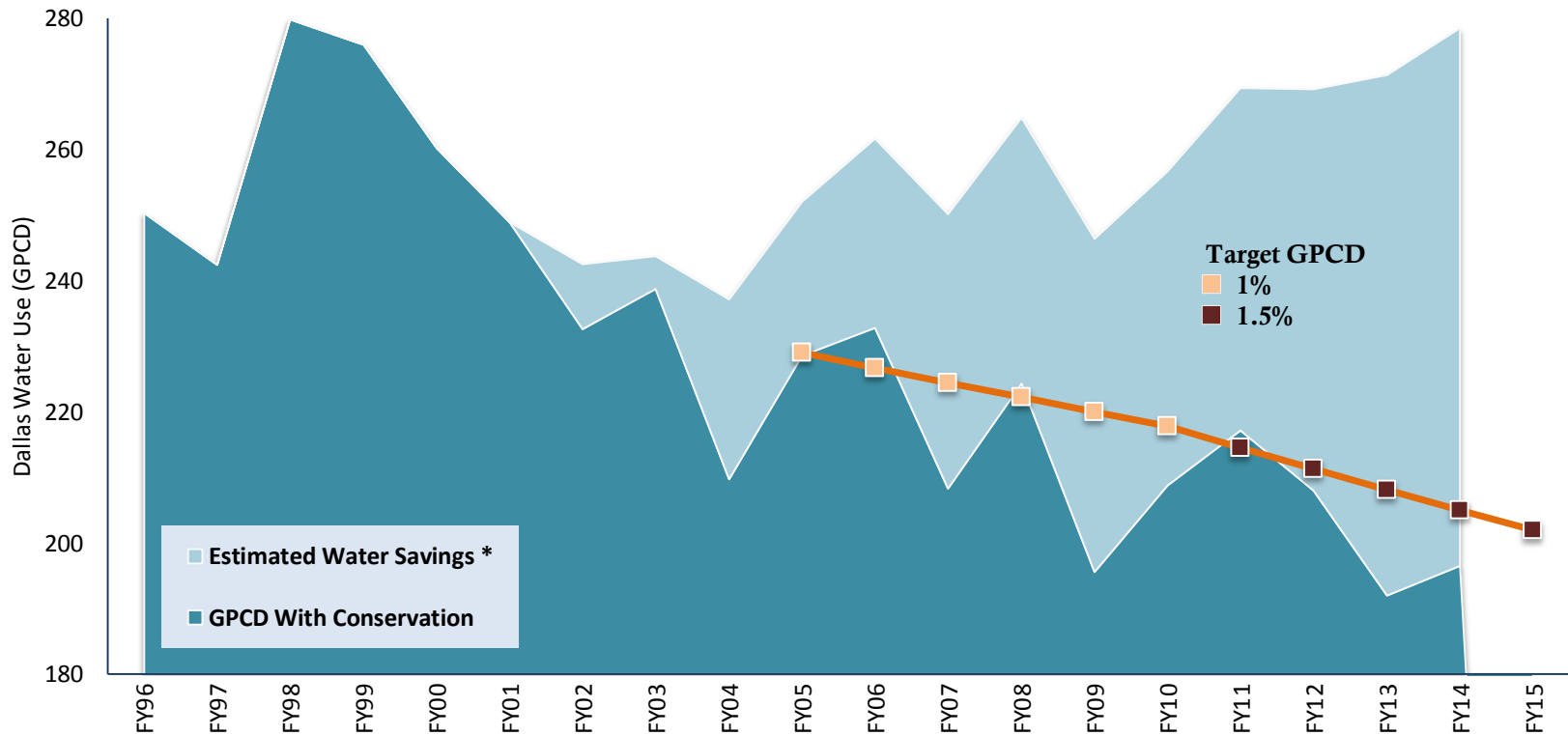
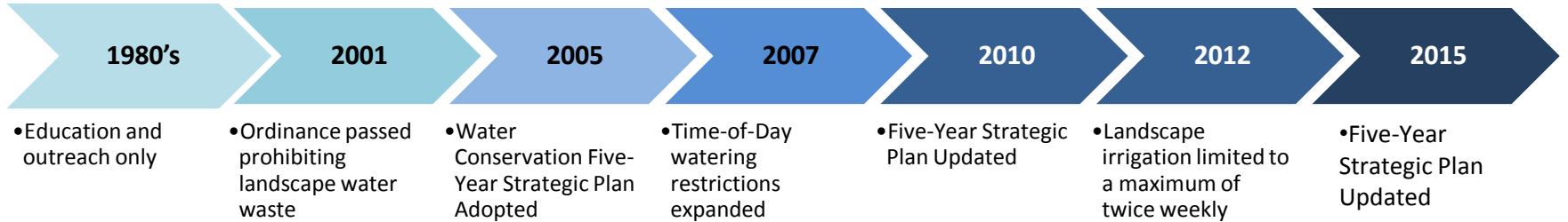
- Conservation measures adopted by the Council in Oct 2001 have been positive
  - Dallas has saved an estimated 250 BG of water (extending supply by almost 1.75 years)
  - GPCD has been reduced 27%
  - As a result, Dallas has been able to mitigate the impact of drought weather conditions on water supply
- Annual customer surveys from 2003 through 2014 indicate positive results:
  - Awareness of watering ordinance has increased from an average 60% to 76%
  - Customers reporting behavioral changes increased from an average 46% to 71%



# Status of Strategic Plan Recommended Strategies

Strategy	Adopted Plan	Implemented			Year Implemented	Continue Strategy?	Comments
		Fully	Partially	Not			
Water Wise Landscape Events		✓			FY 1994	Yes	
DWU Water and Wastewater Ordinance Amendments		✓			FY 2001	Yes	Amended in FY 2001, FY 2006, FY 2012
Tiered Rate Structure		✓			FY 2001	Yes	
Public Awareness Campaign		✓			FY 2002	Yes	
Rain and Freeze Sensor Rebate Program		✓			FY 2003	No	Program discontinued in FY 2004
Leak Detection & Repair and Control of Water Loss		✓			FY 2005	Yes	Enhanced in FY 2007, FY 2009, and FY 2011
Environmental Education Initiative (K-12)	2005	✓			FY 2006	Yes	
Irrigation System Inspections	2005	✓			FY 2006	Yes	
Minor Plumbing Repair Program	2005	✓			FY 2006	Yes	
Water Conservation Mascot	2005	✓			FY 2007	Yes	
Cooling Tower Audits		✓			FY 2007	No	Program expanded in FY 2012
Water Conservation Grant Program for City Facilities	2005	✓			FY 2007	Yes	
Industrial/Commercial/Institutional (CI) Pre-rinse Spray Nozzle Program	2005	✓			FY 2007	No	Program no longer offered. Market saturated
Toilet Voucher/Rebate Programs	2005	✓			FY 2007	Yes	Projected to reach saturation in FY 2023
Hospitality Industry Program	2010	✓			FY 2011	Yes	
ICI Water Efficiency Surveys	2010	✓			FY 2012	Yes	
ICI Rebate Program	2010		✓		FY 2012	Yes	Scheduled for further review in FY 2015
ICI Commercial Equipment Ordinance Amendment	2010		✓		FY 2014	Yes	Phase I of Green Building Code Adopted
Accurate Supply Source Metering		✓			DWU BMP	Yes	
Universal Metering, Meter Testing Repair & Replacement		✓			DWU BMP	Yes	
Showerhead, Aerator Kits Handouts		✓			DWU BMP	Yes	
ICI Business Partnership Program	2010			✓			Scheduled for FY 2015
ICI Training Programs	2010			✓			Scheduled for FY 2015
Water-wise Landscape Design Requirements	2010			✓			Scheduled for review in FY 2015
Residential Irrigation System Incentive Program	2010			✓			Program postponed
Residential Clothes Water Incentive Program	2010			✓			Program postponed
Increased Enforcement Efforts	2005		✓		DWU/CCS BMP		Scheduled for FY 2015

# Water Conservation Program Chronology and Trends



\* Estimated Water Savings Since FY2001 – 250 Billion Gallons



# **2015 Water Conservation Five-Year Strategic Plan Update**

# Evolution of the Water Conservation Program

- With the success of water conservation programs over the past decade, the program has matured
- 2015 Strategic Plan focus is to
  - Maintain successes of prior programs
  - Evaluate effectiveness and life cycle of existing programs
  - Continue to develop and implement water conservation programs that will
    - Reduce peak demands, water loss and waste
    - Decrease per capita water use
    - Maintain quality of life
    - Allow for continued growth and economic development

# Topics Under Review for 2015 Strategic Plan



- Key Initiatives for additional conservation savings being evaluated include:
  - Landscape Ordinances
  - Focus on high-use retail customers
    - Addition of a multi-family retail rate class
  - Wholesale Customer Cities Outreach
  - Use of mobile technologies to impact customer behavior
  - Continuation and/or revision of existing programs includes:
    - Water system efficiencies

# Landscape Ordinance Amendments



- In Spring 2015, Sustainable Development and Construction will work with the Zoning Ordinance Committee to review measures to strengthen current landscape and tree ordinance for both residential and commercial customers
- Strategies to be reviewed for new and renovated landscapes include
  - Limiting turf areas in all new landscapes
  - Define and require drought tolerant plants in new landscapes
  - Require a minimum of 6 to 8 inches of quality topsoil
  - Guidelines for operating ornamental water features
  - Incorporate rainwater harvesting in buildings and roof areas exceeding 10,000 square feet
- Require existing irrigated plant material to be mulched
- Incorporate water efficient landscape design in irrigation system plan submissions and train city reviewers



# Focus on High-Use Customers

- Multi-family customers use almost 25% of all billed retail water and have similar use patterns to single-family residential customers
- Detailed analysis of multi-family includes:
  - Evaluation of a separate multi-family customer rate class
  - Additional outreach working with Code's Multi-Family Task Force
- Approximately 9% of commercial demands are from parks and golf courses
- Projects under evaluation for inclusion in the 2015 Plan include
  - Develop water budgets for customers modeled after Denver Water Program
  - City Hall Median Project

# DWU's Wholesale Customer Cities Outreach

- Wholesale treated water customers comprise approximately 40% of DWU's total demand
- Wholesale Customer's treated water contracts require:
  - "Customer agrees to institute and maintain usage practices which ensure water is used in a manner that prevents waste, conserves water resources for their most beneficial and vital uses, and protects the public health."
  - Customers also agree to develop and implement water conservation and drought contingency plans and associated reports consistent with State requirements
- DWU will continue to work with wholesale customers to ensure contract compliance
  - Evaluate wholesale customer water conservation and drought plans
  - Establish and monitor metrics to measure water conservation goals based on:
    - water loss
    - water consumption
    - peak day demands
    - GPCD

# Using Mobile Technologies to Impact Customer Behavior



- Enhanced utilization of AMR/AMI technology
  - Improves customer service by providing “real time” feedback on water usage
  - Helps customers conserve by identifying possible leaks on a timely basis
- Public education using mobile applications and increased internet customer engagement
  - Collaborative efforts with North Texas Commission (SPRINKLY) and Wyland Foundation WaterSmart Program
- Increased social media presence

# Water System Efficiencies

- Well-run utilities maintain their infrastructure through proper levels of inspection, repair and replacement
- Three pronged effort to actively manage water distribution system
  - Leak detection
  - Main break and service repairs
  - Main replacement
- Accurate measurement of water delivered
  - Meter testing
  - Meter repair
  - Meter replacement

# Water System Management

- DWU has 4,922 miles of water pipeline and over 300,000 meters
  - Pipeline replacement and maintenance is required for system reliability
  - Known system replacement need is approximately 309 miles or 6%
- Pipeline failures result in higher repair costs and significant potential customer impacts including:
  - Service interruption to schools, hospitals, homes and businesses
  - Traffic delays due to reconstruction
  - Potential public safety issues
    - Road damage, sinkholes, frozen streets, etc.
    - Possible additional impact on other utilities such as gas, electric, phones/internet, etc.

# Reduce Water Loss through Inspection of Pipelines - Leak Detection

- Benefits of program:
  - Estimated to reduce main breaks by about 25%
  - Less impact to customers and environment
  - Reduces likelihood of personal injury or property damage that can occur from a failure
  - Reduced impact to paved roadways
- 2014 Accomplishments
  - Leak Detection resulted in savings of 0.2 BG
  - An avoidance of approximately 1.0 BG from a reduction in main breaks
  - Annual operating cost of the program is about \$2M resulting in a cost of \$1.67 per 1,000 gallons (average cost of new water supply is \$2.00 per 1,000)

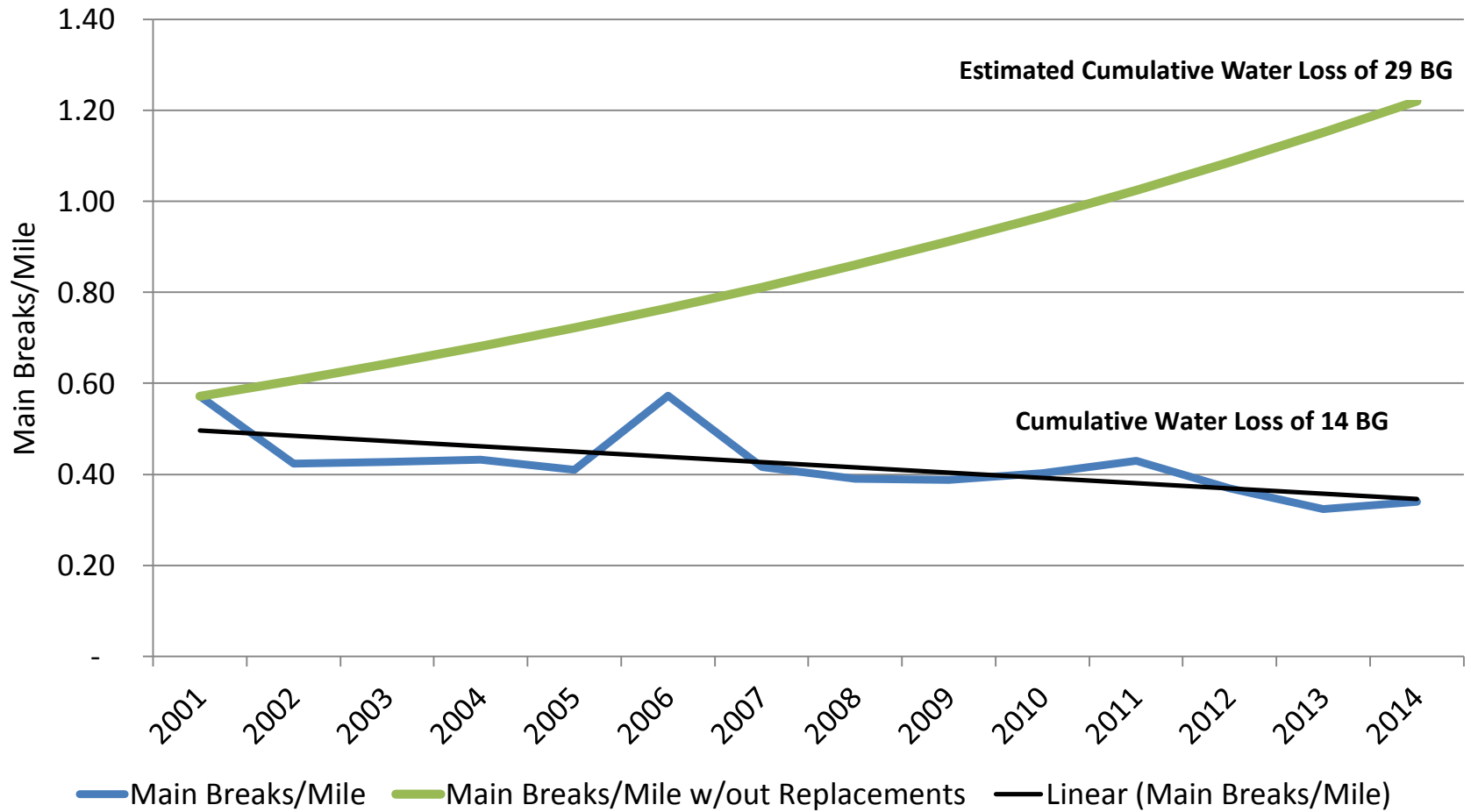


# Distribution System Main Replacement Program



- Main replacements are primarily driven by the business decision to continue to repair versus replacement
- Recurring repairs result in additional water loss that could be avoided when the main is replaced
- Projects are identified and prioritized based on maintenance history and not on an estimate of water loss savings
- A 1% annual average replacement rate has resulted in a reduction of 0.06 breaks/mile each year with cumulative savings estimated to be 15 BG

# Estimated Impact of 1% Main Replacement Rate





# Main Replacement Goals and Accomplishments

## ■ Action Taken:

- Based on the 2002 Efficiency Study a goal was set to replace 50% of Water Distribution System in next 30 Years to achieve a 70 Year Replacement Cycle (averaging 1.4% per year)
- Pipelines are replaced based on parameters including: likelihood of failure, consequence of failure, water quality, materials, break frequency, soil, etc.
- FY 2014
  - 45.0 miles of water pipeline replaced at a cost of \$42 Million
  - Average replacement rate of approximately 1.0% of System per year

## ■ Accomplishments:

- Since 2001 DWU has achieved the following:
  - Percent of system older than 50 years has been reduced from 48% to 42%
  - Main breaks per mile has decreased from 0.6 to 0.3

# Meter Maintenance Program



- Actions Taken
  - Goal to replace meters every 10 to 15 years
  - Eight two-man crews work on large meters
  - 65 employees work on small meters
- Accomplishments
  - FY 2014 Accomplishments
    - 38,314 small meters were replaced in FY2014
    - Tested 1,663 large meters
      - Exceeds two-year test goal
    - A 60% increase in exchange volume

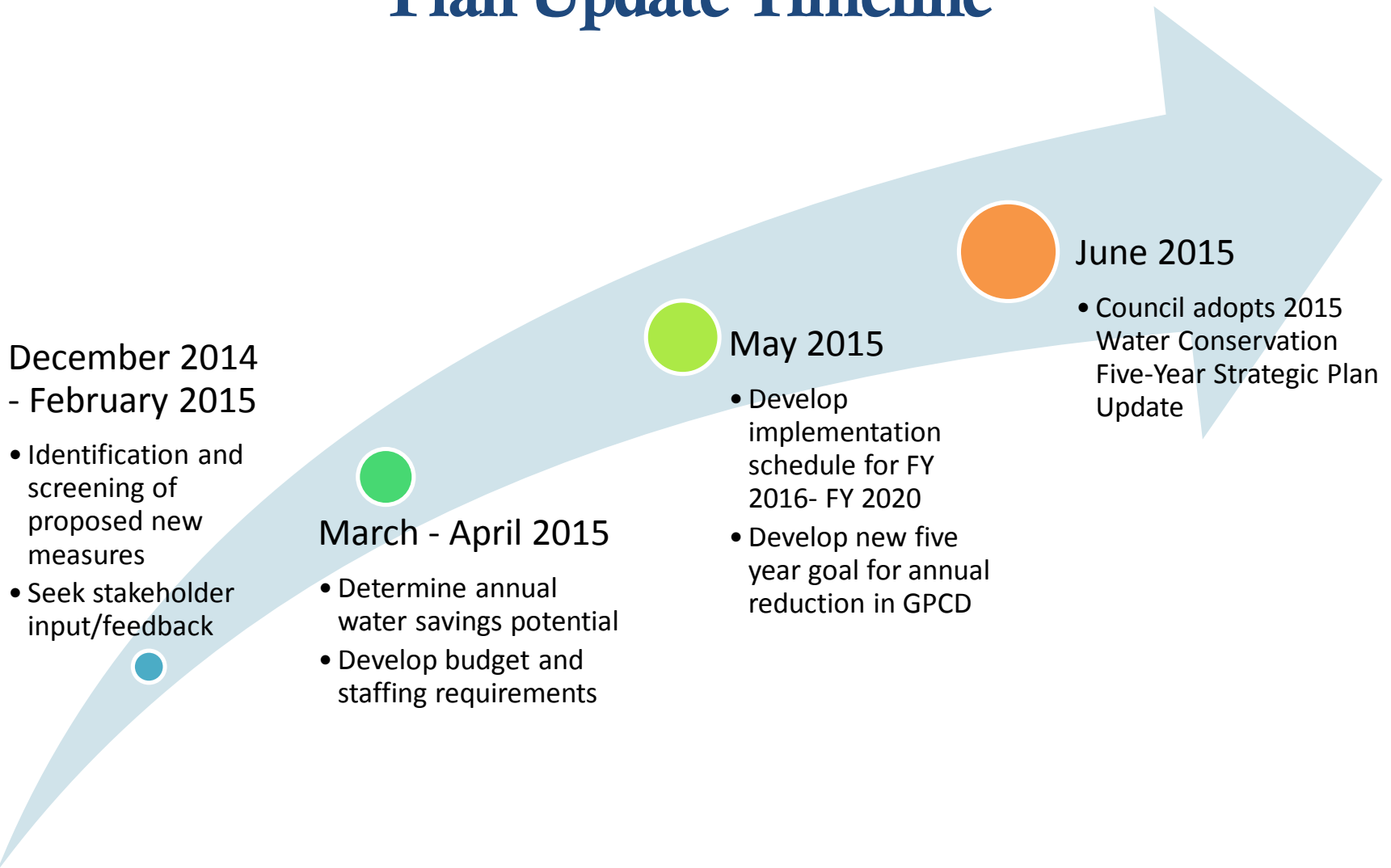


# **Summary and Timeline**

# Summary

- Water Conservation remains our most cost-effective water supply
  - Reuse and conservation are an integral part of Dallas' future water supply planning scheduled to meet 48% of our future need
- Dallas has made great strides in reducing its per capita water demand through the use of conservation and efficiency programs
  - A 22% decrease in annual usage since FY 2002
  - Ongoing water conservation efforts have saved approximately 250 BG or 68 MGD
- Current water conservation goal is to reduce per capita water use by 1.5 percent per year
- 2015 Water Conservation Five-Year Strategic Plan Update will keep momentum going and set new goals for further reductions in per capita water use

# 2015 Water Conservation Five-Year Strategic Plan Update Timeline



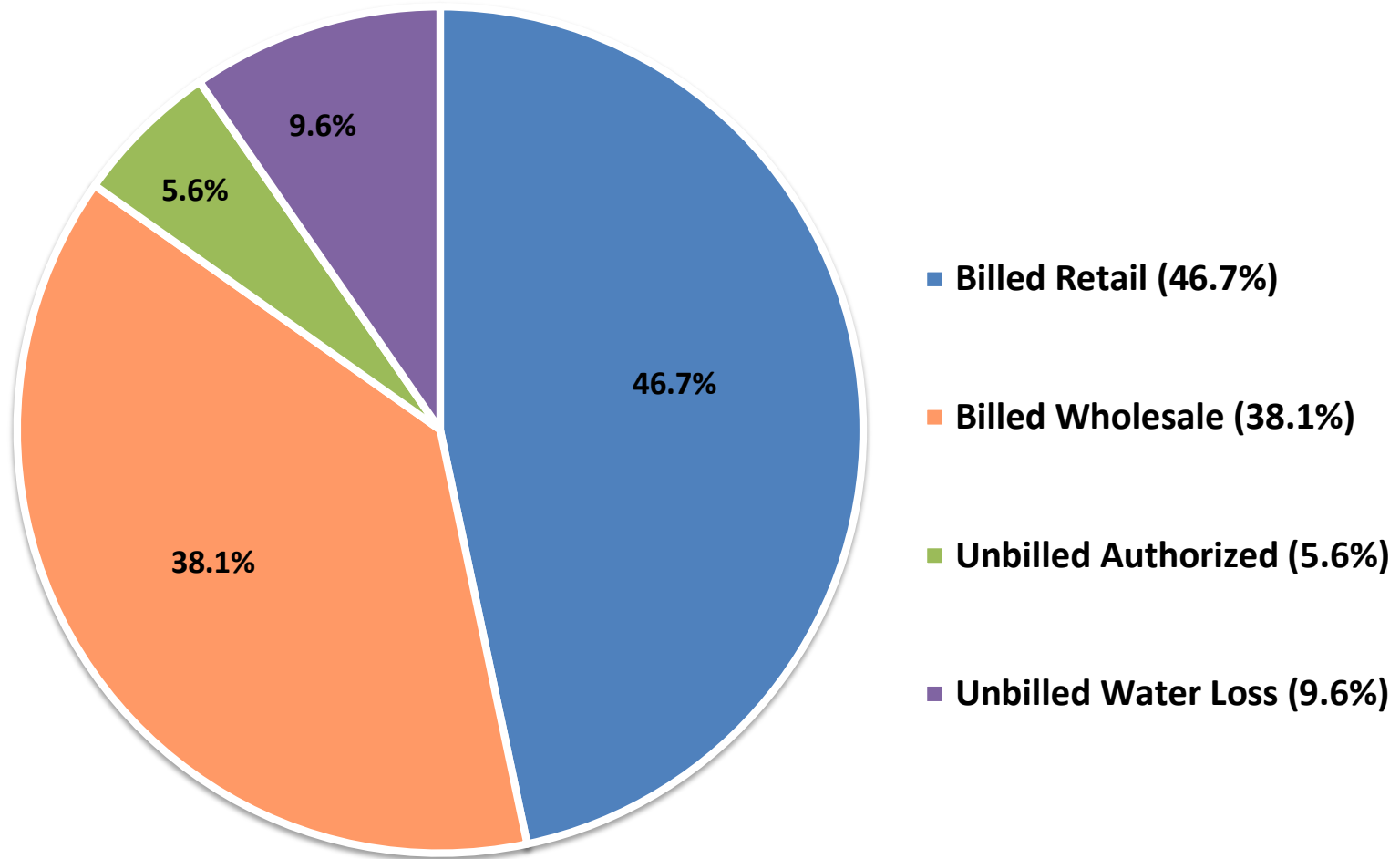


# Appendix

- How DWU's Water is Used
- Status of Conservation Strategic Plan Programs
- Lawn & Landscape and Green Building Ordinances
- Conservation Program Budget
- Public Awareness Annual Survey Results
- Pipeline Replacement Prioritization
- Per Capita Water Use from Texas 2012 State Water Plan
- Mobile Applications

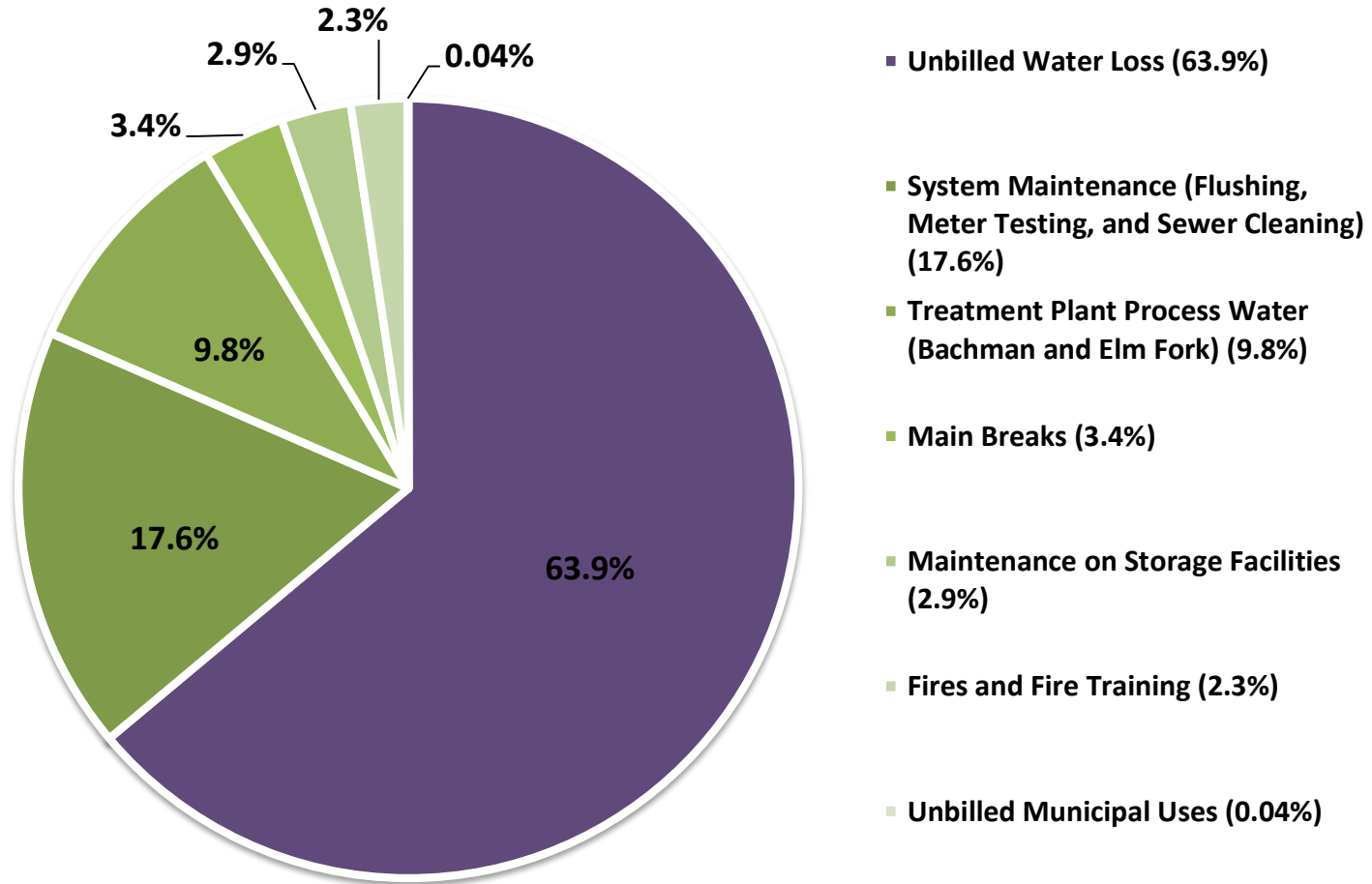
# How DWU's Service Area Treated Water is Used

Average Annual Treated Water Use from FY 2011 – FY 2014



# How DWU's Unbilled Treated Water is Categorized

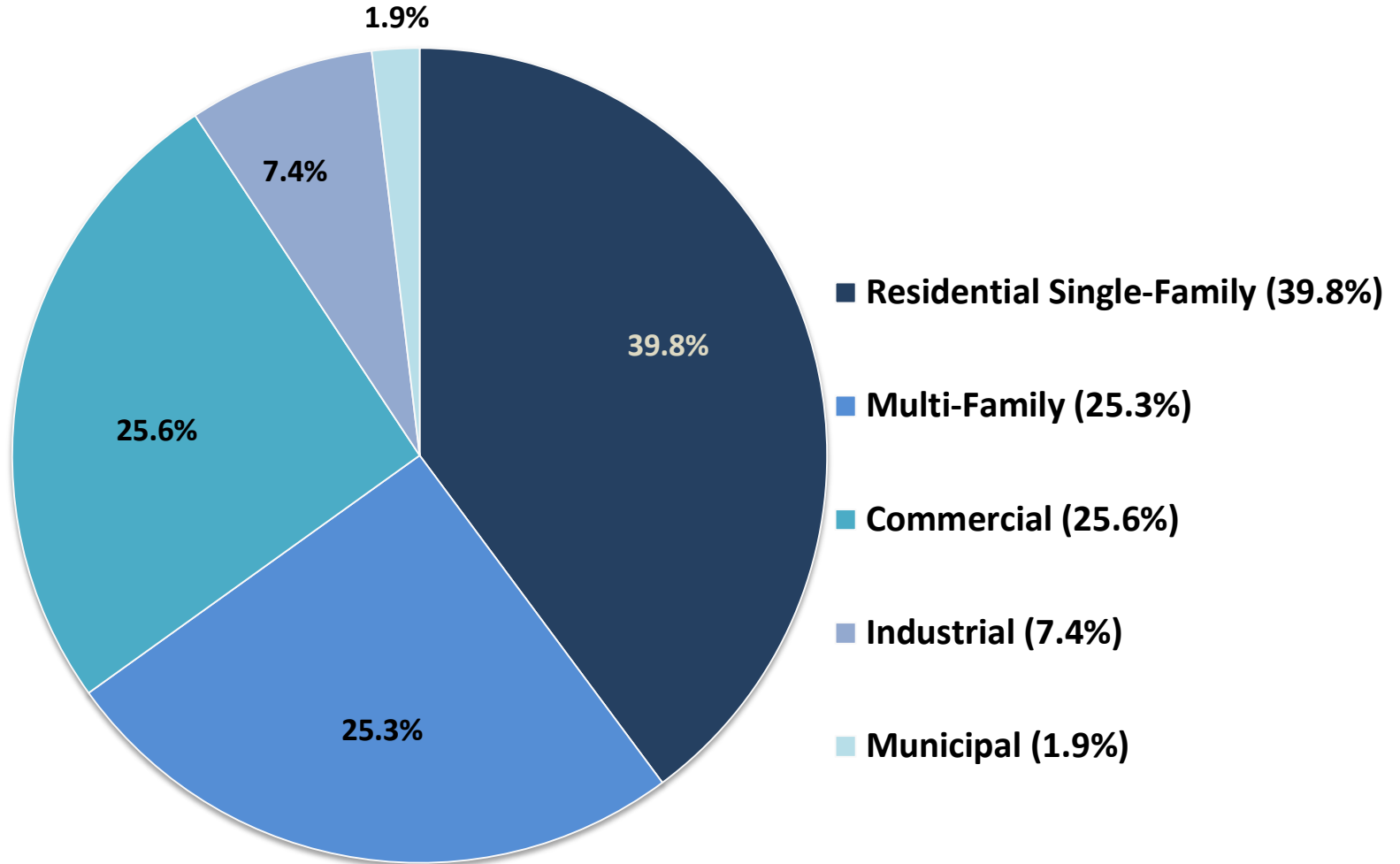
Annual Average Unbilled Water Use from FY 2011 – FY 2014





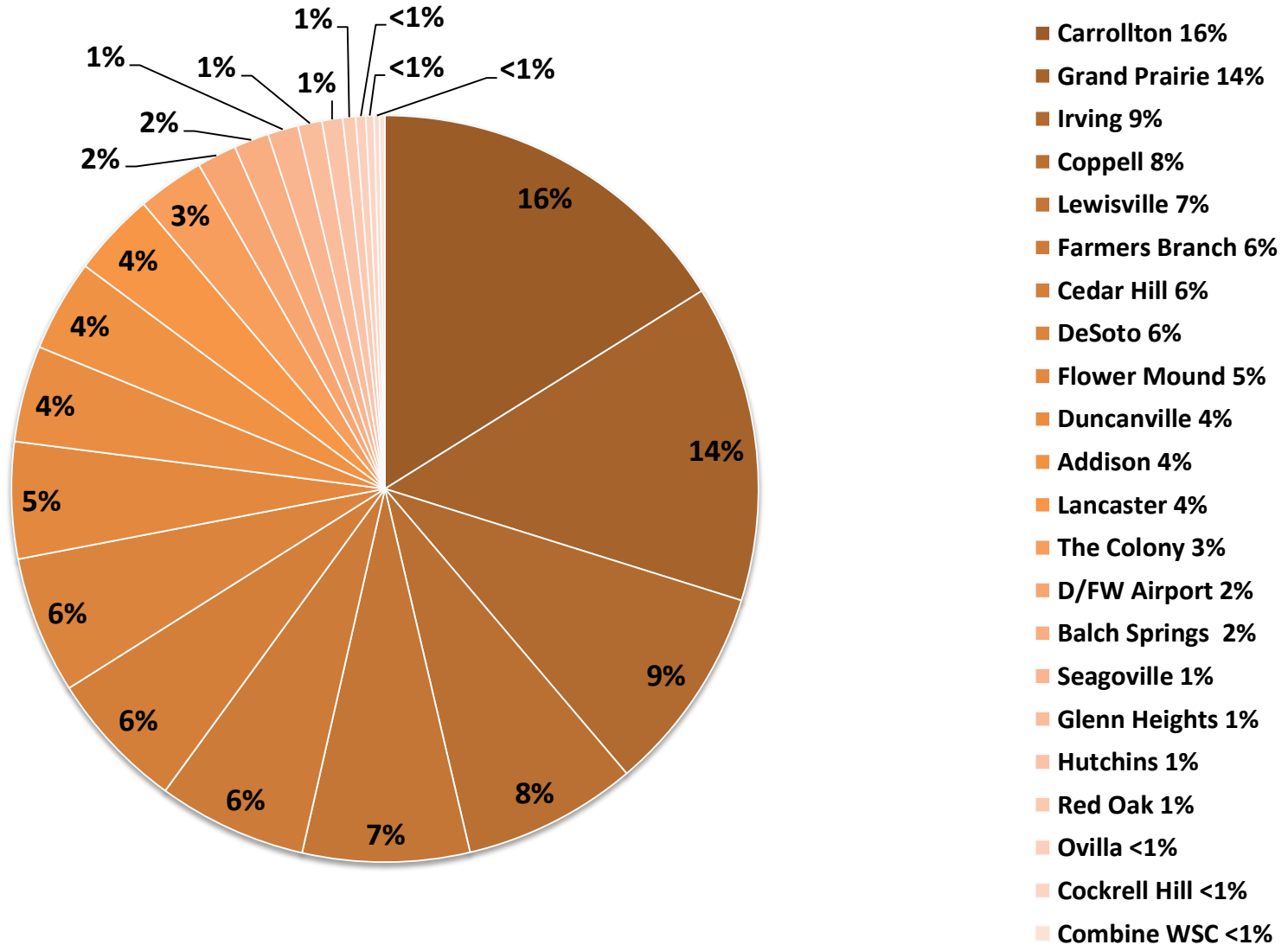
# How City of Dallas Retail Treated Water is Used

Annual Average Retail Treated Water Use from FY 2011 – FY 2014



# How DWU's Wholesale Treated Water is Used

Total Wholesale Treated Water Use for FY 2014



# Status of Conservation Strategic Plan Programs

## Maximum Twice Weekly Watering

### ■ Actions Taken

- 2010 Strategic Plan Update initially recommended as voluntary measure
- Water Conservation ordinance amended in April 2012 requiring mandatory action due to drought conditions

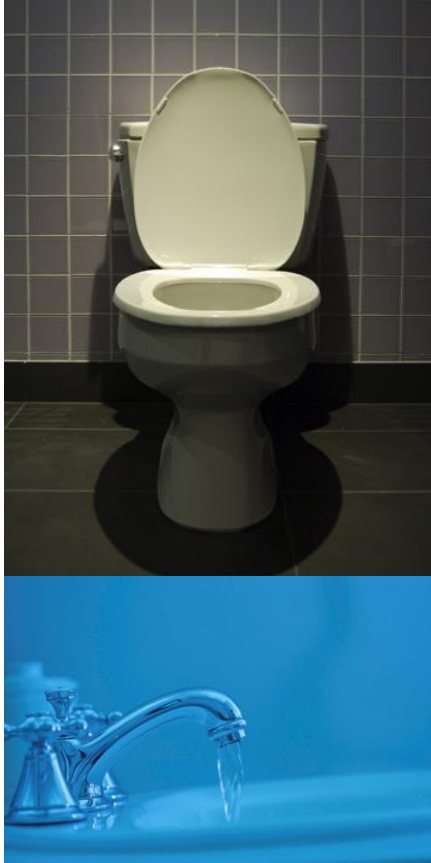
### ■ Accomplishments

- Since implementation, water consumption is 5 to 6% lower
- Non-watering days are 25 to 40 MGD or an average of 8% less than watering days

City of Dallas Maximum Twice Per Week Watering Schedule	
Last Digit of Address	Watering Days Allowed
0, 2, 4, 6 or 8 (even numbers)	Sundays and Thursdays
1, 3, 5, 7 or 9 (odd numbers)	Saturdays and Wednesdays
No address number	Sundays and Thursdays

# Status of Conservation Strategic Plan Programs

## ICI Water-efficient Equipment Rule



- Action Taken
  - Guidelines effective October 2013 with ordinance amendment to Dallas Green Construction Code
- Accomplishments
  - Ordinance requires minimum water efficiency standards for commercial equipment in new and newly occupied ICI establishments
  - Proposed projects must meet water reduction strategies that include
    - Installing high-efficiency (low flow) fixtures
    - Meet 3 of the 5 following criteria:
      - Average flow rates for lavatory faucets, shower heads, and/or toilets
      - And/or ENERGY STAR labeled dishwashers or clothes washers

# Status of Conservation Strategic Plan Programs

## Water-wise Landscape Design Requirements

- Measure developed to expand ordinance requirements to limit turf areas in all new landscapes and require low water-use landscaping in other areas
- Actions Taken
  - DWU will be working with Sustainable Development and Construction Department on proposed ordinance amendment to Chapter 51 Article X- Landscape and Tree Preservation Regulations of Dallas City Code
- Next Steps
  - Zoning Ordinance Committee (ZOC) currently reviewing ordinance amendment for urban agriculture
  - ZOC is scheduled to begin review of Article X to include landscape, irrigation and trees
  - It is anticipated ZOC and CPD review will take months given the complexity and nature of issues being considered

# Status of Conservation Strategic Plan Programs

## Texas High Efficiency Toilet (HET) Law



### ■ Actions Taken

- 2009 Texas HB 2667 requires high-efficiency toilets in all new residential and commercial construction
- Required that toilet and urinal retailers phase in HETs within four years starting in 2009

### ■ Accomplishments

- As of January 1, 2014, all toilets and urinals sold in Texas must be HETs

# Status of Conservation Strategic Plan Programs

## ICI Hospitality Program



### ■ Actions Taken

- Authorized by Council in FY2011
- Participating hotels urge guests to request fewer linen and towel changes
- Participating restaurants serve water by request only
- Free marketing and promotional tools are provided to participating customers

### ■ Accomplishments

- Forty-six hotels and 36 restaurants currently participate in the program

# Status of Conservation Strategic Plan Programs

## ICI Customers Water Audits

### ■ Actions Taken

- Authorized by Council in FY 2012 to help commercial customers and small businesses save water and money
- On-site evaluations include
  - Cooling towers, boilers and other thermodynamic operations
  - Plumbing fixtures, fittings and equipment
  - Landscape irrigation
  - Laundry operations
  - Laboratory and medical facilities

### ■ Accomplishments

- Over 100 water efficiency assessments have been performed since program launch
- Recommended process and equipment improvements could result in estimated water savings of over 215 MG per year



# Status of Conservation Strategic Plan Programs

## ICI Training Program & Business Partnership/Stakeholders



- Develop training programs for facility managers of premise types that use the most water and licensed irrigators with a focus on the EPA Water Sense program
- Develop process for ongoing dialogue with business leaders who represent top water using industries with focus on new programs, what's working, what's not working
- Both strategies are scheduled for implementation in FY 2015



# Status of Conservation Strategic Plan Programs

## Residential Toilet Replacement Incentives

### ■ Actions Taken

- “New Throne for Your Home” toilet program launched in FY 2007
- Offers free toilets and/or rebates to qualified residential and multi-family applicants
- Contract awarded in May 2014 to continue program through May 2019

### ■ Accomplishments

- To date, over 77,000 toilets have been distributed with an estimated water savings of over 350 MG per year
- Saturation point expected to be reached by FY 2023

# Status of Conservation Strategic Plan Programs

## ICI Financial Incentive Program

- Actions Taken
  - Program authorized by Council in FY 2012
  - Offers incentives to Industrial, Commercial and Institutional (ICI) customers for water efficient equipment installation and upgrades
  - To date, two rebate applications have been submitted
- Program under evaluation for re-structuring as part of 2015 Strategic Plan Update
  - Issues raised by ICI audit customers about current program structure
    - Rebates not enough to motivate customers to take action
    - Does not include project labor costs
    - Toilet rebate/voucher component needed for middle and small business customers

# Public Awareness Campaign Results

- Creative partnership with Tarrant Regional Water District since 2009 has resulted in:
  - Dallas and Tarrant Counties share a message with one voice to conserve
  - Double the message coverage
  - Costs for creative development are shared by the two agencies



# Status of Conservation Strategic Plan Programs

## Measures Not Implemented



- Residential Irrigation and Landscape Incentive Program to help customers retrofit existing irrigation systems with water-conserving equipment



- Residential Clothes Washer Rebate to help customers replace older clothes washers with high-efficiency clothes washers



# **Lawn & Landscape and Green Building Ordinances**

# Background - Ordinances



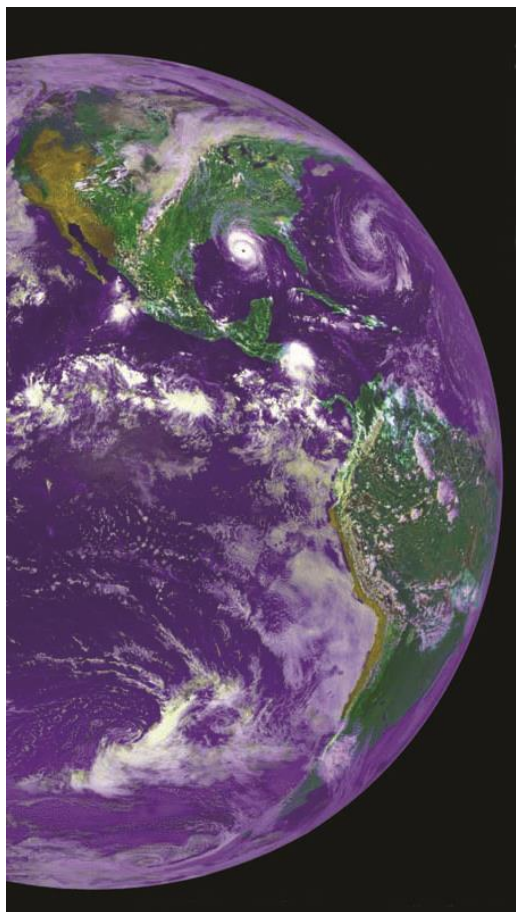
- Dallas currently operates under the 2006 International Plumbing Code (IPC) with adopted NTCOG and city amendments
- A primary objective of the 2006 IPC is to protect the potable water supply from contamination
- The use of gray water and other non-potable water is allowed with this primary consideration in mind
- 2006 IPC provides for the minimum code requirements for potable water fixture use
- Dallas code amendments allow for the use of water-efficient fixtures and non-potable water systems for reuse

# Lawn and Landscape Watering Ordinance

- Requires that landscape irrigation water be used in a manner that prevents waste, conserves resources and protects public health and safety
  - Adopted in 2001 and amended in 2007 and 2012
- Major components of the ordinance include:
  - Mandatory maximum twice-per-week irrigation schedule
  - Irrigation prohibited between 10 a.m. and 6 p.m., from April 1 through October 31 of every year
  - Operation of irrigation systems with faulty pipes or systems with broken, misaligned or missing sprinkler heads is prohibited
  - Irrigation prohibited during any form of precipitation or when temperatures are below freezing
  - Rain and freeze sensors are required on all automatic irrigation systems
  - Excessive runoff resulting from overwatering is prohibited
  - Watering impervious areas such as sidewalks and streets is prohibited



# Green Building Ordinance



- The purpose of the Green Building Ordinance is to:
  - Reduce the use of natural resources
  - Create healthier and more sustainable living environments
  - Minimize the negative environmental impacts of development in Dallas
- Ordinance adopted in April 2008
- Phase I became effective October 2009
- Phase II became effective in September 2012

# Green Building Ordinance – Phase I and II



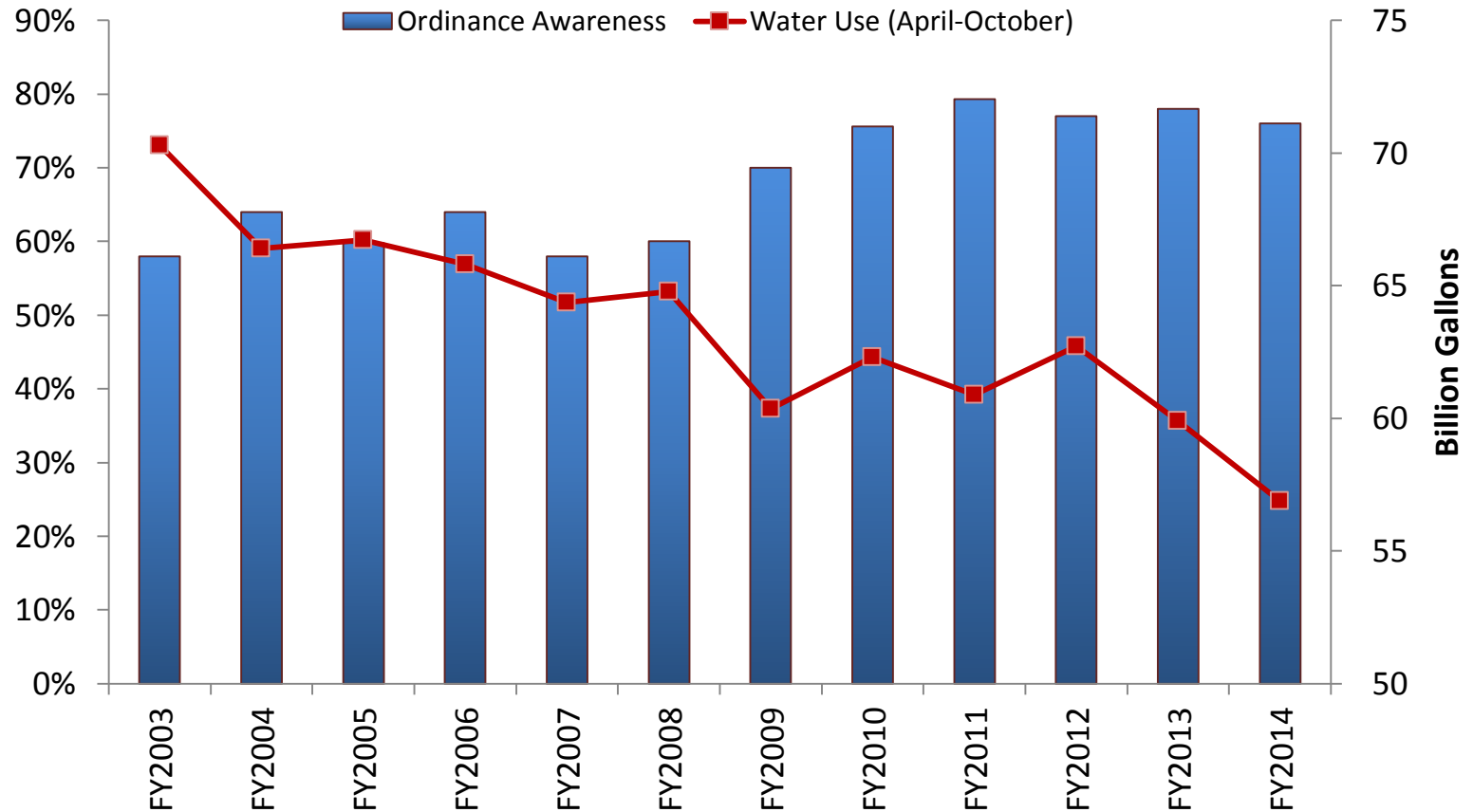
- Phases I and II apply to all new construction
  - Phase I requires that
    - All projects must demonstrate a 20% reduction in water use from the baseline calculated for the total water fixtures determined under the 2006 IPC
    - 20% water reduction may be met by compliance with Greenbuilt Texas, LEED or LEED equivalent acceptable methods
  - Phase II strengthens the water conservation requirements of Phase I, including but not limited to
    - The utilization of drip irrigation emitters for all bedding areas
    - Meeting water reduction strategies that include installing high efficiency (low-flow) plumbing fixtures and fittings

# Water Conservation Five-Year Strategic Plan

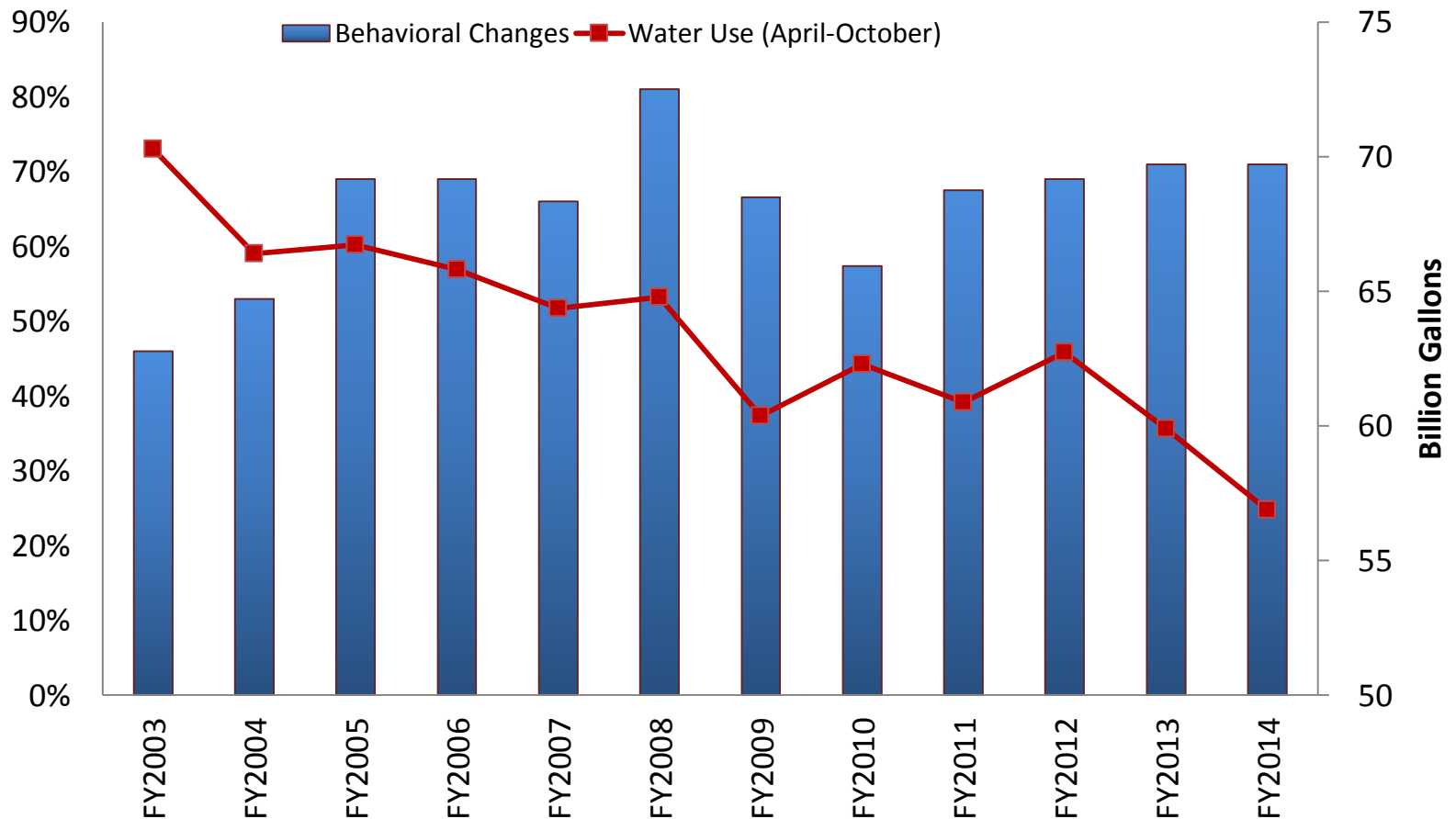
## Budget Summary (FY 2011- FY 2015)

Budget Item	Water Conservation Division Budgets				
	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
Salaries and Benefits	\$688,621	\$753,273	\$910,149	\$941,040	\$996,151
Other Operating Expenses	\$544,510	\$223,919	\$237,633	\$120,337	\$139,659
Public Awareness Campaign	\$1,380,000	\$1,380,000	\$1,380,000	\$1,320,000	\$951,800
Regional Campaign (TRWD)	\$0	\$0	\$0	\$150,000	\$150,000
Minor Plumbing Repair Program	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Environmental Education Initiative	\$161,757	\$179,885	\$200,421	\$274,000	\$358,713
New Throne for Your Home	\$1,216,820	\$1,217,220	\$1,217,820	\$1,376,000	\$1,376,000
Residential Irrigation/Landscape Rebates	\$0	\$0	\$0	\$250,000	\$250,000
ICI Customer Water Audits	\$0	\$148,462	\$148,462	\$148,462	\$148,462
ICI Training Programs	\$0	\$0	\$0	\$0	\$25,000
ICI Hospitality Program	\$110,000	\$110,000	\$110,000	\$110,000	\$110,000
ICI Rebate Program	\$695,000	\$2,000,000	\$2,000,000	\$1,555,000	\$1,555,000
City Leadership Grant Program	\$195,000	\$195,000	\$195,000	\$195,000	\$195,000
Approved Budget	\$5,391,708	\$6,607,759	\$6,799,485	\$6,839,839	\$6,655,785

# Ordinance Awareness vs. Water Use



# Behavioral Changes vs. Water Use



# Pipeline Replacement Prioritization

## Based on Repair History

### ■ Break Index Calculation

$$= \frac{\text{Number of repairs}}{\left( \frac{\text{length of pipe segment}}{1,000} \right)} \times \left( \text{Years since first recorded repair} \right)$$

### ■ Prioritization

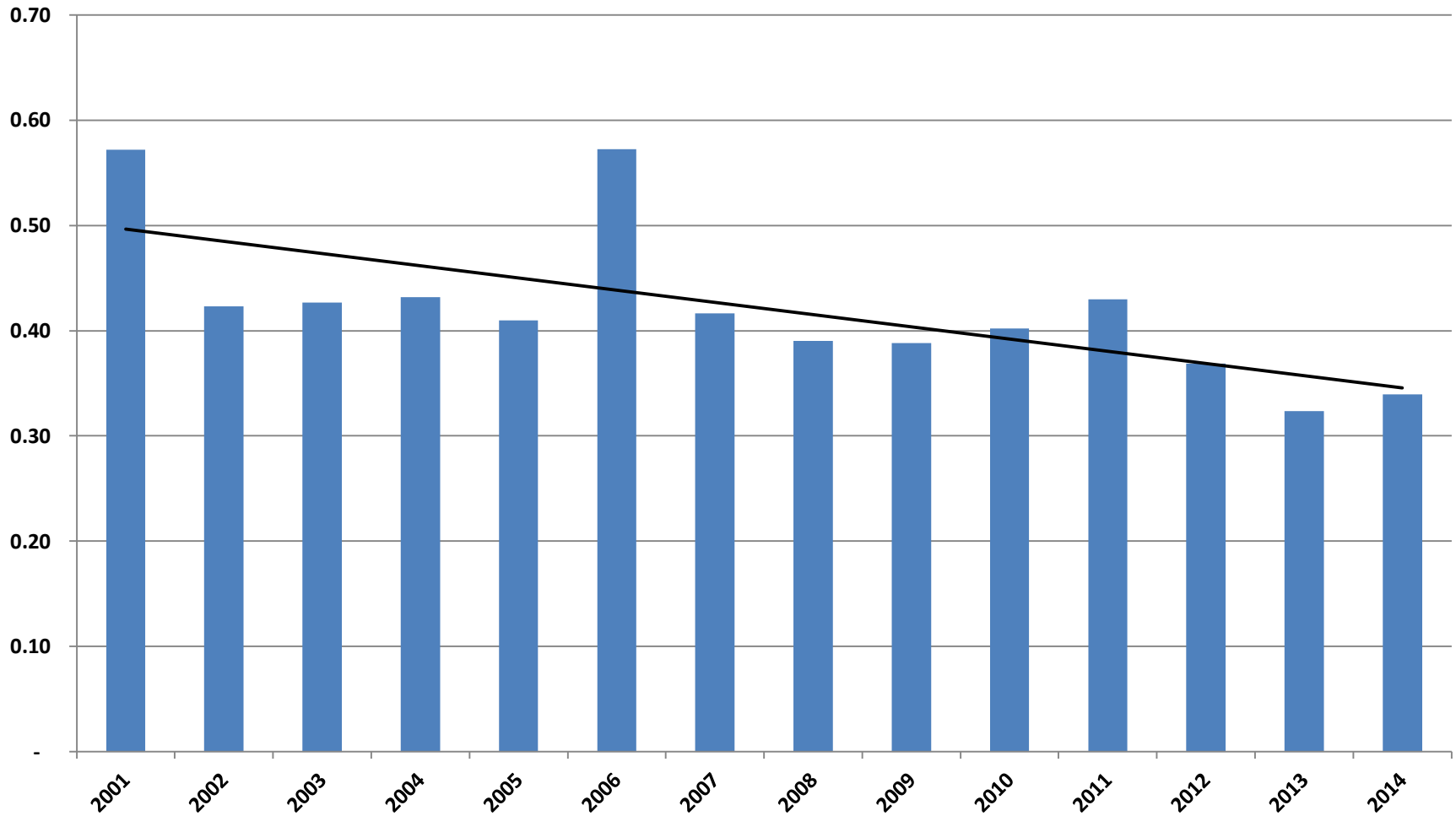
Priority*	Break Index
1	2.0+
2	2 to 1.5
3	1.5 to 1.0
4	1.0 to 0.75
5	0.75 to 0.4

\*Priority 1 = Most urgent need of replacement

### ■ Other Factors Considered in Prioritization

- Water quality issues
- Potential property damage
- Impact to customer service
- Other projects in the area
- Soil corrosivity
- Type of thoroughfare
- System improvement (capacity)
- Size, age and type of pipe
- Impact to other utilities
- Difficulty of access for maintenance

# Main Breaks per Mile



# Per Capital Water Use

- Excerpts from Texas 2012 State Water Plan's Population and Water Demand Projections

City	2008 Per Capita Use	2008 Residential Per Capita Use
Frisco	254	158
Plano	223	113
Dallas	213	95
Irving	193	104
Fort Worth	192	75
Austin	171	102
Arlington	157	100
San Antonio	149	92
El Paso	137	98
Houston	134	65



# Mobile Applications

## ■ SPRINKLY

- Created from North Texas Commission's App Contest held last summer
  - Contest was held last summer to develop water conservation outreach application
- App can be used on Smartphones, tablets and computers
  - Will allow users to set up email reminders for their watering days and times based on zip code
  - Smart alerts will inform users of rain forecasts
- App is scheduled to be available in Spring 2015

## ■ Water Smart Software

- City received as prize for winning 2014 National Mayor's Challenge for Water Conservation
  - Currently under review as a pilot project
  - Customers receive customized email reports with tips and data on their individual water usage

