

# Memorandum



CITY OF DALLAS

DATE August 23, 2012

TO Honorable Mayor and Members of the City Council

SUBJECT Dallas Water Utilities: Overview of Fiscal Year 2012-13 Budget

Attached is the Dallas Water Utilities: Overview of Fiscal Year 2012-13 Budget briefing to be presented by the Water Utilities Department at the August 27, 2012 Council Budget Workshop.

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

A handwritten signature in black ink, appearing to read 'Forest E. Turner'.

Forest E. Turner  
Assistant City Manager

Attachment

cc: Mary K. Suhm, City Manager  
Rosa A. Rios, City Secretary  
Thomas P. Perkins, Jr., City Attorney  
Craig D. Kinton, City Auditor  
Judge C. Victor Lander, Administrative Judge  
A.C. Gonzalez, First Assistant City Manager  
Ryan S. Evans, Assistant City Manager  
Jill A. Jordan, P.E., Assistant City Manager  
Joey Zapata, Assistant City Manager  
Jeanne Chipperfield, Chief Financial Officer  
Frank Libro, Public Information Officer  
Stephanie Pegues-Cooper, Assistant to the City Manager – Council Office

# Dallas Water Utilities: Overview of Fiscal Year 2012-13 Budget

August 27, 2012



# Purpose

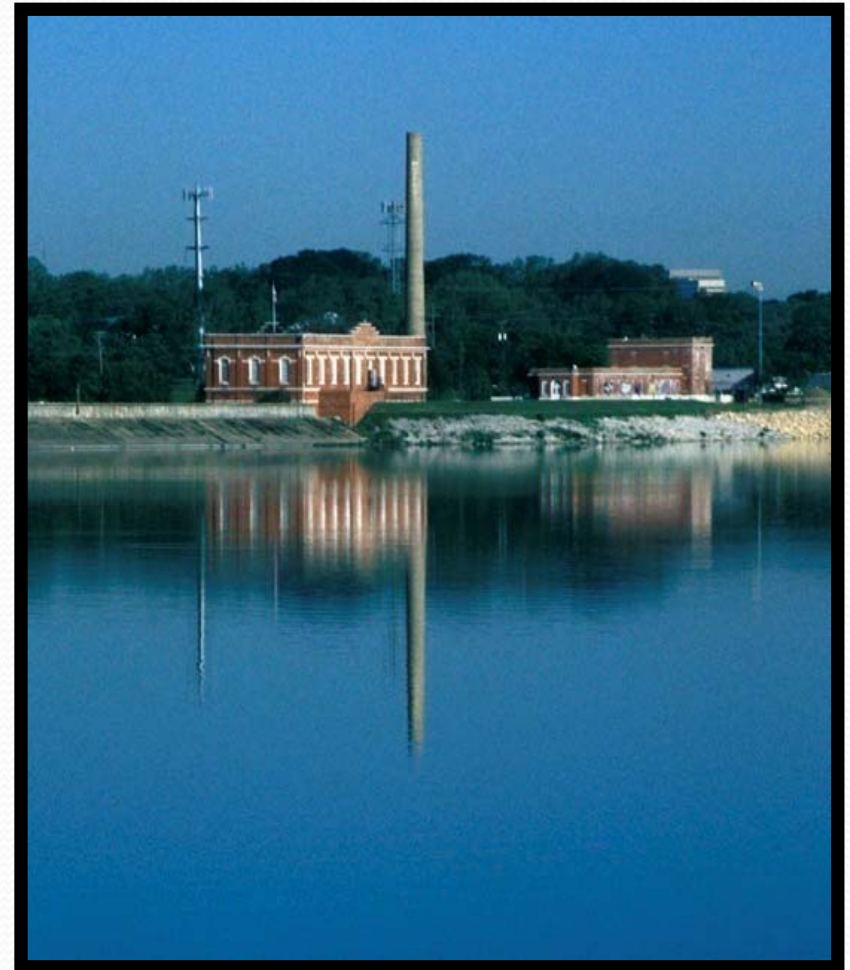
This briefing provides an overview of Dallas Water Utilities' recommended Fiscal Year 2012-13 Budget

# Background

# City of Dallas Water Utilities Fact Sheet

Dallas Water Utilities is funded from water and wastewater revenues and receives no tax dollars

- Approximately 1,500 employees
- Population served (treated water)
  - 1.2 million - City of Dallas
  - 1.2 million wholesale customer cities
- 699 square mile service area
- 300,000 retail customer accounts
- 4,914 miles of water mains
- 4,016 miles of wastewater mains
- 3 water treatment plants
- 2 wastewater treatment plants
- Wholesale customers
  - 23 treated water
  - 3 untreated water
  - 11 wastewater





# Utilities Overview

- Infrastructure driven operation with assets of over \$3.7B
- Utilizes 10 year capital improvement program (CIP) supported by system master planning
- Use Financial Management Performance Criteria (FMPC), including:
  - Dallas Water Utilities funds solely for use of the utility
  - Commercial Paper used for interim financing of capital projects
  - Long-term debt used only for capital infrastructure (30 year debt)
  - Debt service coverage should be at least 1.3 times at all times and 1.5 times at fiscal year-end
- Wholesale customer rates based on 2010 Memorandum of Agreement and contractual agreement
- Strict adherence to TCEQ/EPA regulations





# City of Dallas Water Assets



- 7 reservoirs, (6 connected and 1 currently not connected)
- 4,914 miles of water mains
- 3 Water treatment plants with a combined capacity of 900 MGD
- 23 pump stations
- 9 elevated and 12 ground storage tanks
- Value of water assets \$2.3 Billion
- Combined water and wastewater system outstanding debt \$2.9 Billion
- Treated 156 BG of water in FY11

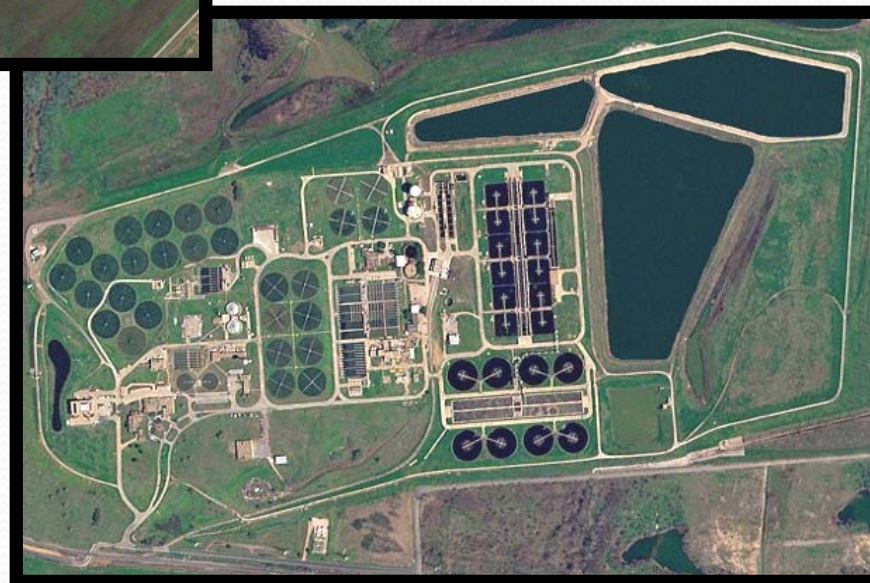


# City of Dallas Wastewater Assets



**Southside WWTP**

- 2 Wastewater treatment plants with a combined capacity of 260 MGD
- 14 wastewater pump stations
- 4,016 miles of wastewater main
- Value of wastewater assets \$1.4 Billion
- Treated 52.8 BG of wastewater in FY11



**Central WWTP**

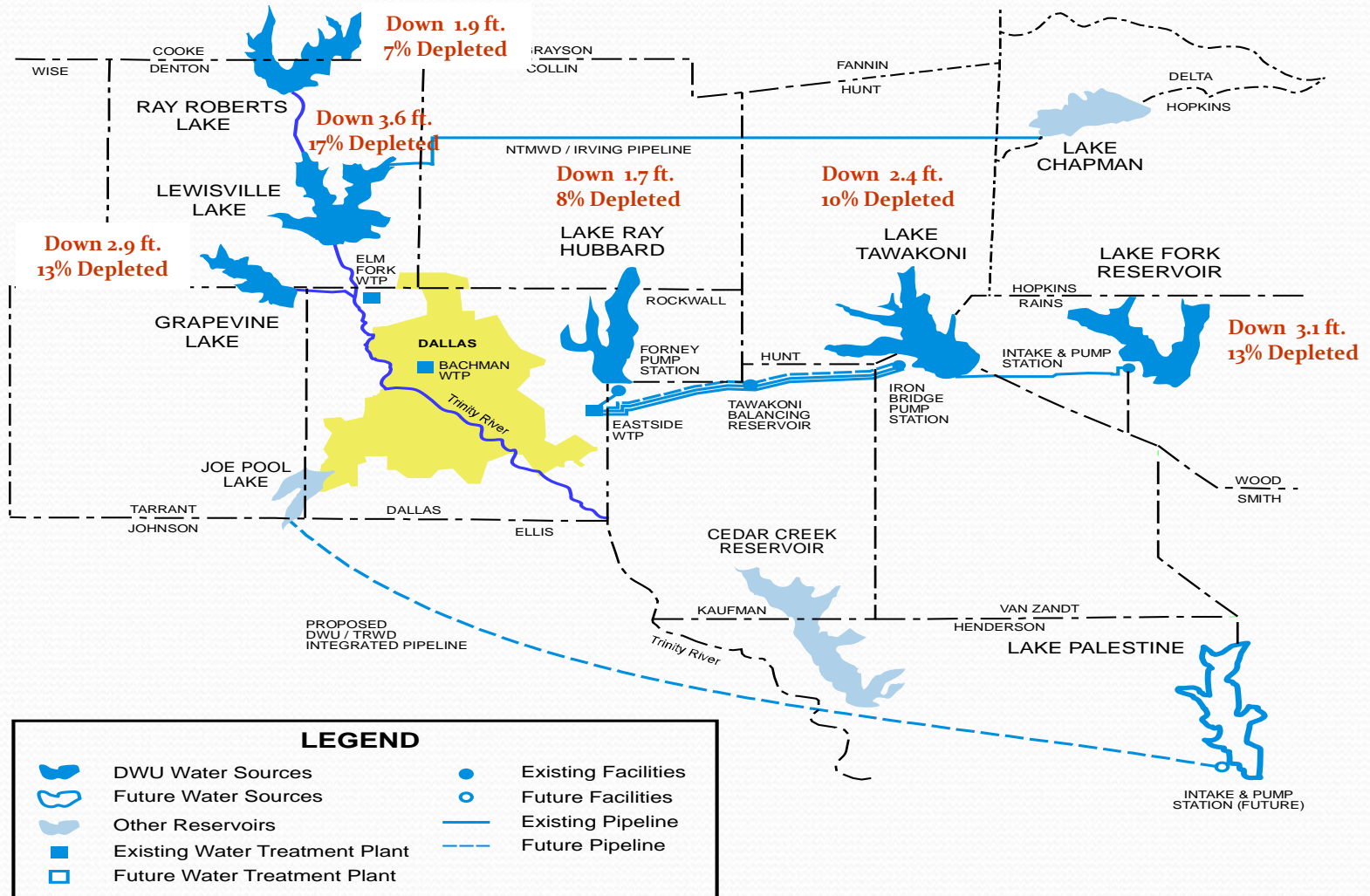


# Where We Are Today

- Surface water is “owned” by the State of Texas, who in turn, grants permits for its beneficial use
- Dallas’ existing water rights were granted by the State based on serving the needs of Dallas and its customer cities
- Both Dallas and customer cities enjoy lower water rates because of a regional approach to water acquisition and supply
  - Dallas has had a successful relationship with its customer cities for more than 50 years, and has shared costs with customer cities based on a 30-year Memorandum of Agreement (MOA)
  - FY13 budget includes wholesale revenue increase of 4.0%
- Dallas currently has water to meet its needs, but even with conservation and reuse, additional water supply sources will be needed by 2035
- Dallas and other area water agencies are looking for additional water sources to meet projected needs through 2070
  - Regional approach for new water sources is more efficient and reduces costs
- A Long Range Water Supply Study is scheduled for award in September 2012 and will include a review of water supply sources such as Oklahoma water, Toledo Bend reservoir and a replacement for Lake Fastrill

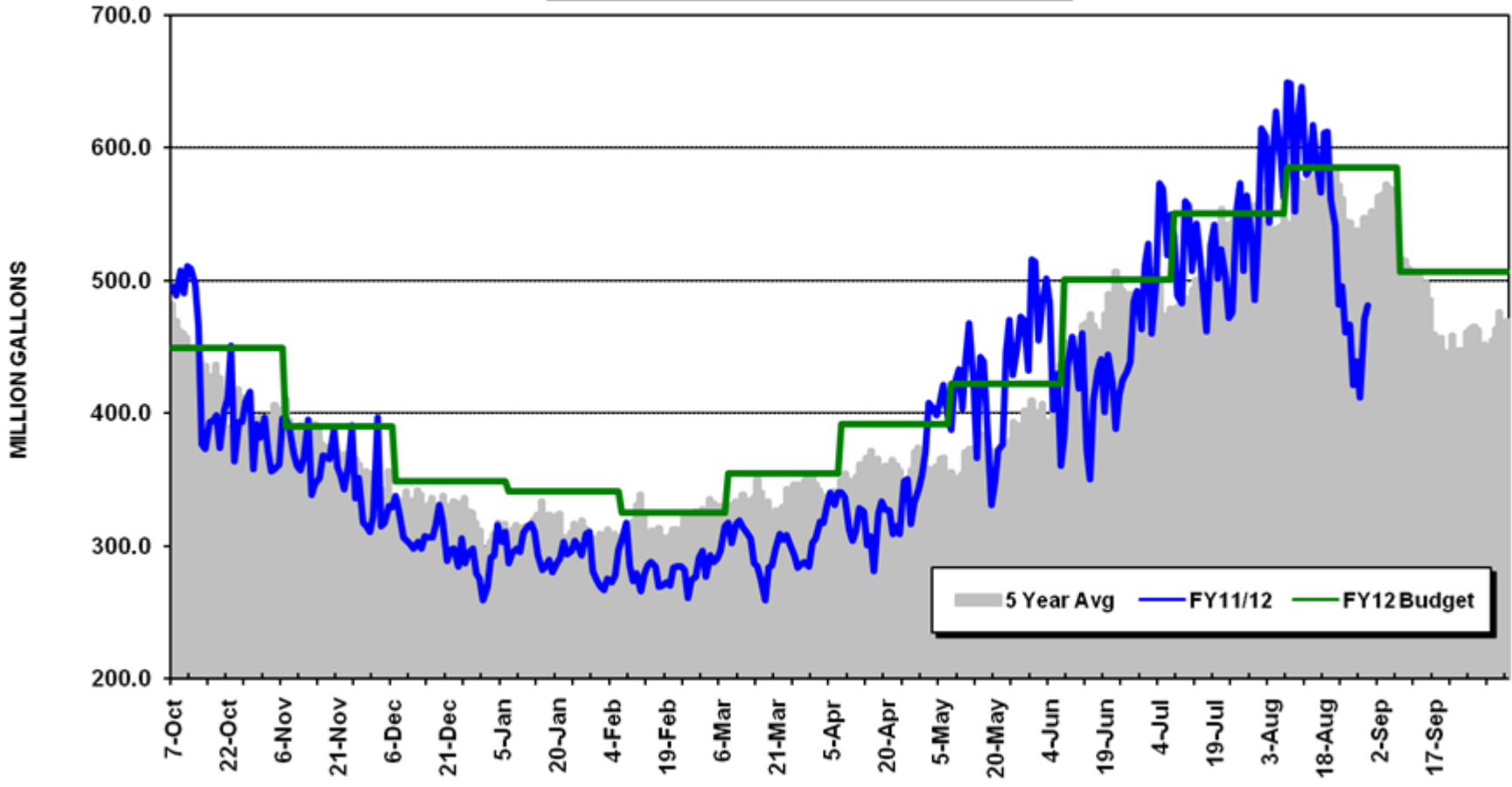
# DALLAS WATER RESERVOIRS

(Overall Depletion: 10.5% as of August 23, 2012)





**Dallas Water Utilities System**  
 Daily Water Consumption  
 (FY12 Budget and Five Year Average)



As of 8/23/12 FY12 consumption is 7.6% or 12BG below FY12 Budget



# Fiscal Year 2012-13 Budget

# Dallas Water Utilities: Fiscal Year 2012-13 Budget Focus

- Dallas Water Utilities is a large, municipally owned regional water/wastewater supplier
  - Costs are driven by infrastructure requirements for both growth and renewal
  - Responsibility for planning to meet water requirements for service area
  - Self-supporting
- Proposed budget continues the focus on maintaining infrastructure and conserving resources through:
  - Water and wastewater systems maintenance
  - Pro-active detection of water system leaks
  - Water conservation efforts
  - Annual replacement rate of 1.5% for aged water and wastewater mains

# Dallas Water Utilities

- The Proposed Budget includes Operating Budget of \$564.0M and Capital Budget of \$275.0M
- Overall revenue increase
  - Residential revenues increased by 3.9%
  - Wholesale revenues increased by 4.0%
  - Industrial revenues increased by 5.3%
  - Commercial revenues increased by 7.2%
  - Total retail revenues increased by 5.1%
- Continue to provide high quality and sufficient water/wastewater services to meet current and future customer needs
- Continue Water Conservation Program to reduce per capita water consumption
- Provide wholesale water and wastewater services by contract based on cost of service
  - On average, wholesale customers retail rates are 8% higher than Dallas
  - More than half of wholesale customers are projecting rate increases for FY13
- Future Outlook on retail revenues:
  - FY 2014            5.5% increase (previously projected to be 6.9%)
  - FY 2015            5.9% increase (previously projected to be 6.1%)



# FY 2012-13 Budget Provides the Following Services

- 155.0 BG of water treated and delivered
- 65.0 BG of wastewater treated
- Capital Improvement Program of \$275.0M
- Continuation of plant expansion at Eastside Water Treatment Plant and replacement of aged water and wastewater mains
- Meets all State and Federal water and wastewater quality requirements
- Meets all Financial Management Performance Criteria
- Continues conservation initiatives to reduce water use
  - ICI audit and rebate program
  - Residential Irrigation Rebates

# Service and Sustainability

- Dallas built its water system to meet the drought of record
  - The drought of record is the worst recorded drought used for planning municipal water supplies
  - Dallas' drought of record was a seven year period in the 1950's
- To minimize water usage, Dallas has undertaken several sustainability actions
  - Leak detection
  - Maintenance and repair
  - Conservation and reuse
- Actions are to sustain what we have, and add new sources to meet future growth



# Service and Sustainability

- **Major Maintenance Initiatives**

- Continuing to reduce water loss by expanding leak detection program
- Unaccounted For Water was 10.3% for FY11 and 9.8% year to date for FY12 with an industry goal of 10%
- Increased large wastewater main assessment and replacement
- Maintains an annual replacement rate of 1.5% for aged mains

- **Focus on Infrastructure Rehabilitation and Maintenance**

- For the prior four years, approximately half of the Capital Program went for the maintenance of existing infrastructure
- For FY13, \$223.4M of the \$275.0M capital program is budgeted for water/wastewater main replacements and infrastructure rehab



# Service and Sustainability

- **Reuse Initiatives** – 88 MGD identified in current efforts
  - Cedar Crest golf course (less than 1 MGD) and Stevens Park (less than 1 MGD)
  - Working with the United States Bureau of Reclamation to identify additional reuse opportunities in downtown Dallas and surrounding areas
  - Fine tune reuse water management strategies in the proposed Long Range Water Supply Plan Update and for the next round of Region C water planning
- **Renewable Energy Initiatives**
  - Produced over 36 million Kwhrs of renewable energy at the Southside Wastewater Treatment Plant since February 2011 from methane gas recovery
  - Piloting a grease digestion facility at Southside which could increase renewable energy production from 60% to 85% of the plant's energy needs

# Service and Sustainability

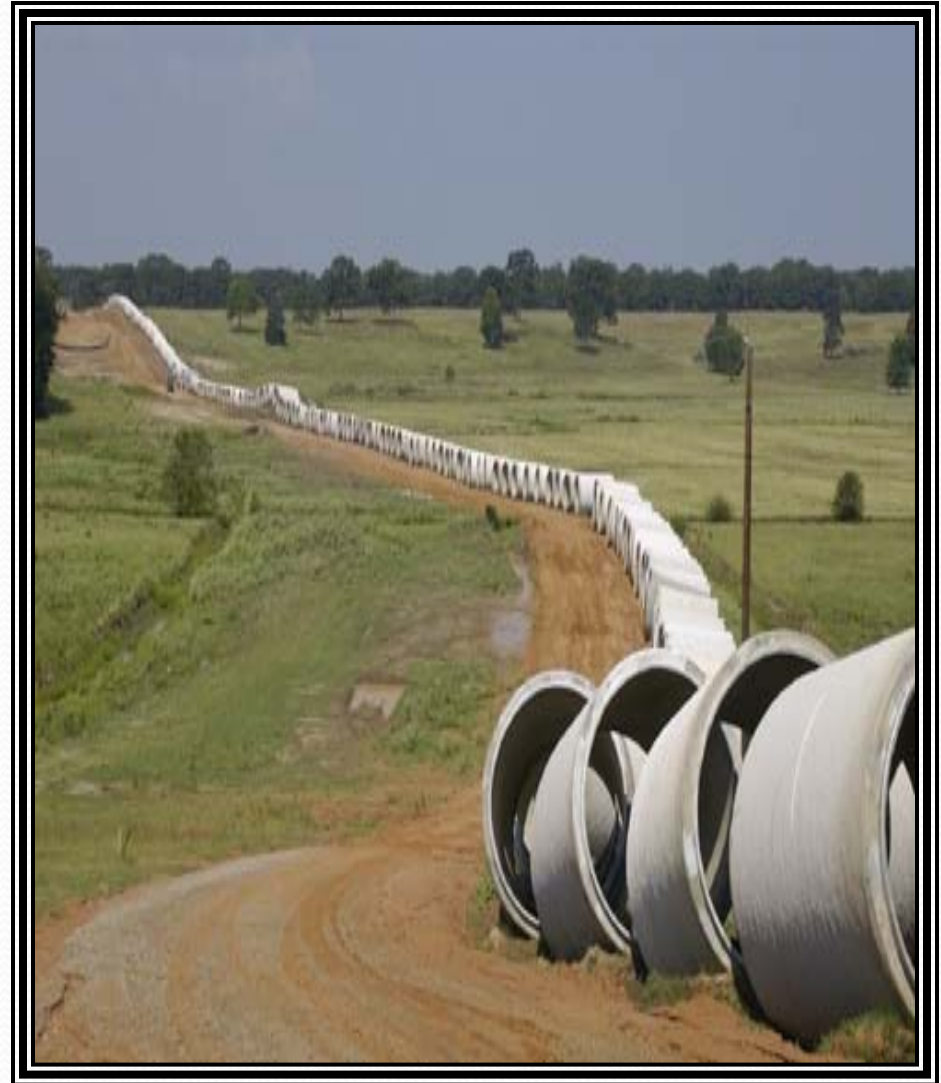
- **Dividends from Conservation Initiatives**
  - Various programs have resulted in a 40MGD savings in water consumption from 2001 to 2011
  - Equates to 84% of the 47.4 MGD goal for 2060
  - ***Twice weekly watering – water consumption is 5.6% lower than the same time period in FY11 despite similar temperatures***





# FY13 Capital Budget Funding

- Proposed Capital Budget of \$275.0M funded by:
  - Cash Transfer - \$74.8M
  - Commercial Paper (CP) for interim financing
    - Lower interest rates
    - Greater financing flexibility
  - Revenue bond debt
    - Approved by City Council
    - Used to pay off short term debt (CP)
    - 30 year term
- Meets all FMPC requirements
  - Bond Coverage budgeted at 1.58
  - Equity Funding of 25%



Lake Fork pipeline construction



# FY13 Capital Improvement Program

- Capital Improvement Program of \$275.0M
  - Revenue bond sale of \$160M Summer 2013
- Major Fiscal Year 2012-13 projects include:
  - Water Pipeline Replacement and Pump Station Program - \$88.7M
  - Wastewater Pipeline Replacement - \$59.4M
  - East Side WTP Improvements - \$7.3M
  - Elm Fork Improvements - \$12.9M
  - Central WWTP Improvements - \$47.8M
  - Southside WWTP Improvements - \$6.4M
- CIP includes four categories

● Rehab and Replacement	\$223.4M
● Growth	\$26.5M
● Regulatory	<u>\$25.1M</u>
	\$275.0M

# FY13 Proposed Retail Revenue Requirement

FY12 Budgeted Revenues	\$551,600,305
Adjustments for Conservation/Usage Trend <sup>1</sup>	(\$ 5,117,360)
Adjustments for Billable Wastewater Units <sup>1</sup>	(\$6,600,518)
Adjustments for Wholesale Sales	\$3,277,364
Adjustments for Interest Income and Misc. Revenues <sup>2</sup>	<u>(\$2,177,420)</u>
Proposed Revenues at Current Rates	\$540,982,371
FY13 Proposed Expenses	<u>(\$563,964,120)</u>
FY13 Proposed Additional Revenue Requirement	\$22,981,749
= 5.1% Proposed Retail Revenue Increase	

1 Reduced projected retail water sales by 3.0BG from 72.5BG to 69.5BG to reflect usage trends and water conservation programs including maximum twice weekly watering restrictions. Conservation trends and wet weather has reduced wastewater billable units.

2 Interest income reduced to reflect lower interest rates



# Major Expense Increases for Proposed Fiscal Year 2012-13 Operating Budget

- Proposed Fiscal Year 2012-13 Operating Budget of \$564.0M
  - Increase of \$12.1M from Fiscal Year 2011-12 Operating Budget of \$551.8M

- Major Expense Items

• Fiscal Year 2011-12 Operating Budget	\$551.8M
• Personnel Costs	\$ 3.1M
• Debt and cash transfer to construction costs	\$ 2.7M
• Chemicals and Reservoir Maintenance	\$ 4.5M
• Equipment and Other O&M	<u>\$ 1.8M</u>
• Proposed Fiscal Year 2012-13 Operating Budget	<b>\$564.0M</b>



# Retail Rate Impact

# Impact of Proposed Rate Adjustment to Residential Water and Sewer Bills

Impact of Proposed Rate Adjustment to Residential Water and Sewer Bills

Customer Usage in Range	Average Bill at Current Rates	Proposed Average Rates	Proposed Increase	% Increase	Number of Customers Impacted	% of Customers in Range
0 to 4,000 gallons	\$20.92	\$21.81	\$0.88 <sup>a</sup>	4.2%	67,726	28.7%
4,001 to 10,000 gallons	\$49.16	\$51.44	\$2.28 <sup>b</sup>	4.6%	94,567	40.1%
10,001 to 15,000 gallons	\$70.88	\$74.49	\$3.61 <sup>c</sup>	5.1%	29,510	12.5%
Above 15,000 gallons (Includes conservation tier rate)	\$190.84	\$202.45	\$11.61 <sup>d</sup>	6.1%	<u>44,100</u>	<u>18.7%</u>
Total					235,902	100.0%

Note: 81% of residential customers will see an average monthly bill increase of \$3.61 or less. Data based on January 2011 through December 2011 usage.

- a Average water and sewer use: 2,010 gallons
- b Average water use 6,533 gallons and sewer use: 5,600 gallons
- c Average water use 12,158 gallons and sewer use: 5,600 gallons
- d Average water use 32,096 gallons and sewer use: 5,600 gallons

# Impact of Proposed 5.1% Increase

- Typical monthly residential water and wastewater bill would increase from \$55.19 to \$57.83
  - Based on water use of 8,300 gallons and 5,600 gallons Winter Months Average for sewer
- US EPA affordability guideline for wastewater bills is 2% of median income
  - Dallas' wastewater bills would be 1.5% of median income



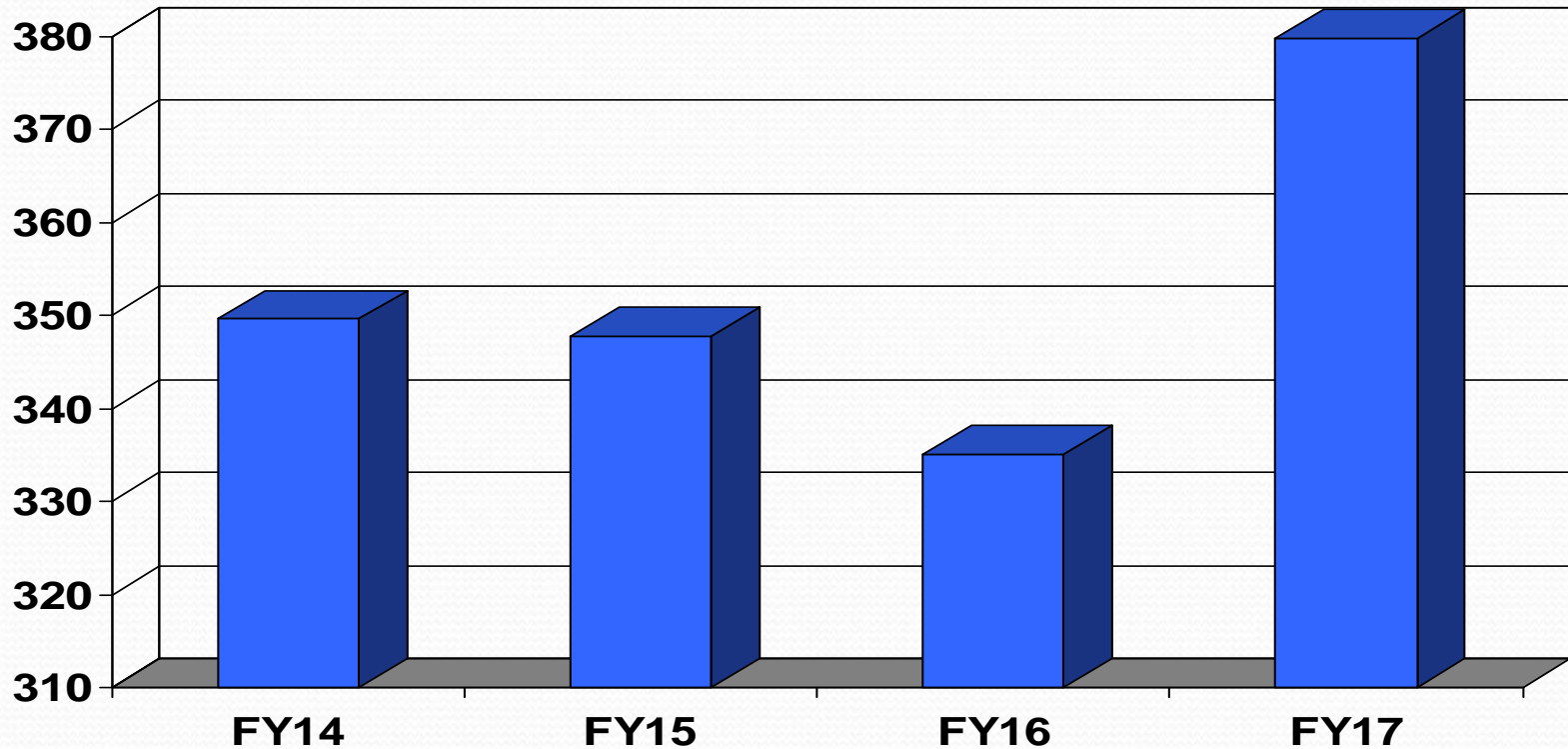
# Future Outlook

# Future Forecast Considerations

- Continued maintenance of water and wastewater systems
- Trends in power, fuel, chemicals and contracts with others
- Trends in water sales, conservation and the weather
- Implementation of the Integrated Pipeline Project
- Implementation of master plan and major maintenance recommendations for capital improvements program (CIP)
- Forecasts will change as numbers are refined

# Future Outlook: Capital Improvement Program

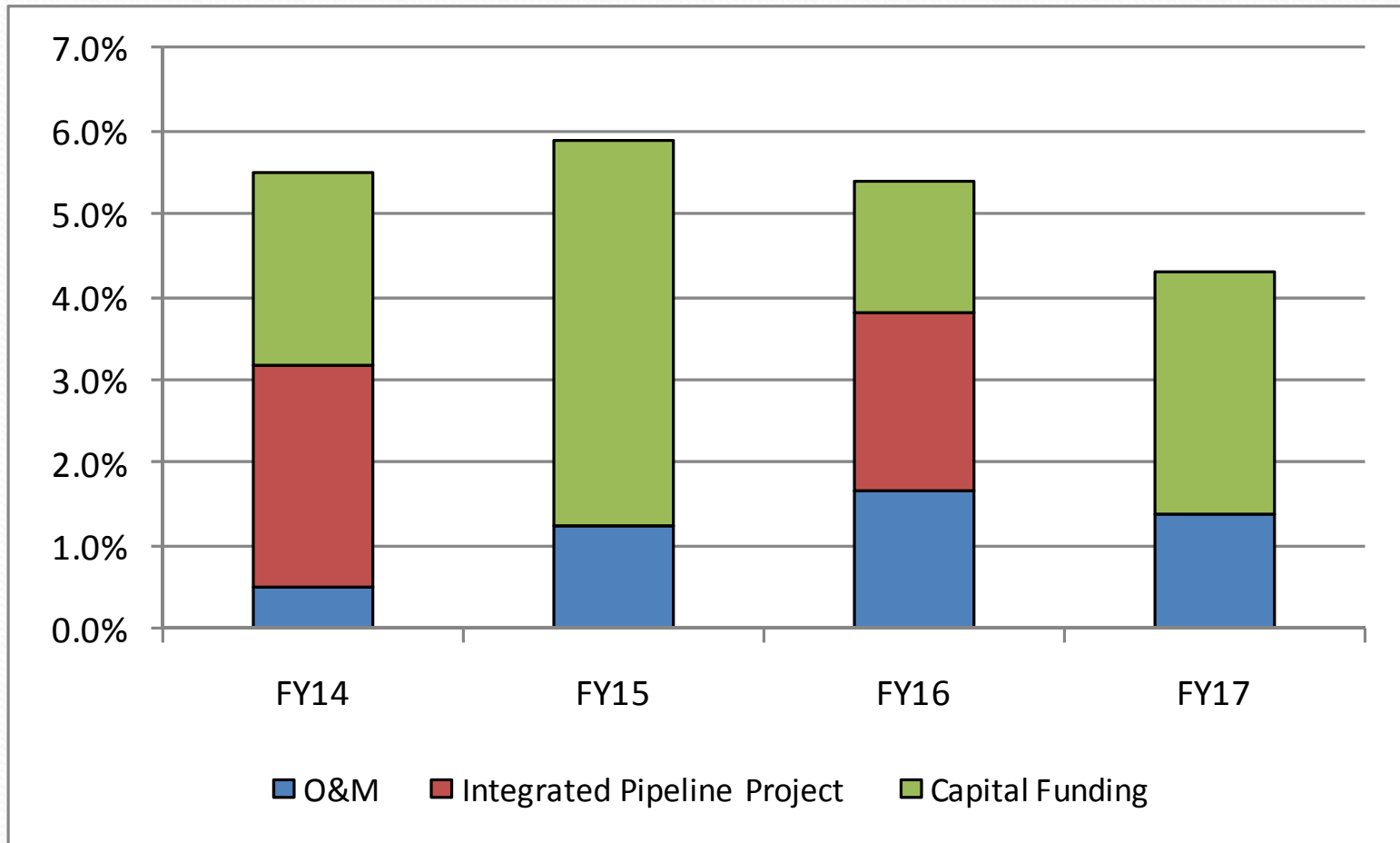
(Amounts in Million Dollars)



**Note: Does not include cost of additional future water supply acquisitions**



# Future Outlook: Retail Revenue Increases



**Note: Dallas Estimated Share of IPL project is \$832M; with estimated capital savings of \$196M and includes every other year revenue bond sales**

# Summary

- Dallas Water Utilities is a large, municipally owned regional water/wastewater utility provider
  - Self-supporting
  - Costs are driven by infrastructure requirements for both growth and renewal
  - Responsibility for planning to meet water requirements for Dallas and service area
- Recommend Operating Budget of \$564.0M
  - Overall retail revenue increase of 5.1%
  - Typical bill increases \$3.61/month
- Recommend Capital Budget of \$275.0M

# APPENDIX



# Water Conservation Program

# Dallas' Water Conservation Program

- Conservation measures adopted by the City Council in Oct 2001 have been positive
- In 2007, the City extended the time of day watering restriction to April 1 through October 31
- In June 2010, the City Council adopted update to Five-year Strategic Plan on Water Conservation
- In April 2012, implemented twice weekly watering restriction
- Dallas continues to aggressively pursue conservation strategies
  - 25% of future water will be met by conservation and reuse





# Water Conservation Five-Year Strategic Plan 2010 Update

- City's long-term planning tool to help curb water waste and improve water efficiency management
  - Launched Hospitality Program for Hotel/Motel and Restaurant customers in January 2010
  - Awarded contract to plan, develop and implement Industrial/Commercial and Institutional Audit and Rebate Program in March 2012
- Strategies include projected long-term water savings and reductions in gallons per capita usage





# Water Conservation: Twice Weekly Watering

- In April 2012, the Dallas City Council amended water conservation provisions in Chapter 49 of the Dallas City Code to limit outdoor irrigation to a maximum of twice weekly in an effort to curb outdoor water waste and increase water use efficiency.
- **Twice-Weekly Watering Schedule**

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

- Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems is limited to no more than twice per week according to the MANDATORY schedule. No watering is allowed on Mondays, Tuesdays or Fridays and watering is prohibited between 10 a.m. and 6 p.m. on the allowed watering days. Drip irrigation, soaker hoses and hand-watering are allowed on any day and will be permitted between 10 a.m. and 6 p.m.
- **Since implementation of the Twice Weekly Watering Program in April 2012, water consumption is 5.6% lower than the same time period in FY11 despite similar temperatures and less than half the rainfall. On average, non-watering days are 40 MGD or 8% less than watering days.**

# Looking Ahead – What's Scheduled for Fiscal Year 2012-13

- Continued emphasis on Industrial/Commercial/Institutional (ICI) programming
  - Scheduled to perform 45 water audits and issue financial incentives up to \$2 million annually
  - Plan, develop and implement ICI Training Program and Business Partnership Program
  - Continue Hospitality Industry Outreach Program
- Develop ICI Water-Efficient Equipment Ordinance Proposal
  - Ordinance requirements to expand minimum water efficiency standards for commercial equipment in new and newly-occupied ICI establishments
- Plan, develop and implement residential irrigation system upgrade incentive program
  - Offer a rebate to all customers who retrofit their existing irrigation systems with water-conserving equipment to complement Irrigation System Check-up Program
- Continue education and outreach programming
  - Irrigation System Check-up Program
  - Minor Plumbing Repair Program
  - New Throne for Your Home Toilet Voucher Program
- Continue regional Public Outreach campaign with Tarrant Regional Water District

# Future Capital Improvement Program



# FY14 - FY17 Capital Improvement Program

- Raw Water Supply, Reservoirs, Dams, Pumping, and Transmission - \$57.3M
  - Rehab Iron Bridge Pump Station to improve reliability and increase capacity
  - Repair Bachman Dam to meet safety regulations
- W & WW Pipelines, Pump Stations, Storage Facilities, and Meter Vaults - \$556.2M
  - Continue replacement of deteriorated infrastructures and pipelines
  - Continue building new infrastructures to support development and growth demands
- Elm Fork Water Treatment Plant Improvements - \$270.7M
  - Complete all water quality projects to convert to enhanced coagulation and biological active filtration to meet regulatory requirements
    - Sedimentation basin conversion to enhanced coagulation
    - Filter backwash and solids handling to facilitate biological active filtration
    - Modification to chemical addition lines and facilities
    - Sludge handling improvements
  - Rehab deteriorated pump station #1 for improved reliability

# FY2014 -17 Capital Improvement Program

- **Bachman Water Treatment Plant Improvements - \$53.5M**
  - Complete all water quality projects to convert to enhanced coagulation and biological active filtration to meet regulatory requirements
  - Sludge handling improvements
- **Eastside Water Treatment Plant Improvements - \$137.4M**
  - Complete all water quality projects to convert to enhanced coagulation and biological active filtration to meet regulatory requirements
    - Sedimentation basin conversion to improve water stability
    - Filter/hydraulic improvements to optimize organics removal causing nitrification
    - Residuals recovery to improve overall plant efficiency and eliminate recycling of filter backwash
  - Complete 540 MGD plant expansion
    - Construct Stage 5 filters to increase plant capacity and meet future demands



# FY2014 - 17 Capital Improvement Program

- Southside WW Treatment Plant Improvements - \$83.5M
  - Build new peak flow basin #5 and rehab peak flow basin #'s 1, 2 & 3 to better manage wet weather flow events
  - Construct new grease digestion facility to maximize co-generation facility to increase power generation
  - Replace deteriorated grit removal system with more efficient system to reduce power consumption at the plant
- Central WW Treatment Plant Improvements - \$142.7M
  - Rehab badly deteriorated primary clarifiers to extend the life of the facility
  - Rehab deteriorated White Rock pump station to improve reliability
  - Construct new peak flow basin D and rehab existing peak flow basins to increase storage capacity and better manage wet weather flows
  - Construct stormwater facilities to eliminate run-off and eliminate flooding at the plant



# Retail Rates

# Dallas Water Utilities Monthly Payment Rates

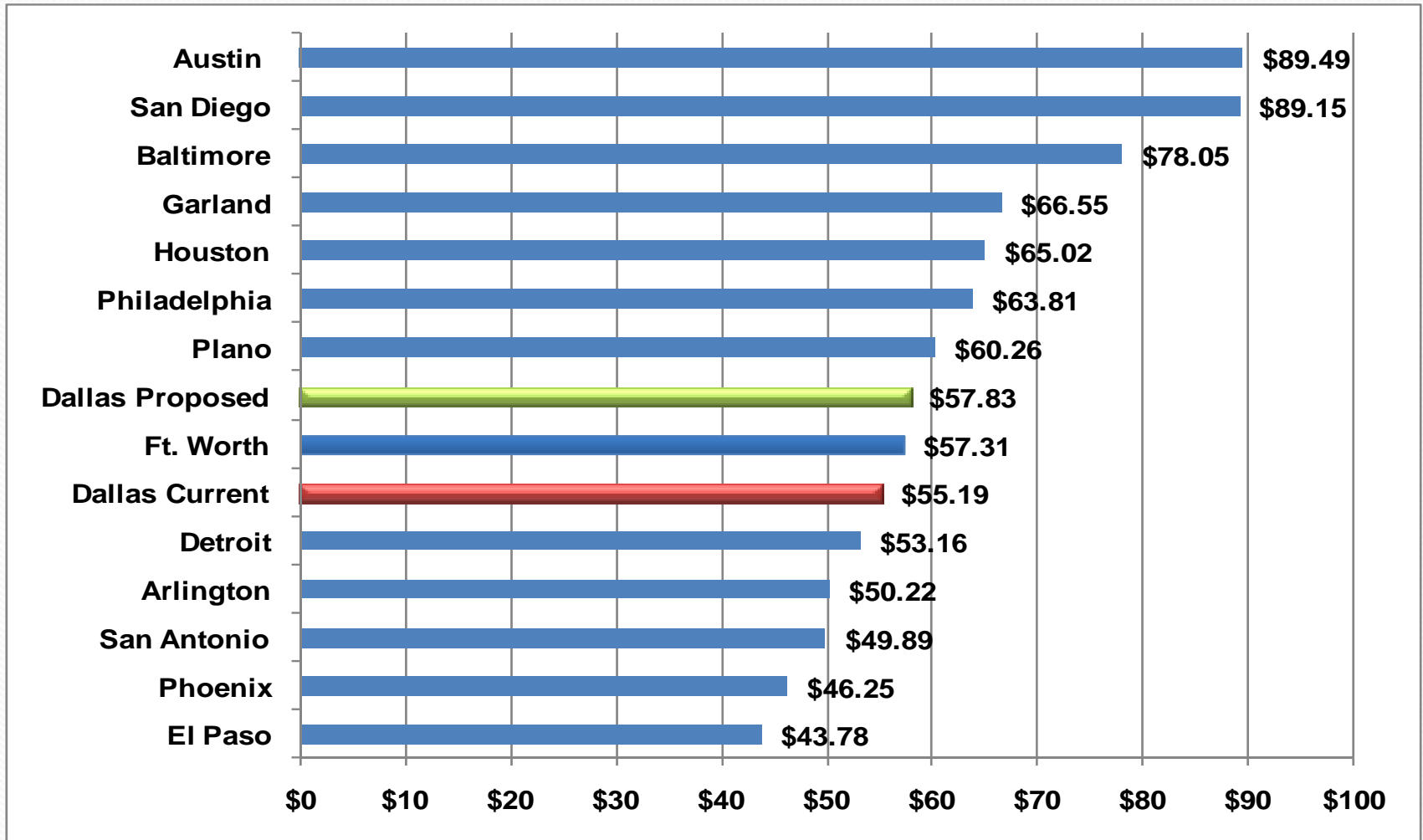
Customer Charge	Current Water	Proposed Water	Current Sewer	Proposed Sewer	Combined	Proposed Combined
5/8 Inch Meter	\$4.20	<b>\$4.40</b>	\$4.10	<b>4.20</b>	\$8.30	<b>\$8.60</b>
3/4 Inch Meter	\$5.79	<b>6.15</b>	\$5.25	<b>5.65</b>	\$11.04	<b>\$11.80</b>
1 Inch Meter	\$8.40	<b>8.95</b>	\$7.61	<b>8.14</b>	\$16.01	<b>\$17.09</b>
1 1/2 Inch Meter	\$15.81	<b>16.67</b>	\$14.36	<b>15.27</b>	\$30.17	<b>\$31.94</b>
2 Inch Meter	\$24.67	<b>26.01</b>	\$22.41	<b>24.63</b>	\$47.08	<b>\$50.64</b>
3 Inch Meter	\$59.18	<b>63.50</b>	\$53.79	<b>58.62</b>	\$112.97	<b>\$122.12</b>
4 Inch Meter	\$98.63	<b>105.50</b>	\$89.62	<b>95.50</b>	\$188.25	<b>\$201.00</b>
6 Inch Meter	\$197.22	<b>209.50</b>	\$179.25	<b>192.05</b>	\$376.47	<b>\$401.55</b>
8 Inch Meter	\$330.20	<b>348.20</b>	\$300.24	<b>317.60</b>	\$630.44	<b>\$665.80</b>
10 Inch Meter or larger	\$504.93	<b>535.45</b>	\$457.08	<b>483.75</b>	\$962.01	<b>\$1,019.20</b>

## Usage Charge per 1,000 gallons

	Current Water	Proposed Water	Current Sewer	Proposed Sewer
<b>Residential</b>				
Up to 4,000 gallons	1.68	<b>1.77</b>	4.60	<b>4.80</b>
4,001 to 10,000 gallons	3.35	<b>3.55</b>	4.60	<b>4.80</b>
10,001 to 15,000 gallons	4.63	<b>4.92</b>	4.60	<b>4.80</b>
Above 15,000 gallons	6.25	<b>6.67</b>	4.60	<b>4.80</b>
<b>General Services</b>				
Up to 10,000 gallons	2.35	<b>2.56</b>	3.04	<b>3.24</b>
Above 10,000 gallons	2.85	<b>3.07</b>	3.04	<b>3.24</b>
Above 10,000 gallons for usage more than 1.4 times annual monthly average	4.12	<b>4.42</b>	3.04	<b>3.24</b>
<b>Optional General Services</b>				
1st million gallons or less (minimum)	1,753.79	<b>1,856.50</b>	2.92	<b>3.07</b>
Above 1 million gallons (per 1,000 gallons)	2.29	<b>2.41</b>	2.92	<b>3.07</b>

**Proposed rates effective Oct. 1, 2012**

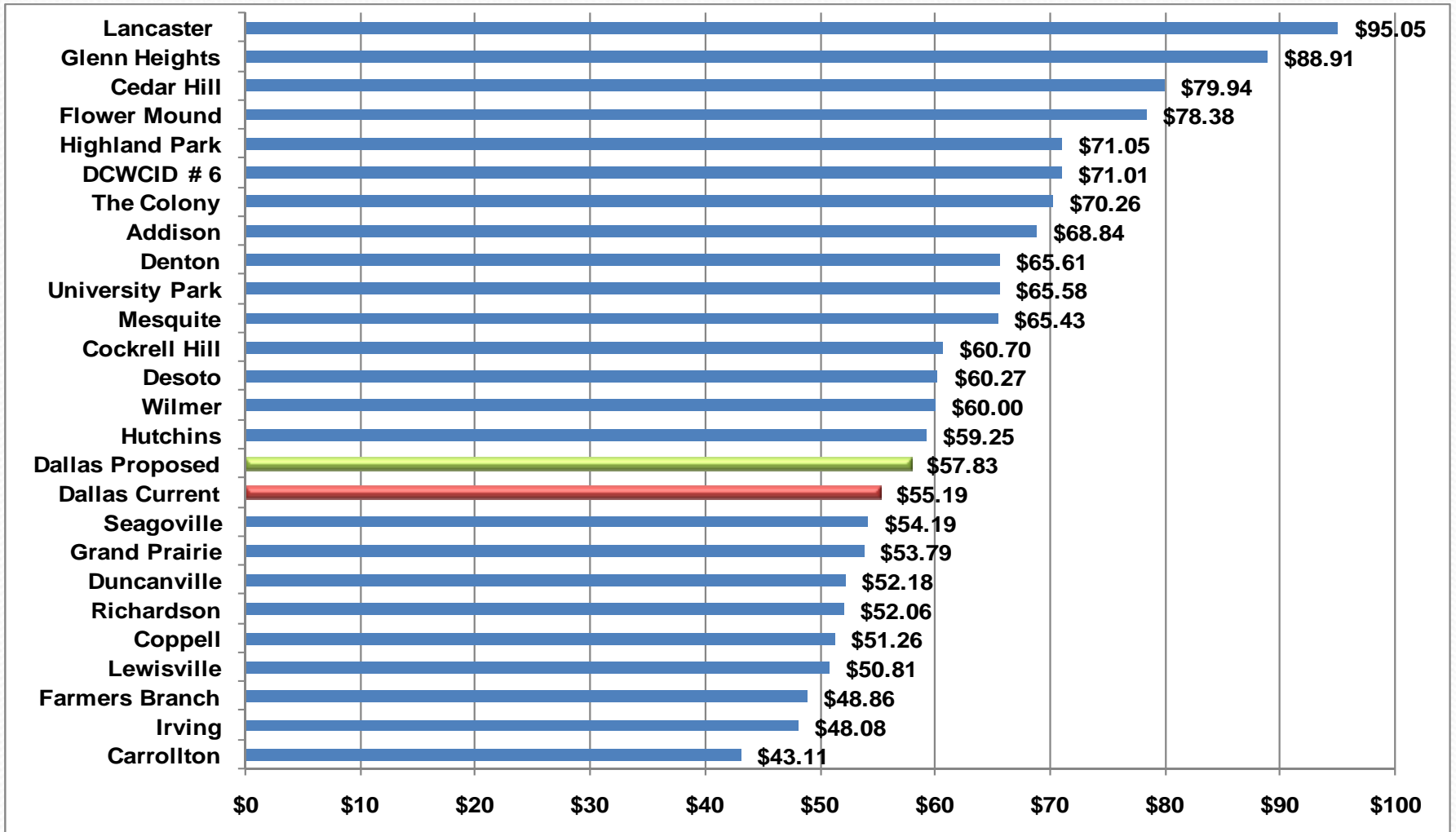
# Index Cities Comparison of Average Monthly Water & Sewer Residential Bills



Note: Bill comparison based on rates effective July 2012; water consumption of 8,300 gallons; and 5,600 gallon Winter Months Average for sewer



# Customer Cities Comparison of Average Monthly Water & Sewer Residential Bills



Note: Bill comparison based on rates effective July 2012; water consumption of 8,300 gallons; and 5,600 gallon Winter Months Average for sewer

# Proposed Miscellaneous Fee Changes

	<b><u>Existing Fee</u></b>	<b><u>Proposed Fee</u></b>
<b><u>Applications &amp; Deposits</u></b>		
1. Residential Raw Water Permit Fee	\$63	\$95
2. Deduct Meter Customer Charge	\$10	\$40
3. Portable Meter Deposit	\$1,000	\$1,500
<b><u>Development Fees</u></b>		
1. ¾" Water Service Installation	\$2,073	\$2,040
2. 1" Water Service Installation	\$2,173	\$2,180
3. 1 ½" Water Service Installation	\$3,411	\$3,115
4. 2" Water Service Installation	\$3,711	\$3252
5. ¾" Water Deadhead Connection	\$675	\$295
6. 1" Water Deadhead Connection	\$775	\$325
7. 1 ½" Water Deadhead Connection	\$1,075	\$875
8. 2" Water Deadhead Connection	\$1,275	\$975
9. Up to 2" Bullhead Water Connection	\$2,575	\$1,225
10. Wastewater Lateral with Connection	\$2,343	\$2,066
<b><u>Charges for Use of Fire Hydrants</u></b>		
1. Monthly Fire Hydrant Service Charge	\$59.18	\$63.50
<b><u>Surcharge Rates (per 1,000 gallons)</u></b>		
1. BOD Charge	\$2.2518	\$2.3352
2. TSS Charge	\$1.3761	\$1.4178