

Dallas Water Utilities: Capital Improvement Program

**Transportation and
Infrastructure Committee**

May 18, 2020



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City of Dallas

Purpose

Infrastructure is the **heart** of Dallas Water Utilities (DWU) and the capital program builds and provides major maintenance of its infrastructure

- Provide an overview of DWU's Capital Improvement Program (CIP) including:
 - CIP Categories
 - CIP Planning and Execution
 - FY20 Capital Budget Funding
 - Upcoming Financial Actions for FY20

BACKGROUND

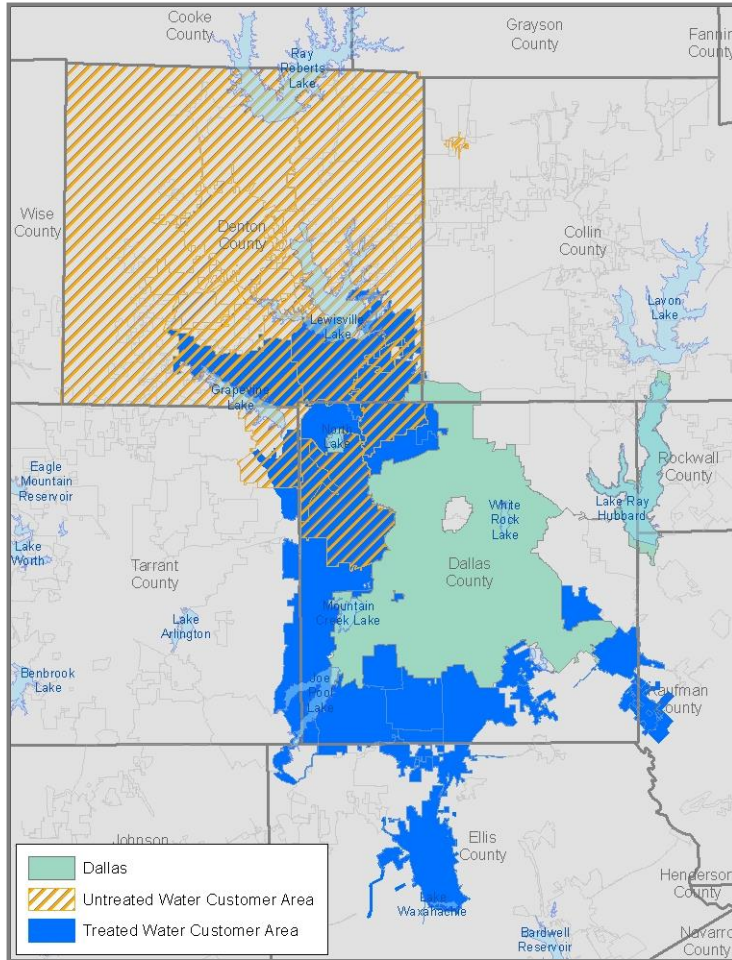


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Dallas Water Utilities Fact Sheet



- Founded in 1881
- Regional provider of water, wastewater and stormwater services
- Funded from wholesale and retail water and wastewater revenues and stormwater fees (receives no tax dollars)
- Combined operating and capital budgets of \$1.1B
- 699 square mile service area
- Approximately 1,650 employees
- 2.5 million treated water customers
 - 1.3 million – Retail (City of Dallas)
 - 1.2 million – Wholesale

Dallas Water Utilities Assets

	Water	Wastewater	Storm Drainage
			
Reservoirs	7 (6 connected)	NA	NA
Pipelines	4,999 miles	4,049 miles	1,963 miles and 30 miles of Levees
Treatment Plants (Combined Capacity)	3 (900 MGD)	2 (280 MGD)	NA
Pump Stations	23	15	8
Asset Value	\$ 3.8 B	\$ 2.6 B	*
Treated in FY19	135 BG	84 BG	NA

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*Asset Assessment in Progress

Legend

- Dallas Reservoirs
- Other Reservoirs
- Proposed Reservoirs
- IPL
- Proposed Pipelines
- Existing Pipelines

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Existing Reservoirs and Proposed Water Supply Strategies

CAPITAL IMPROVEMENT PROGRAM



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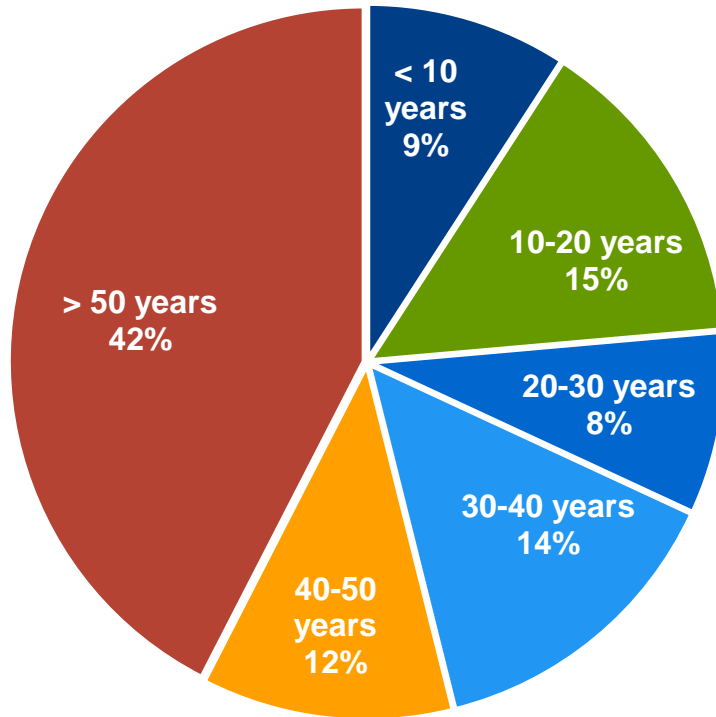
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Capital Program Areas

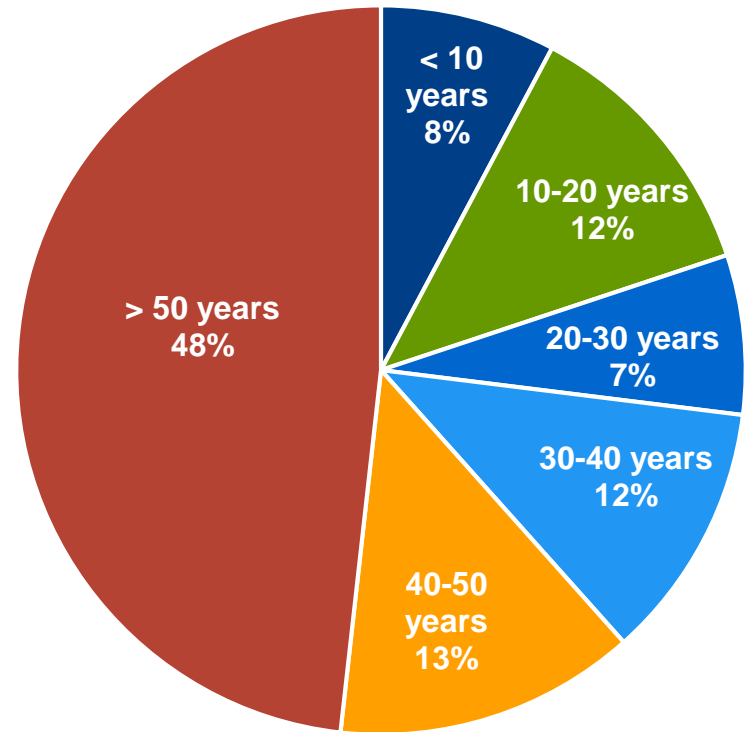
- Pipelines and Appurtenances
- Water Facilities
 - Treatment Plants
 - Pump Stations & Storage Tanks
 - Raw Water Infrastructure
- Wastewater Facilities
 - Treatment Plants
 - Lift stations and Flow Diversion Structures
- Storm Drainage Management
 - Flood Management
 - Storm Drainage
 - Erosion Control



DWU's Aging Infrastructure



Water Lines



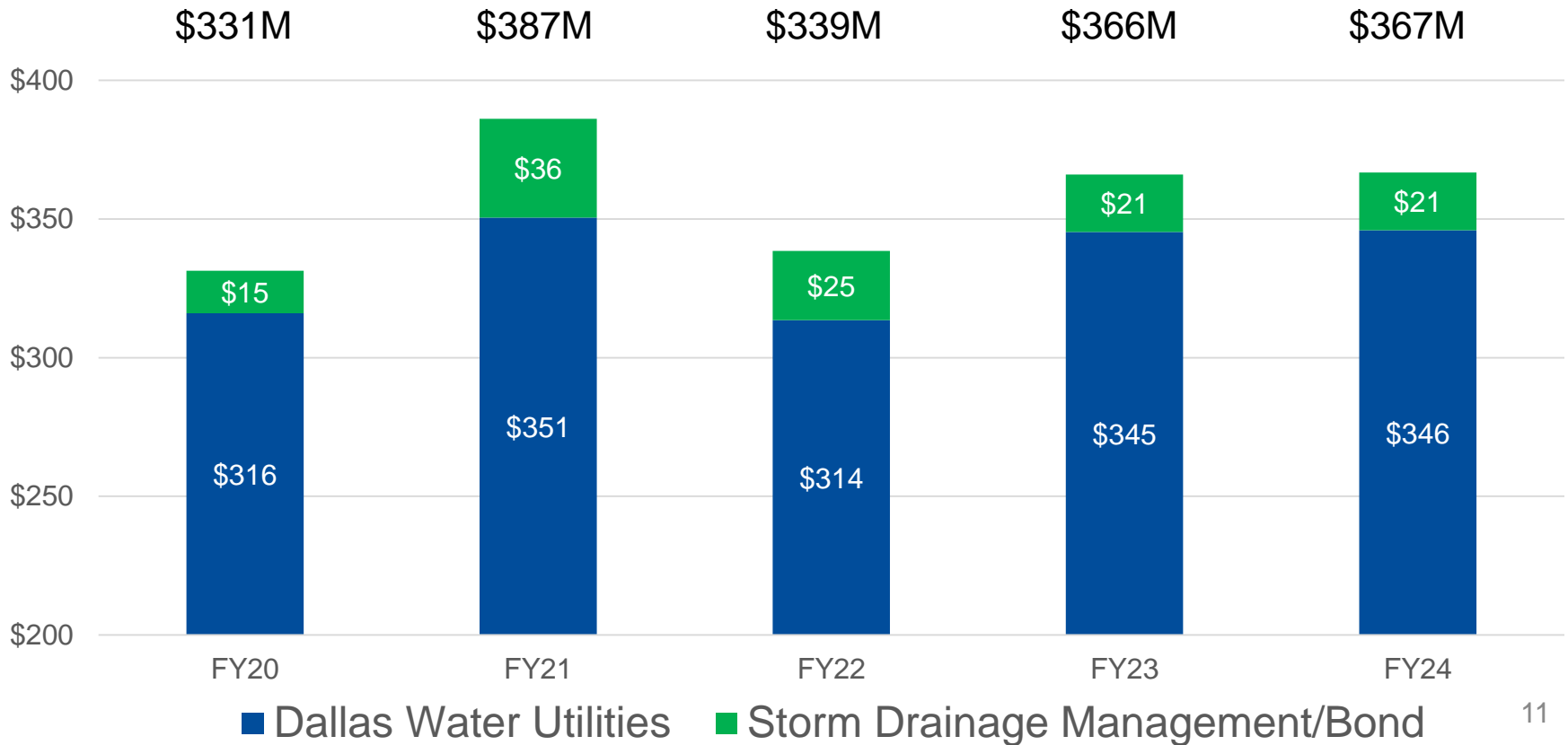
Wastewater Lines

Focus on Rehabilitation and Replacement

- Goals and Benefits
 - Efficient use of water resources
 - Recovers production capacity and reduce O&M costs
 - Reduced liability and damage to property
 - Improved environmental quality
- Unaccounted For Water has five-year average of 7.7% compared to 10.9% in FY07 with an industry goal of less than 10%
- Sanitary sewer overflows per 100 miles of main has a five-year average of 3.5 compared to 5.6 in FY 07 with an industry average of 6.2, a 38% reduction
- Water main repairs per 100 miles of main were 22 in FY 19 compared to 42 in FY 07 representing a 48% reduction
- Current funding maintains average system age (FY 15 - 43.3 yrs.; FY 19 – 44.2 yrs.)

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DWU/SDM Capital Program Outlook



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CAPITAL PLANNING and EXECUTION



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Capital Planning Process

- Strategic Planning – long range water supply, master plans and studies
- Project Prioritization and Risk Ratings
- Development of 10-year CIP Plan
- Five-year DWU Financial Forecast and O&M Cost Impacts
- Monthly Capital Project Committee Meetings
- Performance Measures
 - Replace/rehabilitate 0.9% of small diameter pipelines annually
 - Total value of capital projects awarded
 - Award 95% of projects in annual work plan

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DWU Estimated Capital Costs

Wastewater Collection System Assessment	\$ 2,725 Million	2019 Dollars (thru 2060)
Wastewater Treatment Facilities Strategic Plan	\$ 912 Million	2010 Dollars (thru 2030)
Business Technology	\$ 43 Million	2013 Dollars
Long Range Water Supply Plan	\$ 2,452 Million	2013 Dollars (thru 2070)
Zebra Mussel Control Plan	<u>\$ 30 Million</u>	2014 Dollars
Capital Estimate	\$ 6,162 Million	

* Water Delivery System Assessment and Water Treatment Facilities Strategic Planning underway

Project Spotlight – Integrated Pipeline

- Joint project with TRWD (Dallas ~\$1.0B)
- 150 million gallons per day (MGD) from Lake Palestine extends supplies over 20 years
- 150 miles of pipeline and pump stations – delivers 347 MGD of raw water to North Central Texas
- Estimated cost savings for Dallas
 - Capital cost ~ \$196M
 - Debt service versus O&M payment ~ \$20M per year
- 19-1 and 19-2 and Lake Palestine Pump Station is scheduled for 2027
- IPL to Bachman WTP – 2027 to 2030
 - \$490M Program
 - Engineering and ROW acquisition to begin in 2021



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Project Spotlight – Mill Creek Tunnel

- 5 miles; 30 to 35-foot diameter
- Start – Spring 2018
- Complete – Fall 2023
- Contract - \$206,700,000
- 28% Complete
- Machine mining began April 24, 2020
- 100-Year Flood protection
 - East and Southeast Dallas
 - Protects 3200 acres & \$4B in property



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DWU CIP FUNDING



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Capital Budget Development



- Council approves Capital Program funding annually as part of the budget process
- Capital Program is typically funded by a combination of cash and debt
- FY20 \$315.8M Capital Budget funded by:
 - Cash Transfer - \$90.0M
 - Commercial Paper (CP) for interim financing
 - Lower interest rates
 - Greater financing flexibility
 - Revenue bond sale of \$230M
 - Approved by City Council
 - Used to pay off short term debt (CP)
 - 30 year term
- Meets all FMPC requirements

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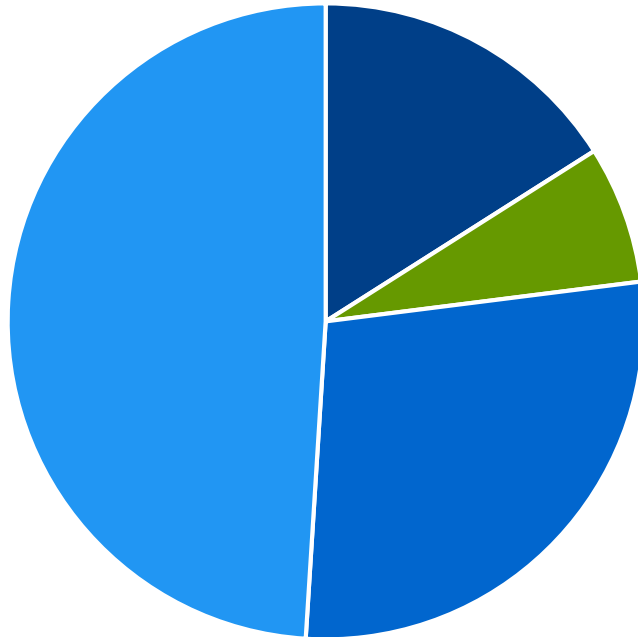
Cash, Short-Term and Long-Term Debt

- Cash Funding – Equity Funding
 - Used to fund projects not meeting requirements for debt financing options
 - Examples include major maintenance or assets with a short useful life
- Short Term Debt – Commercial Paper
 - Used to provide interim funding during the construction period for capital projects
 - Interest rates are historically lower than revenue bonds
 - DWU has two Commercial Paper Programs with \$600M in capacity
- Long Term Debt – 30-year Revenue Bonds
 - Spreads cost over the service period for which customers receive the benefits
 - DWU's conservative financial approach has resulted in high bond ratings and lower interest rates
 - **AA+** - Fitch; **AAA** - Standard and Poor's; **AA2** - Moody's

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FY20 Water and Wastewater Operating Budget

\$681.2M

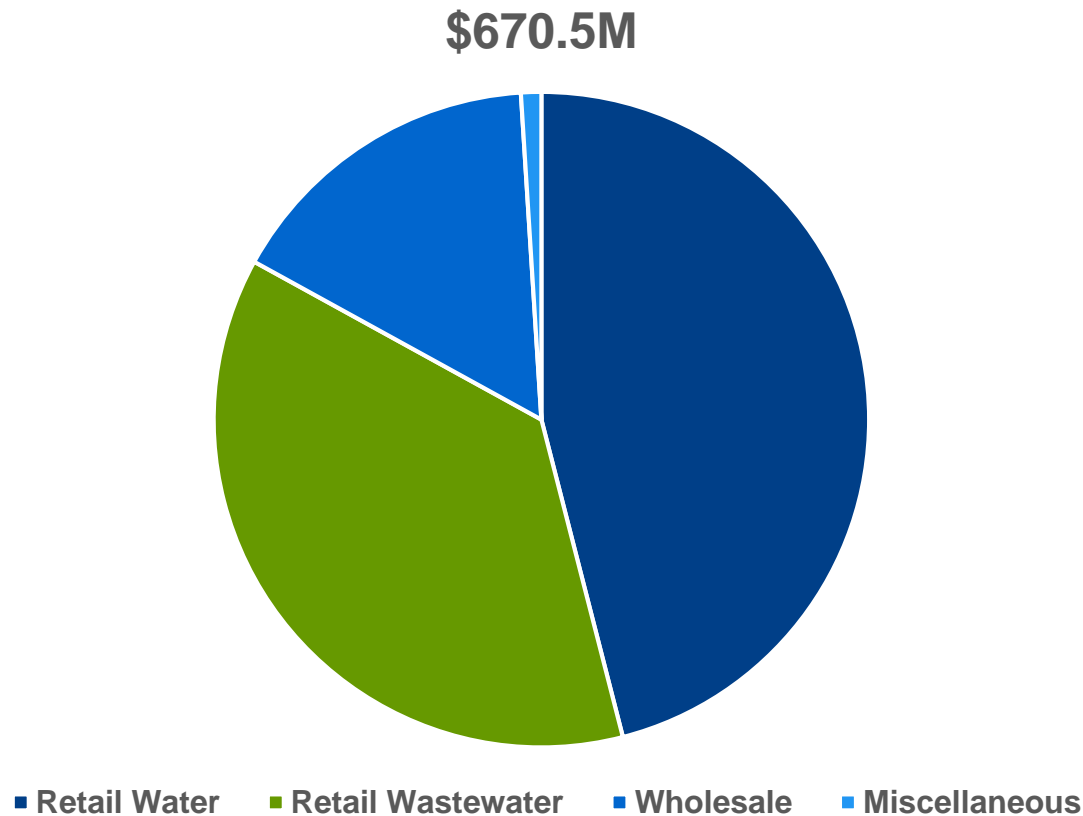


- Personnel
- Power & Chemicals
- Other O&M
- Capital Funding



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Fiscal Year 2020 Water and Wastewater Revenues

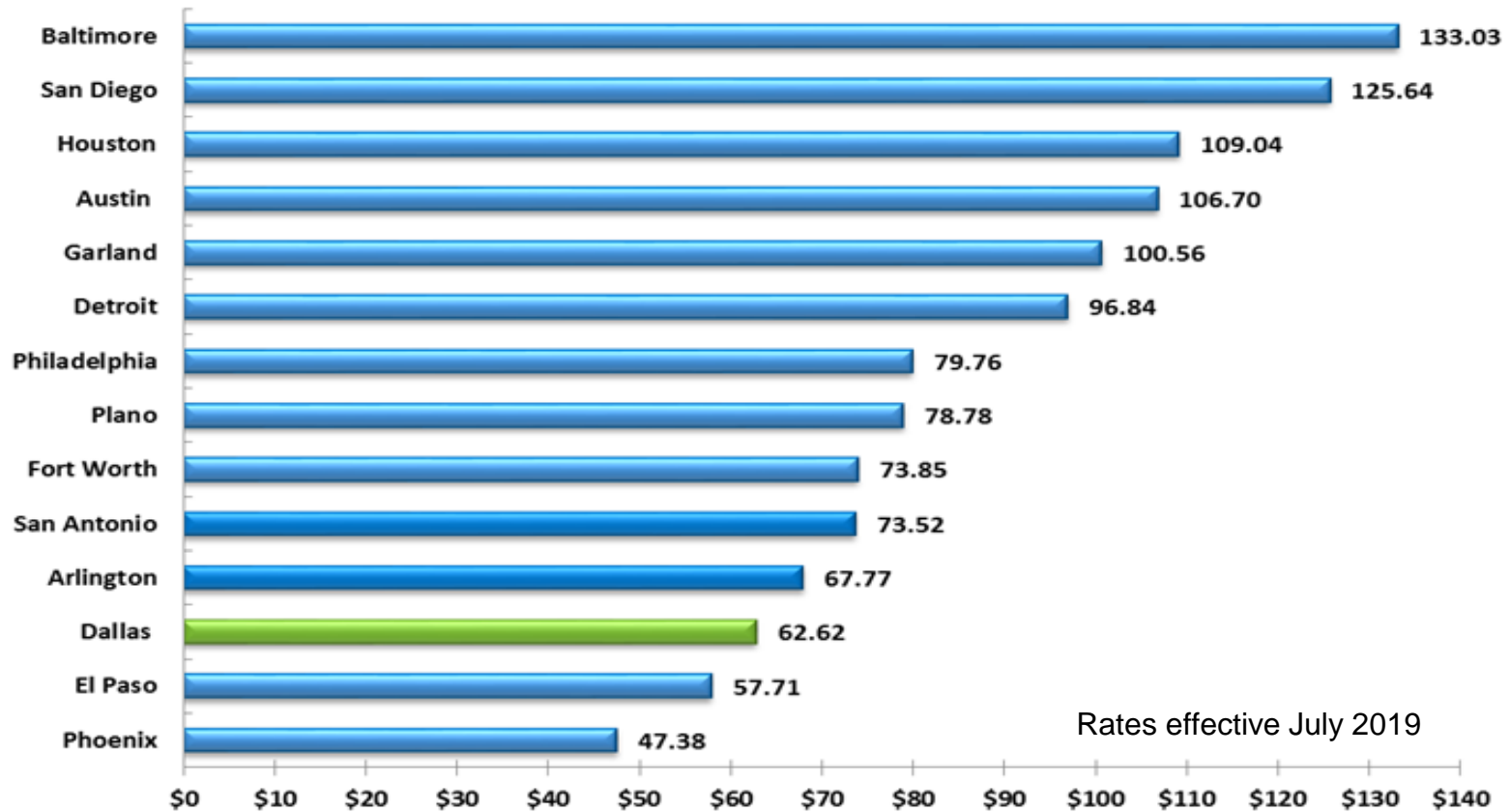


Note: Balance of FY20 expenses paid from SRA escrow fund and rate dispute settlement 21

Average Monthly Water & Wastewater Residential Bills

Dallas, Index and Selected Cities

(Based on 5/8" Meter; 8,300 Gallons/Month; 5,200 Gallons Winter Months Average)



Upcoming Financing Actions for FY20

- May 27, 2020 – City Council action authorizing parameters for 2020 Revenue Bond Sale to retire commercial paper and refund existing bonds
- May 27, 2020 – City Council action to approve liquidity extension for DWU commercial paper programs:
 - Series D with Bank of America and State Street for \$300M
 - Series E with JP Morgan for \$300M
- DWU will continue to monitor financial impacts of pandemic and adjust capital spending accordingly

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