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Comprehensive Stormwater Assessment Overview

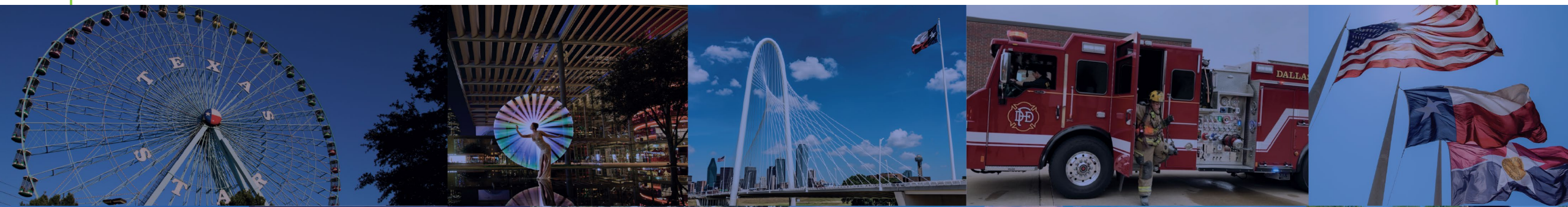
Transportation and Infrastructure Committee

February 17, 2026

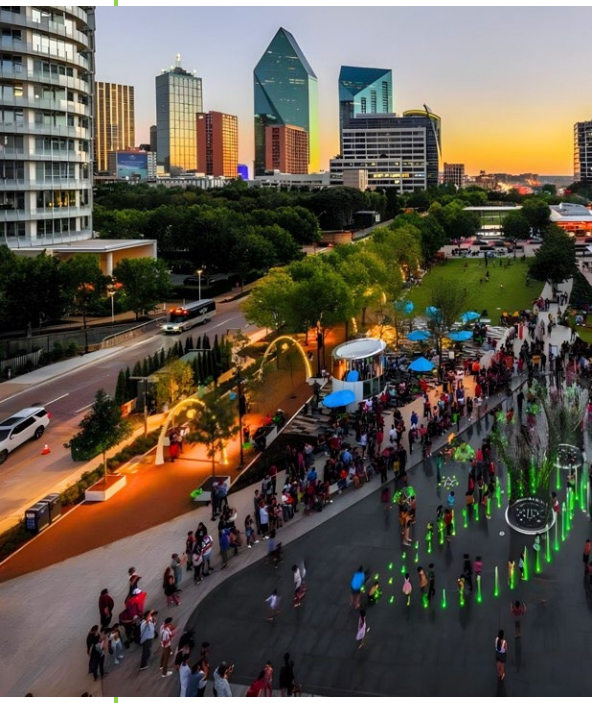
Sarah Standifer
Director
Dallas Water Utilities

Matt Penk, P.E.
Deputy Director
Dallas Water Utilities

Eduardo Valerio, P.E.
Assistant Director
Dallas Water Utilities



Overview

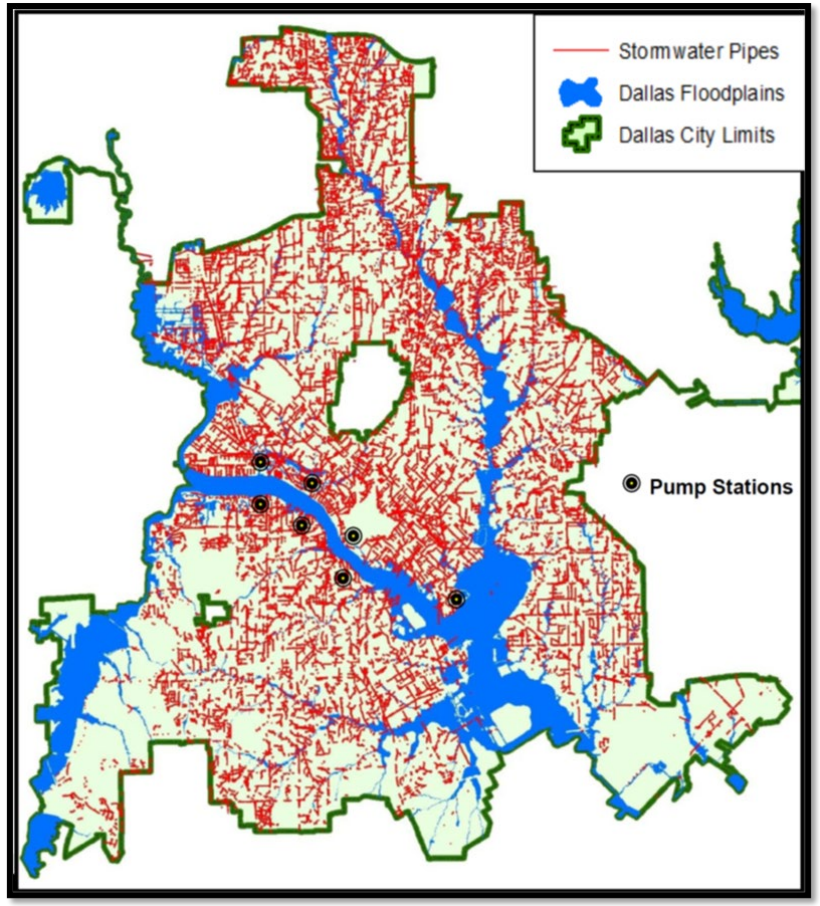


- Stormwater System Summary
- Stormwater Drainage Management (SDM)
- Comprehensive Storm Drainage System Assessment (CSDSA)
  - Objectives
  - Recommendations
- Retail Rates and Capital Program Outlooks
- Next Steps

Stormwater System

- MS4 – Permit # WQ0004396000
- 1,886 miles of storm sewers
- 11 Levee Pump Stations (5.7 BGD)
- 661 miles creeks & channels*
- 34,800 acres floodplain
- 6 pressure sewers
- 30 miles of levee system

* Includes both public and private channels



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History of Urbanization in Dallas

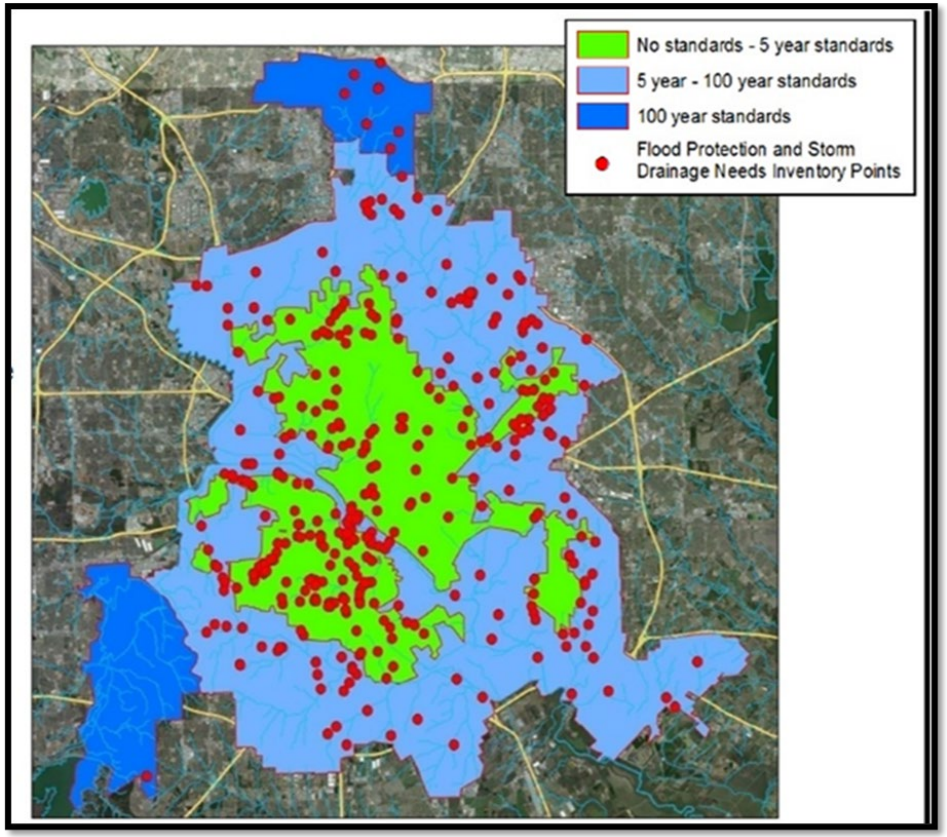
- Majority of drainage needs are associated with areas developed prior to current drainage standards.

- Dallas currently uses **100-year standards**. What are **100-year standards**?
    - Provisions/designs able to address a 100-year storm.
    - A rainfall event with a 1% probability of occurring in any given year.
    - For comparison, a 5-year storm has a 20% chance of occurring in any given year.

- City of Dallas earns Class 3 Distinction in the FEMA's Community Rating System (CRS).

- FPM practices exceed minimum requirements of National Flood Insurance Program (NFIP)

- **35% discount** on flood insurance premiums



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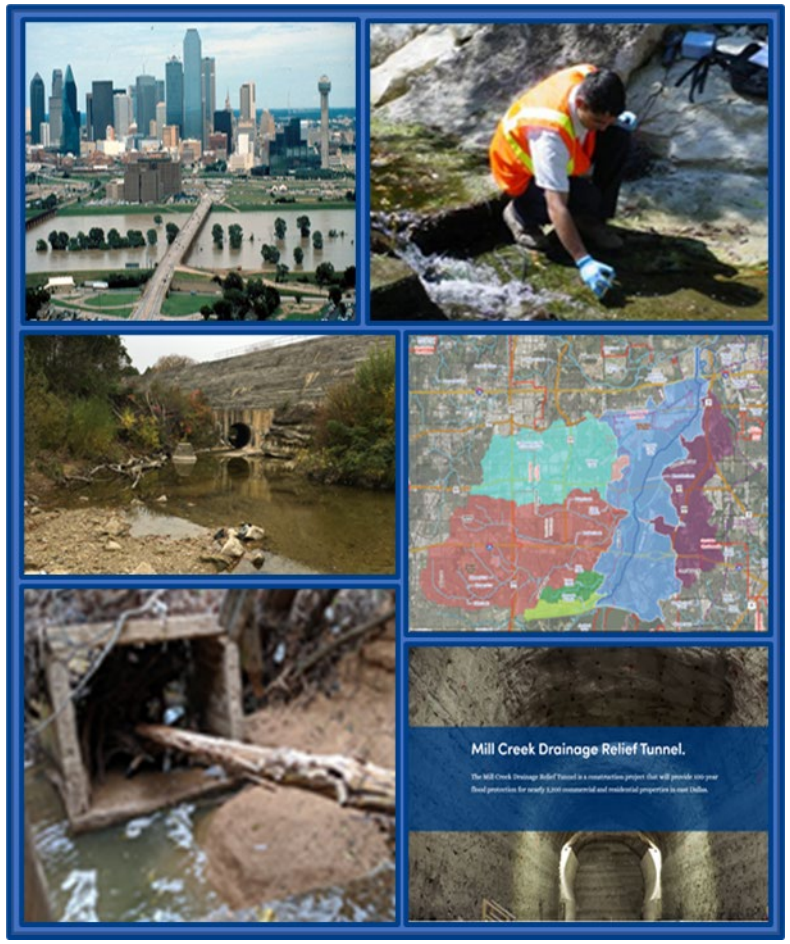
Stormwater Operations

Divisions

- Neighborhood Drainage Services
- Stormwater Compliance
- Floodway Operations
- Floodplain Management

Key Services

- Trinity River Watershed Management
- Neighborhood and Systemwide Flood Control
- Routine Drainage Inspection and Maintenance
- MS4 Compliance
- Surface Water Quality
- Floodplain Oversight



Stormwater Budget Summary by Program

Program	FY 2025-26 Budget	FY 2026-27 Planned
Floodplain and Drainage Management	$5,924,710	$6,073,978
Systemwide Expense*	$52,214,465	$53,268,773
Neighborhood Drainage Operations	$13,672,234	$15,006,299
Floodway System Operations	$15,429,184	$18,253,322
Stormwater Inspections & Enforcement*	$3,333,387	$3,676,379

*Note: Includes reimbursements to general fund for direct expenses, street rental and indirect costs.

Capital Improvement Program

- **Flood Management** - bridges, channels, culverts, street pump stations, storm water dams, and voluntary purchase of flood prone properties

- **Storm Drainage Relief** - drainage relief for areas served by undersized drainage systems, including upgrades and/or extensions of deteriorated storm drain systems

- **Erosion Control** - armoring and erosion control for public and private property along natural creeks, including protection for streets, bridges, alleys and homes

CSDSA Objectives

Enhance Dallas' Stormwater Program

- Review existing organizational structure and business processes
- Benchmarking and gap analysis
- Recommendations to strengthen organization and services

Evaluate and Invest in the System

- Evaluate infrastructure and assets
- Identify flood risks & guide mitigation strategies
- Risk and condition-based recommendations
- Process recommendations for future investments

Benchmarking / Gap Analysis

- Benchmarked stormwater program against peer utilities: Austin, Charlotte, Louisville MSD, San Antonio, and Maricopa County
- Compared capabilities to industry standards and regulatory expectations
- Recommendations:
  - Address staffing gaps through hiring and training
  - Develop formalized asset management and capital planning
  - Strengthen stormwater quality monitoring and enforcement
  - Expand long-term financial planning

Organizational Structure & Business

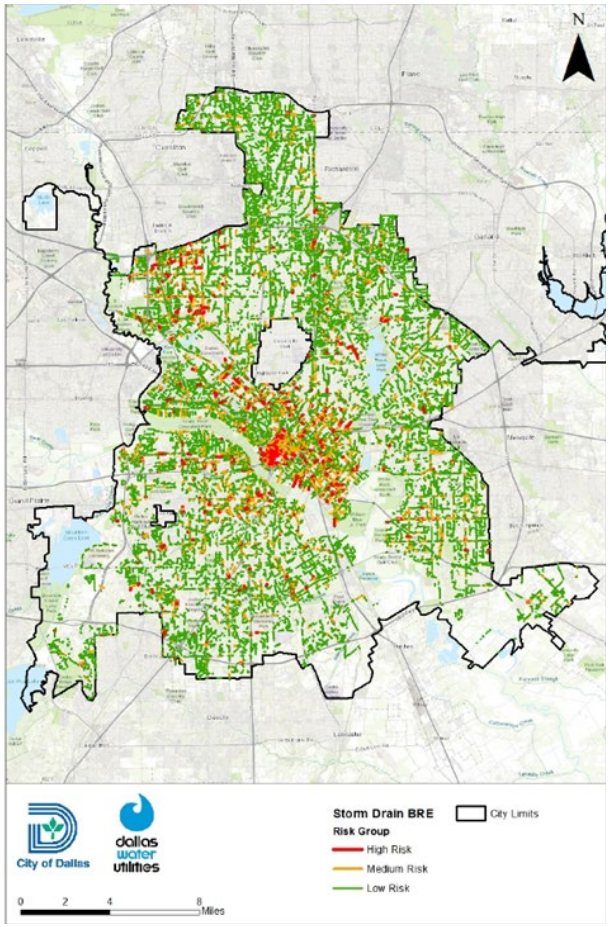
- 10-Year Organizational Structure
  - Environmental Resources
  - Infrastructure and Operational Management
  - Planning & Engineering
  - Business Support
- Key Performance Measures
- Annual Business Plan Development
- Enhance TMDL and Impaired Waters Program

Storm Drainage Condition Assessment

- Focus on CCTV inspections, condition scoring, and prioritization
- 10% of system inspected annually
- Standardization of data and processes

Recommendations:

- Prioritize annual inspections of high and medium risk assets
- Adopt standardized condition scoring
- Prioritize rehabilitation/replacement of high-risk assets



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Risk/Prioritization Analysis

- City's first full-scale asset management framework using Business Risk Exposure (BRE) methodology to evaluate 1,700 miles of large storm drains.
  - Prioritize 24" size and larger
- Identified ~70% Low risk, 29% Moderate, and 1.45% (24.6 miles) High risk segments.
- Standardized, data-driven renewal decision tree to guide maintenance, rehabilitation, and replacement.

Stormwater System Modeling

- Assessed 47 high-risk drainage areas and modeled 115 miles of storm sewers.
- Identified 2,633 structures and 56 miles of roadway as flood-prone.
- Developed 106 mitigation concepts including upgrades, parallel/bypass systems, and detention to reduce flooding impacts.
- 10 high priority areas advanced to detailed improvement analysis

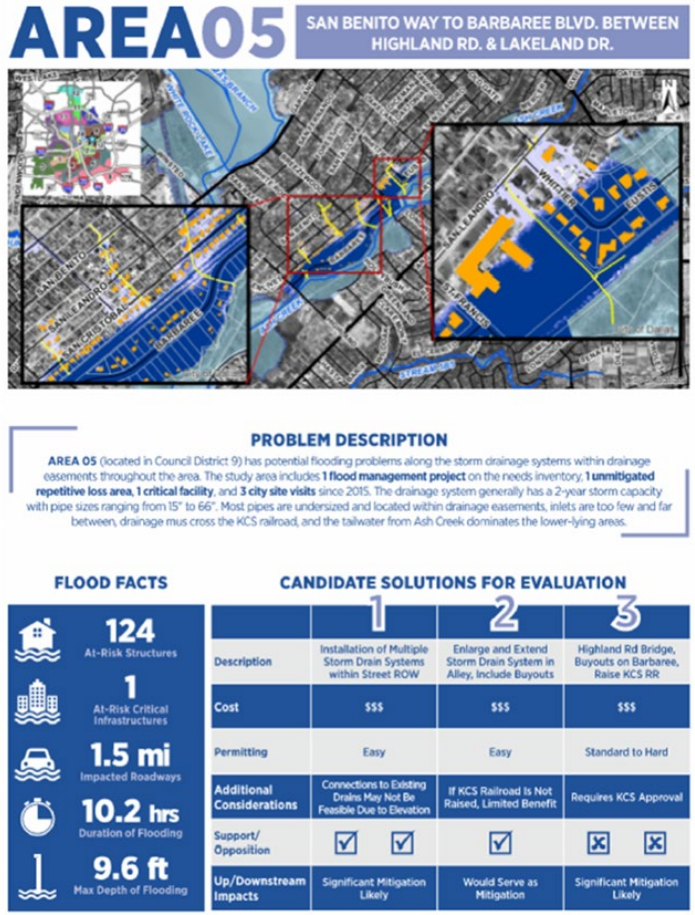


Figure ES- 15: Sample Area Fact Sheet

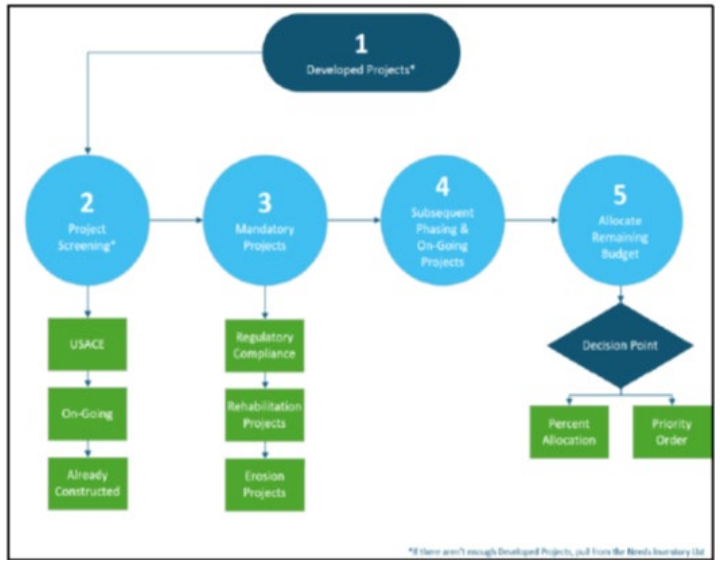
Capital Planning Process

Core efforts:

- Enhance Needs Inventory (NI) process
- Implement formal capital allocation strategy

Recommendations:

- Add project subcategories for better comparisons
- Revise prioritization framework; tool for standardization
- Expand condition-based inventory for existing assets
- Establish project development/feasibility phase
- Funding sequence:
  1. Life safety, regulatory mandates, or infrastructure failures
  2. Subsequent phasing & on-going projects
  3. If funds remain, apply them to other prioritized unfunded projects.

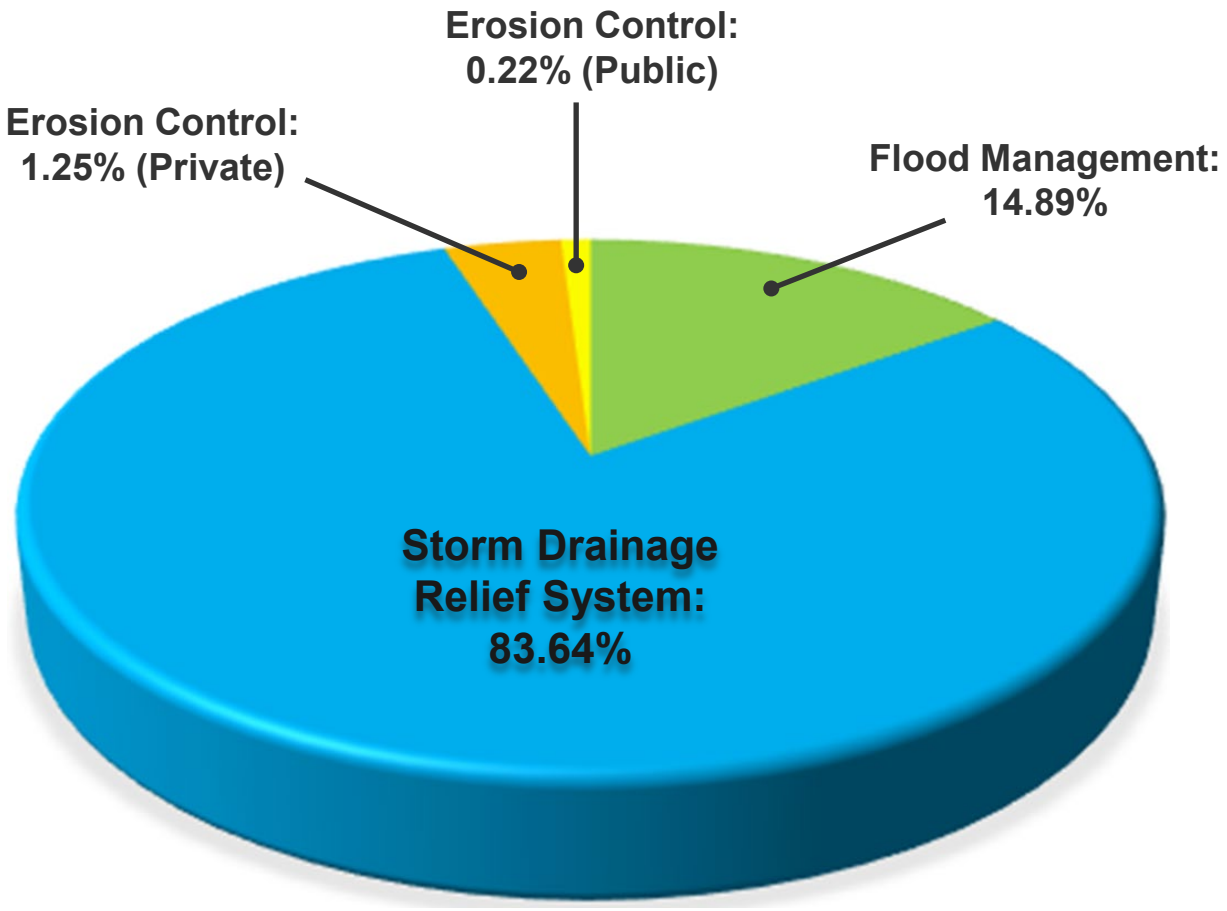


Current Needs Inventory

- **Flood Management:** $1.3 B
- **Storm Drainage Relief Systems:** $7.3 B
- **Erosion Control:** $128 M ($109M Private / $19M Public)

Total: $8.73 B

Note: Estimates are in 2025 dollars and may change with future inflation, market conditions, or scope adjustments.



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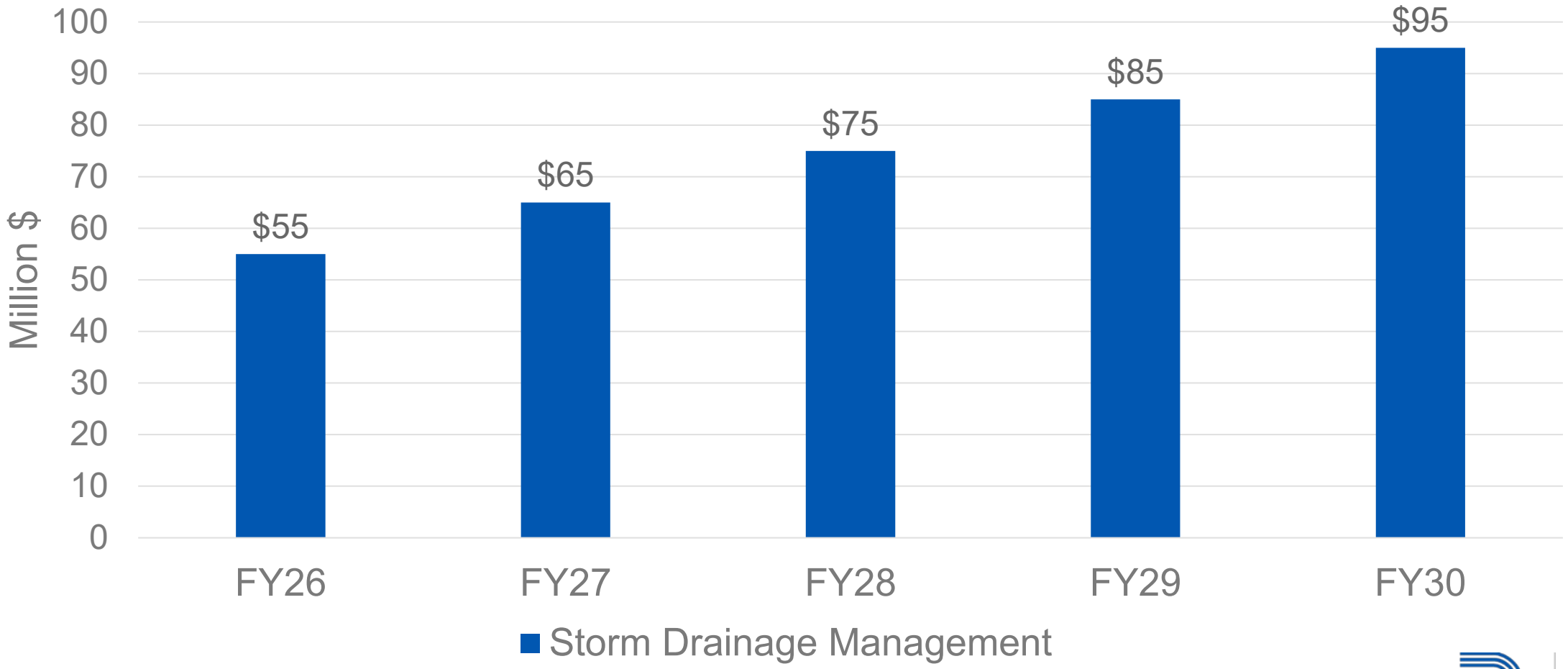
Stormwater Capital Improvement Budget

- **2017:** Implemented a rate increase and created a small pay-as-you-go Capital Program to provide initial system investment and supplement major maintenance needs.
- **2024–2025:** Issued Drainage Revenue Bonds (2024) and Certificates of Obligation (2025), both backed by stormwater revenue, to support a more robust and sustainable stormwater infrastructure program.
- **Upcoming Action:** Council will be asked to consider approval of a Commercial Paper Program (estimated at $125M) and an ongoing Refunding Program operating on an 18 to 24-month cycle.

Stormwater Capital Program Outlook



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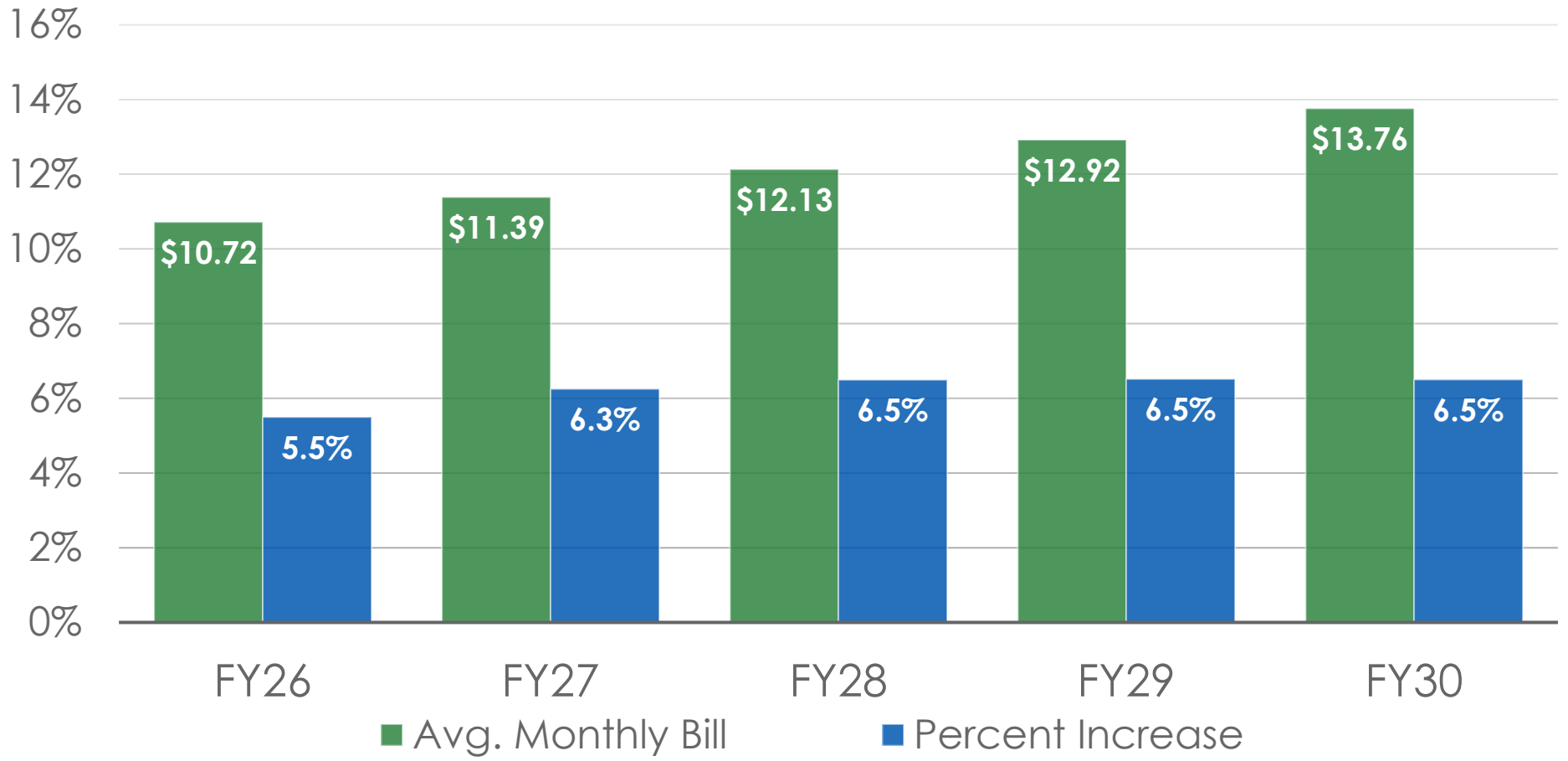
Retail Rates Future Outlook



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Next Steps

- Continue implementing CSDSA recommendations with focus on early action items - organizational structure, staffing and process improvements
- Condition assessment and prioritization of high-risk assets
- Enhance Needs Inventory and capital planning process
- Implement next phase of capital financing pending Council action in late winter 2026

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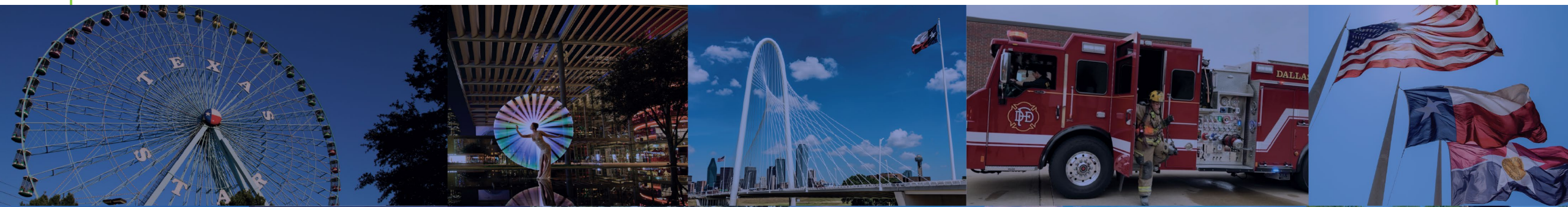

Appendix – 5-Year CIP

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5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Aberdeen-Tulane - Phase 2		801,450			4,541,550
Alpha 6919 Drainage Relief System		83,400		472,600	
Alpha at Peyton (RL Area 3)	1,150,000	5,904,000			
Ann Arbor (E) 2943		258,750		1,466,250	
Ash Creek Branch @ Mercer		937,800			5,314,200
Ash Creek Trib 5B7 Bridge Improvement @ Peavy		297,000		1,683,000	
Ash Creek Trib 5B7 Bridge Improvement @ Province		5,442,000			
Beard's Branch - FPMS Alt. 3				168,450	
Beckley Club Branch @ Missouri				174,900	
Barnett, Eli, Irwindell, Ravinia Area				418,500	
Birchridge 14721	51,300	290,700			
2530 Blanton Outfall Repair		99,900		566,100	
Browning Branch Bridge & Channel @ Inwood				495,000	
Browning Bridge @ Hollow Way				232,800	
Cedar Creek Bridge @ Moore	2,024,000				

5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Cedar Creek Bridge @ Tyler		8,364,000			
Cedar Creek Channel - ATSF RR to Ewing		1,754,000			
Cedar Creek Channel Improvements (908 S Rosemont)	299,550		1,697,450		
Cedar Creek Culvert @ Polk		1,182,000			
Cedar Creek Bridge @ Clarendon (Sta 149+13)		847,500		1,717,500	
Cedar Crest Bridge Culvert @ Southerland				68,700	
Cedar Creek Culvert @ Winnetka			439,350		
Cedar Springs Branch @ Denton		106,050		600,950	
Cedar Springs Branch @ Production			82,500		467,500
Cedar Springs Branch - Culvert & Channel @ Raleigh			256,200		
N Central Expy SB 13339 (Private Erosion)	96,300	545,700			
Chalk Hill Branch Bridge @ N. Counts	143,400		812,600		
Chalk Hill Branch Bridge @ S. Counts		238,800		1,353,200	
Chalk Hill Branch Culvert @ Jefferson		108,600		615,400	
Cherry Hill 8647 Storm Drainage Relief		175,080			1,283,920

5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Chalk Hill Tributary - Culvert @ Clarendon		17,400		98,600	
Clary Dr 10440 (Private Erosion)	71,100		402,900		
Cliffdale, 322			110,400		625,600
Coombs Creek Bridge @ 9th			58,200		329,800
Coombs Creek Bridge @ Barnett			48,750		276,250
Coombs Creek Bridge @ Colorado		249,900		1,416,100	
Channel - Major Maintenance	200,000	225,000	250,000	250,000	250,000
Chalk Hill Branch Bridge @ Hale					147,600
Cherrybrook Dam Spillway Rehabilitation	5,104,000				
Conrad - Louisiana Area Relief		361,200			2,648,800
Coombs Creek Bridge @ Brooklyndell	262,000				
Coombs Creek Culvert @ Hampton					80,850
Coombs Creek Culvert @ Jefferson-Westmoreland					781,500
Coombs Creek Bridge @ Plymouth	2,000,000	3,440,000			
13033 & 13032 Copenhill Rd Culvert and Channel Improvements		1,091,550			6,185,450

5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Crestview East Addition No. 2 (Beechmont 2779) Drainage Relief System	434,250		2,460,750		
CSDSA Area 31 - Echo Glen	3,000,000	10,000,000	8,000,000	18,111,000	
Dixon Branch - E Prong Culvert @ Mediterranean		100,800		571,200	
Dixon Branch Relief System (RL Areas 18 & 19)	3,500,000		2,000,000	2,250,000	1,900,000
Dredge Maintenance	200,000	225,000	250,000	250,000	250,000
Driftway Drive 2415 & 2421 (Private Erosion)			226,800		1,285,200
East Peaks Upper/Middle Basin Relief System					10,000,000
Elmwood Branch Culvert @ Edgefield	55,650		315,350		
Elmwood Branch Culvert @ Tyler & Vernon	41,700		236,300		
Elmwood Branch Bridge @ Melbourne		36,600		207,400	
El Tivoli @ Reverchon Drainage Relief System	1,632,400				
El Tivoli Branch Culvert @ Plymouth Road	440,000				
Emergency Pipe Repairs - Major Maint. of collapsed pipe in critical areas	200,000	225,000	250,000	250,000	200,000

5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Esperanza 14000 (Buildings 2,6,7) (Private Erosion)		94,500		535,500	
Estes Branch Channel Improvements (2704 Mossglen)	399,450		2,263,550		
1700 N Field Street Drainage Repair			99,900		566,100
5th Street Drainage Relief System		627,750		3,557,250	
Flood Management Area - Major Maintenance	200,000	150,000	250,000	250,000	200,000
Gabion - Major Maintenance	210,000	150,000	225,000	250,000	200,000
Gateridge 6841 Storm Drainage Relief		383,760			2,814,240
Grauwyler Gate		86,850		492,150	
Greenhollow/Sapling Way/Clearsprings RL Area 4	3,000,000				
Greenwich/Hampstead Storm Drainage Relief (6675 Avian)					347,400
Guildhall-McCree Storm Drainage Relief System	2,500,030				
1100 S Harwood St 84" RCP Reroute					479,400
Hatfield Branch Dam Spillway Rehabilitation	880,000				
Highgrove Area Drainage Relief System	3,000,000				
Holland @ Miles Drainage Relief System		1,000,000	3,250,000		

5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Jackson Branch - Church Road Bridge		237,900		1,348,100	
Joes Creek - West Fork Channel and Culvert Improvements	3,900,000				5,000,000
Kushla 3800 @ Grinnell		276,000		1,564,000	
Kidd Springs Branch @ Colorado	574,800			3,257,200	
Kidd Springs Tunnel Rehabilitation	500,000	1,564,000			
Kiest, 2412 W. (Private Erosion)	300,000				
Kiesthill (3327, 3335, 3407, 3411, 3419, 3425, 3431), Kiest Crest (3610, 3611), & Kiest Forest (3306, 3320, 3326, 3414, 3408, 3316) (Private Erosion)	1,500,000				
Knights Branch Upper Relief System Phase 2			3,000,000	3,500,000	
Knights Branch Upper Relief System - Inwood/Mockingbird			3,350,000	4,000,000	
Knights Branch @ Denton Dr.				428,400	
Knight Street 2426 & 2428		244,050		1,382,950	
Lafayette Heights Branch Culvert @ Plymouth Road	492,800				
Lake Cliff Dam Rehabilitation	2,000,000	4,320,000	6,000,000		
Lane Park - 7100 to 7300 Block		565,350		3,203,650	

5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Lansford 1215	1,130,500				
Linwood Place, Rector Place, Briarwood Storm Drainage Relief	1,323,000		7,497,000		
LLano Ave 6126 Storm Drainage Relief	903,000			5,117,000	
Loree 1742			169,350		959,650
Mapleleaf Circle/Mapleleaf Lane Area	225,000		1,275,000		
Meadow Lake Ave 7102 & Westlake 7203	759,750			4,305,250	
Meadowknoll 8911		30,600	173,400		
Medical District Drive Drainage Relief System Phase II		1,248,800		2,000,000	2,000,000
Mill Creek Drainage Relief System - Phase III					8,000,000
Navajo Ct 3423 (Private Erosion)		49,500		280,500	
Northwest Highway @ Tulane			1,000,000	4,200,000	4,500,000
Oak Creek Circle - Military Parkway to Urban Ave			630,000		
Parkhurst - Brookhurst (Lake Highlands Baptist) Relief System		494,640			3,627,360
Peaks Branch Upper Basin Relief System (RL Area 13)					10,000,000

5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Plano Pky. 8800	143,400		812,600		
Planters Glen 12542 (Private Erosion)	75,000	425,000			
Plymouth Road Drainage Relief (Avon to Bahama)	352,000				
Preston Creek 6144 (Private Erosion)	112,500		722,500		
Preston Creek Place 6166		26,100	147,900		
2133 Province	99,900		566,100		
Ravinia South, 123	212,500				
Repetitive Loss Properties	1,000,000	150,000		750,000	
Royal 9801 Unit 808 (Private Erosion)		28,800		163,200	
Roof & HVAC Replacements	750,000	200,000	200,000	250,000	200,000
6900 Royal Lane Drainage Relief System	1,144,000				
Sage Valley - Wisteria Area	105,150		595,850		
Slaughter Branch Culvert Improvement @ NW Hwy			351,480		
Spring Valley Rd 8444 (Private Erosion)	149,400		846,600		
Tamarack 1705 (Private Erosion)	90,000		510,000		

5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Throckmorton-Reagan-Drainage Improvements	3,000,000				
Trinity River Channel Project			2,078,360	1,074,640	7,000,000
Trinity River - Lower East @ Bellevue Pressure Sewer		192,000			1,408,000
Trinity River - Lower West @ Margaret Hunt Hill / Ron Kirk Pedestrian Bridge		600,000			4,400,000
Trinity River - Lower East @ RR / Courts Building		360,000			2,640,000
Turtle Creek @ Hall			1,164,000		
Turtle Creek @ Stonebridge			888,000		
Tyler (S) - Berkley		567,900			3,218,100
Van Buren (N) - Cedar Hill Area	208,500		1,181,500		
Welch 11811		26,100		147,900	
West Dallas - Eagle Ford Sump Basin Phase 2				1,390,200	
West Dallas - Frances Street Sump Basin				772,100	
West Fork of Joes Creek Channel Repair - Brockbank Dr @ Channel Dr	199,800		1,132,200		
Williamson Branch - FPMS Alt. 2	2,520,000	1,275,000	14,460,000		
N. Winnetka Ave. @ McBroom Street Drainage Relief			46,050		260,950

5-Year CIP	FY2025-26 Budget	FY2026-27 Projected	FY2027-28 Projected	FY2028-29 Projected	FY2029-30 Projected
PROJECT					
Winslow-Henderson-Beeman Area Relief			1,232,550	3,081,375	616,275
6750 Willow Storm Drainage Relief	91,050		515,950		
Woodlark Trail, 306		30,450	172,550		
Woody Branch Erosion Control - Glen Oaks Blvd & Hunters View Group 5 (Private Erosion)				250,425	
Woody Branch @ S Polk St		1,935,500		4,000,000	
Woody Branch Dam Rehabilitation		4,250,000			
Yosemite 6664	53,850		305,150		
TOTAL	**55,011,030**	**64,999,730**	**75,010,090**	**84,989,440**	**95,005,695**

Project Type Examples

Example: Flood Management Project

Example: Storm Drainage Relief Project

Example: Erosion Control Project

3330/3334 Shady Hollow Ct.
Before Construction (2021)

3033/3334 Shady Hollow Ct.
Construction Completed (2022)