

2024 Bond Flood Protection & Storm Drainage Subcommittee

Additional Scenarios & Recommendations to Citizen Bond Task Force

Matt Penk, P.E., Assistant Director Sarah Standifer, Director (I) Abidur Khan, P.E., Program Administrator

> Dallas Water Utilities September 5, 2023

Overview



- Additional Scenario Details \$150M
- Additional Scenario Details \$100M
- Summary of All Scenarios
- Format for Recommendations to CBTF
- Next Steps
- Questions and Discussion





Additional Scenario Details - \$150M





Additional Funding Scenario - \$150M (Opt. A)



- Same proportion 20% erosion control, 80% flood/storm
 - ~ \$30M for erosion control
 - ~ \$120M for flood/storm
- Remove lowest priority projects first (by score)
- Results in ~\$10M reduction for erosion control
 - 46 projects (55 in \$200M option)
- Results in \$40M reduction for flood/storm
 - 12 projects selected (20 in \$200M option)
 - Reduce funding in Knights Branch by \$12.6M to balance (phase 2)
- No Citywide or multiple district projects removed

- Retains Citywide and multiple district projects
- Maintains balance of projects
- Ratio of CD will need to be tweaked manually



Summary Table (\$150M - Opt. A)



Table 1: Selected Projects Council District Breakdown

Council District	Coun	Total Needs (\$)	% of All Needs by \$	Total Selected (\$)	% of All Selected by \$		
1	\$	160,565,875.00	6%	\$ 4,516,625.00	3%		
2	\$	280,158,975.00	10%	\$ 18,918,375.00	13%		
3	\$	53,929,250.00	2%	\$ 8,081,050.00	5%		
4	\$	129,016,200.00	5%	\$ 5,107,725.00	3%		
5	\$	37,613,625.00	1%	\$ 11,686,875.00	8%		
6	\$	470,134,375.00	16%	\$ 15,175,125.00	10%		
7	\$	111,627,050.00	4%	\$ 1,952,125.00	1%		
8	\$	154,154,050.00	5%	\$ 483,000.00	0%		
9	\$	186,693,300.00	/%	\$ 3,355,125.00	2%		
10	\$	29,952,900.00	1%	\$ 2,636,375.00	2%		
11	\$	34,136,600.00	1%	\$ 4,751,225.00	3%		
12	\$	3,654,125.00	0.1%	\$ 201,250.00	0%		
13	\$	161,028,750.00	6%	\$ 15,175,125.00	10%		
14	\$	78,280,500.00	3%	\$ -	0%		
Subtotal	\$	1,890,945,575.00	66%	\$ 92,040,000.00	61%		

^{*}Council Districts with shading represent outliers with selected amounts 5% more or less than % of total needs



Project Statistics by District (\$150M - Opt. A)



CD 1

- 12 projects \$10,266,625
- 10 erosion, 2 flood

CD 2**

- 8 projects *\$30,039,833.33
- 1 erosion, 3 flood, 4 drainage

<u>CD 3</u>

- 10 projects \$8,081,050
- All erosion control

CD₄

- 9 projects \$10,857,725
- 8 erosion, 1 flood

CD 5

- 3 projects \$11,816,250
- 1 erosion, 2 flood

CD 6

- 4 projects *\$20,925,125
- 2 flood, 2 drainage

CD7

- 5 projects \$2,119,833.33
- 3 erosion, 1 flood, 1 drainage

CD8

- 2 projects \$483,000
- 2 erosion

<u>CD 9</u>

- 5 projects \$3,484,500
- 2 erosion, 2 flood, 1 drainage

<u>CD 10</u>

- 3 projects \$2,765,750
- 2 erosion, 1 flood

*Includes multiple district projects

<u>CD 11</u>

- 8 projects \$4,880,600
- 6 erosion, 1 flood, 1 drainage

CD 12

- 2 projects \$330,625
- 1 erosion, 1 flood

CD 13

- 4 projects *\$15,304,000
- 2 flood, 2 drainage

CD 14**

- 2 projects \$28,644,583.33
- 2 drainage

<u>Citywide</u>

- 4 projects \$57,960,000
- 2 flood, 2 drainage



^{**}Significantly benefited by Mill Creek/Peaks Branch Citywide Project

Alternative Approach - \$150M (Opt. B)



- Same proportion 20% erosion control, 80% flood/storm
 - ~ \$30M for erosion control
 - ~ \$120M for flood/storm

- Removes 2 large projects
- Results in ~\$10M reduction for erosion control
 - 46 projects (55 in \$200M option)

- Still large Mill Creek and KB Ph. 1 projects and district projects retained
- Remove Knights Branch Ph. 2 (in 10-year CIP)
- Remove Trinity River Channel (prioritize in CIP)
- Keep rest of projects

Ratio of CD better



Summary Table (\$150M - Opt. B)



Table 1: Selected Projects Council District Breakdown

Table 1: Selected Projects C	Ounc	II DISTITCT BI EARGOWI	<u> </u>	 	
Council District		Total Needs (\$)	% of All Needs by \$	Total Selected (\$)	% of All Selected by \$
1	\$	160,565,875.00	6%	\$ 4,516,625.00	3%
2	\$	280,158,975.00	10%	\$ 18,860,875.00	13%
3	\$	53,929,250.00	2%	\$ 8,081,050.00	5%
4	\$	129,016,200.00	5%	\$ 5,107,725.00	3%
5	\$	37,613,625.00	1%	\$ 11,686,875.00	8%
6	\$	470,134,375.00	16%	\$ 11,012,125.00	7%
7	\$	111,627,050.00	4%	\$ 9,783,625.00	7%
8	\$	154,154,050.00	5%	\$ 12,161,250.00	8%
9	\$	186,693,300.00	7%	\$ 3,355,125.00	2%
10	\$	29,952,900.00	1%	\$ 2,636,375.00	2%
11	\$	34,136,600.00	1%	\$ 5,607,975.00	4%
12	\$	3,654,125.00	0.1%	\$ 523,250.00	0%
13	\$	161,028,750.00	6%	\$ 11,012,125.00	7%
14	\$	78,280,500.00	3%	\$ 10,695,000.00	7%
Subtotal	\$	1,890,945,575.00	66%	\$ 115,040,000.00	77%

^{*}Council Districts with shading represent outliers with selected amounts 5% more or less than % of total needs



Project Statistics by District (\$150M - Opt. B)



CD 1

- 11 projects \$4,516,625
- 10 erosion, 1 flood

CD 2**

- 7 projects *\$24,232,333.33
- 1 erosion, 3 flood, 3 drainage

<u>CD 3</u>

- 10 projects \$8,081,050
- All erosion control

CD 4

- 8 projects \$5,107,725
- 8 erosion

CD 5

- 3 projects \$11,816,250
- 1 erosion, 2 flood

<u>CD 6</u>

- 2 projects *\$11,012,125
- 1 flood, 1 drainage

CD7

- 6 projects \$9,951,333.33
- 3 erosion, 2 flood, 1 drainage

CD8

- 4 projects \$12,161,250
- 2 erosion, 2 flood

CD 9

- 5 projects \$3,484,500
- 2 erosion, 2 flood, 1 drainage

<u>CD 10</u>

- 3 projects \$2,765,750
- 2 erosion, 1 flood

*Includes multiple district projects

<u>CD 11</u>

- 10 projects \$5,737,350
- 6 erosion, 2 flood, 2 drainage

CD 12

- 3 projects \$652,625
- 1 erosion, 1 flood, 1 drainage

CD 13

- 3 projects *\$11,141,500
- 2 flood, 1 drainage

CD 14**

- 3 projects \$39,339,583.33
- 1 flood, 2 drainage

<u>Citywide</u>

- 3 projects \$34,960,000
- 1 flood, 2 drainage



^{**}Significantly benefited by Mill Creek/Peaks Branch Citywide Project



Additional Scenario Details - \$100M





Additional Funding Scenario - \$100M (Opt. C)



- Same proportion 20% erosion control, 80% flood/storm
 - ~ \$20M for erosion control
 - ~ \$80M for flood/storm
- Remove lowest priority projects first (by score)
- Results in ~\$21M reduction for erosion control
 - 28 projects (55 in \$200M option)
- Results in \$80M reduction for flood/storm
 - 8 projects selected (20 in \$200M option)

- Removes some large projects but keeps Mill Creek and Knights Branch Ph.1
- Still large projects and some district projects
- Ratio of CD will require manual project selection in multiple districts
- 1 Citywide project removed; 1 multiple district project removed
 - Knights Branch Ph. 2
 - Trinity River Channel



Summary Table (\$100M - Opt. C)



Table 1: Selected Projects Council District Breakdown

Die 1. Selected Projects Council District Breakdown												
Council District		Total Needs (\$)	% of All Needs by \$		Total Selected (\$)	% of All Selected by \$						
1	\$	160,565,875.00	6%	\$	2,455,250.00	2%						
2	\$	280,158,975.00	10%	\$	14,623,025.00	15%						
3	\$	53,929,250.00	2%	\$	4,076,175.00	4%						
4	\$	129,016,200.00	5%	\$	2,217,775.00	2%						
5	\$	37,613,625.00	1%	\$	11,686,875.00	12%						
6	\$	470,134,375.00	16%	\$	10,879,775.00	11%						
7	Ś	111,627,050,00	4%	Ś	1,952,125,00	2%						
8	\$	154,154,050.00	5%	\$		0%						
9	\$	186,693,300.00	7%	\$	230,000.00	0%						
10	\$	29,952,900.00	1%	\$	1,489,250.00	1%						
11	\$	34,136,600.00	1%	\$	4,348,725.00	4%						
12	\$	3,654,125.00	0.1%	\$	201,250.00	0%						
13	\$	161,028,750.00	6%	\$	10,879,775.00	11%						
14	\$	78,280,500.00	3%	\$	-	0%						
Subtotal	\$	1,890,945,575.00	66%	\$	65,040,000.00	65%						

^{*}Council Districts with shading represent outliers with selected amounts 5% more or less than % of total needs



Project Statistics by District (\$100M - Opt. C)



CD 1

- 7 projects \$2,455,250
- 7 erosion

CD 2**

- 6 projects *\$19,994,483.33
- 1 erosion, 2 flood, 3 drainage

<u>CD 3</u>

- 6 projects \$4,076,175
- All erosion control

CD 4

- 3 projects \$2,217,775
- All erosion control

CD 5

- 3 projects \$11,816,250
- 1 erosion, 2 flood

<u>CD 6</u>

- 2 projects *\$10,879,775
- 1 flood, 1 drainage

CD7

- 5 projects \$2,119,833.33
- 3 erosion, 1 flood, 1 drainage

CD 8

0 projects

CD9

- 2 projects \$359,375
- 2 flood

CD 10

- 2 projects \$1,618,625
- 1 erosion, 1 flood

*Includes multiple district projects

<u>CD 11</u>

- 7 projects \$4,478,100
- 5 erosion, 1 flood, 1 drainage

CD 12

- 2 projects \$330,625
- 1 erosion, 1 flood

<u>CD 13</u>

- 3 projects *\$11,009,150
- 2 flood, 1 drainage

CD 14**

- 2 projects \$28,644,583.33
- 2 drainage

<u>Citywide</u>

- 3 projects \$34,960,000
- 1 flood, 2 drainage



^{**}Significantly benefited by Mill Creek/Peaks Branch Citywide Project

Additional Funding Scenario - \$100M (Opt. D)



- Same proportion 20% erosion control, 80% flood/storm
 - ~ \$20M for erosion control
 - ~ \$80M for flood/storm
- Results in ~\$21M reduction for erosion control
 - 28 projects (55 in \$200M option)
- Remove Knights Branch Ph. 1 & 2, Trinity River Channel, and reduce remaining by \$5.7M

- Removes large projects but keeps Mill Creek
- More district projects and less big projects.
- Ratio of CD requires manual project selection for CD 6, 13
- Keeps more projects, cuts CW and multiple district project



Summary Table (\$100M - Opt. D)



Table 1: Selected Projects Council District Breakdown

Council District	Total Needs (\$)	% of All Needs by \$	Total Selected (\$)	% of All Selected by \$
1	\$ 160,565,875.00	6%	\$ 3,007,250.00	3%
2	\$ 280,158,975.00	10%	\$ 7,848,750.00	8%
3	\$ 53,929,250.00	2%	\$ 4,076,175.00	4%
4	\$ 129,016,200.00	5%	\$ 2,217,775.00	2%
5	\$ 37,613,625.00	1%	\$ 11,686,875.00	12%
6	\$ 470,134,375.00	16%	\$ -	0%
/	\$ 111,627,050.00	4%	\$ 9,783,625.00	10%
8	\$ 154,154,050.00	5%	\$ 11,678,250.00	12%
9	\$ 186,693,300.00	7%	\$ 2,530,000.00	3%
10	\$ 29,952,900.00	1%	\$ 1,489,250.00	1%
11	\$ 34,136,600.00	1%	\$ 5,205,475.00	5%
12	\$ 3,654,125.00	0.1%	\$ 523,250.00	1%
13	\$ 161,028,750.00	6%	\$ 	0%
14	\$ /8,280,500.00	3%	\$ 10,695,000.00	11%
Subtotal	\$ 1,890,945,575.00	66%	\$ 70,741,675.00	71%

^{*}Council Districts with shading represent outliers with selected amounts 5% more or less than % of total needs



Project Statistics by District (\$100M - Opt. D)



CD 1

- 8 projects \$3,007,250
- 7 erosion, 1 flood

CD 2**

- 5 projects \$12,364,957.08
- 1 erosion, 2 flood, 2 drainage

<u>CD 3</u>

- 6 projects \$4,076,175
- All erosion control

CD 4

- 3 projects \$2,217,775
- All erosion control

<u>CD 5</u>

- 3 projects \$11,816,250
- 1 erosion, 2 flood

<u>CD 6</u>

0 projects

CD7

- 6 projects \$9,951,333.33
- 3 erosion, 2 flood, 1 drainage

CD8

- 2 projects \$11,678,250
- 2 flood

CD 9

- 3 projects \$2,659,375
- 2 flood, 1 drainage

CD 10

- 2 projects \$1,618,625
- 1 erosion, 1 flood

**Significantly benefited by Mill Creek/Peaks Branch Citywide Project

CD 11

- 9 projects \$5,334,850
- 5 erosion, 2 flood, 2 drainage

CD 12

- 3 projects \$652,625
- 1 erosion, 1 flood, 1 drainage

<u>CD 13</u>

- 1 projects \$129,375
- 1 flood

CD 14**

- 3 projects \$34,493,159.58
- 1 flood, 2 drainage

Citywide

- 3 projects \$29,258,325
- 1 flood, 2 drainage





Summary of All Scenarios





Summary of Funding Scenarios



	\$200M	\$15	50M	\$100M				
	\$200IVI	Option A	Option B	Option C	Option D			
Mill Creek (\$33.9M)	√	✓	✓	√	✓			
Knights Branch Ph. 1 (\$35M)	√	√	✓	√	×			
Knights Branch Ph. 2 (\$17.2M)	√	**	×	×	×			
Trinity River Channel (\$23M)	√	√	×	×	×			
Flood/Storm	20 projects - \$162M	12 projects - \$119.7M	18 projects - \$119.7M	8 projects - \$80.9M	17 projects - \$80.9M			
Erosion Control	55 projects - \$38M	46 projects - \$30.3M	46 projects - \$30.3M	28 projects - \$19.1M	28 projects - \$19.1M			

^{**} Funding reduced by ~ \$12.6M to balance; could remove and use remainder to balance couple of CDs





Format for Recommendations to CBTF





Flood Protection & Storm Drainage Categories



- 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 storm drain systems
- <u>Erosion Control</u> armoring and erosion control for public and private property along natural creeks, including protection for streets, bridges, alleys and homes.



Guiding Principals



- Include impactful Citywide and multiple district projects
- Importance/risk of flood protection in recommendations
- Continue to provide <u>erosion control to protect single family homes</u>
- Consider <u>amount of district needs</u> in how project dollars get allocated
- Prefer projects that "move dirt" but understand planning needed for larger projects
- Provide balance large projects and district needs



Bond Funding Baseline



- The following slides are based on a Bond allocation of \$200M to provide meaningful benefit.
- Project selection is based on technical criteria, equity and overlay scores, and committee/community input.
- 20% Erosion Control; 80% Flood Management & Storm Drainage
- Projects over \$12M must benefit multiple districts or Citywide projects
- \$35M cap on Citywide and multiple district projects; planning/design cost only for largest, most expensive Citywide project



Project Recommendations



Citywide & Multiple District Projects

Rank	Needs Inventory #	Project Name	Project Description	Council District / Citywide	Technical Score	Equity and Overlay Score	Total Score	Estimate
1	FP22S10	East Peaks Upper/Middle Basin Relief System	Continuation of the MCPBST Drainage Relief Tunnel for the East Peaks Upper and Middle basins. Proposed trunk line as outlined in Master Plan. Design only.	cw	80	16	96	\$9,200,000
2	PB2906	Mill Creek Drainage Relief System - Phase III	Continuation of the MCPBST Drainage Relief Tunnel for the Mill Creek basins. Proposed trunk line as outlined in Master Plan. Design only.	cw	80	12	92	\$24,725,000
3		Knights Branch Upper Relief System - Inwood/Mockingbird	Study, model, design and construct major relief system of enclosed portion of upper Knights Branch watershed from Lowe's culvert extension (downstream of Inwood/Lemon) north on Inwood to Wateka, using 2-12X10 box culverts, with smaller systems as necessary to provide full relief.	2, 6, 13	80	6	86	\$35,149,750
4	PB175010	White Rock Creek Floodplain Management Study Update	Update of the 1989 FPMS, extended into entire White Rock Creek watershed, to study flood control options.	cw	64	18	82	\$1,035,000
5	FP21S06	Knights Branch Upper Relief System Phase2	Continuation of the Knights Branch Upper Relief System Project (PB174375). Improve neighborhoods served by the Knights Branch Upper Relief System. Includes Preston Park neighborhood (Bryn Mawr)	2, 6, 13	71	6	77	17,202,900
6	FP21F04	Trinity River Channel Proiect	Channel dredging, bank stabilization, tree removal, and other activities to meet regulatory requirements for ongoing PL 84-99 compliance to maintain the river channel to carry 300 cfs during low flow and maximum 13,000 cfs	CW	58	18	76	\$23,000,000
-	-	,	, , , , , , , , , , , , , , , , , , , ,	_		_	Total	\$110,312,650



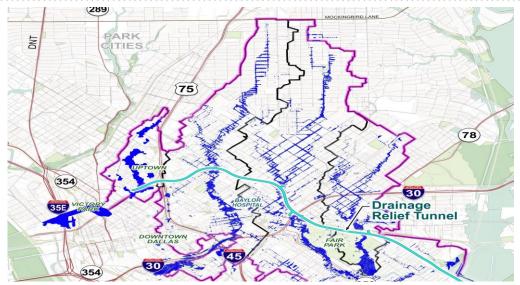
Mill Creek/Peaks Branch/East Peaks Branch

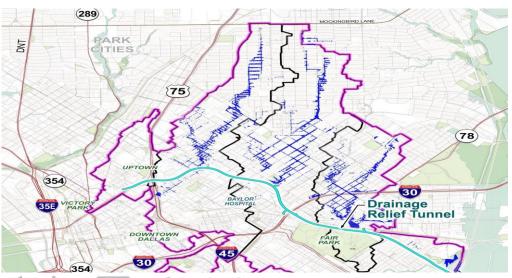




Mill Creek/Peaks/East Peaks





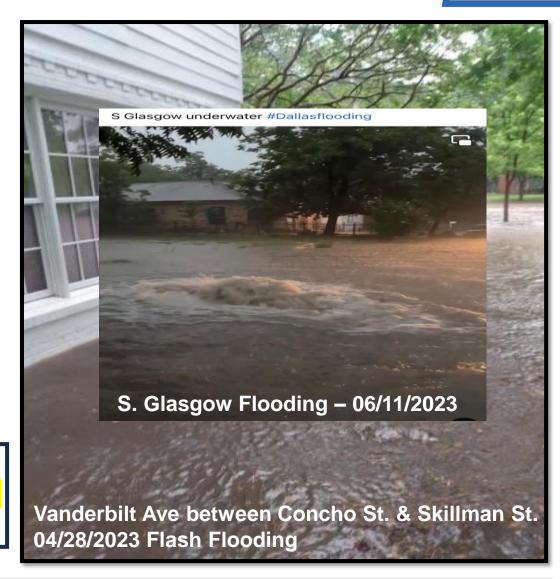


- Storm drainage relief tunnel providing relief to East Dallas:
 - Lower areas of Mill Creek (around Baylor Hospital)
 - Peaks Branch (south of Buckner Park)
 - East Peaks Branch (around Fair Park area)
 - Woodall Rodgers area and the State-Thomas area
- \$212.5M construction 2006/2012 Bond Programs
- Completion planned for 2025
- Reduces flooding/protects:
 - 3,200 acres
 - 2,200 properties
 - Over \$4B in property
- Tunnel is initial phase of larger drainage master plans for Mill Creek and Peaks Branch watersheds

Mill Creek/Peaks/East Peaks (Next Steps)



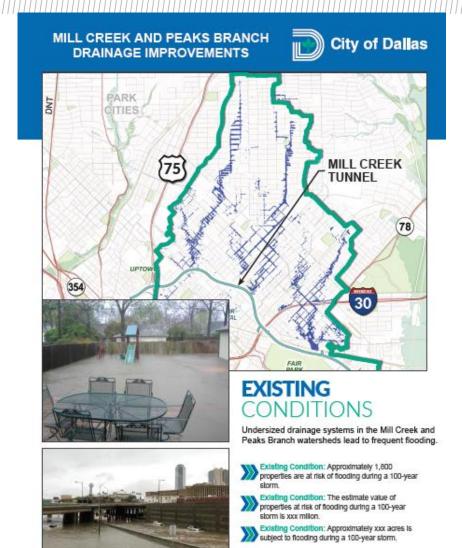
- Improvements needed above tunnel up to Mockingbird within Mill Creek and Peaks Branch watersheds
- Costs estimated at ~ \$339M in 2026 dollars
- Planning and engineering in 2024 Bond to get a head start and fund construction in future bond and capital program - \$33.9M
- Highest rated projects in the Needs Inventory
- Citywide project to capitalize on current investments
- Properties protected ~ 1,710 (est. > 5,000 people)
- Property values > \$585M (based on 2009-2015 values);
 likely in excess of \$878M forecasting to 2023 values





Mill Creek/Peaks/East Peaks (Next Steps)







MILL CREEK/PEAKS BRANCH TUNNEL

Solution: The Mill Creek Tunnel is the first step to provide flood relief for these areas. Additional improvements are necessary to complete the system and provide flood relief.

AREAS UPSTREAM OF THE TUNNEL

Solution: The next phase of drainage improvements includes extending new storm-sewer systems from the Mill Creek Tunnel to the upper Mill Creek and Peaks Branch watersheds.

FLOOD RELIEF

Solution: Once implemented, the Mill Creek and Peaks Branch storm-sewer improvements will provide drainage relief for the entire Mill Creek and Peaks Branch drainage basins.





Trinity River Channel





Trinity River Channel



- Flood Management Project \$23M
- Citywide Project
- Includes channel dredging, bank stabilization, tree removal, and other activities
- Necessary to meet regulatory requirements
- Protects levees and ensures Corps certifies them in good standing
- Keeps flood insurance rates low in Dallas
- Ensures river channel can carry low and maximum flows (300 cfs & 13,000 cfs)





Trinity River Channel









2024 Bond Program

Flood Protection and Storm Drainage

Project Type

New

Project Category

Rehabilitation

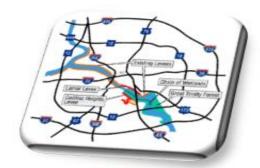
Council Districts

Citywide Project

Scope

Channel dredging, bank stabilization, tree removal, and other activities to meet regulatory requirements for ongoing PL 84-99 compliance to maintain the river channel to carry 300 cubic feet per second (cfs.) during low flow and maximum 13,000 cfs. Estimated construction cost is \$23,000,000.00.





Vicinity Map

Stormwater Project Management

Trinity River Channel Project





Knights Branch Upper Relief System

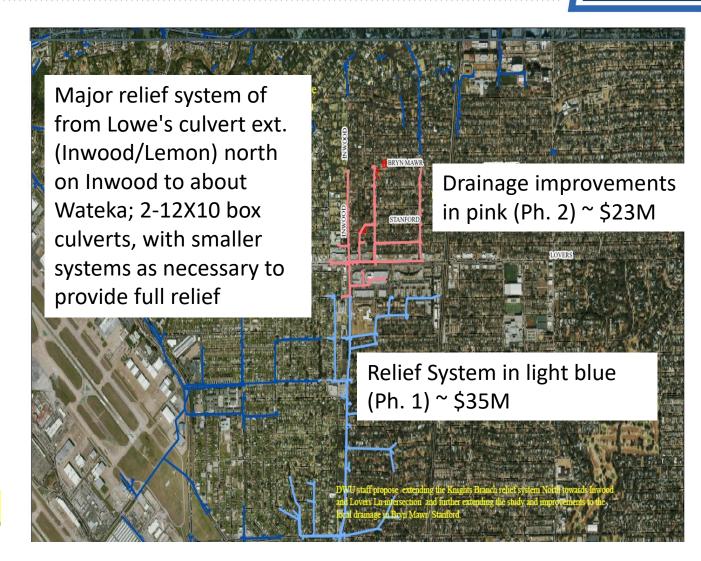




Knights Branch Upper Relief System



- Major relief system from Inwood/Lemmon to south of Lovers and neighborhood improvements to Preston Park (Bryn Mawr)
- Costs estimated at ~ \$58M in 2026 dollars (2 phases)
- \$35M in 2024 Bond to complete planning/engineering and first phase (relief system); \$18.3M to Ph. 2
- Highly rated project in the Needs Inventory; benefits districts 2,6,13





Knights Branch Upper Relief System











Knights Branch Flooding

2024 Bond Program

Flood Protection and Storm Drainage

Project Type

New

Project Category

Flood Management

Council Districts

2, 6 and 13

Scope

Major relief system of enclosed portion of upper Knights Branch watershed from Lowe's culvert extension (downstream of Inwood/Lemon) north on Inwood to about Wateka, using 2-12X10 box culverts, with smaller systems as necessary to provide full relief (\$34,500,000.00).

dallas water utilities



Vicinity Map

Stormwater Project Management

Knights Branch Upper Relief System Project



Knights Branch Phases





100-YearFlooding in purple

Project Highlights

Knights Branch Upper Relief System Study (\$649,750.00): Study, model, and preliminary design to update capital drainage recommendations and cost estimate for the Knights Branch Upper Relief System projects.

Knights Branch Upper Relief System -Inwood/Mockingbird (\$34,500,000.00): Major relief system of enclosed portion of upper Knights Branch watershed from Lowe's culvert extension (downstream of Inwood/Lemon) north on Inwood to about Wateka, using 2-12X10 box culverts, with smaller systems as necessary to provide full relief.

Knights Branch Upper Relief System Phase 2 (\$23,000,000.00): Continuation of the Knights Branch Upper Relief System Project (PB174375). Improve neighborhoods served by the Knights Branch Upper Relief System. Includes Preston Park neighborhood (Bryn Mawr).











Project Recommendations



Flood Management

Rank	Needs Inventory #	Project Name	Project Description	Council District / Citywide	Technical Score	Equity and Overlay Score	Total Score	Estimate
1	FP22F03	Pruitt Branch - Channel & RR Culvert	Resolve identified flooding area along Glenview, Bridges, Redkey and Birch through improvements of a RR crossing and concrete channel. Analysis, Design, & Construction.	5	80	14	94	\$11,385,000
2								
4 5								
6 7								
8 9								
10 11								
12								



Project Recommendation



Storm Drainage Relief

Rank	Needs Inventory #	Project Name	Project Description	Council District / Citywide	Score	Equity and Overlay Score	Total Score	Estimate
1	FP22S10	East Peaks Upper/Middle Basin Relief System	Continuation of the MCPBST Drainage Relief Tunnel for the East Peaks Upper and Middle basins. Construction of Proposed trunk line as outlined in Master Plan. Design only.	CW	80	16	96	\$9,200,000
2								
3								
4								
5								
6								
7								
8								



Project Recommendations



Erosion Control

Rank	Needs Inventory #	Project Name	Project Description	Council District / Citywide	Technical Score	Equity and Overlay Score	Total Score	Estimate
1		Kiest Valley Parkway @ Kiest Knoll Outfall Protection	Five Mile Creek - Public - Type II, culvert headwall threatened, 1' from bank 16' deep, approx. 60 LF of erosion protection.	3	65	16	81	\$264,500
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

• Please see Appendix for complete project listing.



Flood Protection & Storm Drainage - CD Breakdown



Flood Management – \$71.4M

CD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	CW
Estimate	\$0.6M														
# of Projects	1														

Storm Drainage Relief – \$90.6M

CD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	CW
Estimate	\$0														
# of Projects	0														

Erosion Control – \$38M

															
CD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	CW
Estimate	\$4M														
# of Projects	10														



Proposition Summary CD Breakdown



Flood Protection & Storm Drainage – Council District Breakdown

CD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	CW
Total Proposition - \$200M															
Estimate (\$)	10.3M														
# of Projects	12														





Next Steps





What's Next?



- Prepare recommendations for Task Force
- Complete Citywide/Multiple District Project Brochures

<u>September 19, 2023</u>

Chair and DWU to provide recommendations to Bond Task Force

October (TBD)

Reconvene after townhalls to adjust recommendations (TBD)





Questions?







2024 Bond Flood Protection & Storm Drainage Subcommittee

Additional Scenarios & Recommendations to Citizen Bond Task Force

Matt Penk, P.E., Assistant Director Sarah Standifer, Director (I) Abidur Khan, P.E., Program Administrator

> Dallas Water Utilities September 5, 2023