

Memorandum



DATE November 27, 2013

TO Honorable Members of the Budget, Finance & Audit Committee:
Jerry R. Allen (Chair), Jennifer Staubach Gates (Vice-Chair), Tennell Atkins,
Sheffie Kadane, Philip T. Kingston,

SUBJECT **Dallas Water Utilities: Commercial Water Rate Structure**

On Monday, December 2, 2013, the Committee will be briefed on the City of Dallas Water Utilities commercial water rate structure. The briefing material is attached for your review.

If you have any questions or need additional information, please let me know.



Forest E. Turner
Assistant City Manager

Attachment

Cc: The Honorable Mayor and Members of the City Council
A.C. Gonzalez, Interim City Manager
Warren M.S. Ernst, City Attorney
Judge Daniel F. Solis, Administrative Judge
Rosa A. Rios, City Secretary
Craig D. Kinton, City Auditor
Ryan S. Evans, Interim First Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
Joey Zapata, Assistant City Manager
Charles M. Cato, Interim Assistant City Manager
Theresa O'Donnell, Interim Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Frank Libro, Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor and Council
Jody M. Puckett, P.E., Director, Dallas Water Utilities

Dallas Water Utilities: Commercial Water Rate Structure

Budget, Finance & Audit Committee
December 2, 2013



Purpose

- Provide an overview of Dallas Water Utilities' Commercial (General Services) water rate structure

Outline

- Background
- Rate Structure Basics
- Commercial (General Services) Rate Structure
- Discussion and Summary
- Appendix



Rate Structure Basics

The World of Rate Setting

- Has established procedures and standards based on
 - American Water Works Association/industry standards
 - Bond covenants
 - Cost recovery and revenue stability
 - State regulations
 - Judicial challenges
 - Tiers based on peak use and price signals
 - Contracts

Rate Setting Parameters and Objectives

- City Council has exclusive original jurisdiction to adopt rates within City limits that are fair, just and reasonable [Texas Water Code 13.042 (a)]
- Rates shall not be unreasonably preferential, prejudicial or discriminatory, but shall be sufficient, equitable, and consistent in application to each class of customers [Texas Water Code 13.182]
- Burden of proof is on the City to demonstrate just and reasonable [Texas Water Code 13.184(c)]
- Additional factors include:
 - Measure of affordability
 - Conservation price signal for customers to use less water
 - Customer understanding/Complexity of structure

Rate Structure Components

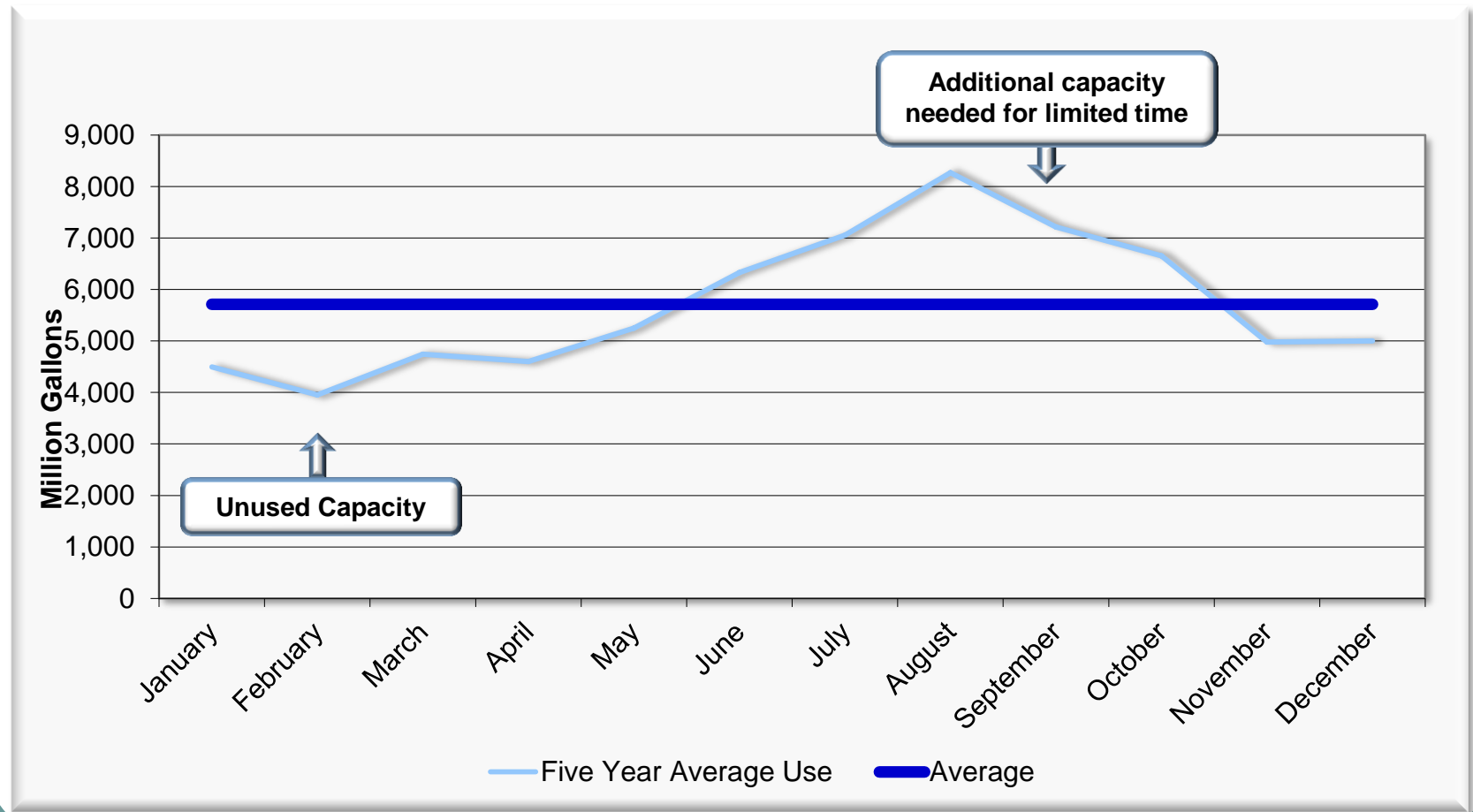
- Typical billing for utilities include:
 - Customer Charges
 - Recovers fixed costs based on meter size including:
 - Meter reading and replacements; billing/collection
 - Pricing the same for all customer classes
 - Volume Charges
 - Recovers costs for supply, treatment and distribution
 - Pricing structures vary by customer class
 - Price signals for conservation purposes

Why Customer Classes Pay Different Rates

- Cost allocation is a two part process
- Step one allocates costs between customer classes based on their share of system usage for:
 - Average demand
 - Peak demand – higher peaks require increased infrastructure and electrical demands
- Step two allocates costs within each customer class and is designed to:
 - Reflects different tiers associated with peak demands
 - Sends appropriate price signals for conservation
 - Full cost recovery varies between retail classes

Retail Water Consumption Profile

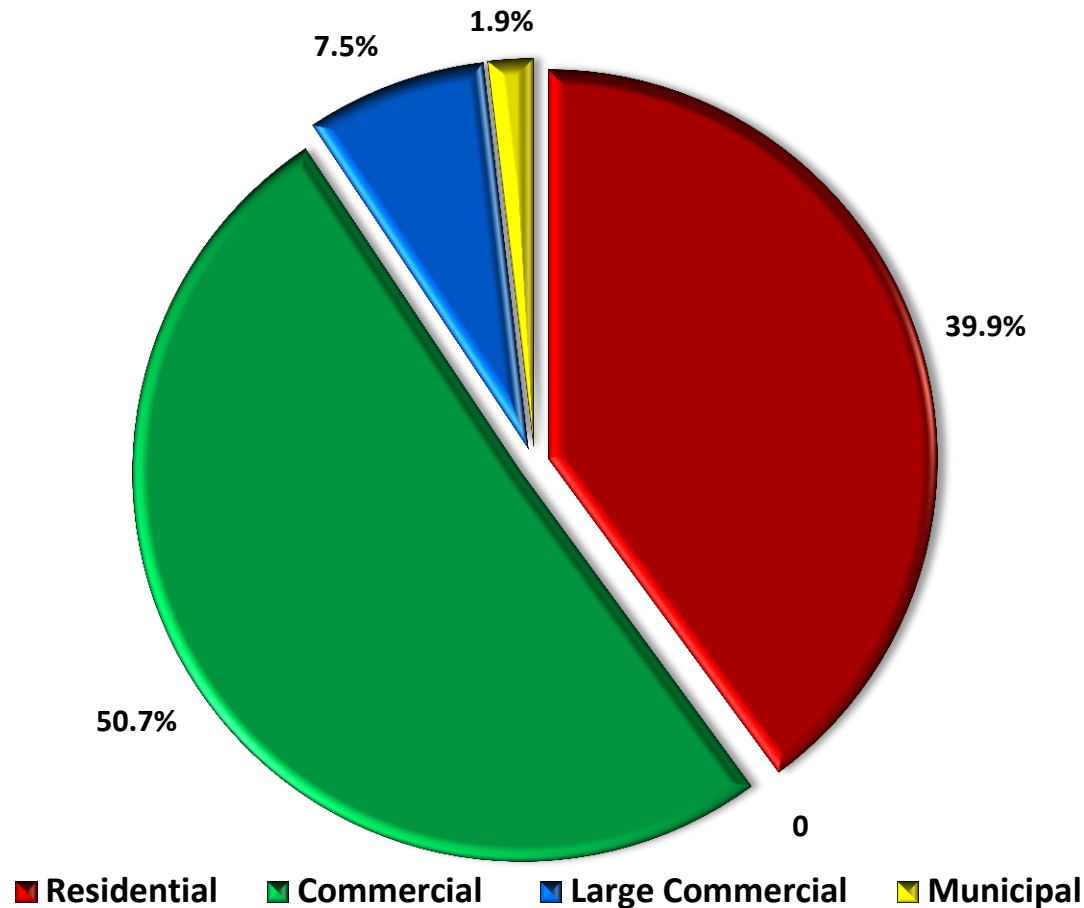
Five Year Average for FY09-13



Current Retail Customer Classes

- Residential – single family residences
- General Services – commercial and multi-family
- Optional General Services (OGS) – large commercial customers using more than one million gallons a month
- Municipal – City of Dallas facilities such as parks, libraries, Convention Center, and Aviation

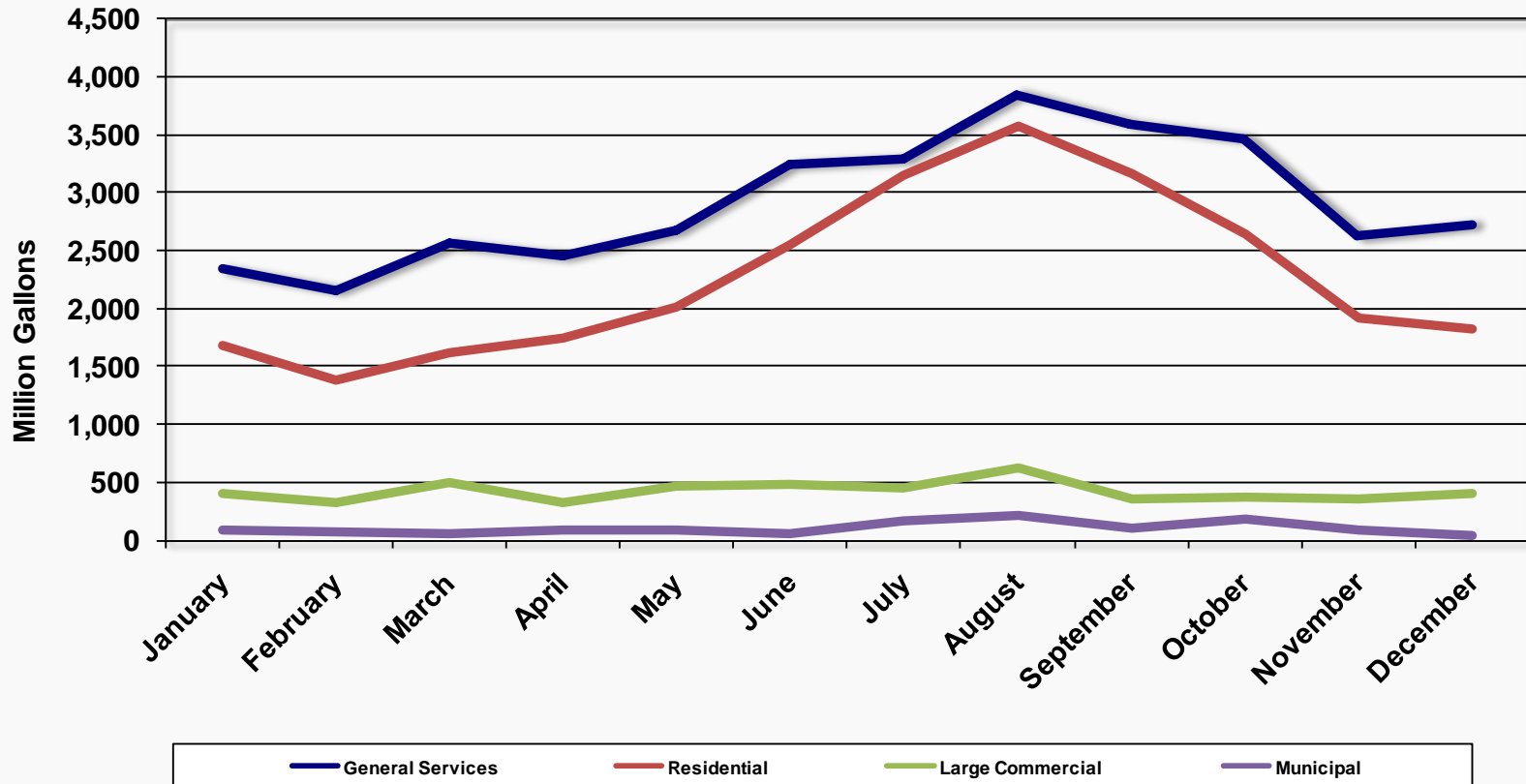
City of Dallas Retail Water Use



Represents Total Annual Average Water Use for FY09 – FY013; Dallas serves a retail population of 1.2M people

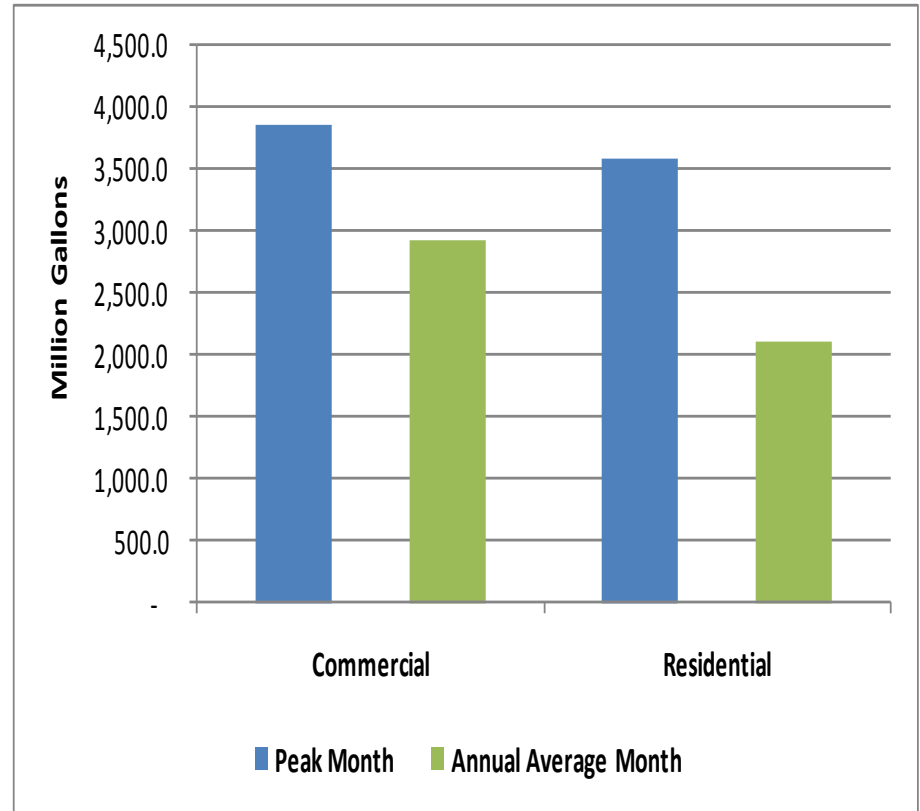
Monthly Consumption Pattern

Five Year Average for FY09-13



Why Residential Rates are Higher Than Commercial Rates

- A five year average from FY09 to FY13 shows:
 - Residential customers peak month to average month ratio is 1.7
 - Commercial customers peak month to average month ratio is 1.3
 - Residential peak month to average month ratio is 23.5% higher than commercial customers

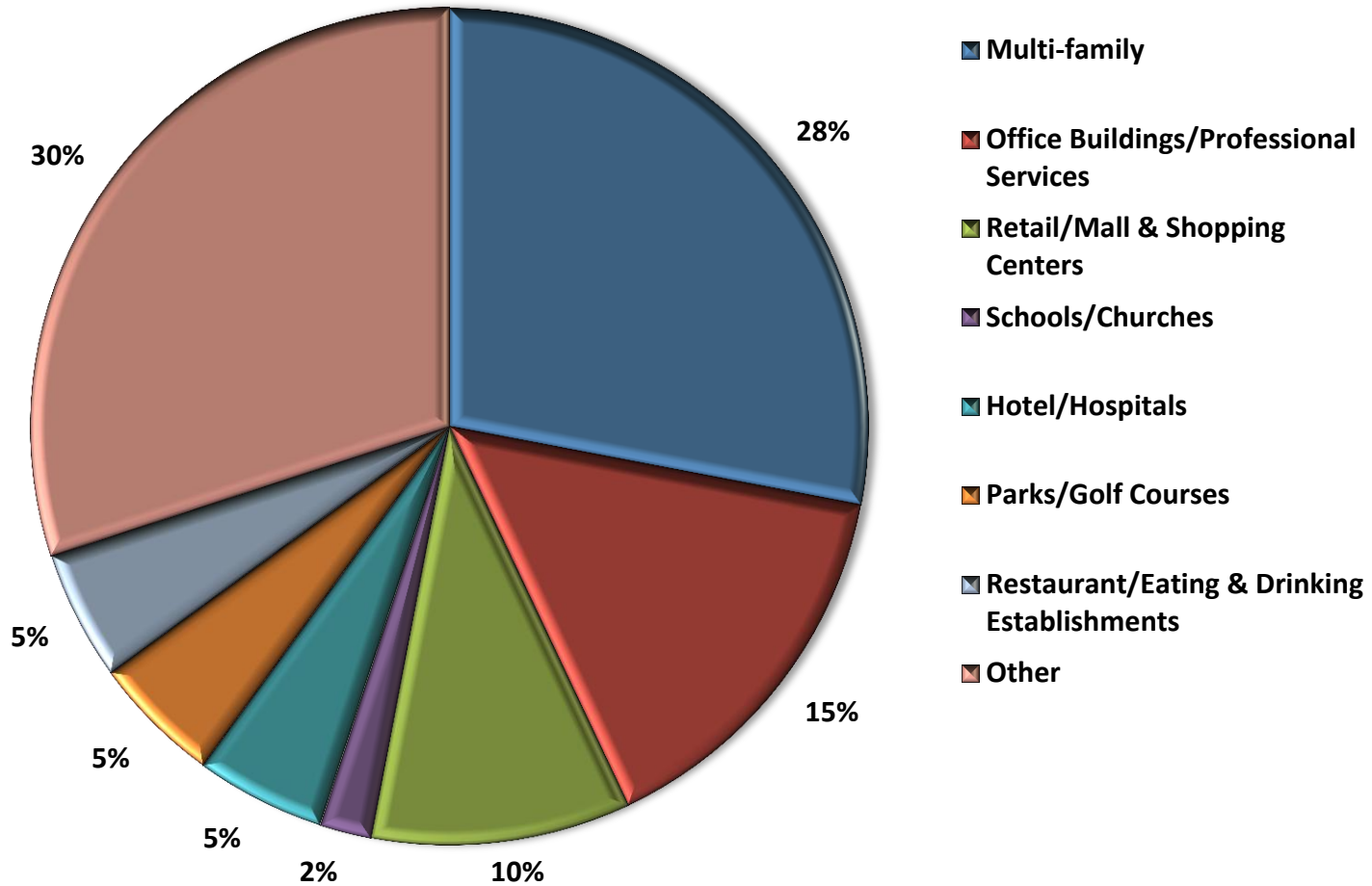


Commercial (General Services) Rate Structure

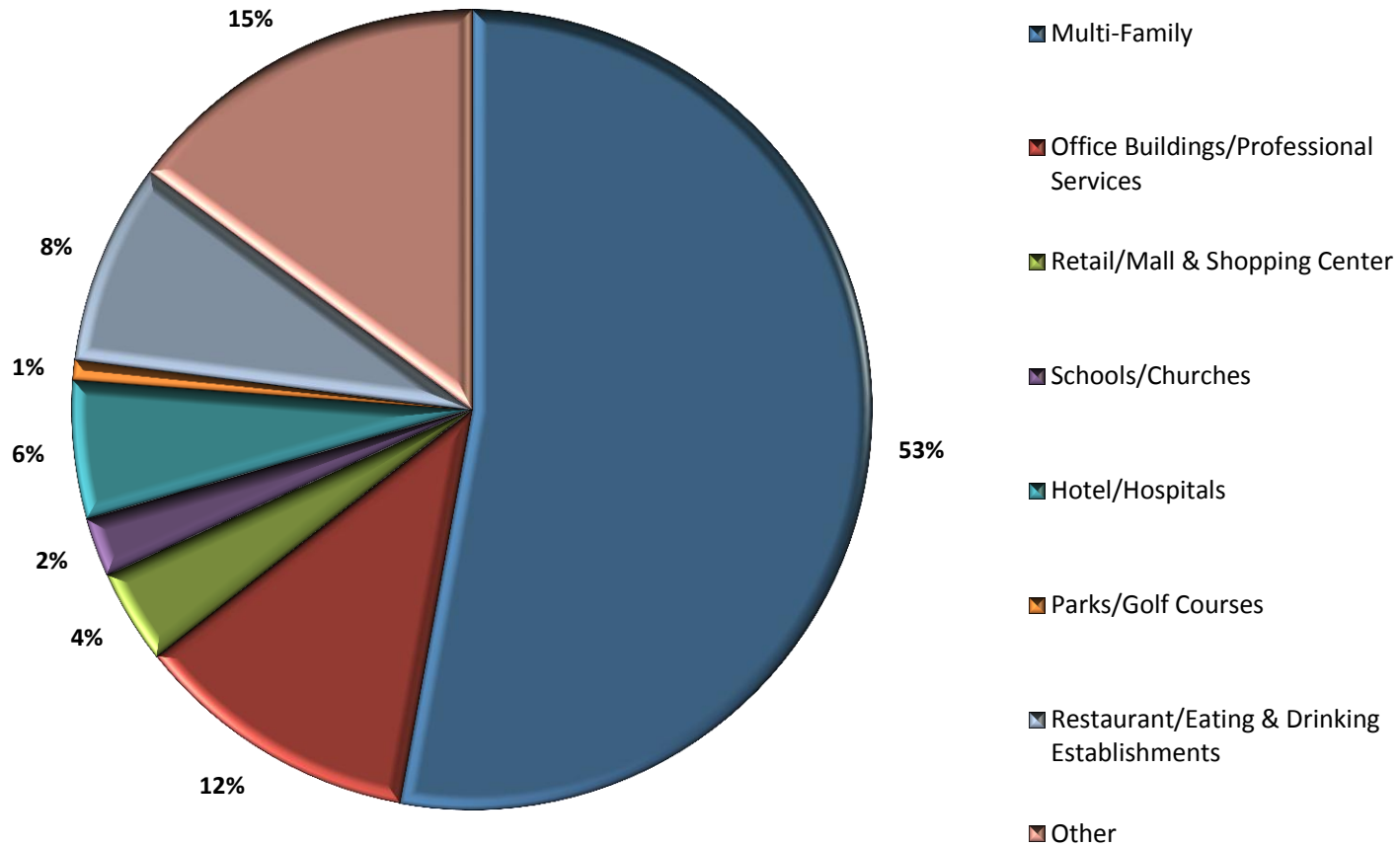
General Service Rate Structure

- General Services customer class has 38,350 accounts
 - 14% of retail accounts and over 50% of total retail treated water consumption
 - Used 34.3 BG in FY13
- General Services accounts are very diverse
 - Includes small professional services (law, accounting, engineering), apartments, churches and schools
 - Approximately 53% of water use in class is used by 28% of the accounts (multi-family)
 - Monthly usage varies widely by account type

City of Dallas Commercial Customer Accounts



City of Dallas Commercial Customer Water Use





Discussion and Summary

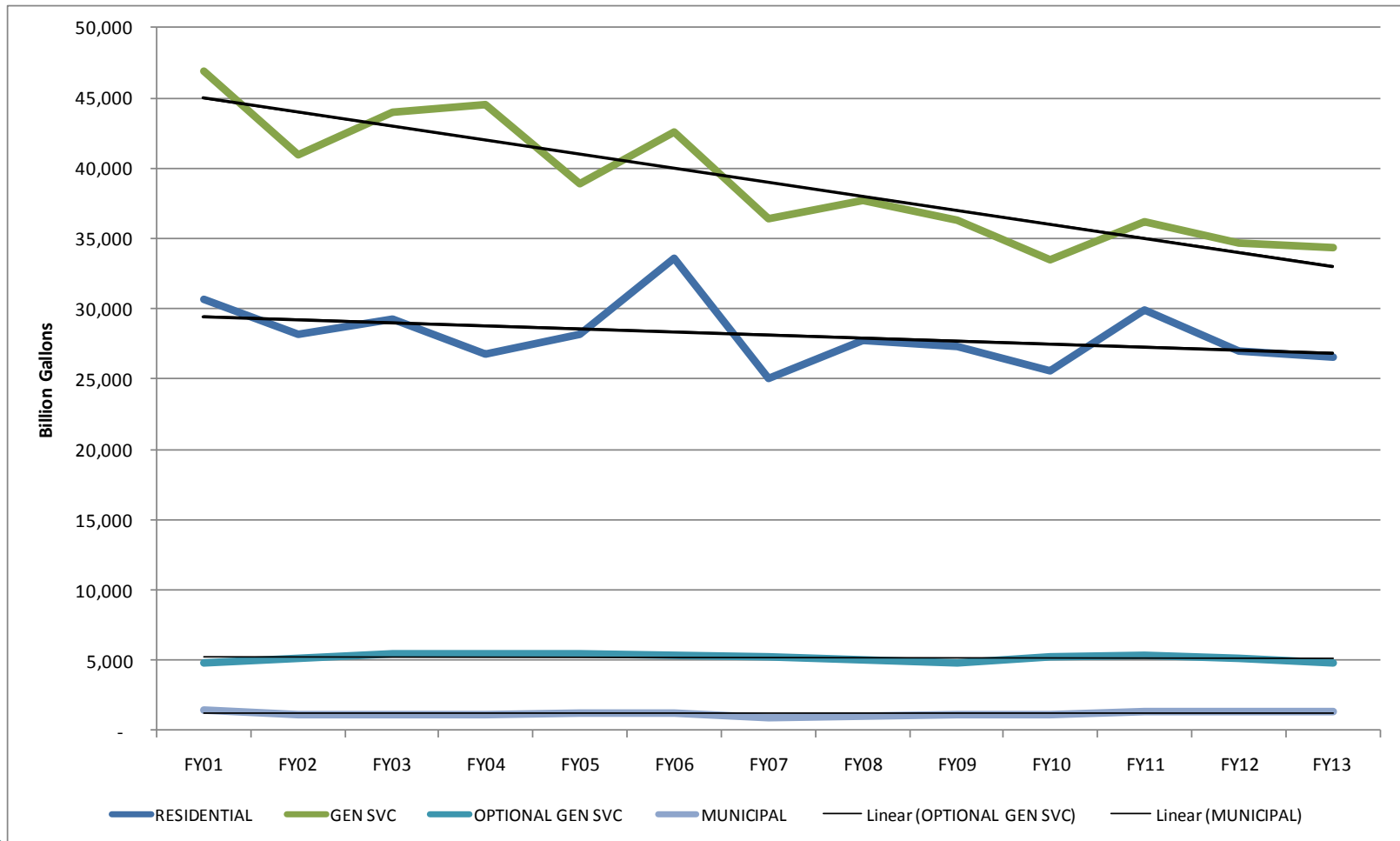
Current Water Rate Structure

- For more than two decades, the City of Dallas has had a conservation (inclining block rate) rate structure
- With increasing demands, additional focus was placed on conservation when City Council adopted the following changes in October 2001:
 - Created Water Conservation Division to educate the public on increased water conservation measures
 - Added Conservation Tiers to Rate Structure for Residential and Commercial accounts
 - Water Conservation Ordinance
 - Outdoor watering prohibited between 10 am and 6 pm
 - Graduated fines for violations of ordinance
 - Goal was to reduce the growth rate of peak demands placed on the water system by 5% over the next 2 years

Conservation Programs Impacting Commercial Customers

- Programs that impact both residential and commercial customers:
 - Conservation rate tier
 - Time of day and maximum twice weekly water restrictions
- The 2010 Water Conservation Strategic Plan includes several programs targeted at commercial customers:
 - Hospitality program for restaurants, hotels and motels
 - Industrial, Commercial and Institutional audit and rebate programs
 - Training programs for facilities managers
 - Establish stakeholder feedback on effectiveness of program
 - Multi-family toilet replacement program

Historical Water Use By Customer Class



Other issues

- Currently reviewing customer class category for “temporary treated water service”
 - Use profile considerations include:
 - “On demand water use”
 - Creates potential for instantaneous peak on system
 - Water service not intended to be “permanent”
 - Water delivered through temporary fire hydrant meter
 - Potential customers fitting this profile include:
 - Road contractors
 - Pool contractors
 - Street Sweeping
 - Gas or other well drilling utilizing treated water

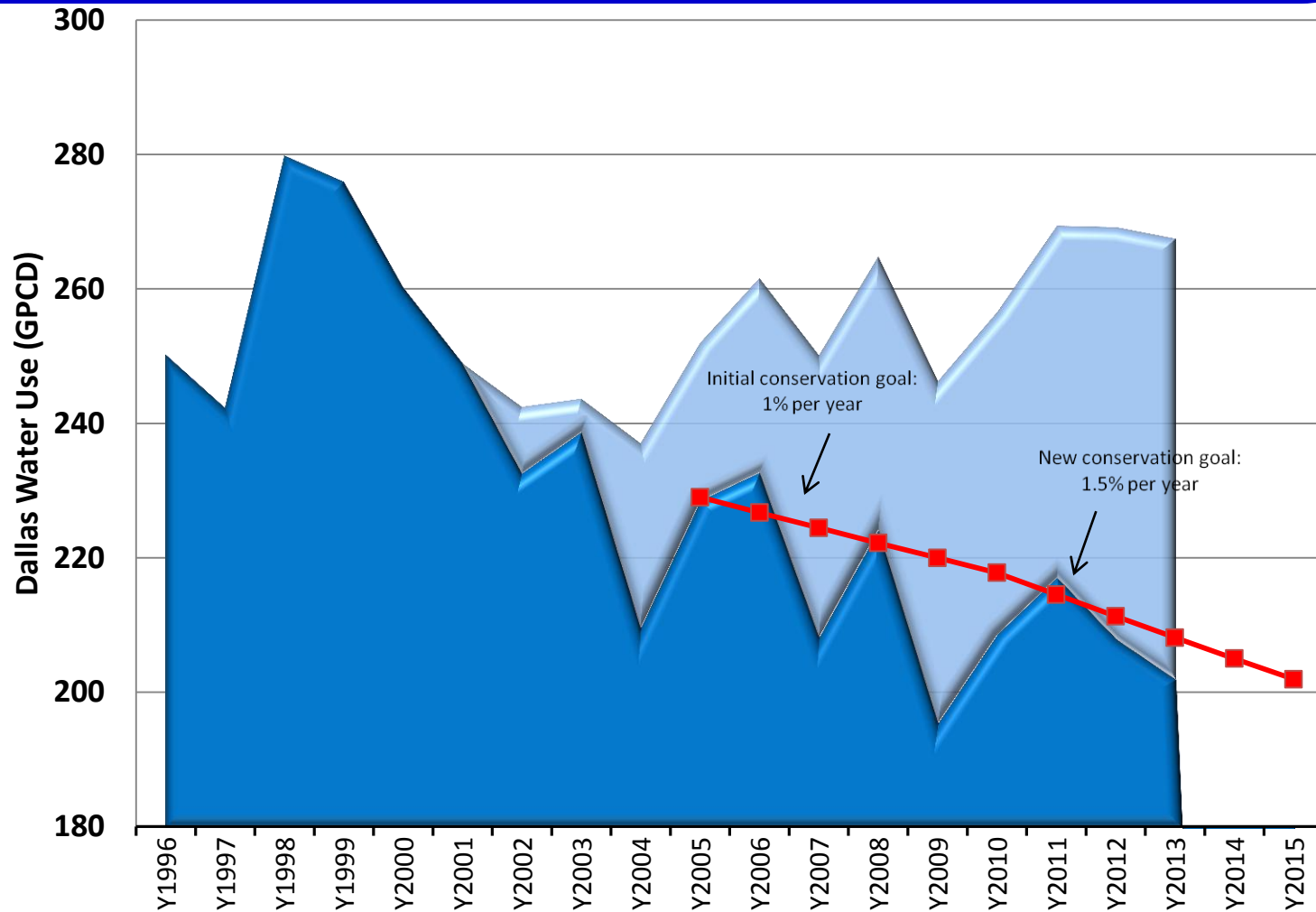
Summary

- Current efforts have resulted in
 - Reduced peak demands by an average of 2.4% each year
 - From a high of 789 MG in FY00 to 582.9 MG in FY13
 - Reduced annual consumption for residential and commercial classes
 - Residential consumption has been reduced by 1.1% each year
 - Commercial consumption has been reduced by 2.2% each year
- As part of the process to update the Water Conservation Five-Year Strategic Plan for 2015, review water savings options:
 - Evaluate current and prospective additional programs – what's working and what isn't
 - Review the current general services rate structure and evaluate the potential need for sub-classes
- Finalize review for potential changes and charges for “temporary treated water” customer class profile

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Appendix

Water Consumption Trend



Retail Water and Wastewater Rates

Effective October 1, 2013

CUSTOMER CHARGE		WATER	SEWER	COMBINED
5/8	Inch Meter	\$4.65	\$4.40	\$9.05
3/4	Inch Meter	\$6.45	\$5.90	\$12.35
1	Inch Meter	\$9.38	\$8.53	\$17.91
1 1/2	Inch Meter	\$17.47	\$16.01	\$33.48
2	Inch Meter	\$27.26	\$25.82	\$53.08
3	Inch Meter	\$66.56	\$61.45	\$128.01
4	Inch Meter	\$110.59	\$100.10	\$210.69
6	Inch Meter	\$219.60	\$201.31	\$420.91
8	Inch Meter	\$364.98	\$332.91	\$697.89
10	Inch Meter or larger	\$561.26	\$507.07	\$1,068.33

USAGE CHARGE per 1,000 gallons*

RESIDENTIAL

Up to 4,000 gallons	\$1.80	\$4.90
4,001 to 10,000 gallons	3.77	4.90
10,001 to 15,000 gallons	5.20	4.90
Above 15,000 gallons	7.09	4.90

GENERAL SERVICES

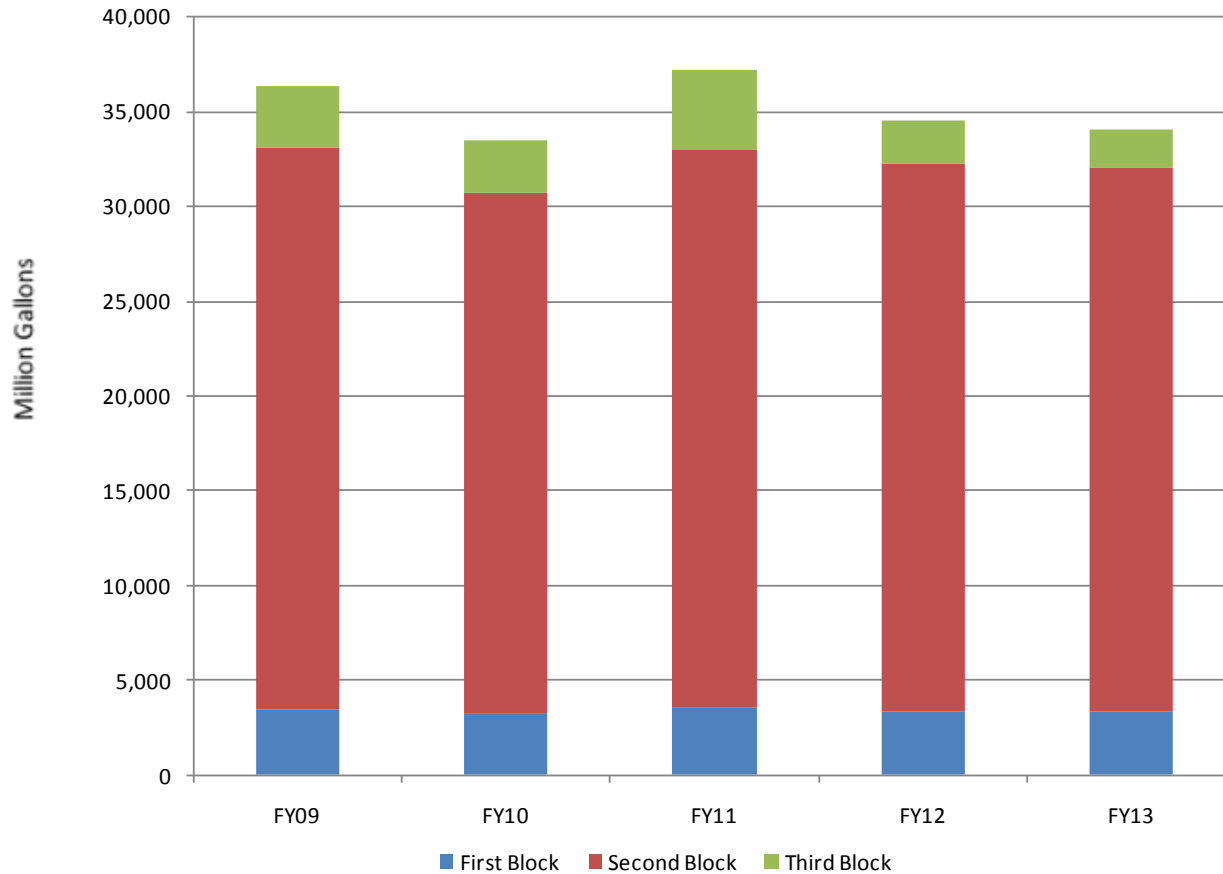
Up to 10,000 gallons	\$2.70	\$3.47
Above 10,000 gallons	3.30	3.47
Above 10,000 gallons & 1.4 times annual average monthly usage	4.65	3.47

OPTIONAL GENERAL SERVICES

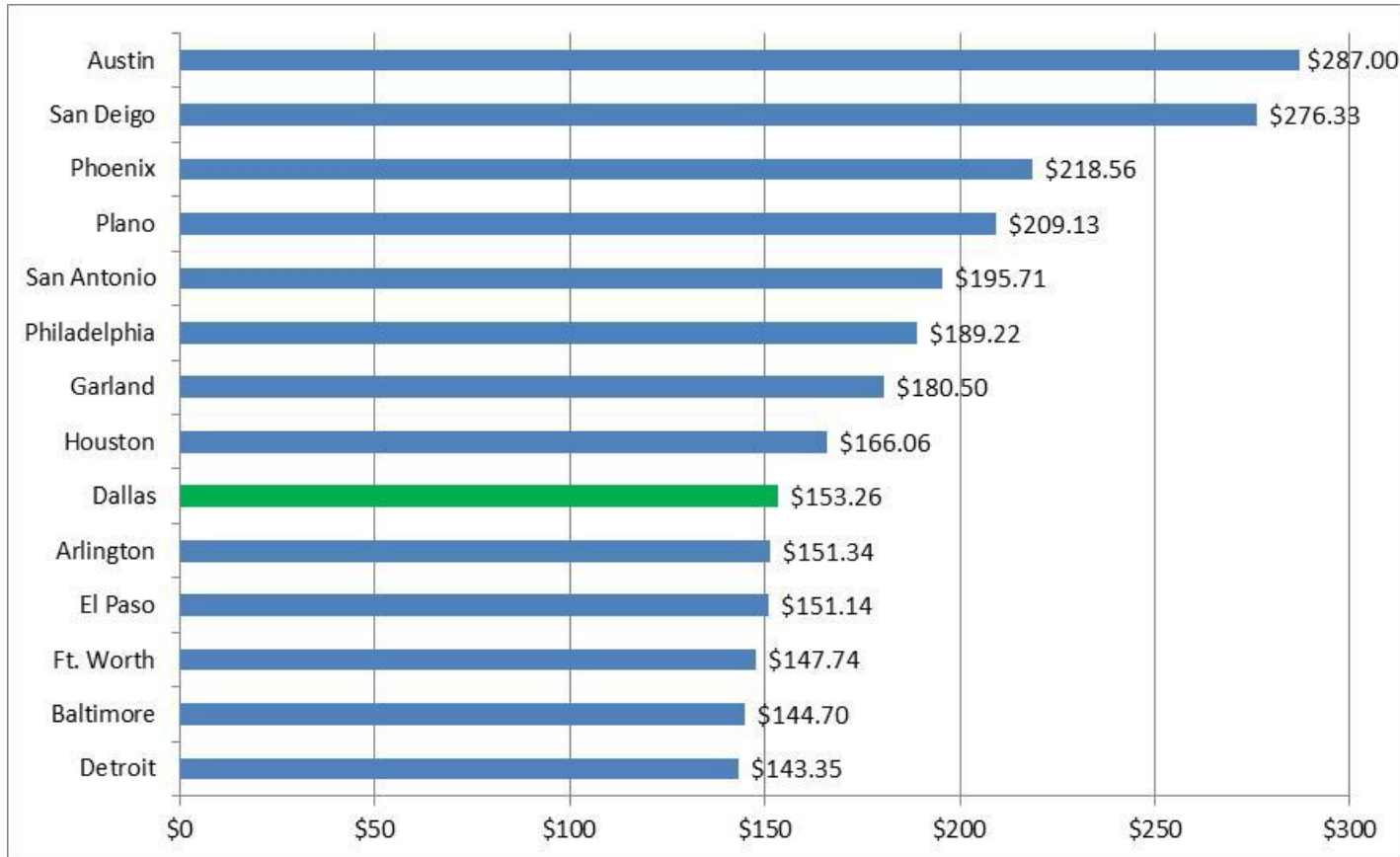
1st million gallons or less (minimum)	\$1,945.98	\$3.22
Above 1 million gallons (per 1,000 gallons)	2.55	3.22
Sewer Metered Separately		3.40

General Services Water Use by Rate Tier

FY2009-13

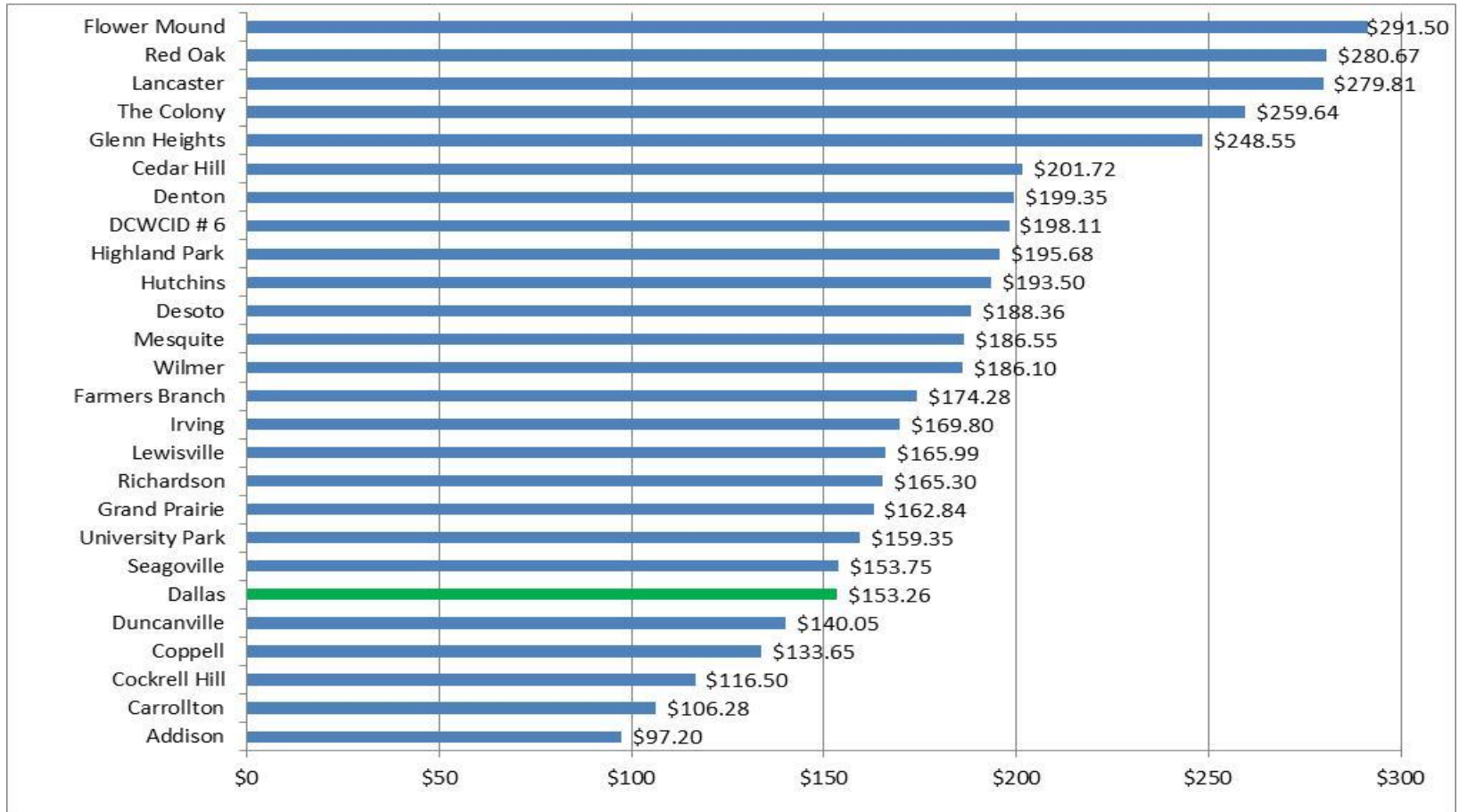


Comparison of Index Cities Typical Monthly Commercial Water Bills



Note: Bill comparison based on annual average of 40,000 gallons per month on 2" meter

Comparison of Customer Cities Typical Monthly Commercial Water Bills



Note: Bill comparison based on annual average of 40,000 gallons per month on 2" meter

Residential and Commercial Rate Structures for Other Texas Cities

Arlington				Fort Worth		
Residential		Commercial		Residential	Commercial	
Usage (in gallons)	Rate (per 1,000 gallons)	Usage (in gallons)	Rate (per 1,000 gallons)	Usage (in CCF)	Rate (per 100 CF)	All Usage Rate per HCF
0-2,000	\$ 1.42	0-15,000	\$ 2.09	first 800	\$ 1.97	\$ 2.23
3,000-10,000	\$ 2.02	≥ 16,000	\$ 2.40	800-2,000	\$ 2.80	
11,000-15,000	\$ 2.98			2,000-3,000	\$ 3.48	
16,000-29,000	\$ 3.44			>3,000	\$ 4.20	
≥ 30,000	\$ 4.11					

Austin				Garland		
Residential		Commercial		Residential	Commercial	
Usage (in gallons)	Rate (per 1,000 gallons)	All Usage	Rate per 1,000 gal	Usage (in gallons)	Rate (per 1,000 gallons)	All Usage per 1,000 gallons
0-2,000	\$ 2.00	Off Peak	\$ 4.73	First 3,000	\$ 3.35	\$ 4.44
2,000-6,000	\$ 4.50	Peak	\$ 5.22	3,000 - 15,000	\$ 4.40	
6,000-11,000	\$ 7.45			>15,000	\$ 6.78	
11,000-20,000	\$ 12.55					
≥ 20,000	\$ 12.55					

Residential and Commercial Rate Structures for Other Texas Cities

El Paso				Houston		
Residential		Commercial		Residential	Commercial	
Usage in CCF Includes 4ccf	Rate (per CCF)	Usage in CCF	Rate	Usage (in gallons)	Rate (per 1,000 gallons)	All Usage per 1,000 gallons
≥4 CCF's to 150% of AWC'	\$ 1.56	0 CCF's to 150% of AV	\$ 1.56	1,000	\$ 4.86	\$ 3.88
≥ 150% to 250% of AWC	\$ 3.68	≥ 150% to 250% of AV	\$ 3.68	2,000	\$ 11.08	
≥250% of AWC	\$ 5.27	≥250% of AWC	\$ 5.27	3,000	\$ 11.45	
				4,000	\$ 21.66	
				5,000	\$ 25.96	
				6,000	\$ 30.26	
				all use from 7,000-12,000	\$ 4.67	
				all use >12,000	\$ 7.69	

San Antonio				Plano			
Residential		Commercial		Residential		Commercial	
Usage (in gallons)	Rate per 100 gallons	Usage (in gallons)	Rate per 100 gallons	Usage (in gallons) includes first 1,000 gallons	Rate per 1,000 gallons	Usage in gallons	Rate per 1,000 gallons
First 5,985	\$ 0.09	Base*	\$ 0.11	1,001-5,000	\$ 0.43	1,001-5,000	\$ 0.43
Next 6,732	\$ 0.14	>100-125% of Bas	\$ 0.14	5,001-20,000	\$ 2.21	>5,000	\$ 2.21
Next 4,488	\$ 0.19	>125-175% of Bas	\$ 0.19	>20,000	\$ 4.42		
Over 17,205	\$ 0.34	>175% of Base	\$ 0.28				

*Base use is defined as 100% of annual consumption

Commercial vs. Residential Peaking Factors

Residential	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13	Average
Average Month	2,276,695	2,128,552	2,488,340	2,079,445	2,046,491	2,097,849
Minimum Month	1,587,153	1,236,812	1,328,933	1,376,976	1,407,103	1,387,395
Peak Month	3,336,109	3,468,345	4,344,612	3,674,583	3,153,988	3,578,715
Peak to Average	1.5	1.6	1.7	1.8	1.5	1.7
Commercial	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13	Average
Average Month	3,024,842	2,786,350	3,012,809	2,887,423	2,859,720	2,914,229
Minimum Month	2,080,624	1,896,534	1,953,870	2,077,848	2,312,802	2,163,062
Peak Month	4,161,287	3,646,867	4,420,065	3,841,158	3,606,663	3,849,274
Peak to Average	1.4	1.3	1.5	1.3	1.3	1.3