

# Memorandum



CITY OF DALLAS

DATE February 22, 2019

TO Honorable Members of the Mobility Solutions, Infrastructure and Sustainability Committee

SUBJECT **Update on Dallas' "One Water Program"**

On Monday, February 25, 2019, the Mobility Solutions, Infrastructure and Sustainability Committee will be briefed on an Update of Dallas' "One Water Program". The briefing materials are attached for your review.

Please contact Terry S. Lowery, Director of Dallas Water Utilities, if you have any questions or concerns.

A handwritten signature in blue ink, appearing to read 'Majed A. Al-Ghafry'.

Majed A. Al-Ghafry, P.E.  
Assistant City Manager

[Attachment]

c: Honorable Mayor and Members of the City Council  
T.C. Broadnax, City Manager  
Chris Caso, City Attorney (Interim)  
Carol A. Smith, City Auditor (Interim)  
Biliera Johnson, City Secretary  
Preston Robinson, Administrative Judge  
Kimberly Bizer Tolbert, Chief of Staff to the City Manager

Jon Fortune, Assistant City Manager  
Joey Zapata, Assistant City Manager  
Nadia Chandler Hardy, Assistant City Manager and Chief Resilience Officer  
M. Elizabeth Reich, Chief Financial Officer  
Laila Alequresh, Chief Innovation Officer  
Directors and Assistant Directors

# Update on Dallas' "One Water Program"

**Mobility Solutions,  
Infrastructure and Sustainability**

**February 25, 2019**

**Terry S Lowery, Director  
Dallas Water Utilities**

**Sarah Standifer, Assistant Director  
Dallas Water Utilities**



# Overview

- Purpose
- Background
- Dallas “One Water”
- Stormwater Fee Overview
- Next Steps



# Purpose

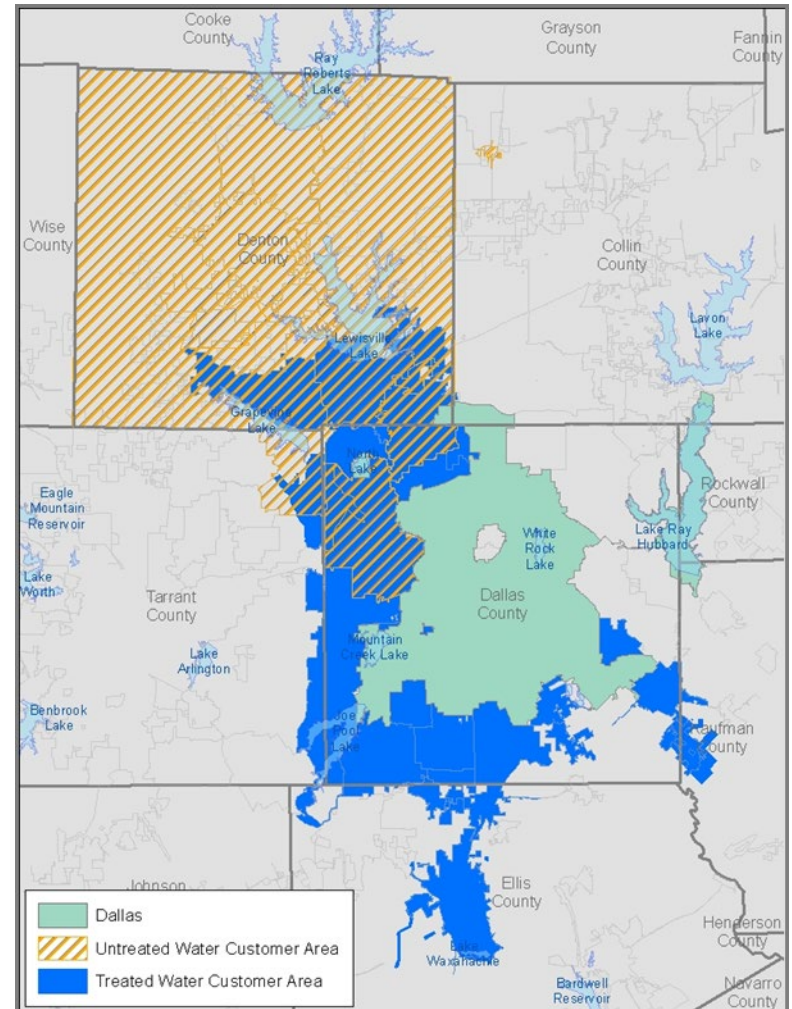
- Provide an update on the Dallas Water Utilities reorganization to the City's "One Water" system
- Provide City Council with information on what has been accomplished to date
- Provide a brief overview of the stormwater drainage fee
- Inform City Council about upcoming activities and proposed next steps to create a more sustainable stormwater operation as we transition to a "One Water" concept

# Background

- Dallas Water Utilities serves as the City's "One Water" system for all water-related activities
- Holistic approach allows the City to manage watersheds, water resources and water facilities and combine resources to achieve greater efficiencies
- Federal and state regulatory oversight of programs and services

# Dallas Water Utilities Overview

- Founded in 1881
- 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
- 300,000 retail customer accounts
  - 23 wholesale treated water
  - 3 wholesale untreated water
  - 11 wholesale wastewater

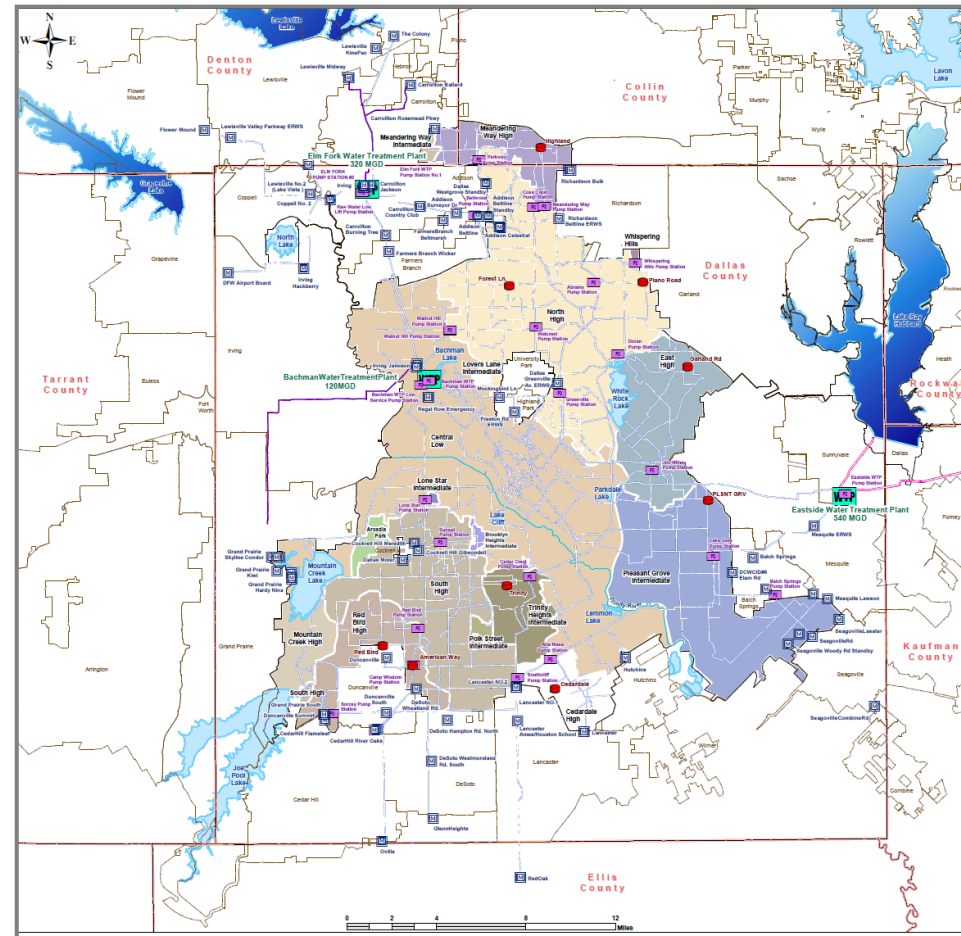






# Dallas Treated Water System

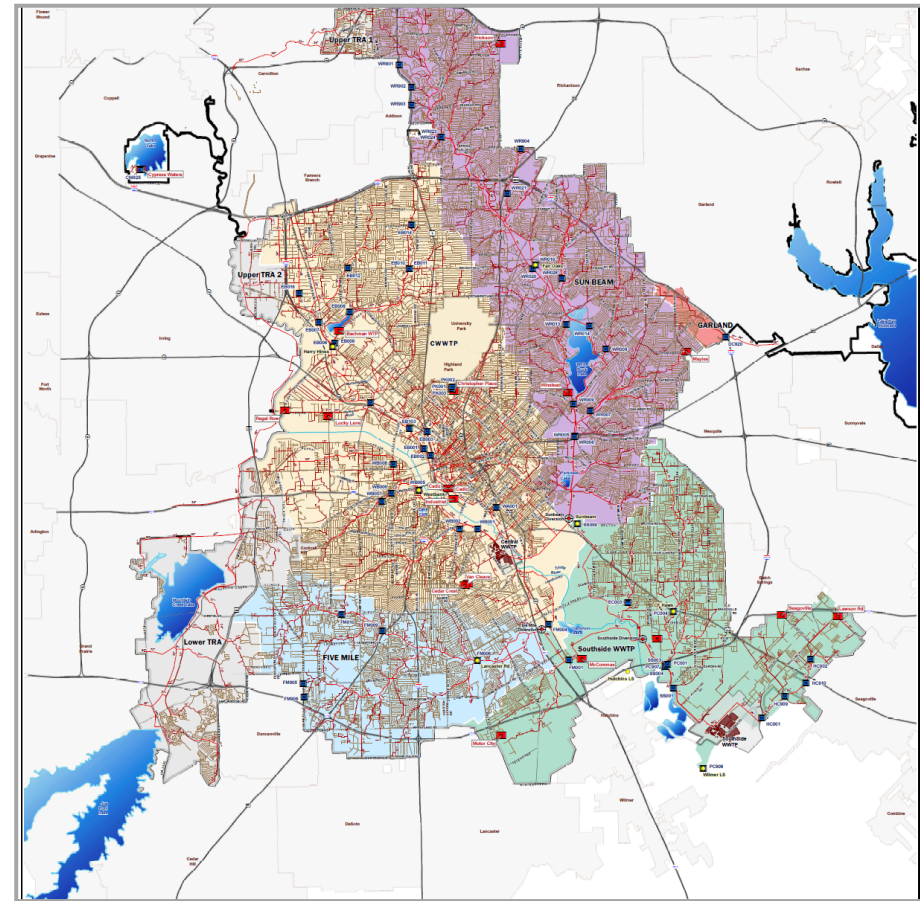
- 7 reservoirs (6 connected)
- 3 water treatment plants with a combined capacity of 900 MGD
- 23 pump stations
- 9 elevated and 12 ground storage tanks
- 4,982 miles of water mains
- Value of water assets \$3.6 Billion
- Treated 142 BG of water in FY18



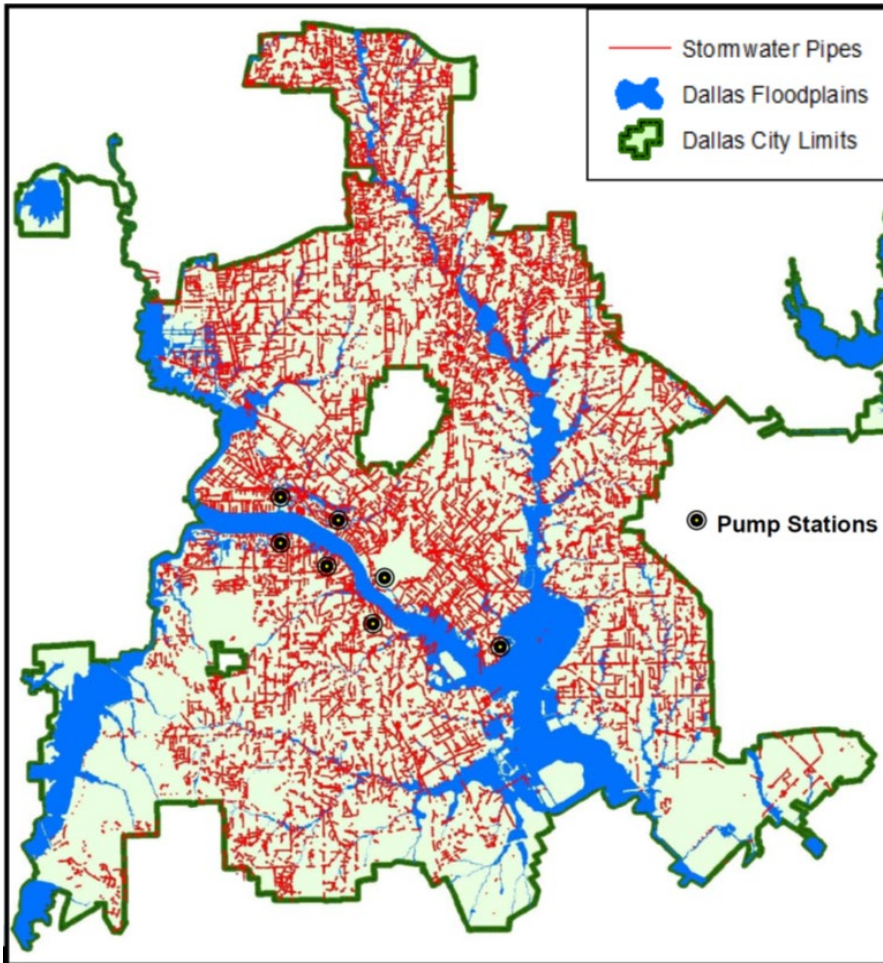


# Dallas Wastewater System

- 2 wastewater treatment plants with a combined capacity of 280 MGD
- 15 wastewater pump stations
- 4,040 miles of wastewater main
- Value of wastewater assets \$2.4 B
- Treated 62 BG of wastewater in FY18



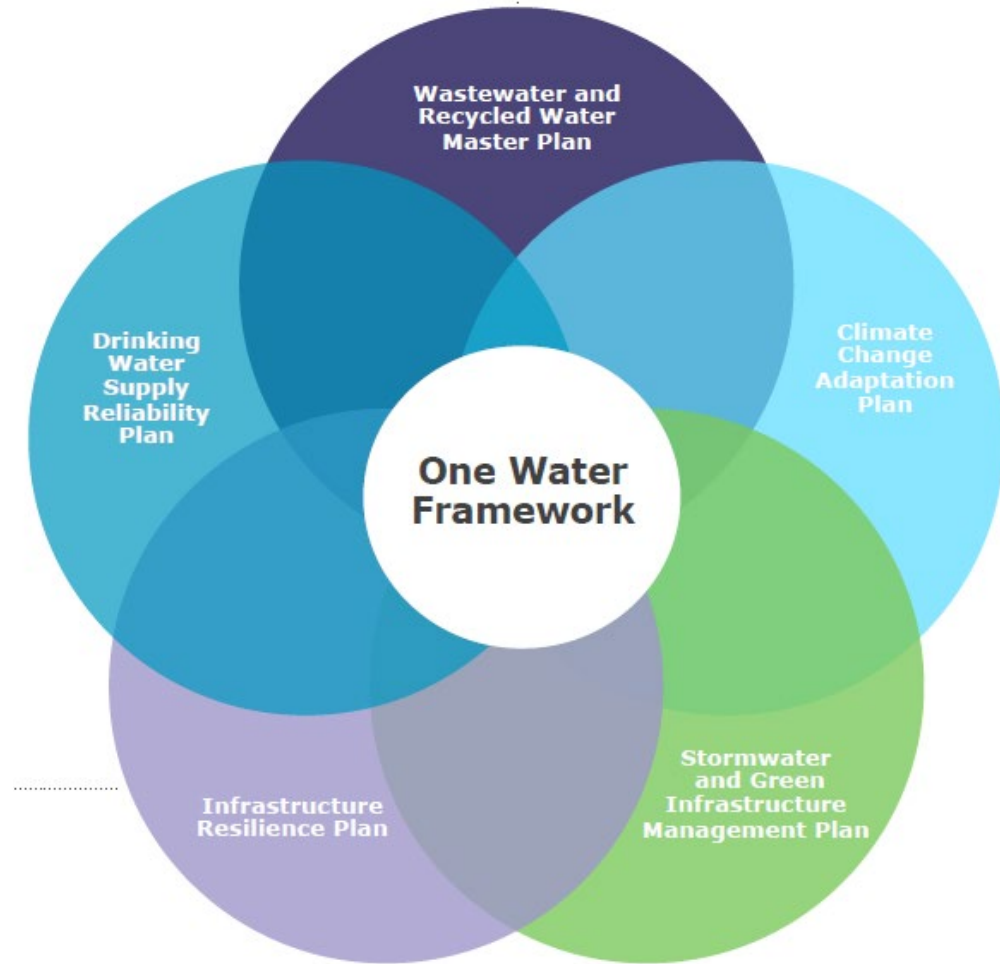
# Dallas Stormwater Drainage System



- 8 stormwater pump stations with a combined capacity of 2.8 BGD
- 1,963 miles of storm sewers
- 30 miles of levees
- 11 sump areas
- 14 detention basins
- 661 miles public and private creek miles
- 39,000 acres of public and private floodplain

# One Water Defined

An integrated planning and implementation approach to managing finite water resources for long-term resilience and reliability, meeting both community and ecosystem needs (Water Research Foundation)

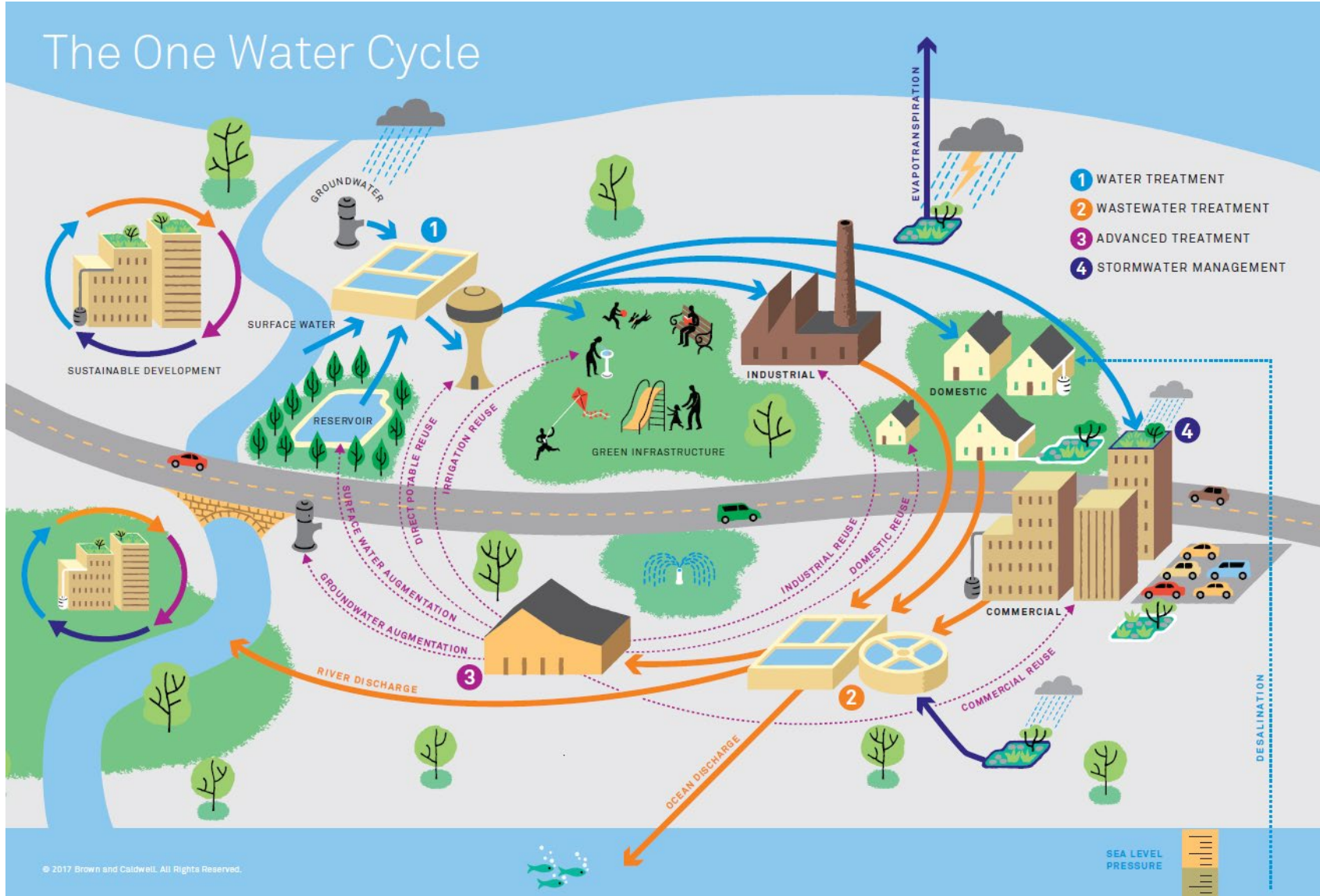


# Benefits of a One Water Approach

- Greater resilience and reliability
- Opportunities to optimize regional infrastructure
- Sustainable community development
- New regulatory flexibility or opportunity
- Economic growth opportunity
- Increased coordination among agencies/departments



# The One Water Cycle



© 2017 Brown and Caldwell. All Rights Reserved.

Source: American Research Foundation, Blueprint for One Water, Project #4660

Mobility Solutions, Infrastructure and Sustainability

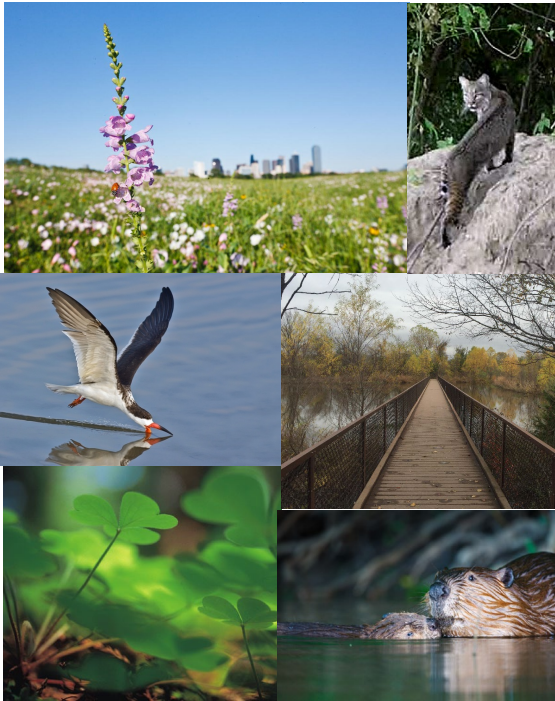


City of Dallas



# Fundamentals of One Water

## Environmental Stewardship



## Social Equity



## Economic Prosperity



# Actions Taken

- Established functional work groups among programs, provided support structure for programs to continue operations
- Finalizing logistical moves for consolidated work groups
- Established work processes to keep water, wastewater and stormwater revenues separate
- Coordinated five year funding and rate projections for each of the three utilities
- Developing scope for Comprehensive Stormwater System Assessment

# Operational and Sustainability Issues

- Funding for scheduled and unscheduled maintenance
  - FY20 Budget includes \$5M for Neighborhood Drainage Services and includes some maintenance work
  - Evaluate staffing, fleet and equipment needs for Stormwater Utility
- Re-alignments
  - Work shared with Public Works
  - Recreational amenities
  - Currently budgeted reimbursements
- Policy decisions
  - Creek erosion – public vs private property
  - Residential vs commercial properties
  - Bond issuance vs Storm Drainage Management debt
- Award Comprehensive Stormwater System Assessment project
- Capital Program Development
  - Preliminary estimates for a starting Capital Improvement Program using model developed with rate consultant
  - Using Comprehensive Assessment to develop Capital Program and update needs inventory

# Stormwater Fee Overview

- Fee provides funding for:
  - Portions of TPDES MS4 permit compliance with EPA/DOJ Consent Decree
  - Compliance with US Army Corps of Engineers requirements
  - Newly established neighborhood operations and capital projects
- Reviewed rates for stormwater fees and current services across 16 departments
- Continue the strategy of improving the overall system maintenance and capital program

# Current Stormwater Fee Adjustments

	FY2019	FY2020
Operating Budget	\$58.4M	\$61.4M
Capital Budget	\$11.1M	\$18.8M
Fee Adjustment	4.5%	4.5%

- 4.5% rate increase in FY 2019 for capital pay as you go
- 4.5% rate increase in FY 2020 for new unit focused on Neighborhood Drainage
- Covers utility operations, targeted reserve balances, debt service and capital pay as you go



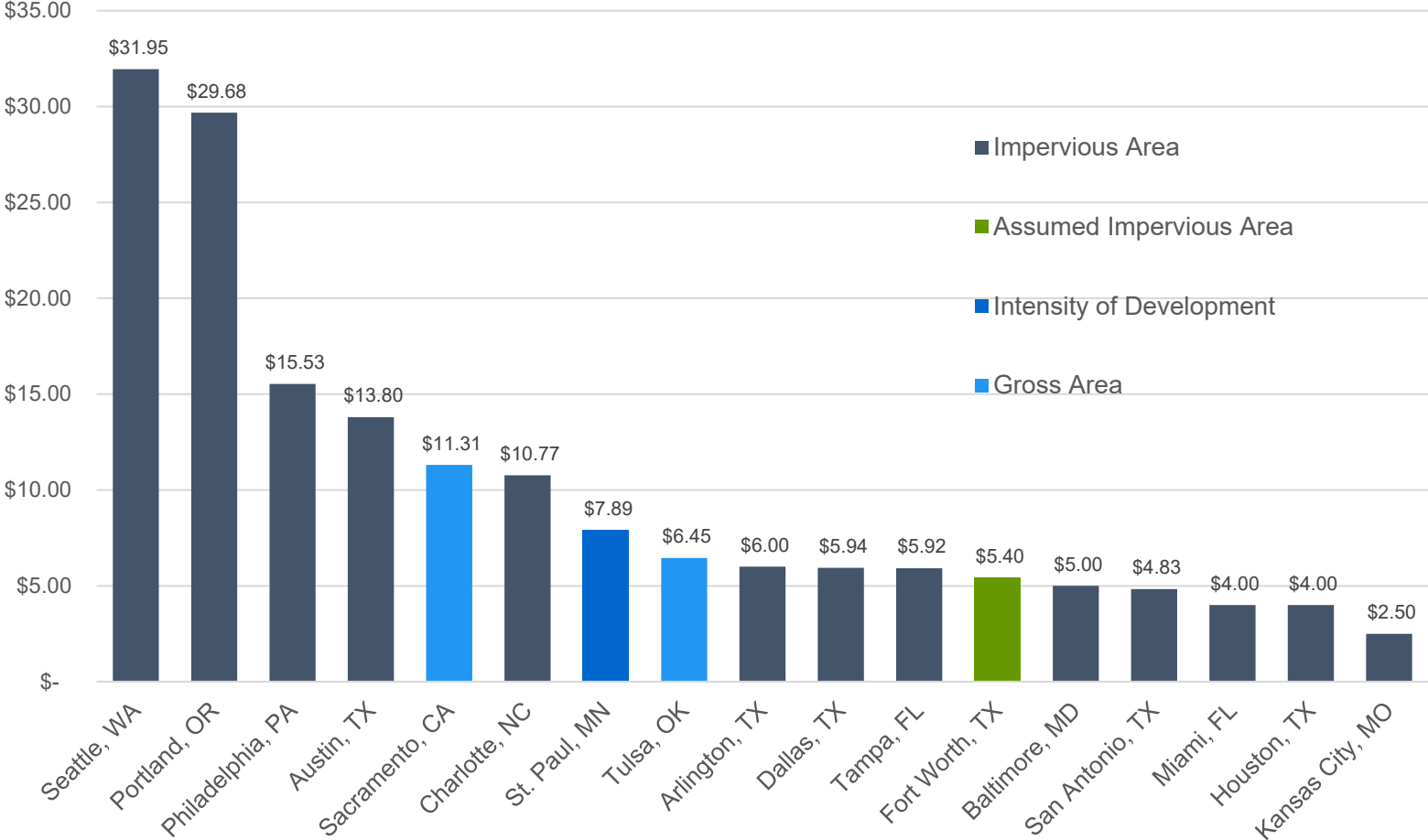
# Stormwater Preliminary Financial Plan

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
Capital Program (in Million Dollars)	\$6.1	\$18.8	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0
Tier 2 Monthly Rates	\$5.94	\$6.21	\$6.49	\$6.78	\$7.09	\$7.41	\$7.74	\$8.09

- 4.5% smoothed annual rate increase covers utility operations, reserve balances, debt service coverage ratios consistent with DWU existing framework
- Capital Program Assumptions included 30-year revenue bonds at 5.0% interest in FY21 and FY24
- Forecast revenue to meet expenses for each year
  - Covers debt service and 20% pay-as-you-go capital per Financial Management Performance Criteria requirements



# National Comparison Monthly Residential Tier 2 Stormwater Rates



# Next Steps

- Continue to assess the overall programs within the storm water utility to ensure compliance with state and federal regulations
- Continue pursuing pay as you go capital improvements and explore financing options for future years
- Continue implementing the neighborhood drainage program
- Bring forward policy choices for City Council consideration and direction in FY20 for future implementation
- Bring forward for City Council approval a Comprehensive Stormwater System Assessment project

# Appendix



# FY19 Funding Overview



## Citywide Compliance & Enforcement \$12M

Stormwater Management Program

Surface Water Monitoring

Compliance Inspections and Nuisance Abatement

Environmental Training/Education

## Citywide Flood Risk Management \$34.7M

Levee, Pump Stations, and Sumps

Floodplain Management

Citywide Channel Maintenance

Citywide Inlet and Storm Sewer Pipe Maintenance

Capital Projects





# FY19 Funding Overview



## Citywide System Maintenance \$10.2M

Debris and Litter Removal

Storm Drainage Maintenance Activities

Curb and Gutter Repair

Vegetation Management

## Administration \$1.5M

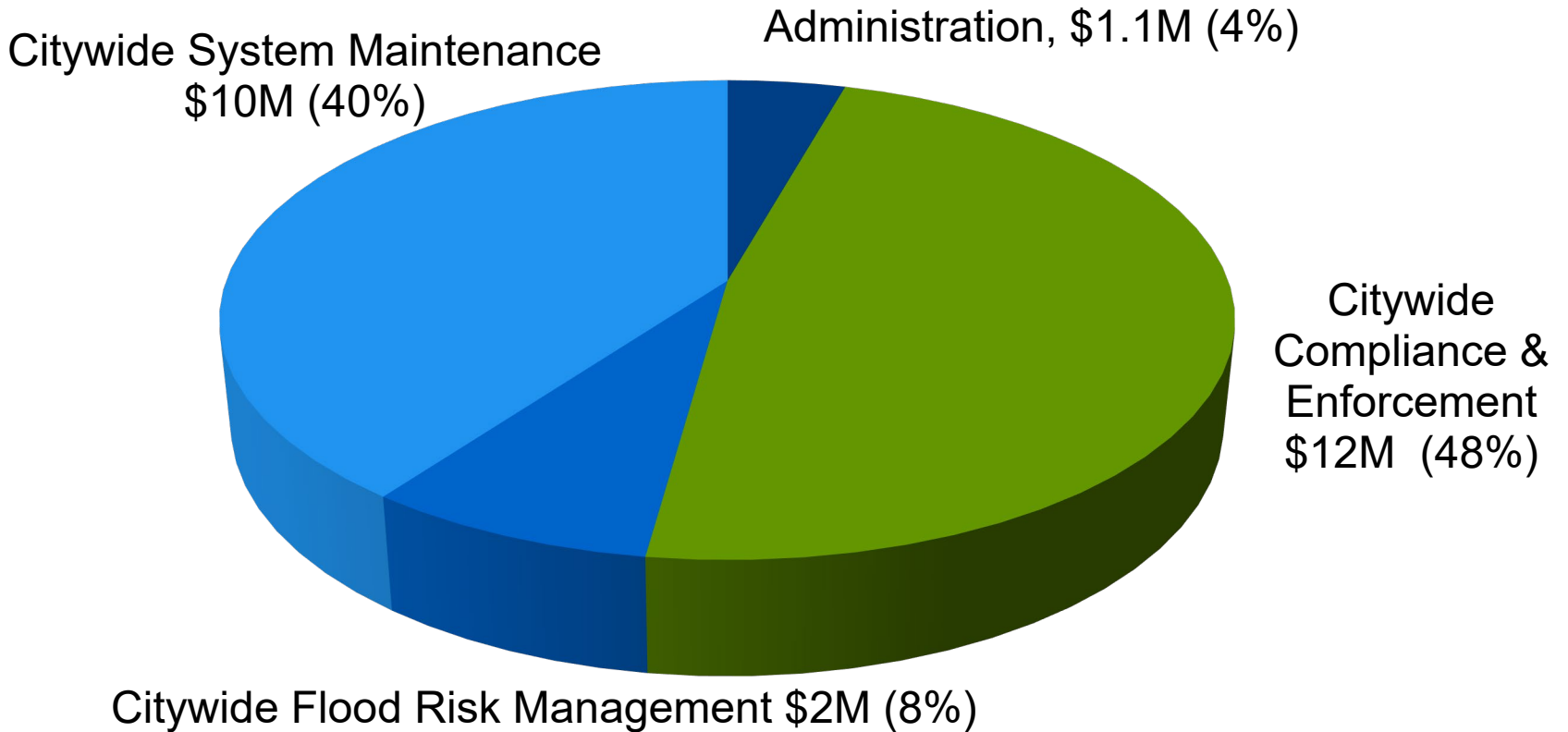
Billing and Customer Service

Geographic Information System Support

Communication and Information Systems Support



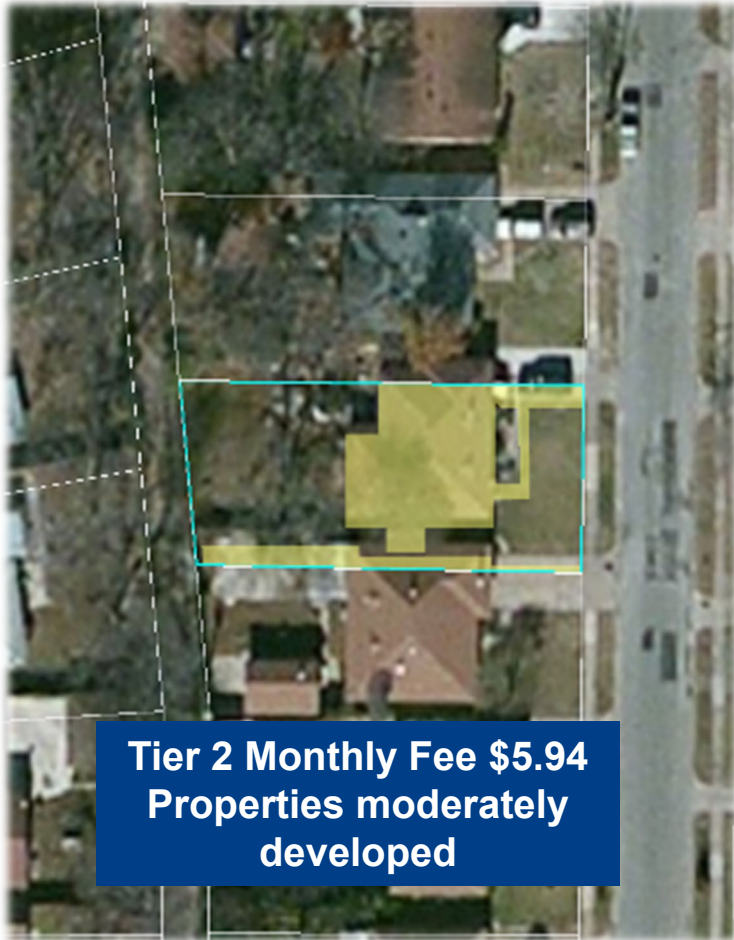
# FY19 Reimbursements



# Stormwater Rates

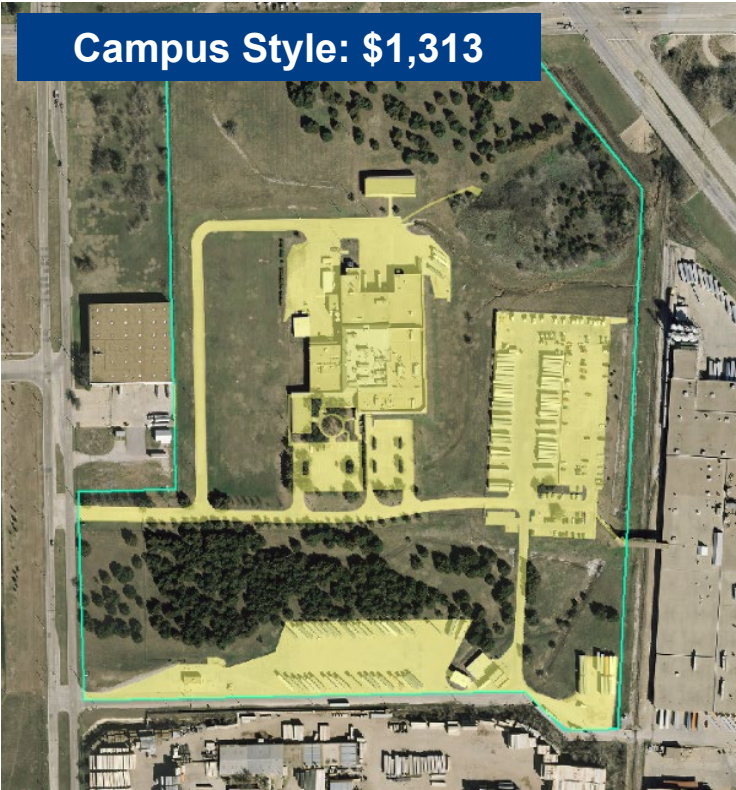
<b>Stormwater Rates</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Single Family Residential Tier 1</b>	\$3.25	\$3.57	\$3.73
<b>Single Family Residential Tier 2</b>	\$5.17	\$5.68	\$5.94
<b>Single Family Residential Tier 3</b>	\$7.75	\$8.51	\$8.89
<b>Single Family Residential Tier 4</b>	\$12.67	\$13.91	\$14.54
<b>NSFR Minimum Charge Parcels</b>	\$5.00	\$5.49	\$5.74
<b>NSFR Impervious Area Units</b>	\$1.75	\$1.92	\$2.01

# Stormwater Fee by Premise: Residential



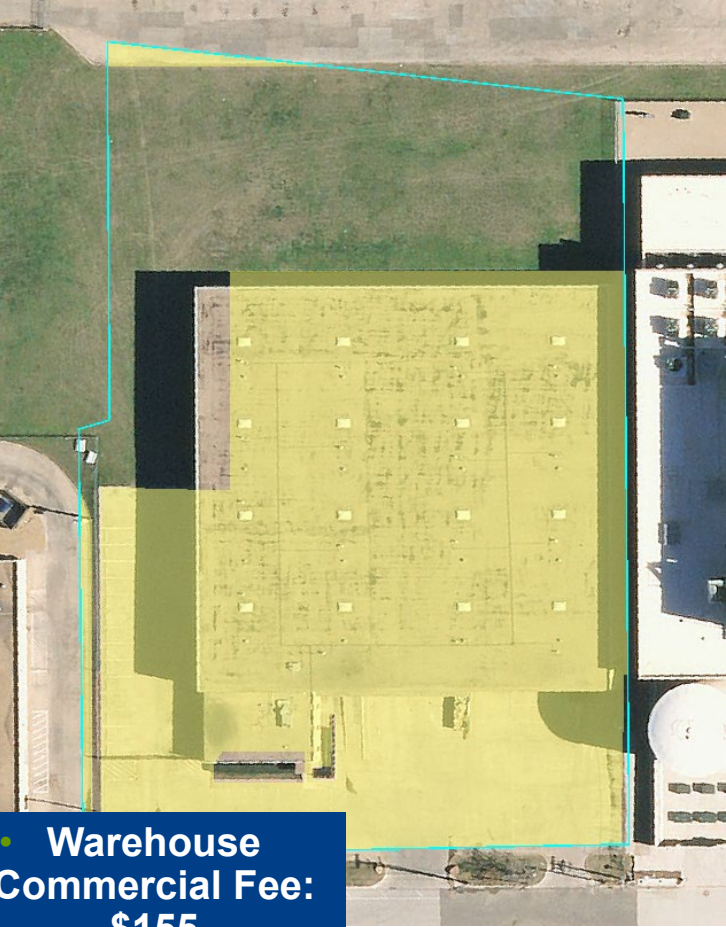


# Stormwater Fee Examples





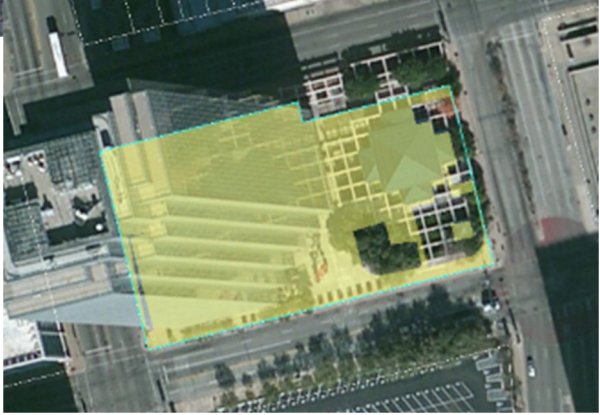
# Stormwater Fee Examples



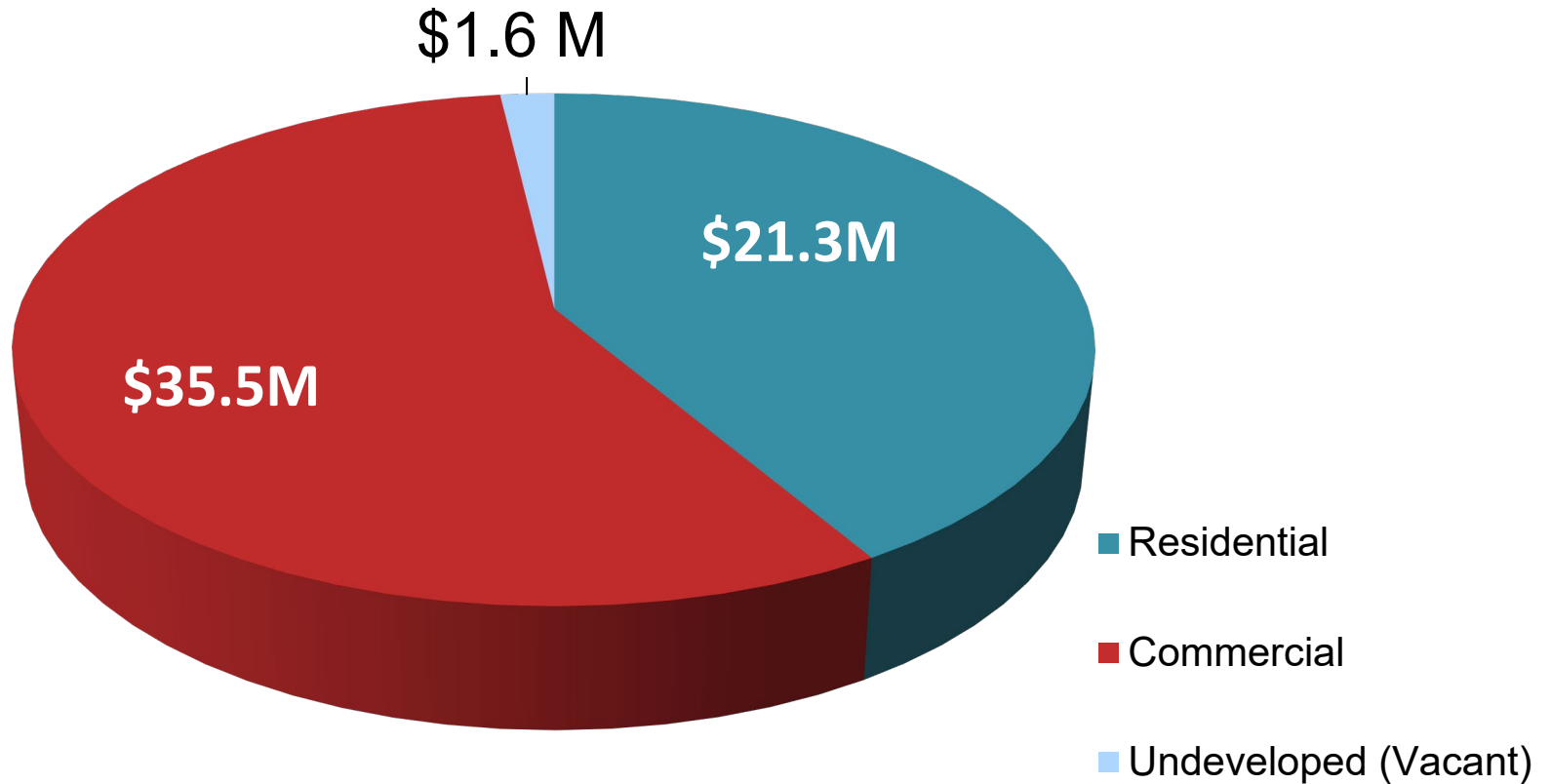
• Warehouse Commercial Fee: \$155



• High Rise Commercial Fee: \$109



# Billing Summary by Property Type



# Update on Dallas' "One Water Program"

**Mobility Solutions,  
Infrastructure and Sustainability**

**February 25, 2019**

**Terry S Lowery, Director  
Dallas Water Utilities**

**Sarah Standifer, Assistant Director  
Dallas Water Utilities**

