

Memorandum



CITY OF DALLAS

DATE March 2, 2012

TO The Honorable Mayor and Members of the City Council

SUBJECT Overview of Stormwater Drainage Utility

On March 7, 2012, you will be briefed on the overview of stormwater drainage utility. The briefing material is attached for your review.

Please let me know if you require additional information.

J. A. Jordan
For Jill A. Jordan, P.E.
Assistant City Manager

Attachment

c: Mary K. Suhm, City Manager
Thomas P. Perkins, Jr., City Attorney
Rosa A. Rios, Acting City Secretary
Craig D. Kinton, City Auditor
C. Victor Lander, Administrative Judge
A.C. Gonzales, First Assistant City Manager
Ryan S. Evans, Assistant City Manager
Forest E. Turner, 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

Overview of Stormwater Drainage Utility

Presented to
City Council
March 7, 2012



Overview

- ▶ Purpose of the Stormwater Utility
- ▶ Stormwater Regulatory History
- ▶ Stormwater Utility Rate History and Structure
- ▶ Stormwater Utility Benchmarking
- ▶ Stormwater Utility Fund Activities

Purpose of the Stormwater Utility

- ▶ Federal and state regulations require the City to have ordinances and policies related to stormwater
- ▶ Stormwater permitting is completely separate from Sanitary Sewer (Dallas has never had combined sanitary & storm sewer)
- ▶ Majority of stormwater drainage systems and associated rainfall ends up in the Trinity River
- ▶ The Stormwater Utility fee is used to manage water quality and the systems that transport the stormwater to the river

Utility System Background

- ▶ 65,000 Inlets
- ▶ 1,800 miles Storm Sewers
- ▶ 11,000 Drainage Outfalls
- ▶ 400 miles Creeks & Channels
- ▶ 33 miles Levees
- ▶ 11 Pump Stations with Sumps
- ▶ 8 Pressure Sewers
- ▶ 100 Inline Stormwater Interceptors
- ▶ 200 Retention/Detention Ponds & Lakes
- ▶ 60,000 Service Requests Annually



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), and construction and industrial facilities was implemented for large cities
- ▶ **1991** – Dallas City Council approved City Code 2-167 establishing a Stormwater Drainage Utility, initial fee schedule, initial permit and Stormwater Drainage Utility
- ▶ **1996** – New EPA stormwater regulations issued with more specific standards to reduce pollutants in storm water and urban runoff

Note: Dallas has never had a combined sanitary/storm sewer system

Regulatory History (Continued)

- ▶ **1997** – EPA issued initial NPDES MS4 stormwater permit to the City of Dallas which was in place until February 2006
- ▶ **2003** – EPA initiated an investigation of City's Stormwater Program for non-compliance with Federal & State regulations
- ▶ **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** – 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

Permit Requirements: TCEQ Minimum Standards

8 Key Elements:

- ▶ System Operations & Maintenance
- ▶ Capital Projects for Flood Control
- ▶ Illicit Discharge Detection & Elimination
- ▶ Pollution Prevention/Spill Response
- ▶ Industrial Site Inspections
- ▶ Construction Site Inspections
- ▶ Public Education/Outreach
- ▶ Water Quality Monitoring



Consent Decree Requirements

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

Stormwater Utility Rate History & Structure

Stormwater Utility Rate History

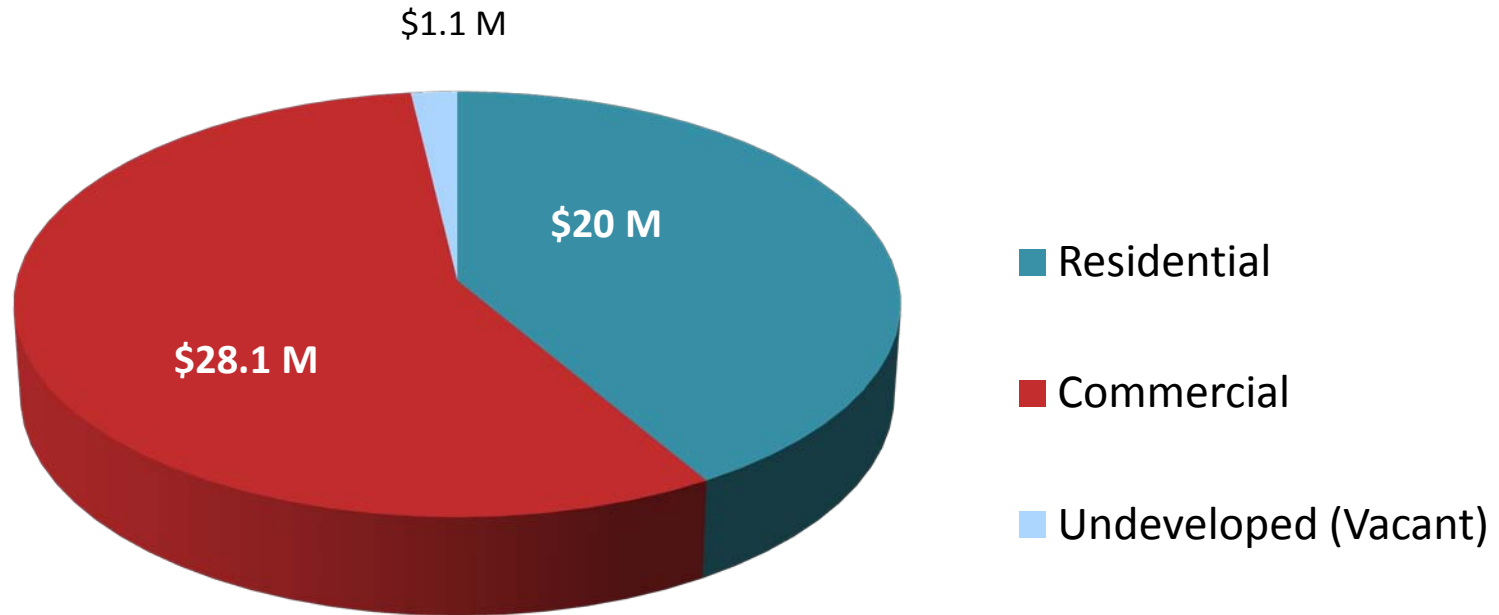
- ▶ Established in 1991 to address regulatory performance mandates
- ▶ Adjusted rates 6 times in 20 years
 - 1994
 - 2000
 - 2003
 - 2004
 - 2008
 - 2009
- ▶ Current Annual Revenue ~\$49.2M

Three Rate Service Classes:

- ▶ **Commercial** – billed by premise type and assumed percentage of impervious surface
- ▶ **Residential** – billed through tier structure based on property size ranges
- ▶ **Vacant Land** – billed @ 0.1589/100 sf at assumed 20% impervious (Capped at 5 acres)

Billing Summary (FY 2011)

Breakdown by Revenue (\$49.2M)



Current Rate Structure

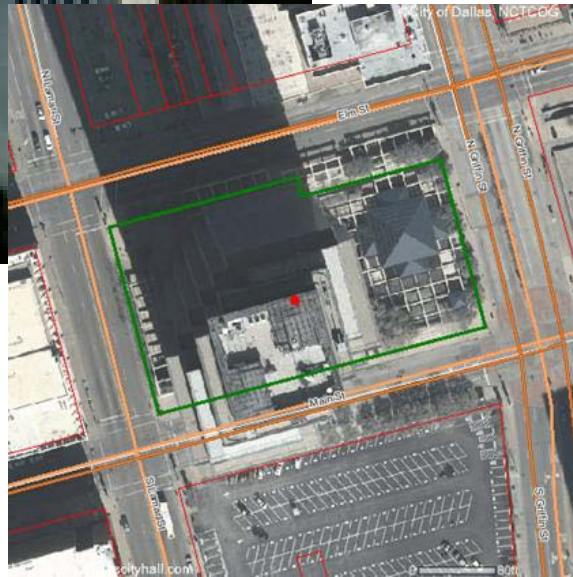
Residential Property Area Rates

- ▶ 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 is calculated based on square footage and a runoff coefficient (\$0.1589 per 100 sq. ft. of impervious area)

Vacant and commercial properties have a minimum monthly charge of \$5.00. Vacant lots have a maximum monthly charge of \$57.10, but commercial properties are not capped.

Examples: High Rise Office



Bank of America
901 Main Street

Lot Size: 65,700 sf
Coefficient: 0.90

Monthly Fee: \$93.96

Examples: Commercial Office Building



CP&Y

1820 Regal Row

Lot Size: 64,400

Coefficient: 0.90

Monthly Fee: \$92.10



Examples: Small Residence

Fisher Road

Lot Size: 4,400 sf
Tier #1 (< 6,000 sf)

Monthly Fee: \$3.65



Examples: Large Residence

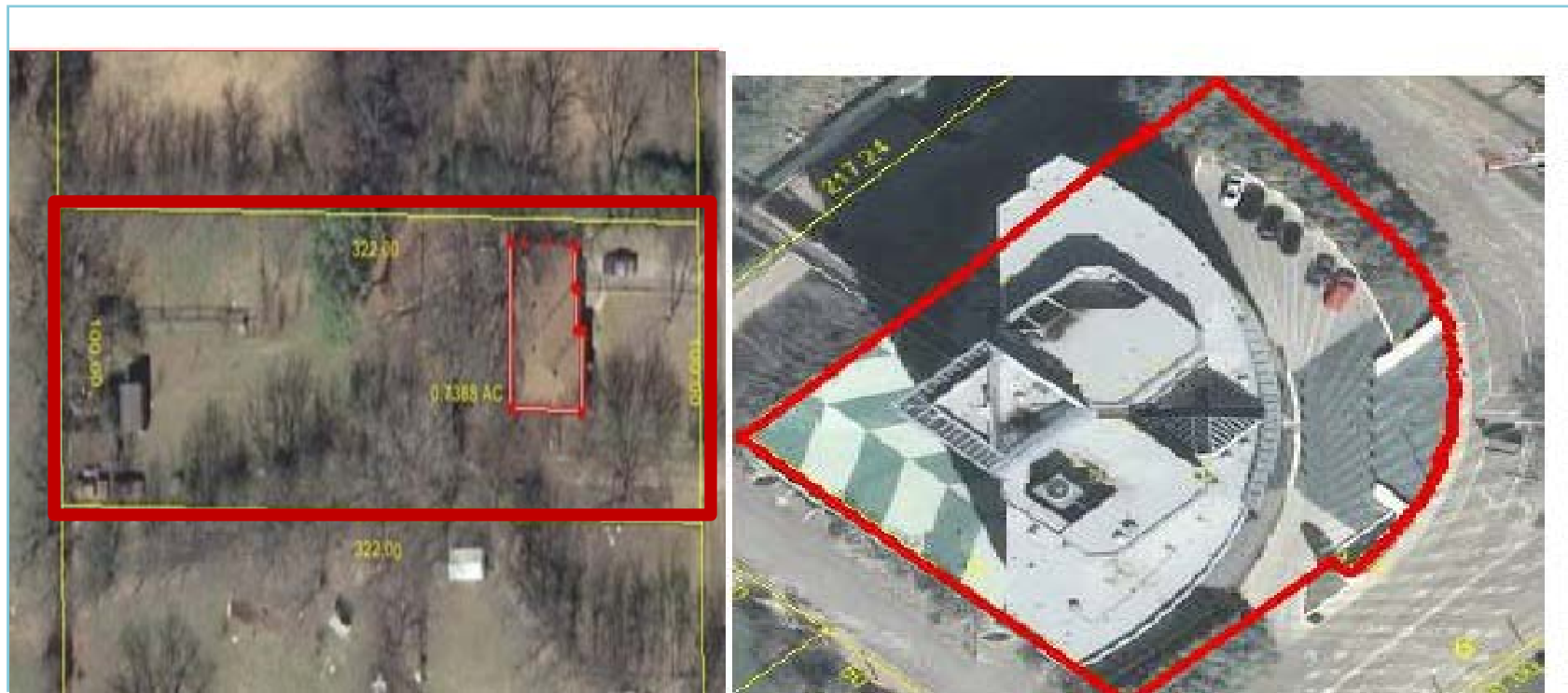


Fisher Road

Lot Size: 64,500 sf
Tier #4 (17,001 –
215,000 sf)

Monthly Fee: \$13.87

Examples: Side-by-Side Comparison - 0.75 Acre Lots



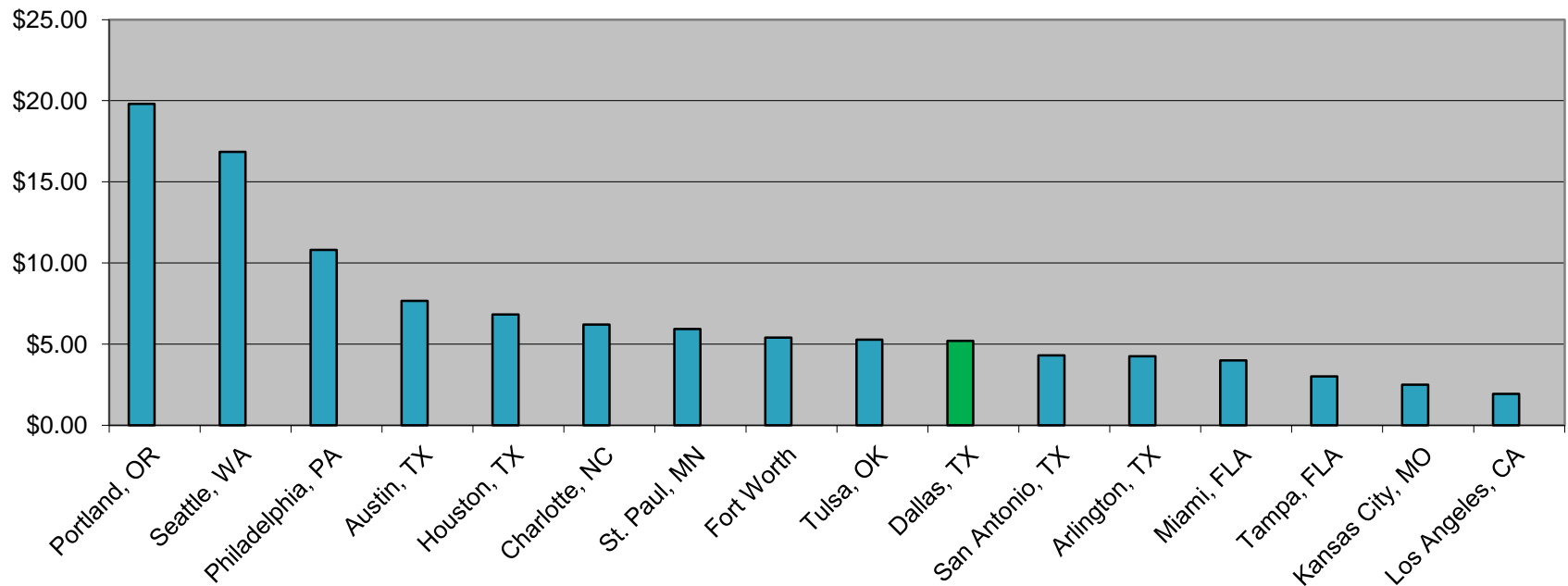
Residence
\$13.87/Month

Commercial
\$46.72/ Month

Stormwater Benchmarking

Benchmarking

Average Monthly Residential Stormwater Fees



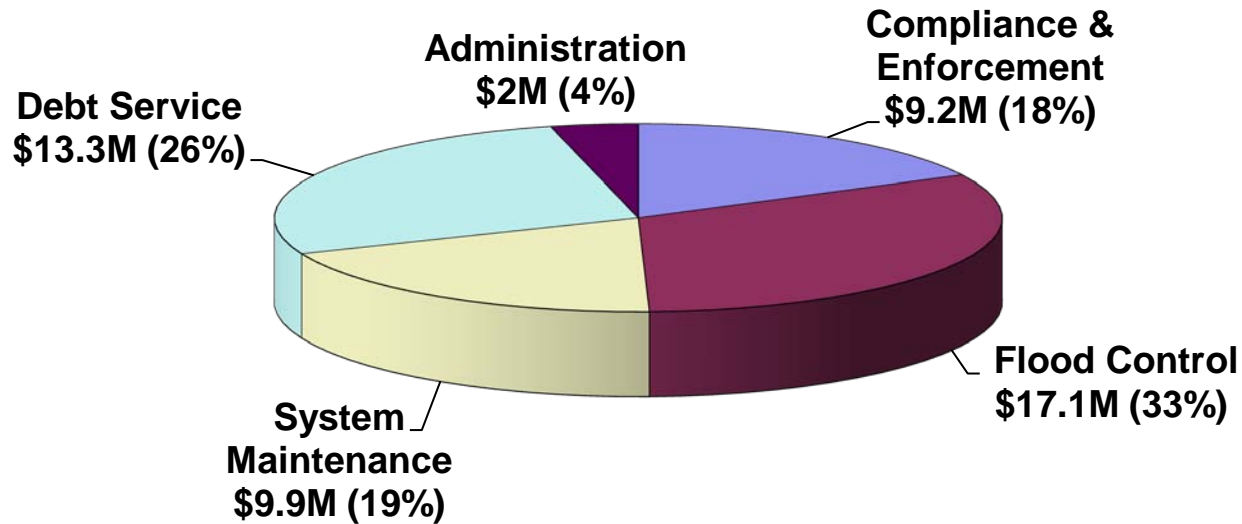
* Source: Black & Veatch. 2010. 2010 Stormwater Utility Survey, and Cities of Austin, Arlington, Houston and San Antonio

Stormwater Utility Fund Activities

Stormwater Utility Fund Activities

- ▶ The Stormwater Utility Fund provides a dedicated funding source (and can ONLY be used) for:
 - Compliance with federal and state regulations concerning stormwater drainage
 - Activities related to the operation and maintenance of the flood protection and drainage systems
 - Debt Service for stormwater related projects
- ▶ The Stormwater Utility Fund reimburses 15 departments for permit-required activities

FY2011-12 Stormwater Utility Fund Expenses (\$51.5M)



FY2011-12 Stormwater Utility Fund Expenses



Compliance & Enforcement \$9.2M

Stormwater Management Program

Surface Water Monitoring

Compliance Inspections and Nuisance Abatement

Environmental Training/Education



Flood Control \$17.1M

Levee, Pump Stations, and Sumps

Floodplain Management

Channel Maintenance

Dredging



FY2011-12 Stormwater Utility Fund Expenses



Other Maintenance \$9.9M

Debris and Litter Removal

Storm Drainage Maintenance Activities

Curb and Gutter Repair

Vegetation Management

Administration \$2M

Billing and Customer Service

Geographic Information System Support

I.T. Systems Support



FY2011-12 Stormwater Utility Fund Expenses

Debt Service \$13.3M

Flood Protection & Drainage

Utility Establishment Costs

Other Drainage C.O. Repayment



Appendices

Appendix A – Stormwater Debt Service

Debt Service

Flood Protection and Storm Drainage - General Obligation Bond Debt Service (Normally \$5M, FY12 has one time increase.) (The SW Utility is only paying a portion of the outstanding Debt Service amount.)	\$10.M
Stormwater Utility establishment loan – Loan Repayment (2 years remaining)	\$0.3M
Billing System Replacement Pay 1 (The SW Utility is only paying a portion the DWU Series 2006 Bond Debt Service Amount.) (4 years remaining)	\$0.4M
White Rock Lake Dredging (The SW Utility is only paying a portion of a the DWU Series 1997 Debt Service Amount.) (5 years remaining)	\$0.6M

Appendix A – Stormwater Debt Service (Continued)

Debt Service

Certificates of Obligation issued in FY05 and FY06 for stormwater capital improvements (2 and 3 years remaining)	\$1.4M
Debt service for Levee Remediation	\$0.6M
Total Debt Service	\$13.3M

Appendix B – How Would Additional Debt Service Affect the Rate?

- ▶ If the Utility issued \$300M in debt, it would cost \$24M annually in debt service
 - This would require a fee increase of 49%

Residential Property Area Rates

▶ Up to	6,000 sf	\$ 3.65 / Mo.	- New Rate = \$5.44
▶ 6,001 –	8,000 sf	\$ 5.77 / Mo.	- New Rate = \$8.60
▶ 8,001 –	17,000 sf	\$ 7.77 / Mo.	- New Rate = \$11.58
▶ 17,001 –	215,000 sf	\$13.87 / Mo.	- New Rate = \$20.66
▶ More Than	215,000 sf	\$43.87 / Mo.	- New Rate = \$65.36

Vacant and commercial property is calculated based on square footage and a runoff coefficient (\$0.1589 per 100 sf of impervious area) –
(New rate of \$0.2367 per 100 sf)

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

Appendix C – Previous Rate Adjustments

Residential Lot Size (sf)	1991	1994/1995	2000/2001	2003/2004	2004/2005
To 5,000	\$1.20	\$1.65	\$1.76	\$2.07	\$2.50
5,001 - 10,000	\$1.60	\$2.65	\$2.83	\$3.31	\$3.99
10,001 - 32800	\$2.35	\$3.85	\$4.11	\$4.81	\$5.80
21,801 - 43,600	\$4.10	\$6.75	\$7.20	\$8.42	\$10.16
More than 43,600	\$7.15	\$13.00	\$13.88	\$16.21	\$19.63
Commercial					
Per 100 sf of impervious area	\$0.0310	\$0.0520	\$0.0555	\$0.0656	\$0.0794
Minimum Charge				\$1.05	\$1.05
Maximum Charge				\$16.89	\$20.51

Appendix C – Previous Rate Adjustments (Continued)

2008 Adjustment		2009 Adjustment	
Residential (Gross Area –sf)	Monthly Fee	Residential (Gross Area –sf)	Monthly Fee
Up to 4,500	\$2.50	Up to 6,000 sf	\$3.65
4,501 - 9,000	\$3.99	6,001-8,000 sf	\$5.77
9,001 – 20,000	\$5.80	8,001-17,000 sf	\$7.77
20,001 – 40,000	\$10.16	17,001-215,000 sf	\$13.87
More than 40,000	\$43.06	More than 215,000 sf	\$43.87
Non- Residential			
Per 100 sf of impervious area	\$0.1031	Per 100 sf of impervious area	\$0.1589
Minimum Charge		Minimum Charge	\$5.00
Maximum Charge	\$56.15	Maximum Charge (vacant lots)	\$57.10

Appendix D – Departments reimbursed for Stormwater related Activities

- ▶ City Attorney's Office
- ▶ City Manager's Office
- ▶ Code Compliance
- ▶ CIS
- ▶ Court & Detention Services
- ▶ Dallas Fire-Rescue
- ▶ Dallas Police Department
- ▶ Dallas Water Utilities
- ▶ Equipment & Building Services
- ▶ Office of Environmental Quality
- ▶ Park and Recreation
- ▶ Public Information Office
- ▶ Public Works
- ▶ Streets Services
- ▶ Trinity Watershed Management

Appendix E – Examples of Stormwater Activities Performed by Departments

- ▶ Capital Drainage and Flood Control improvements
- ▶ Drainage system maintenance
- ▶ Dredging
- ▶ 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