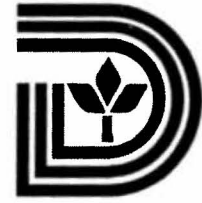


Memorandum



CITY OF DALLAS

DATE January 15, 2016

TO Members of the Budget, Finance & Audit Committee: Jennifer S. Gates (Chair), Philip T. Kingston (Vice Chair), Erik Wilson, Rickey D. Callahan, Scott Griggs, Lee M. Kleinman

SUBJECT Stormwater Utility: Fund Overview & Rate Study Update

On January 19, 2016 the Budget, Finance and Audit Committee will be briefed on Stormwater Utility: Fund Overview & Rate Study Update. The briefing is attached for your review.

Please let me know if you need additional information.

A handwritten signature in black ink, appearing to read 'Mark McDaniel'.

Mark McDaniel
Assistant City Manager

Attachment

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

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

Stormwater Utility: Fund Overview & Rate Study Update

Budget Finance & Audit Committee

January 19, 2016



Purpose

- Overview of Regulatory History
- Overview of the Stormwater Utility
- Update on-going rate study
- Seek committee direction on rate study next steps

Stormwater Regulatory History

Regulatory History

1972 - Federal Clean Water Act passed to limit raw sewage and other pollutants flowing into rivers, lakes, and streams

1987 - Federal Clean Water Act amended requiring permits for stormwater discharges into waterways

1990 - The first phase of the stormwater regulations concerning Municipal Separate Storm Sewer Systems (MS4), construction and industrial facilities was implemented for large cities

Regulatory History

1991 - Dallas City Council approved City Code 2-167 establishing a Stormwater Drainage Utility, initial fee schedule, initial permit and Stormwater Drainage Utility *Ordinance* 21059

1997 - EPA issued initial NPDES MS4 stormwater permit to the City of Dallas (in place until February 2006)

2003 - EPA initiated an investigation of City's Stormwater Program for non-compliance with Federal and State regulations

Regulatory History

2004 - EPA Administrative Order and Notice of Violation concerning City violations of Clean Water Act, Resource Conservation and Recovery Act (RCRA), and Chapter 26 of the Texas Water Code

2006 - Texas Commission on Environmental Quality (TCEQ) issued the TPDES MS4 permit to City of Dallas; City negotiated and entered into EPA's mandated **Environmental Management Consent Decree** which dictated specific program activities and staffing requirements

2011 - City issued five-year NPDES MS4 permit effective October 1

Regulatory History

TCEQ MS4 Permit(WQ0004396000 - 8 Key Elements:

- ▶ System Operations and Maintenance
- ▶ Post Construction Stormwater Control Measures
- ▶ Illicit Discharge Detection and Improper Disposal
- ▶ Pollution Good Housekeeping for Municipal Operation
- ▶ Industrial and High Risk Runoff
- ▶ Construction Site Runoff
- ▶ Public Education/Outreach/Public Involvement and Participation
- ▶ Water Quality Monitoring, Evaluation and Reporting



Regulatory History

The Consent Decree requires:

- Penalty, Notice and General Activities
 - Industrial and construction inspection/enforcement
 - Operations and maintenance of flood control and stormwater infrastructure
 - Quantified levels of staffing and Stormwater Management activities
- Environmental Management System
- Supplemental Environmental Projects
- Semi-annual Reporting

NOTE: If any of the above requirements are not met, financial and criminal penalties may be enforced.

Overview

Overview

- Current rate structure based on available data at time of utility implementation
- Assumed impervious area based on premise type (Appendix A)
- Minimum monthly charge \$5/parcel unless exempted by state law

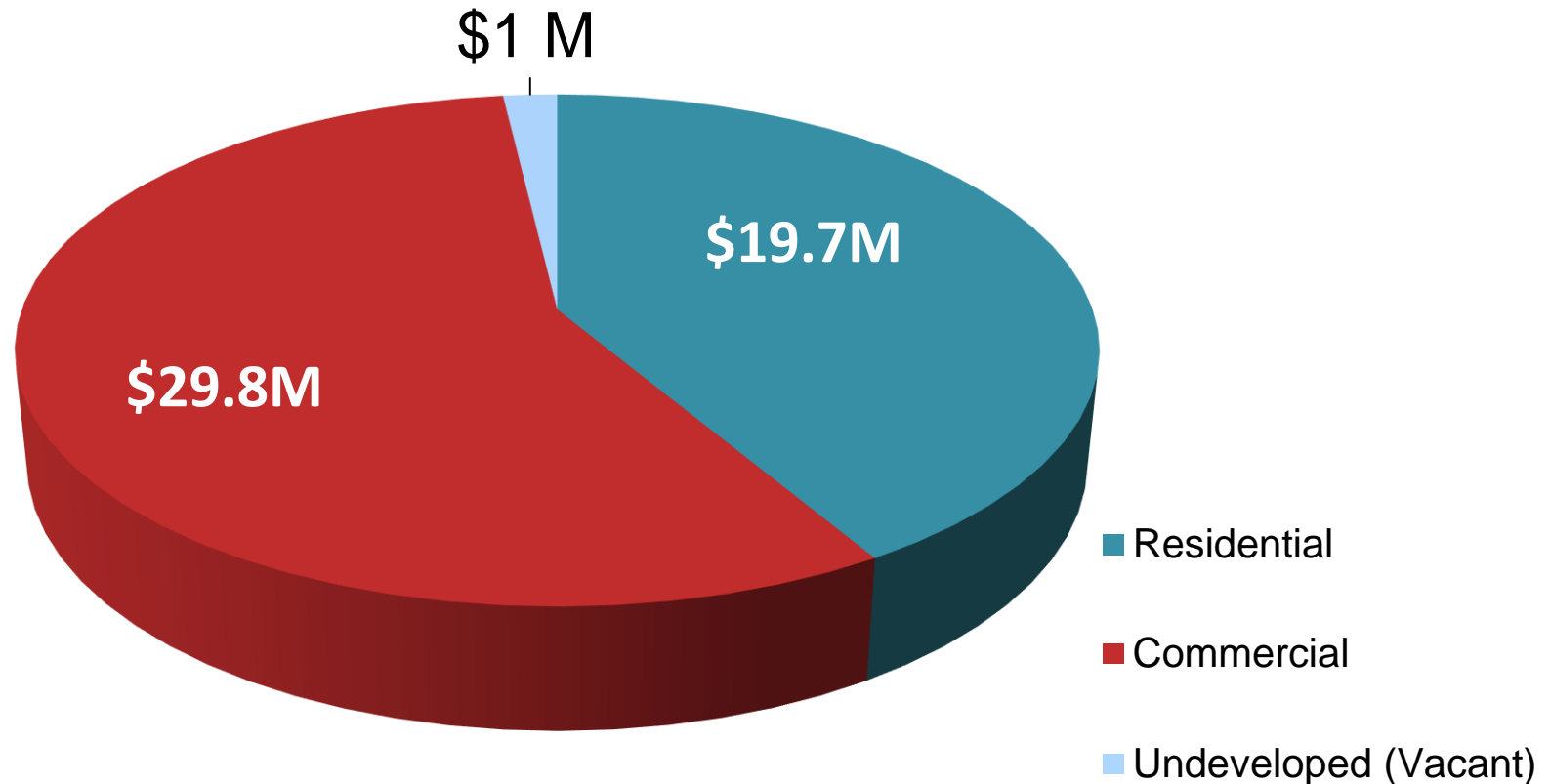
Overview

Rate classes

Rate class	Fee basis and calculation
Residential	Tiered rate structure based on <u>lot</u> area
Commercial	Per 100 square foot (sq ft) of assumed impervious area by premise type
Vacant	Per 100 sq ft of 20% assumed impervious area

Billing Summary (FY 2016)

Breakdown by Revenue (\$50.5M)



Overview

Rates by Residential Lot size

▶ Up to	6,000 sf	\$ 3.65 / Mo.
▶ 6,001 –	8,000 sf	\$ 5.77 / Mo.
▶ 8,001 –	17,000 sf	\$ 7.77 / Mo.
▶ 17,001 –	215,000 sf	\$13.87 / Mo.
▶ More Than	215,000 sf	\$43.87 / Mo.

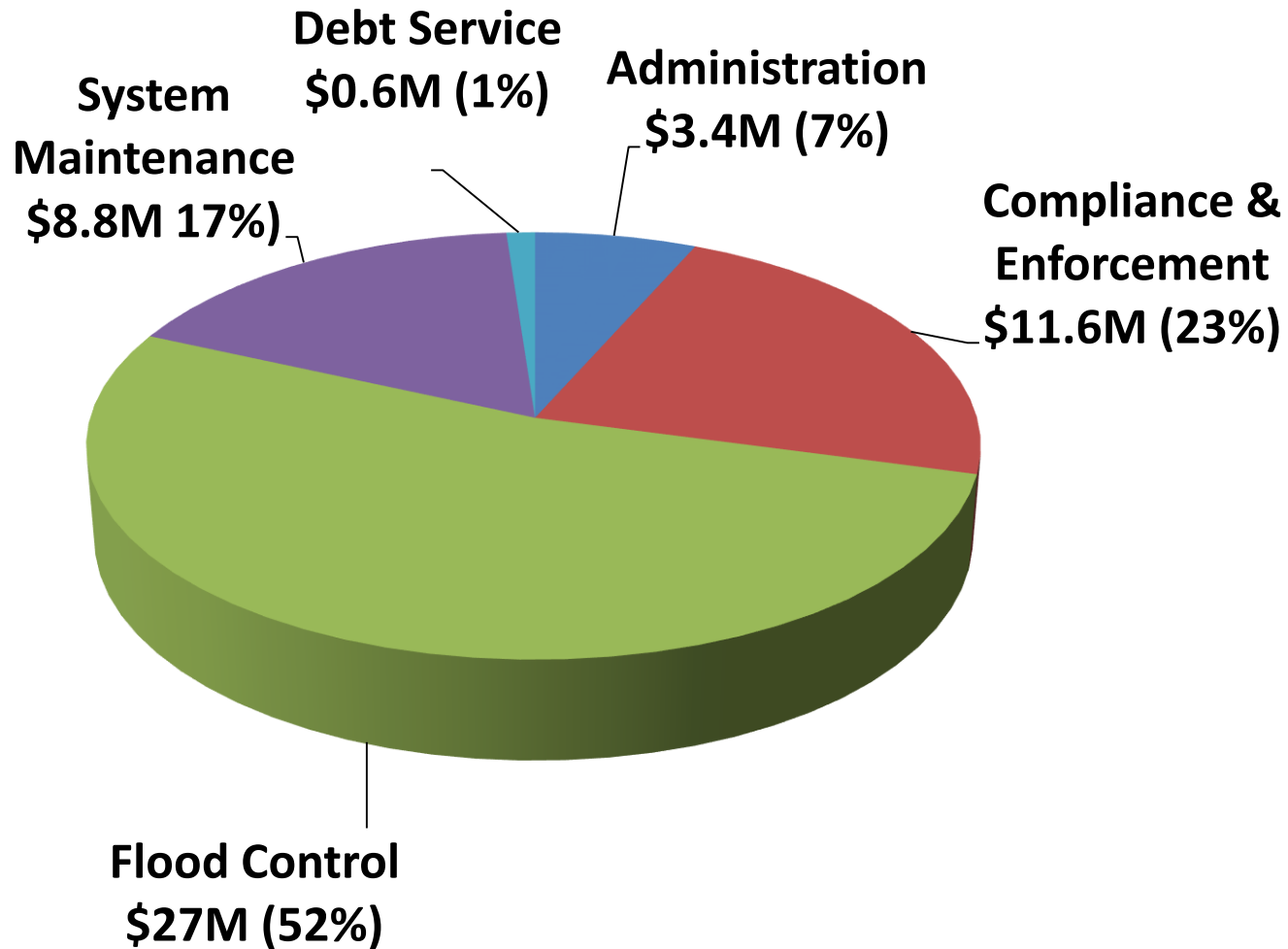
Vacant and commercial property rates are calculated based on square footage and a runoff coefficient (\$0.1589 per 100 sq. ft. of impervious area). Minimum charge of \$5 per month; vacant properties have a maximum charge of \$57.10.

Overview

Stormwater utility fee revenues are used to:

- Ensure compliance with state and federal regulations
- Promote improved water quality
- Maintain stormwater drainage and flood protection systems (see examples in Appendix B)

FY15-16 Adopted Budget



FY15-16 Adopted Budget



Compliance & Enforcement \$11.6M

Stormwater Management Program

Surface Water Monitoring

Compliance Inspections and Nuisance
Abatement

Environmental Training/Education

Flood Control \$27M

Levee, Pump Stations, and Sumps

Floodplain Management

Citywide Channel Maintenance

Citywide Inlet and Storm Sewer Pipe
Maintenance



FY15-16 Adopted Budget



System Maintenance \$8.8M

Debris and Litter Removal

Storm Drainage Maintenance Activities

Curb and Gutter Repair

Vegetation Management

Debt & Administration \$4M

Debt Service

Billing and Customer Service

Geographic Information System Support

Communication and Information Systems Support



Major Maintenance & Reserve Fund

Major maintenance and reserve fund created in FY11 addresses:

- Major maintenance projects spanning more than one fiscal year
- Fleet purchases as necessary
- Emergency repairs to storm sewer infrastructure that impacts public safety

Examples of Major Maintenance Projects

- Pavaho Wetlands (Supplemental Environmental Project Consent Decree)
- Zoo Wetlands (Supplemental Environmental Project Consent Decree)
- Simpkins Remediation
- Levee flattening
- Maintenance roads
- Major debris removal across various creeks, channels and desiltation projects in various retention basins

Stormwater Utility Rate Study Update

Rate Study

- City hired Raftelis Financial Consultants to review the Stormwater Utility rate structure and associated fees
- Consultants have assessed the program and are recommending a change in the rate structure
- Proposed rate structure utilizes measured impervious area data to assess fees
- Remains revenue neutral

Recommendations – Stormwater Utility Fee

- More than 80% of stormwater utilities base rates off of impervious area, using GIS data to manage the impervious data (Appendix A and C)
- Utilize the City's available GIS data to implement a rate structure based on measured impervious area
- Requires changing the rate structure from utilizing parcel size and type assumption to tiered and unit rate structure based on impervious area

Recommendations - Advantages

- Empowers citizens and businesses to make decisions regarding development/redevelopment:
 - Encourages greening of neighborhoods and developments
 - Lowers the stormwater runoff footprint
- Reduces need for individualized adjustments and potential errors

Recommendations - Advantages

- More equitably distributes the costs
- Better defines properties' stormwater run-off
- Promotes environmental quality
- Coincides with needs to manage impervious area data

Recommendations - Advantages

- Data-driven fee is current industry standard and best practices
- Clarifies billing adjustment processes and reduces requirement for site visits
- Enhanced customer service with interactive website

Expected Billing Summary Under Proposed Rate Structure

- Proposed rates are designed to capture same revenue as current rates
- Effort still needed to measure impervious surface associated with very recent development, but has been estimated in proposed rates

Recommendation

Proposed rate structure

Element of rate structure	Recommendation
Basis of charge	Change to measured impervious area
Unit of charge	Change to 1,000 sq ft impervious area units for nonresidential customers
Minimum charge	Retain – equitably recover costs from all properties
Residential tiers	Change – base on impervious area, not lot size

Recommendation

Proposed Single Family Residential Rates

Impervious Area	Monthly Rate
Up to 2,000 sq ft	\$3.25
2,000 - 3,500 sq ft	\$5.17
3,500 - 5,500 sq ft	\$7.75
More than 5,500 sq ft	\$12.67

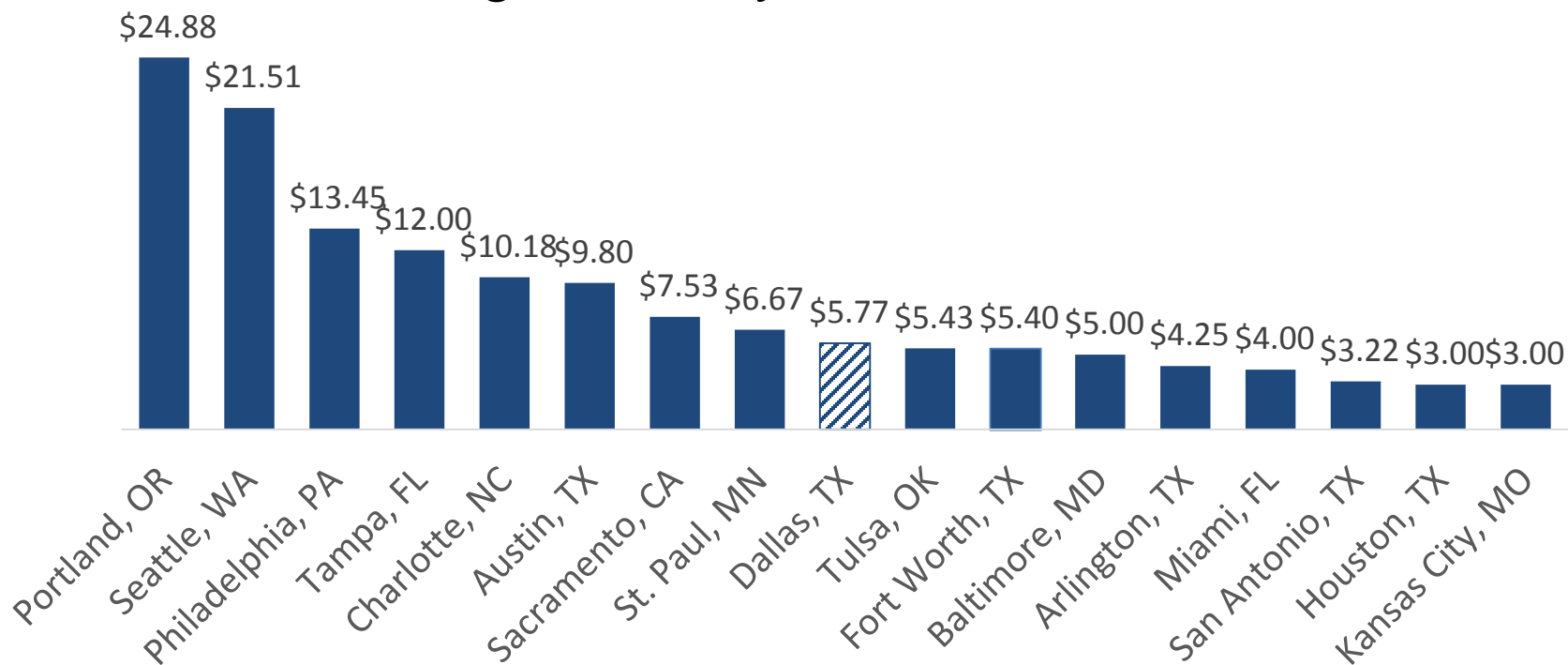
Recommendation

Proposed Nonresidential Rates

Impervious Area	Monthly Rate
Per 1,000 sq ft	\$1.75

Residential Rate Comparison

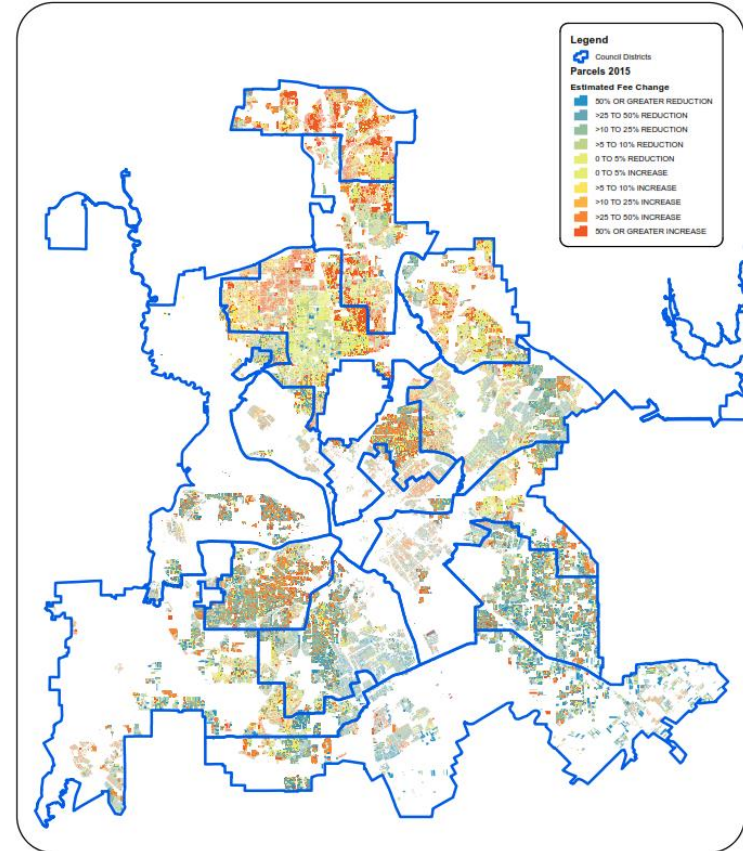
Average Monthly Residential Rates



Single Family Residential Impact

Single Family Residential Impact

- Approximately 70% of single family residential customers will see a decrease in their monthly stormwater fee



Example: Residential

Properties lightly
developed compared to
assumed would pay less

Current Tier 3 Monthly Fee: \$7.77

Proposed Tier 1 Monthly Fee: \$3.25



Example: Residential

Properties moderately developed compared to assumed would remain relatively the same

Current Tier 2 Monthly Fee: \$5.77

Proposed Tier 2 Monthly Fee: \$5.17



Example: Residential

**Properties heavily
developed compared to
assumed would pay more**

Current Tier 1 Monthly Fee: \$3.65

Proposed Tier 3 Monthly Fee: \$7.75



Non-Single Family Residential Impact

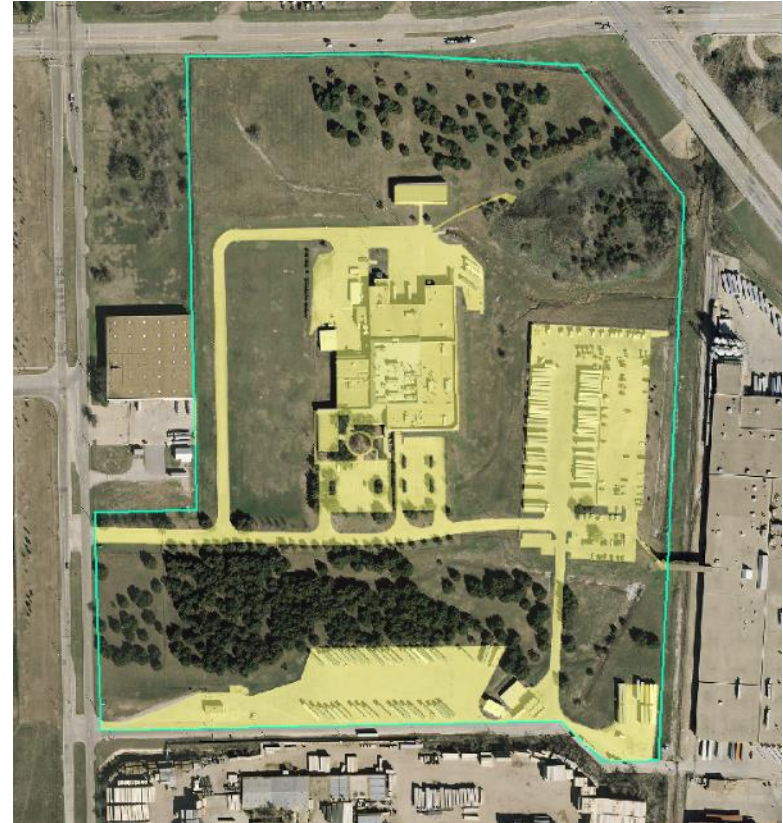
Non-Residential Fee Change Considerations

- Current rate structure determines an assumed impervious area for non-residential parcels based on premise type (type of property usage)
- Proposed rate structure would bill non-residential parcels based on measured impervious area instead of assumed impervious area

Example: Office Building – Campus Style

Current Monthly Fee: \$3,520

Proposed Rate Structure: \$1,255



Example: Warehouse

Current Monthly Fee: \$184

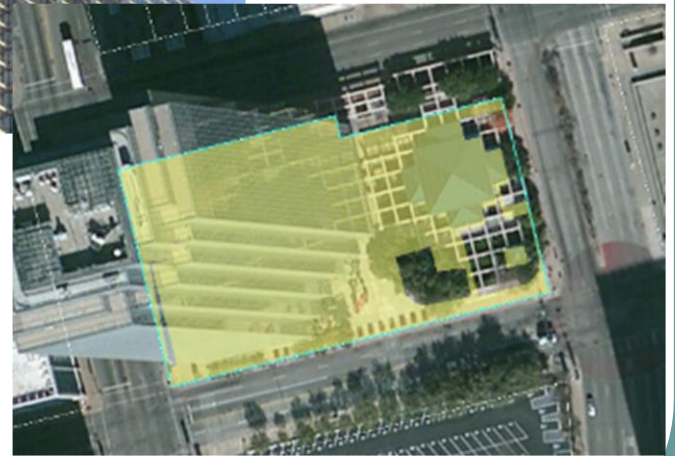
Proposed Rate Structure: \$147



Example: Office Building – High Rise

Current Monthly Fee: \$94

Proposed Rate Structure: \$103



Example: Shopping Center

Current Monthly Fee: \$623

Proposed Rate Structure: \$737



Next Steps

Next Steps

- Should committee concur with recommendations, team will complete necessary interfaces and outreach efforts to citizens and businesses
- Complete impervious measurements for newer development
- Future Council discussions may arise as incentives for urban design initiatives are explored

Next Steps

- Continue development of associated data and systems improvements and interface, training and support for rate structure change
- Hold public meetings, if applicable
- Develop interactive website for customers to look up fee, if applicable
- Amend ordinance to accommodate new rate structure (if implemented) and reflect changes to state law
- Approve as part of budget process
- Go live with new fee - target October 2016

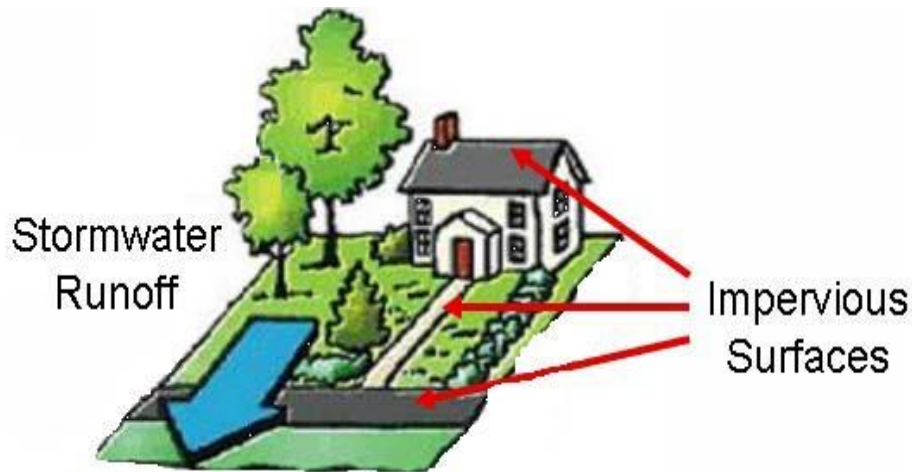
Requested Action

- Seek recommendation from Budget, Finance & Audit Committee to proceed with recommended action; or
- Make no changes to rate schedule and revisit with a future fee study

Appendix A

Impervious Area

- Hard surface areas such as buildings, roads, and sidewalks that repel stormwater
- Amount of runoff is directly related to the amount of impervious surfaces



Appendix B – Stormwater Utility System

Dallas Stormwater Utility System

- 6,050 square miles of Trinity River watershed
- 2,138 acres of Trinity floodway
- 65,000 inlets
- 1,800 miles storm sewers
- 11,000 drainage outfalls
- 168 miles creeks and channels
- 30 miles levees
- 22 pump stations with 70 pumps
- 6 pressure sewers
- 100 inline stormwater interceptors



Dallas Stormwater Utility System

- 41 flooded roadway warning system sites
- 89 rainfall and/or stream ALERT gauge sites
- 23 Supervisory Control and Data Acquisition (SCADA) sites
- 150 civil defense sirens
- 5 flood warning sirens
- 200 retention/detention ponds and lakes
- 60,000 service requests annually



Overview – Stormwater Utility

Provides funding for 15 departments that assist with meeting permit related activities:

City Attorney's Office
City Manager's Office
Code Compliance
Communication
Information Systems
Court & Detention
Services
Dallas Fire-Rescue
Dallas Police Department

Dallas Water Utilities
Equipment and Building Services
Office of Environmental Quality
Park and Recreation
Public Information Office
Public Works
Streets Services
Trinity Watershed Management

Appendix C – Rate Study Information

Rate Study

- Raftelis Financial Consultants was selected in 2013
 - Performed more than 500 rate studies, financial plans, etc.
 - Have reviewed and implemented recommendations at many of the largest and most successful utilities nationwide:
 - Philadelphia
 - Charlotte-Mecklenburg
 - Baltimore
 - Northeast Ohio
 - Specific implementation expertise for public outreach, stormwater billing, collections, customer service, data maintenance

Fee Study

Project tasks include:

- Match parcels to accounts
- Recommend rates
- Perform customer impacts analysis
- Develop stormwater billing interface
- Develop web portal
- Public outreach

Rate Study Scope of Work

Work to date

- ✓ System assessment
- ✓ Reviewed billing accounts and GIS data analysis
- ✓ Recommend rates
- ✓ Impact analysis
- ✓ Interface development begun

Future work

- Public outreach
- Complete data update and interface development
- Implementation

Examples of Stormwater Activities Performed by Departments

Capital Drainage and Flood Control improvements

Drainage system maintenance

Environmental Management System

Flood control operations

Floodplain Management

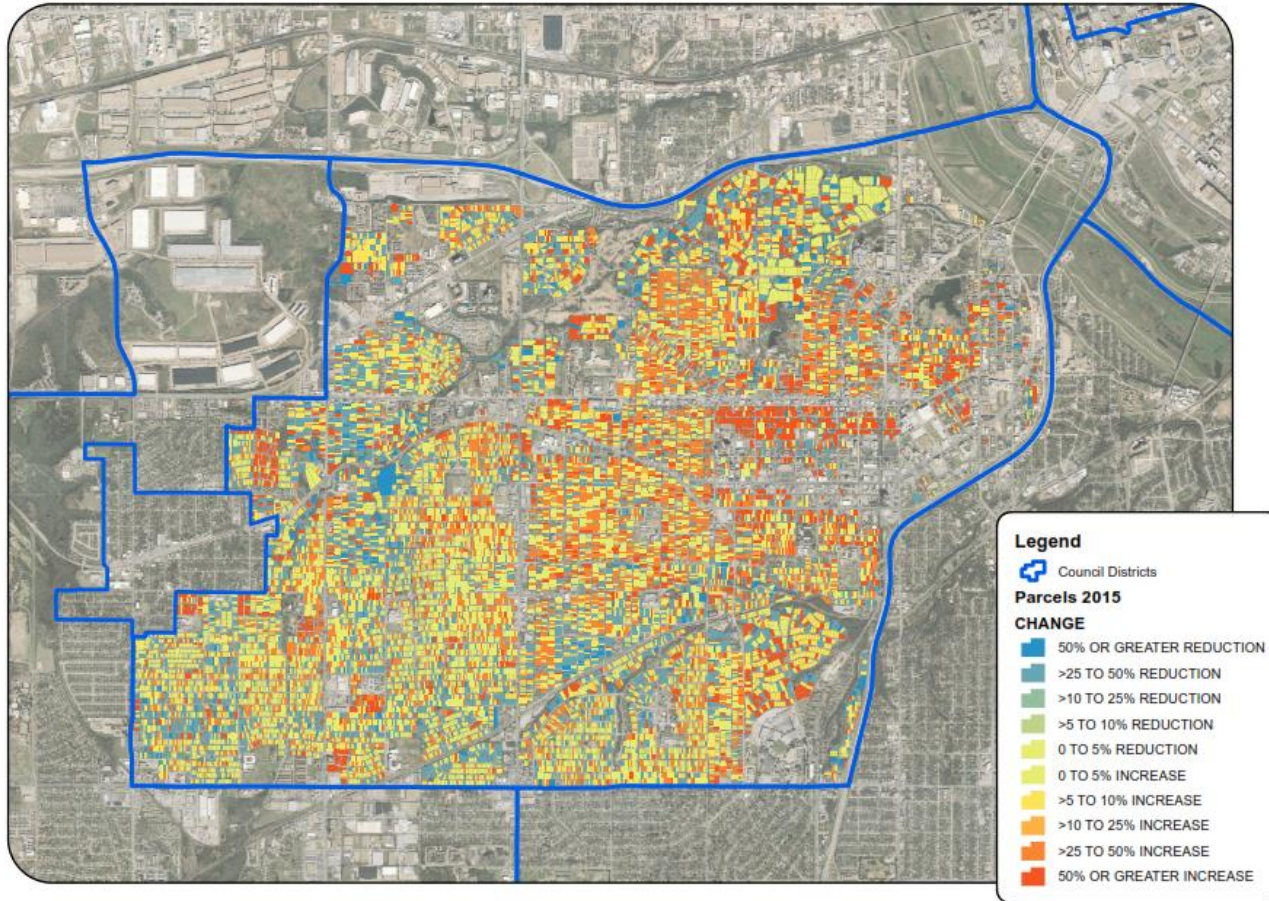
Hazardous spill response

Illegal dumping

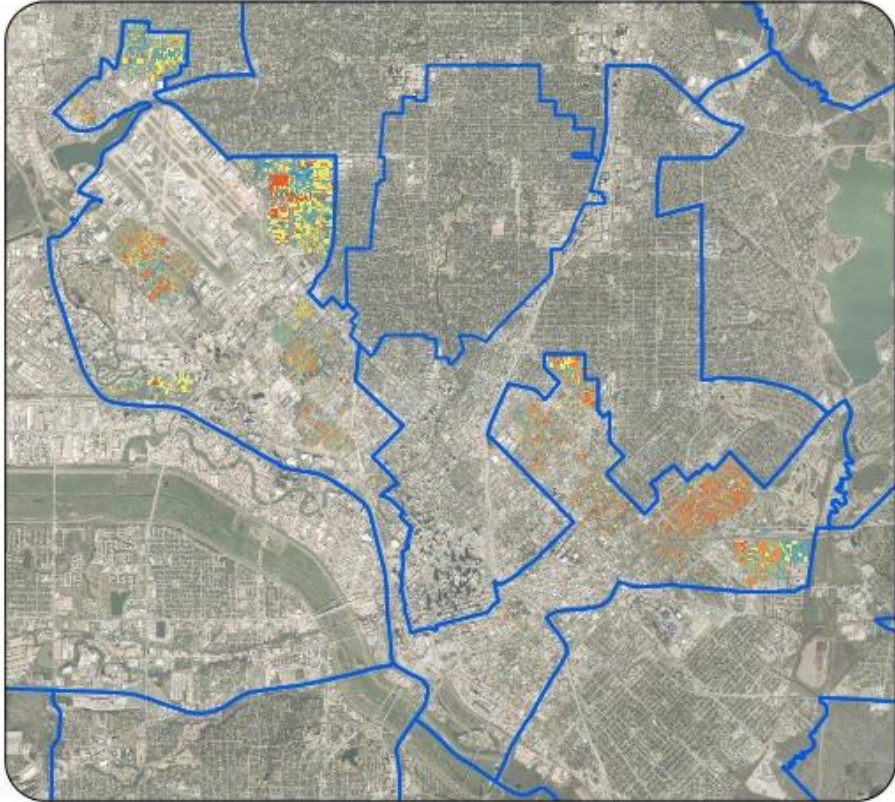
Inspection and enforcement

- ▶ IT and billing support
- ▶ Levee maintenance
- ▶ Litter control
- ▶ Post flood clean-up
- ▶ Public education/outreach
- ▶ Street sweeping
- ▶ Water quality monitoring and reporting

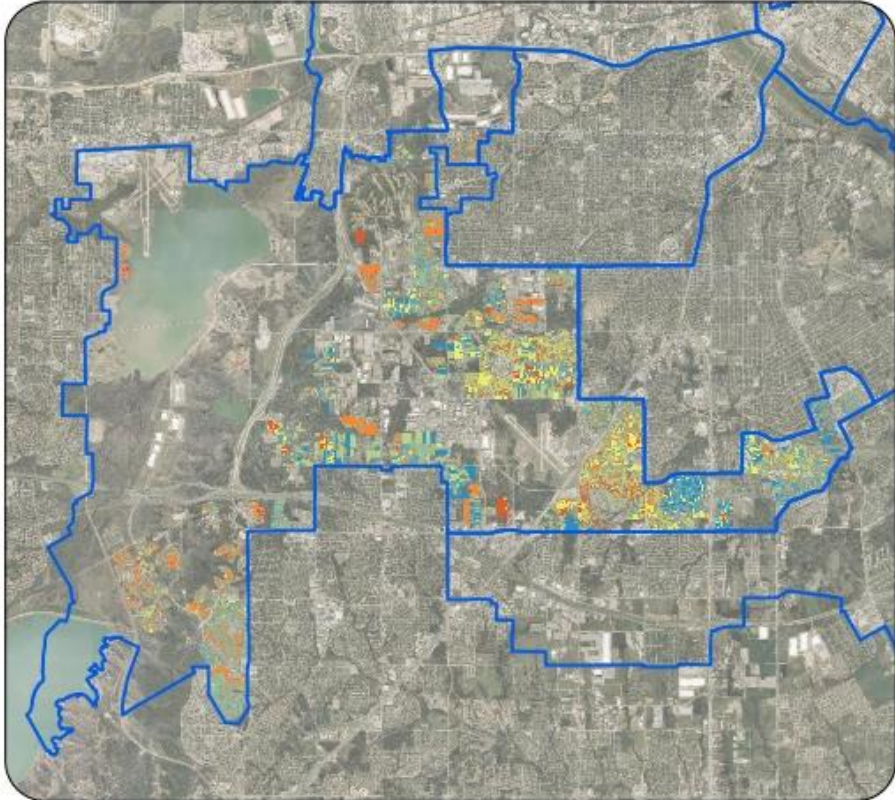
Council District 1
Single Family Residential Properties
Stormwater Rate Structure Change Impact



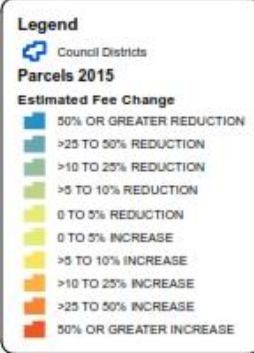
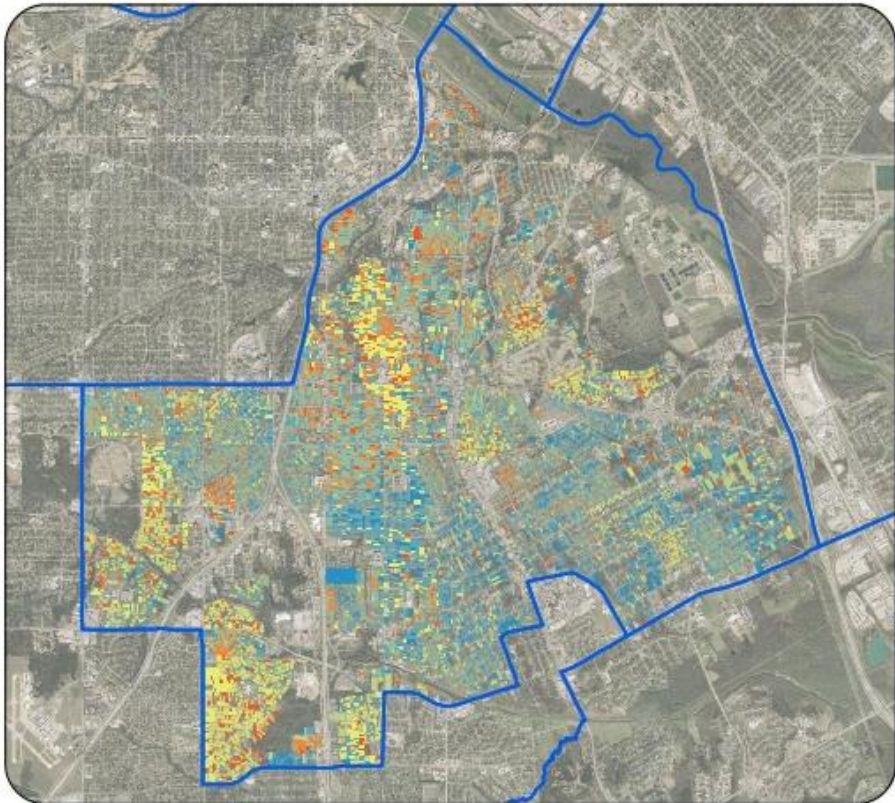
Council District 2
Single Family Residential Properties
Stormwater Rate Structure Change Impact



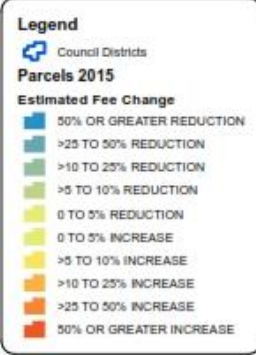
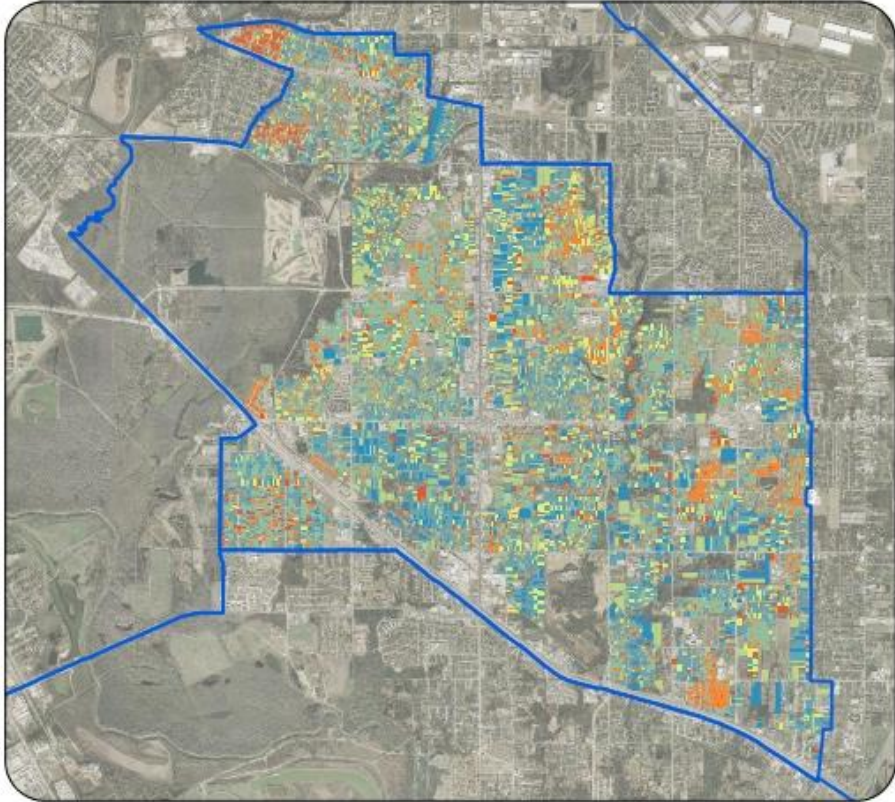
Council District 3
Single Family Residential Properties
Stormwater Rate Structure Change Impact



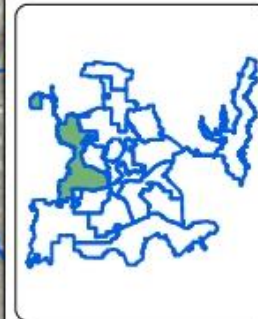
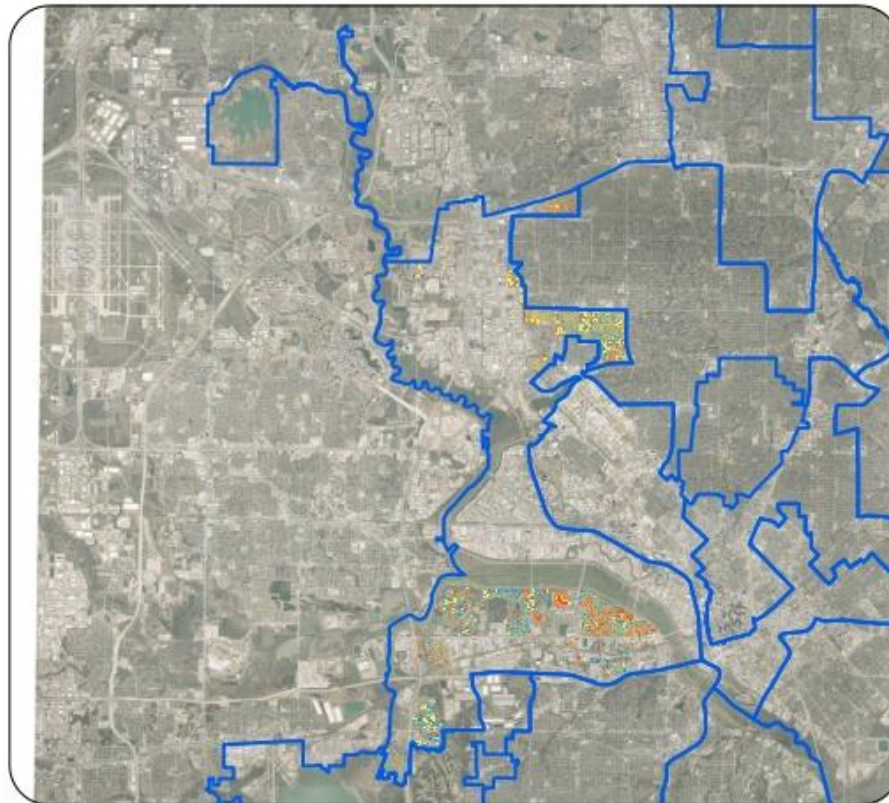
Council District 4
Single Family Residential Properties
Stormwater Rate Structure Change Impact



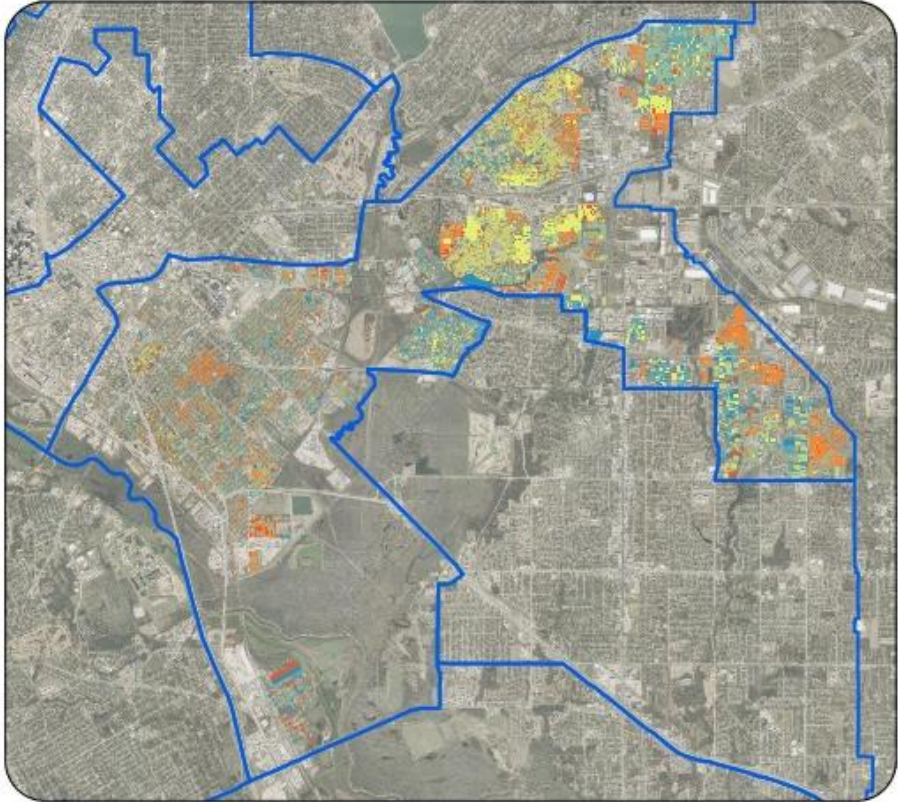
Council District 5
Single Family Residential Properties
Stormwater Rate Structure Change Impact



Council District 6 Single Family Residential Properties Stormwater Rate Structure Change Impact



Council District 7
Single Family Residential Properties
Stormwater Rate Structure Change Impact



Council District 8
Single Family Residential Properties
Stormwater Rate Structure Change Impact



Legend

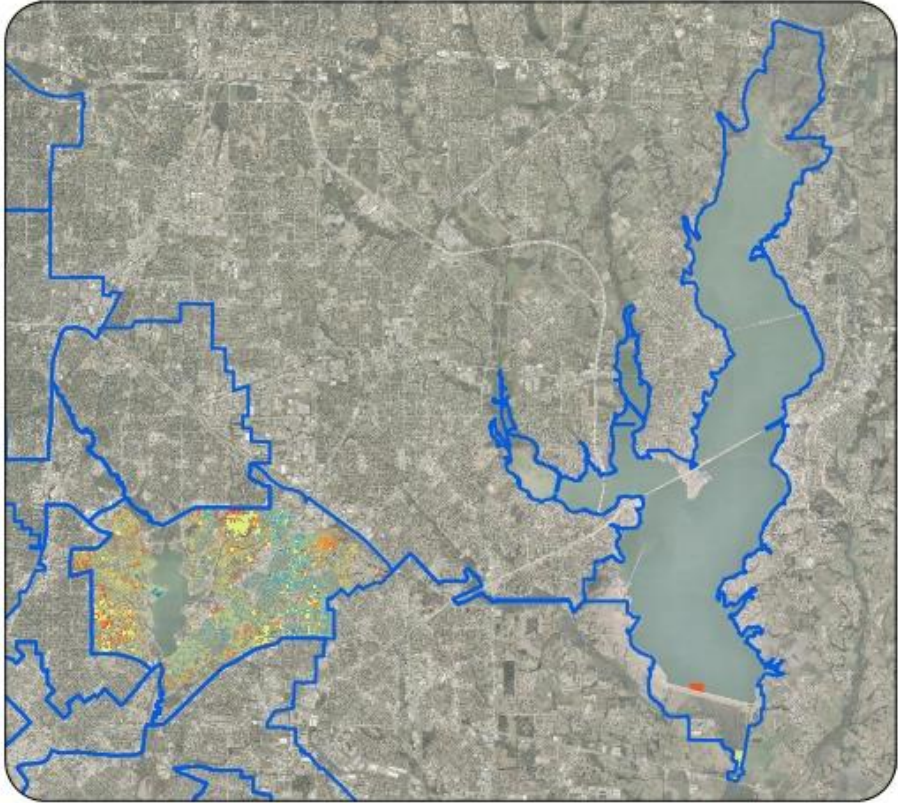
- Council Districts

Parcels 2015

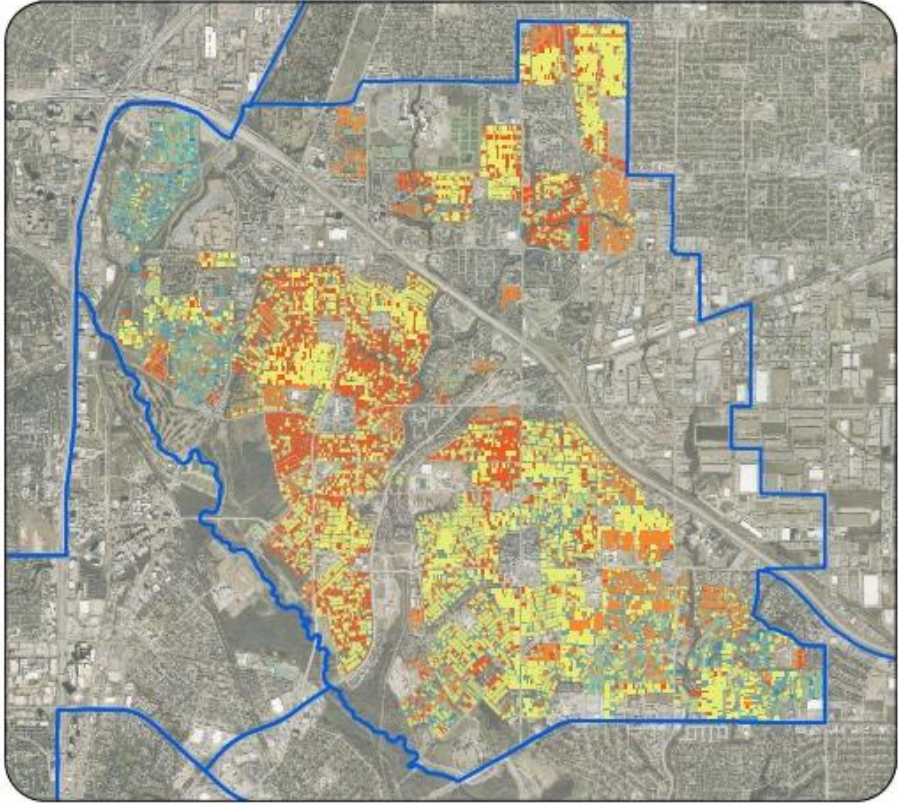
Estimated Fee Change

- 50% OR GREATER REDUCTION
- >25 TO 50% REDUCTION
- >10 TO 25% REDUCTION
- >5 TO 10% REDUCTION
- 0 TO 5% REDUCTION
- 0 TO 5% INCREASE
- >5 TO 10% INCREASE
- >10 TO 25% INCREASE
- >25 TO 50% INCREASE
- 50% OR GREATER INCREASE

Council District 9
Single Family Residential Properties
Stormwater Rate Structure Change Impact



Council District 10
Single Family Residential Properties
Stormwater Rate Structure Change Impact



Legend

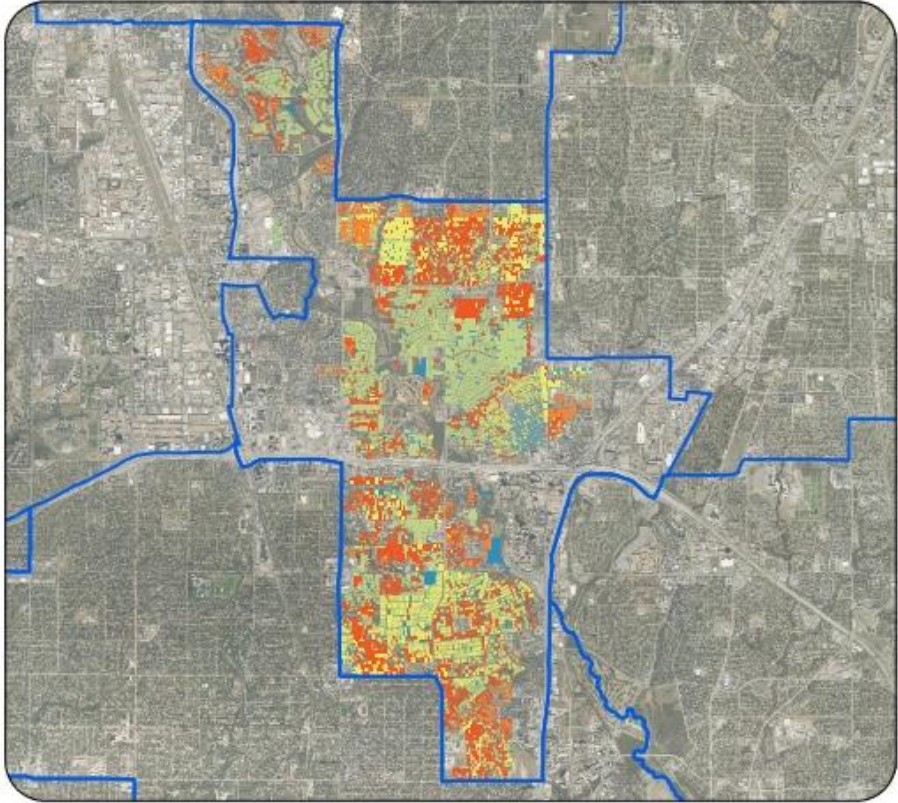
- Council Districts

Parcels 2015

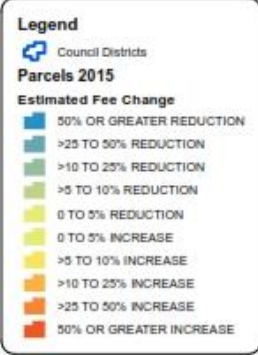
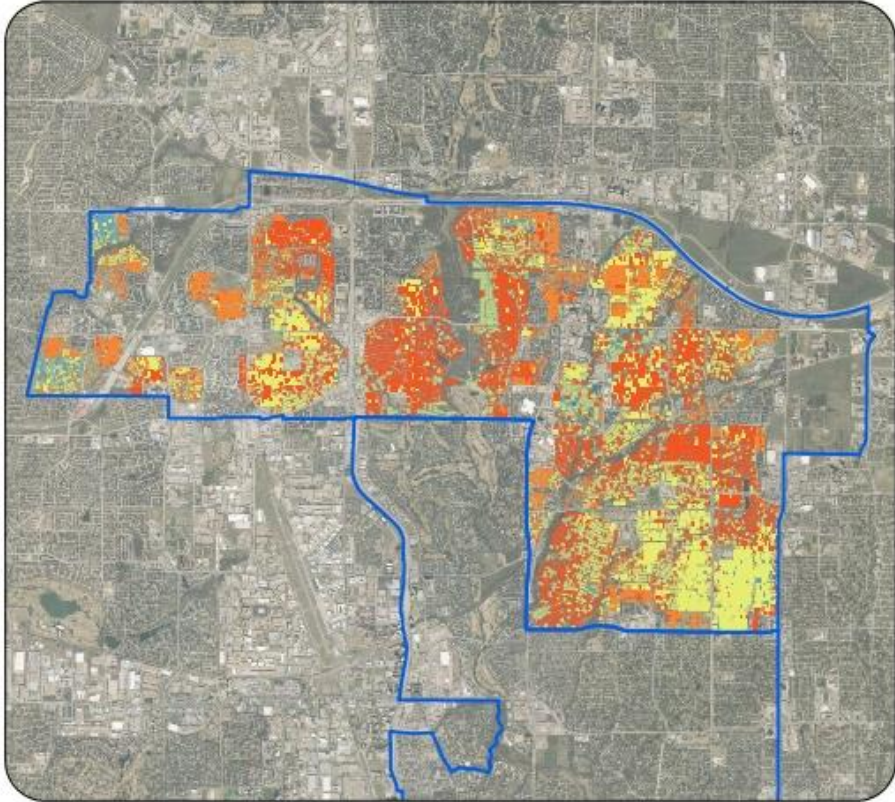
Estimated Fee Change

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- 0 TO 5% INCREASE
- >5 TO 10% INCREASE
- >10 TO 25% INCREASE
- >25 TO 50% INCREASE
- 50% OR GREATER INCREASE

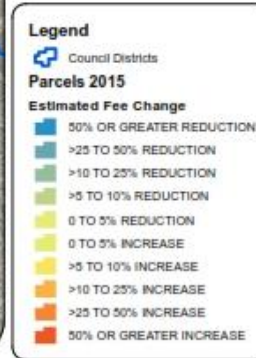
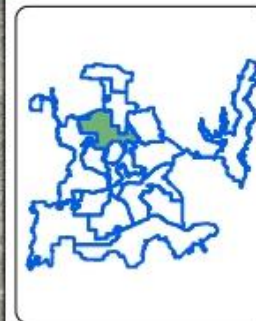
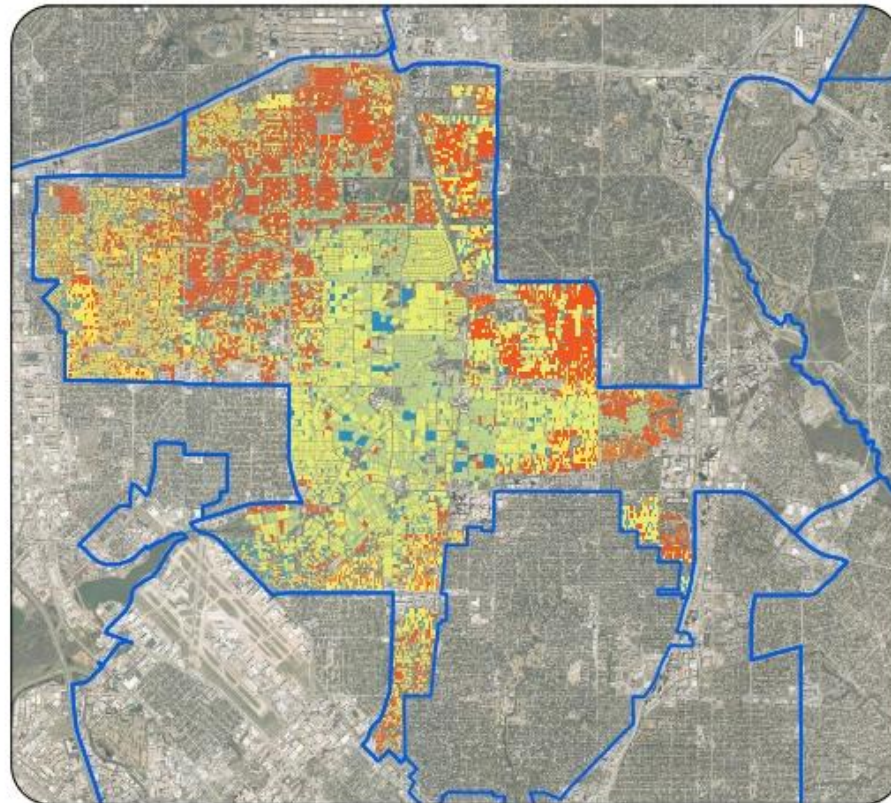
Council District 11
Single Family Residential Properties
Stormwater Rate Structure Change Impact



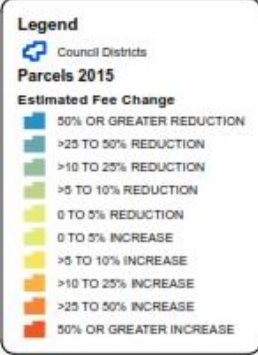
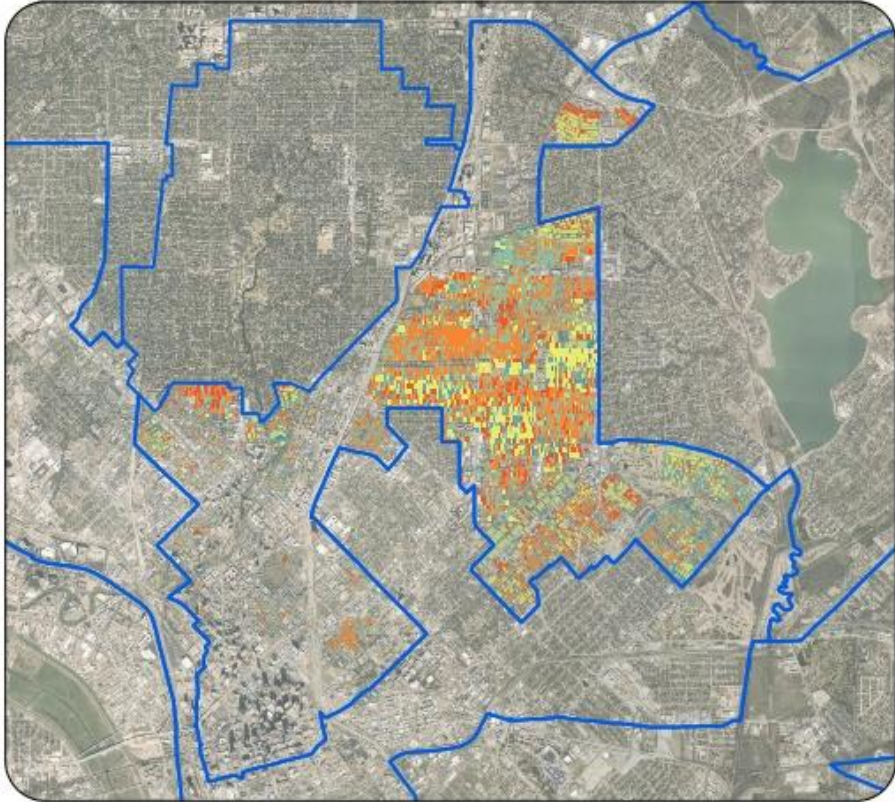
Council District 12
Single Family Residential Properties
Stormwater Rate Structure Change Impact



Council District 13 Single Family Residential Properties Stormwater Rate Structure Change Impact



Council District 14
Single Family Residential Properties
Stormwater Rate Structure Change Impact



Appendix D – Debt Service

How Would Additional Debt Service Affect the Current Rate?

If the Utility paid all the Flood Protection and Storm Drainage - General Obligation Bond Debt Service is approximately \$23.8M annually in debt service(\$18.8M increase). This would require a fee increase of 37%.

Residential Property Area Rates

- ▶ Up to 6,000 sf \$ 3.65 / Mo. - **New Rate = \$5.00**
- ▶ 6,001 – 8,000 sf \$ 5.77 / Mo. - **New Rate = \$7.90**
- ▶ 8,001 – 17,000 sf \$ 7.77 / Mo. - **New Rate = \$10.64**
- ▶ 17,001 – 215,000 sf \$13.87 / Mo. - **New Rate = \$19.00**
- ▶ More Than 215,000 sf \$43.87 / Mo. - **New Rate = \$60.10**

Vacant and commercial property is calculated based on square footage and a runoff coefficient (\$0.1589 per 100 sq ft of impervious area) – **(New rate of \$0.2177 per 100 sq ft)**

Note: Fees, unlike property taxes, are not tax deductible

How Would Additional Debt Service Affect the Proposed Rate?

If the Utility paid all the Flood Protection and Storm Drainage - General Obligation Bond Debt Service is approximately \$23.8M annually in debt service (\$18.8M increase). This would require a fee increase of 37%.

Residential Property Area Rates

- ▶ Up to 2,000 sq ft \$ 3.25 / Mo. - **New Rate = \$4.45**
- ▶ 2,001 – 3,500 sq ft \$ 5.17 / Mo. - **New Rate = \$7.08**
- ▶ 3,5001 – 5,500 sq ft \$ 7.75 / Mo. - **New Rate = \$10.62**
- ▶ More Than 5,500 sq ft \$12.67 / Mo. - **New Rate = \$17.36**

Vacant and commercial property fees are calculated based on actual impervious area (\$1.75 per 1,000 sq ft of impervious area).

(New rate of \$2.40 per 1,000 sq ft)