

WATER/WW CAPITAL IMPROVEMENTS PROGRAM

2020-2024

AARON RUSSELL, PE - DIRECTOR OF PUBLIC WORKS

MARTIN AVILA, DIRECTOR OF FINANCE

PAUL MITCHELL, PE - ASST. DIRECTOR OF PUBLIC WORKS



CIP STAFF TEAM



BRYAN LANGLEY
City Manager



ROBERT RANC
Deputy City Manager



AARON RUSSELL
Public Works Director



PAUL MITCHELL
Asst. Director of Public Works



MICHELLE MCCULLOUGH
Asst. Director of Public Works



MARTIN AVILA
Finance Director

AGENDA

1

**PLAN
DEVELOPMENT
PROCESS**

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**WATER/WW
FINANCIAL
OVERVIEW**

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**PROJECT
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**IMPROVEMENT
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SUMMARY**

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**5 - YEAR
CAPITAL
IMPROVEMENT
PLAN**

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**DISCUSSION &
NEXT STEPS**



PLAN DEVELOPMENT

PROJECT IDENTIFICATION

City Council & Public Input
Capacity, Maintenance, Beautification

COST ESTIMATION

Design, Construction, ROW, Staff, Maintenance

STAFF PRIORITIZATION

Immediate & Future Needs
Project & Funding Analysis

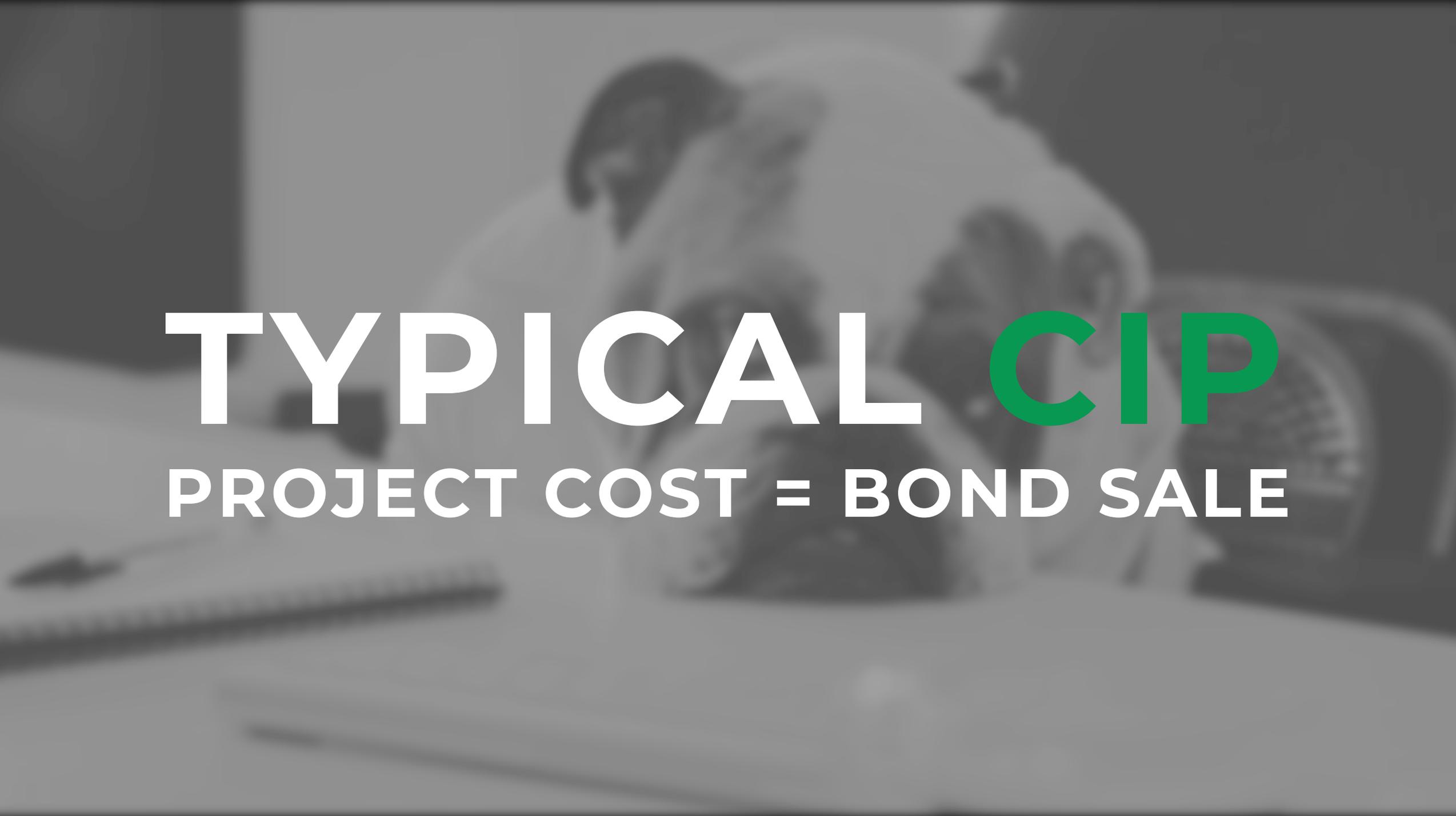
RECOMMENDATION

City Council

REFINE

City Council Feedback

FINAL APPROVAL

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TYPICAL CIP

PROJECT COST = BOND SALE



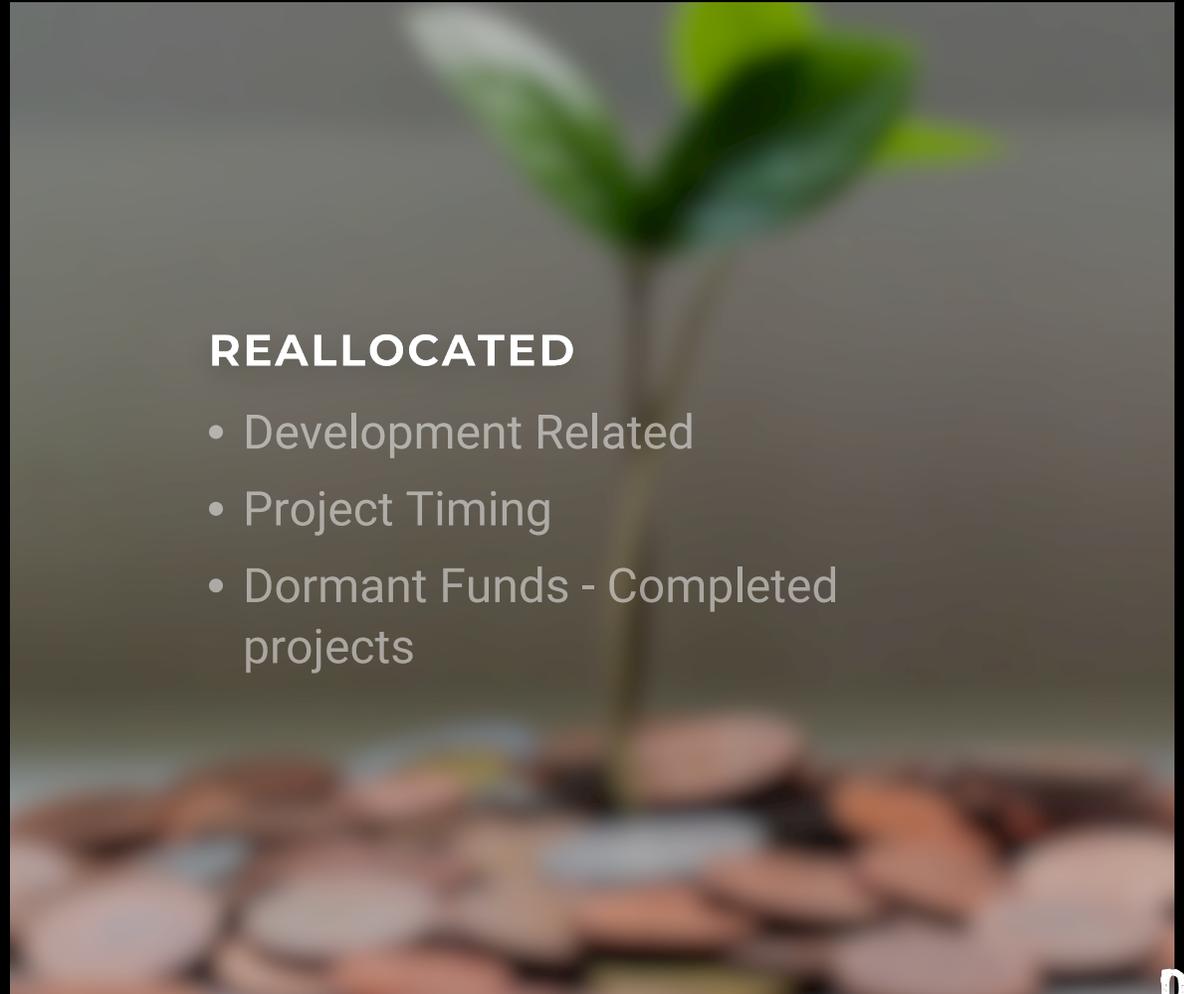
FRUITS OF OUR LABOR



\$5,952,030

REALLOCATED

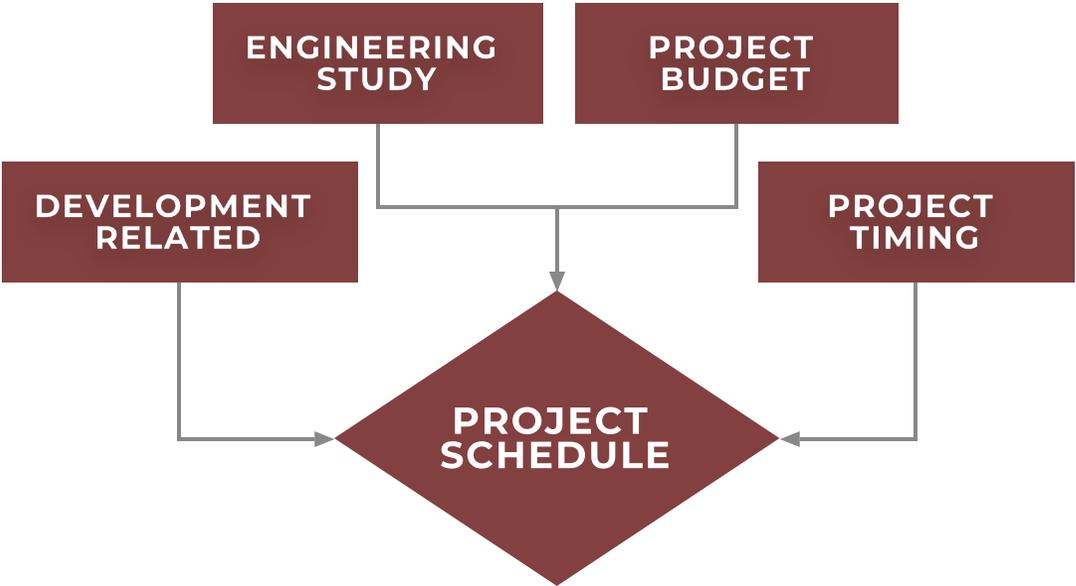
- Development Related
- Project Timing
- Dormant Funds - Completed projects



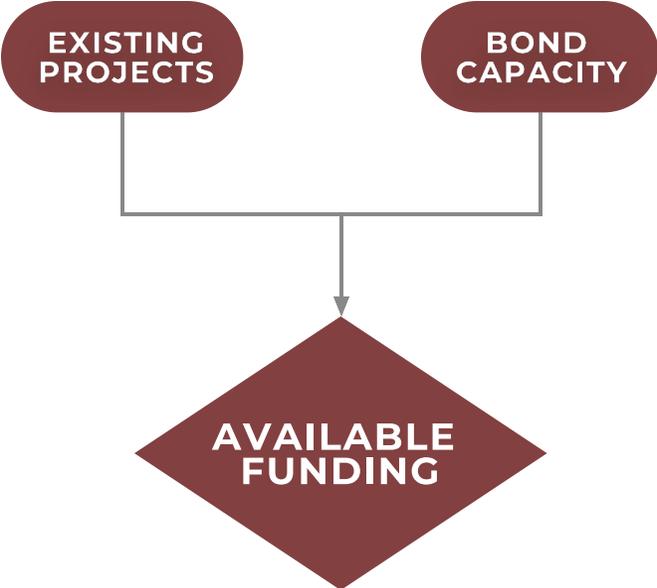
CAPITAL IMPROVEMENT PLAN CREATION



PROJECT ANALYSIS



AVAILABLE FUNDING ANALYSIS



PREVIOUS CAPITAL IMPROVEMENT PLAN

PROJECT	2019	2020	2021	2022	2023	TOTAL
WATER BONDS						
Water Rehabilitation w/ Street Rebuild	\$ 150,000	\$ 365,000	\$ 365,000	\$ 365,000	\$ 365,000	\$ 1,610,000
Water Rehabilitation / Independent	\$ 200,000	\$ 485,000	\$ 485,000	\$ 485,000	\$ 485,000	\$ 2,140,000
Public Works Water Main Replacement	\$ 116,000	\$ 121,000	\$ 121,000	\$ 121,000	\$ 121,000	\$ 600,000
8 in and 12 in lines from Hidden Vistas Blvd to Dobson Road		\$ 755,000				\$ 755,000
0.75 MG Mountain Valley EST		\$ 1,421,000	\$ 400,000			\$ 1,821,000
Offsite Water Supply from Fort Worth	\$ 2,723,000	\$ 1,227,000	\$ 2,070,000			\$ 6,020,000
6.0 mgd Alsbury #2 PS Expansion			\$ 577,000	\$ 1,892,000		\$ 2,469,000
16-Inch Line along Wilshire Blvd			\$ 135,000	\$ 1,300,000		\$ 1,435,000
16 Inch Line southeast of Wilshire Blvd				\$ 441,000	\$ 2,456,000	\$ 2,897,000
12 in lines from Hulen St. to Wilshire Blvd.					\$ 529,000	\$ 529,000
2.5 MGD Hulen High Pump Station Expansion					\$ 84,000	\$ 84,000
TOTAL BY YEAR - Water Projects	\$ 3,189,000	\$ 4,374,000	\$ 4,153,000	\$ 4,604,000	\$ 4,040,000	\$ 20,360,000
SEWER BONDS						
Sewer Rehabilitation w/ Street Rebuild	\$ 350,000	\$ 365,000	\$ 365,000	\$ 365,000	\$ 365,000	\$ 1,810,000
Sewer Rehabilitation / Independent	\$ 460,000	\$ 485,000	\$ 485,000	\$ 485,000	\$ 485,000	\$ 2,400,000
Public Works Sewer Main Replacement	\$ 116,000	\$ 121,000	\$ 121,000	\$ 121,000	\$ 121,000	\$ 600,000
10 inch Parallel Sewer Interceptor NW Town Creek basin	\$ 413,000					\$ 413,000
24 inch Sewer Interceptor from FM 731 to Village Creek			\$ 1,210,000			\$ 1,210,000
24 inch Sewer Interceptor from Oakbrook to FM731	\$ 175,000	\$ 1,800,000				\$ 1,975,000
2.5 MGD Lift Station, 12 in Force main and 12 in Sewer Interceptor		\$ 640,000	\$ 1,464,000	\$ 2,100,000		\$ 4,204,000
12 inch Sewer Interceptor along Chisholm Trail Pkwy corridor				\$ 472,000	\$ 772,000	\$ 1,244,000
12 inch Sanitary Sewer Interceptor along the east side of I 35	\$ 123,000				\$ 938,000	\$ 1,061,000
TOTAL BY YEAR - Sanitary Sewer Projects	\$ 1,637,000	\$ 3,411,000	\$ 3,645,000	\$ 3,543,000	\$ 2,681,000	\$ 14,917,000
TOTAL BY YEAR - All Projects	\$ 4,826,000	\$ 7,785,000	\$ 7,798,000	\$ 8,147,000	\$ 6,721,000	\$ 35,277,000



PENDING STUDIES

0.75 MG MOUNTAIN VALLEY EST
OFFSITE WATER SUPPLY FROM FW



REPACKAGED

WATER/SEWER REHABILITATION
SEWER MAIN REPLACEMENT



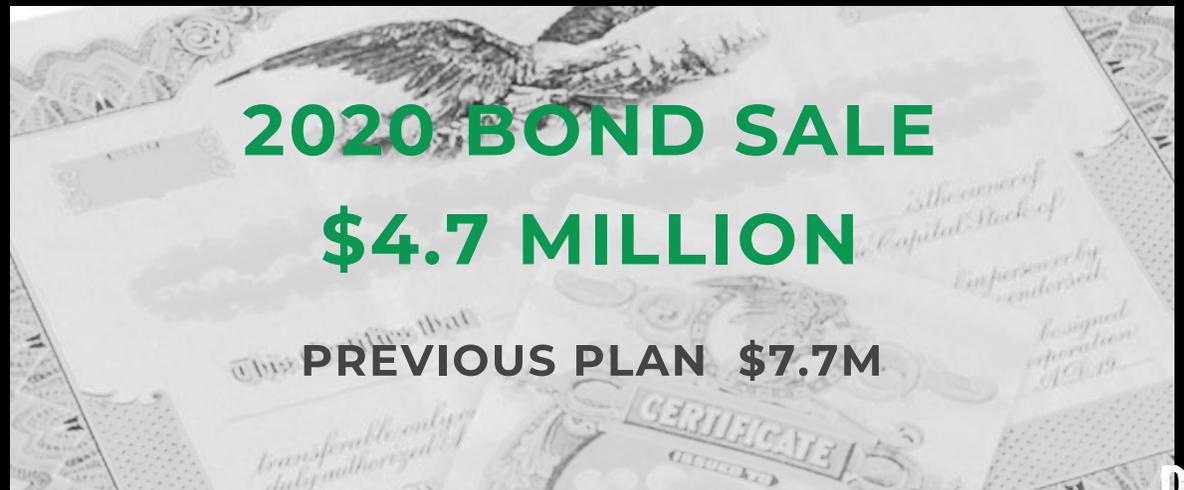
RESCHEDULED

I-35 12-INCH SEWER
INTERCEPTOR
TOWN CREEK 10-INCH SEWER

BOTTOM LINE



MONEY TREE



WATER & WASTEWATER FINANCIAL OVERVIEW



DISCUSSION POINTS



OVERVIEW



ASSUMPTIONS



RATE HISTORY



FUND FORECAST

OVERVIEW

1 IDENTIFIED \$5,952,030 IN UNALLOCATED FUNDS TO BE USED FOR WATER AND WASTEWATER PROJECTS

2 IDENTIFIED \$2,309,000 ALLOCATED TO WATER/WW OPERATIONS

- \$900k - Excess ERF Contributions
- \$892k - Fire Station 2 & TIF Land Reimbursement
- \$517k Pressure Reduction Valve Rebate Program Reallocation

3 REVISE FY2020 BOND ISSUE FROM \$7.7M TO \$4.7M

4 INCORPORATE THE \$14,688,442 FORT WORTH SEWER RELIEF LINE IN THE FY21 PROPOSED BOND ISSUE

ASSUMPTIONS

	FY20	FY21	FY22	FY23	FY24
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PRIOR YEAR ASSUMPTIONS

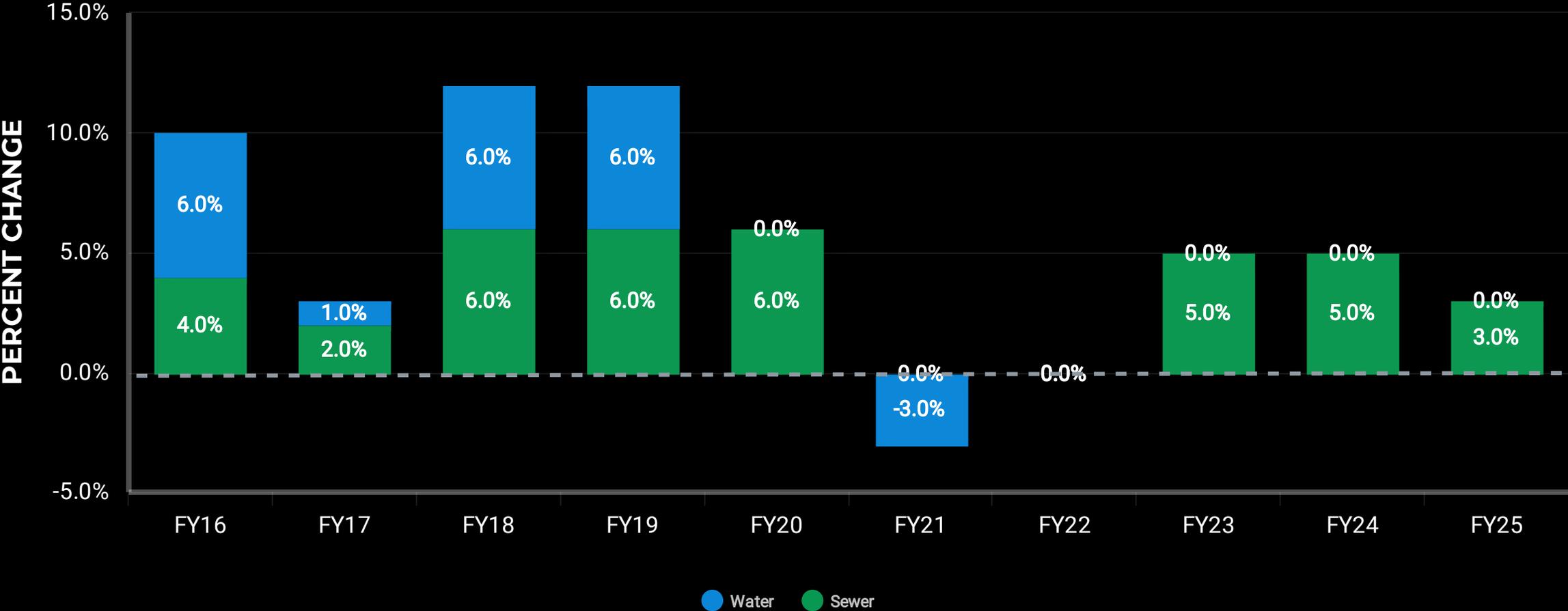
Water rate increase	0.0%	0.0%	0.0%	0.0%	0.0%
Sewer rate increase	6.0%	5.0%	5.0%	3.0%	3.0%

CURRENT YEAR ASSUMPTIONS

Water rate increase	0.0%	-3.0%	0.0%	0.0%	0.0%
Sewer rate increase	6.0%	0.0%	0.0%	5.0%	5.0%

*** PROPOSE 3% REDUCTION IN WATER RATES WILL HAVE A MONTHLY RATE IMPACT OF \$1.51 PER AVERAGE RESIDENTIAL CUSTOMER**

WATER RATE HISTORY / PROJECTIONS



WATER/WW FUND FORECAST

	FY19-20	FY19-20	FY20-21	FY21-22	FY22-23	FY23-24	FY24-25
	Budget	Estimate	Proposed	Proposed	Proposed	Proposed	Proposed
Beginning Fund Balance	\$4,603,954	\$5,787,541	\$9,429,269	\$10,452,554	\$10,082,655	\$9,235,129	\$7,891,741
Water Revenue	\$12,157,000	\$12,157,000	\$12,035,430	\$12,276,139	\$12,521,661	\$12,772,095	\$13,027,536
Sewer Revenue	\$9,457,000	\$9,457,000	\$9,646,140	\$9,839,063	\$10,527,797	\$11,264,743	\$11,827,980
Other Revenue	\$2,364,031	\$4,057,854	\$2,142,413	\$2,174,874	\$2,082,653	\$2,139,604	\$1,949,982
Total Revenue	\$23,978,031	\$25,671,854	\$23,823,983	\$24,290,076	\$25,132,111	\$26,176,442	\$26,805,498
Total Expenses	\$22,842,401	\$22,030,126	\$22,800,698	\$24,659,975	\$25,979,637	\$27,519,830	\$27,671,438
Change in Fund Balance	\$1,135,630	\$3,641,728	\$1,023,285	-\$369,899	-\$847,526	-\$1,343,388	-\$865,940
Ending Fund Balance	\$5,739,584	\$9,429,269	\$10,452,554	\$10,082,655	\$9,235,129	\$7,891,741	\$7,025,801
FB% of Expend	25.10%	42.80%	45.80%	40.90%	35.50%	28.70%	25.4%

HIGHLIGHTS

1 IDENTIFIED \$8.2 MILLION TO BE ALLOCATED FOR PROJECTS AND OPERATIONS

2 REVISED FY 2020 CIP BOND SALE

- Previous expected bond sale - \$7.7M
- Proposed Bond Sale - \$4.7M
- Project Value - \$10.6M

3 WATER / WW RATE RECOMMENDATION

- Propose water rate reduction in FY21 of 3%
- Push previously recommended sewer rate increase to FY23
- \$46M debt issuance for projects over 5-year period



CAPITAL IMPROVEMENT PLAN

2020-2024

PROJECT NAME	FY 20	FY21	FY22	FY23	FY24	TOTAL
Waterline Bore Across SH174 @ Johnson Ave	\$118,917					\$118,917
2020 Neighborhood Street Rebuild (Full Rebuilds)	\$597,366					\$597,366
Water Independent #1	\$981,944					\$981,944
8 in and 12 in lines from Hidden Vistas Blvd to Dobson Road	\$1,124,111					\$1,124,111
Tank Rehab (Industrial)	\$2,297,047					\$2,297,047
12" Water line along County Road 714		\$161,495	\$1,238,895			\$1,400,390
Water Independent #2		\$1,363,237				\$1,363,237
12 in lines from St. Andrews Dr. to Fairway View Dr. and Morningside Dr.			\$87,044	\$668,936		\$755,980
16 Inch Line southeast of Wilshire Blvd			\$359,056	\$2,751,536		\$3,110,592
2023 Neighborhood Street Rebuild (Full Rebuild)			\$703,286			\$703,286
Water Independent #3			\$919,613			\$919,613
2.5 MGD Hulen High Pump Station Expansion			\$1,001,688			\$1,001,688
4.0 MGD Alsbury #2 Pump Station Expansion			\$1,001,688			\$1,001,688
Offsite Water Supply from Fort Worth			\$3,962,212			\$3,962,212
16-Inch Line along Wilshire Blvd				\$1,665,102		\$1,665,102
6.0 mgd Alsbury #2 PS Expansion				\$2,813,087		\$2,813,087
0.75 MG Mountain Valley EST				\$3,542,597		\$3,542,597
WATER SUBTOTAL	\$5,119,385	\$1,524,732	\$9,273,482	\$11,441,258	\$0	\$27,358,857

PROJECT NAME	FY 20	FY21	FY22	FY23	FY24	TOTAL
2020 Neighborhood Street Rebuild (Full Rebuilds)	\$939,097					\$939,097
Sewer Rehab Independent Project #2	\$2,184,735					\$2,184,735
Sewer Rehab Independent Project #1	\$2,440,043					\$2,440,043
10" Parallel Sewer NW Town Creek basin Parkview/Sierra Vista/Flagstone		\$586,315				\$586,315
10 inch Sewer Extensions in the central region of Willow Creek basin		\$1,328,108				\$1,328,108
Fort Worth Sewer Relief Line		\$14,688,442				\$14,688,442
2024 Neighborhood Street Rebuild (Full Rebuild)			\$1,210,040			\$1,210,040
12 in Swr Ext from 24 in collector main in the N. Shannon Creek basin				\$136,642	\$1,415,248	\$1,551,890
SEWER SUBTOTAL	\$5,563,875	\$16,602,865	\$1,210,040	\$136,642	\$1,415,248	\$24,928,670

TOTAL	\$10,683,260	\$18,127,597	\$10,483,522	\$11,577,900	\$1,415,248	\$52,287,527
Existing Funding	\$5,952,030					
Net Bond Sale	\$4,731,230	\$18,127,597	\$10,483,522	\$11,577,900	\$1,415,248	\$46,335,497

PROJECT SUMMARIES



NEIGHBORHOOD FULL STREET REBUILD

Phase I

● PROJECT DESCRIPTION

- Reconstruct existing street including utilities.

● EXPECTED BENEFIT

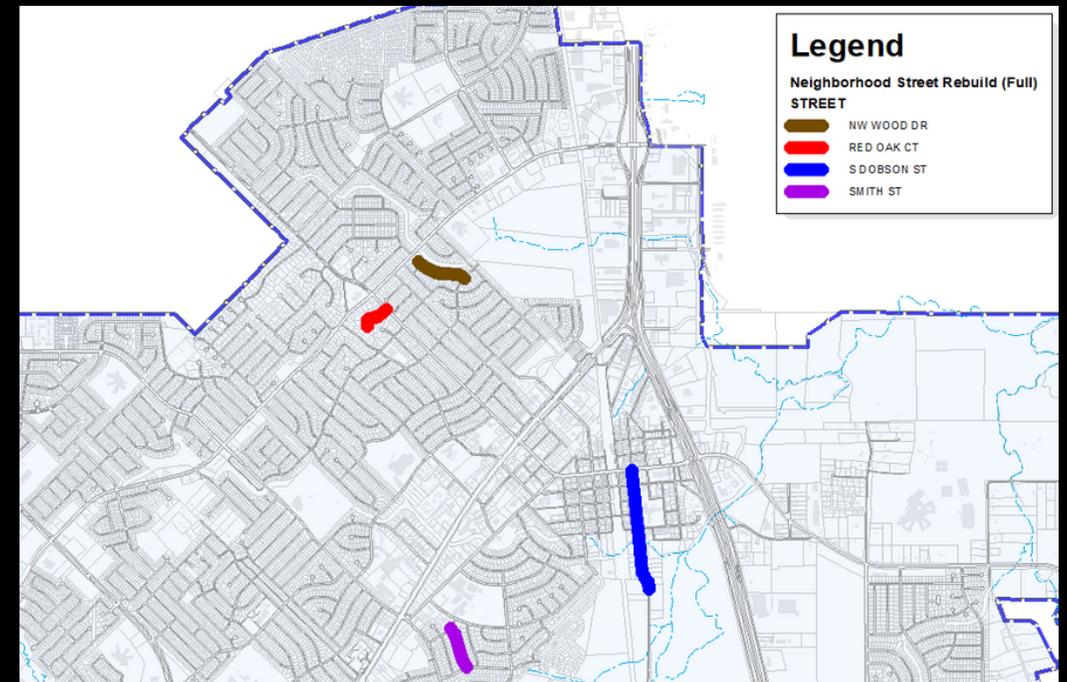
- Restore failed infrastructure

● STAFF PRIORITY

High - Scheduled for 2020 funding

● BENEFIT CATEGORY

- Infrastructure Renewal



PROJECT COST



MAINTENANCE IMPACT



SANITARY SEWER REHABILITATION

Phase 1

PROJECT DESCRIPTION

- Replace failed sanitary sewer mains
- Current lines require monthly cleaning to prevent blockage
- Potential for sanitary sewer overflows (SSO)
- Substantial maintenance costs

EXPECTED BENEFIT

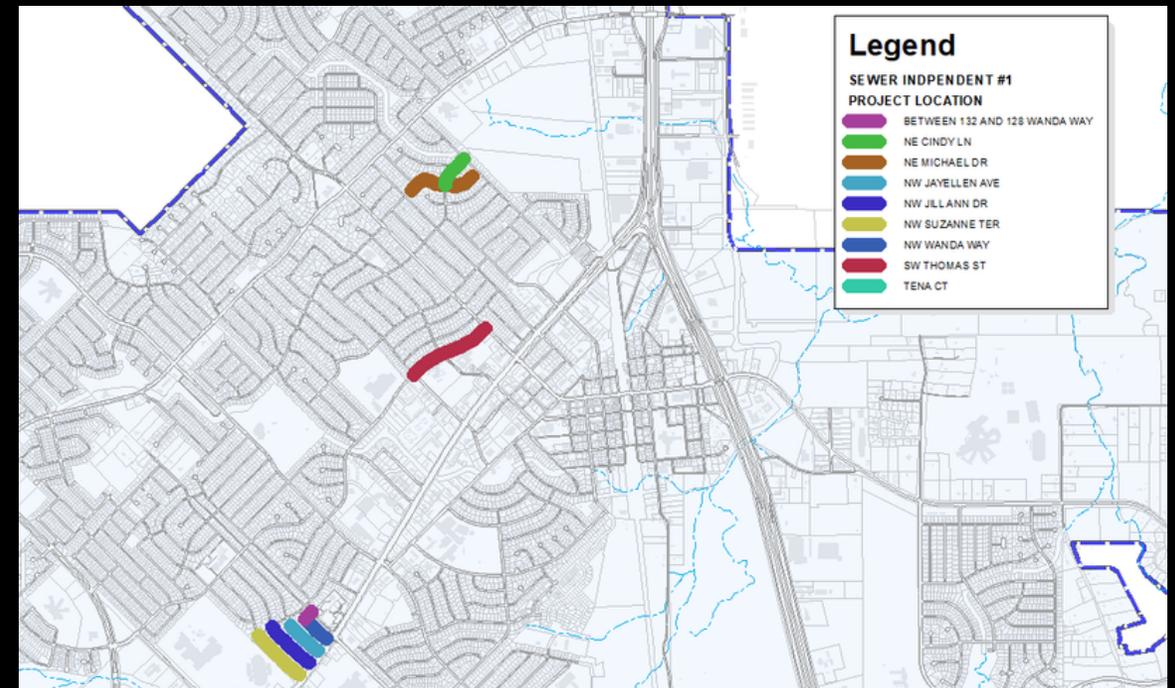
- Reduced maintenance costs
- Improved operational efficiency

STAFF PRIORITY

High - Scheduled for 2020 funding

BENEFIT CATEGORY

- Infrastructure Renewal



PROJECT COST



MAINTENANCE IMPACT



SANITARY SEWER REHABILITATION

Phase 2

PROJECT DESCRIPTION

- Replace failed sanitary sewer mains
- Current lines require monthly cleaning to prevent blockage
- Potential for sanitary sewer overflows (SSO)
- Substantial maintenance costs

EXPECTED BENEFIT

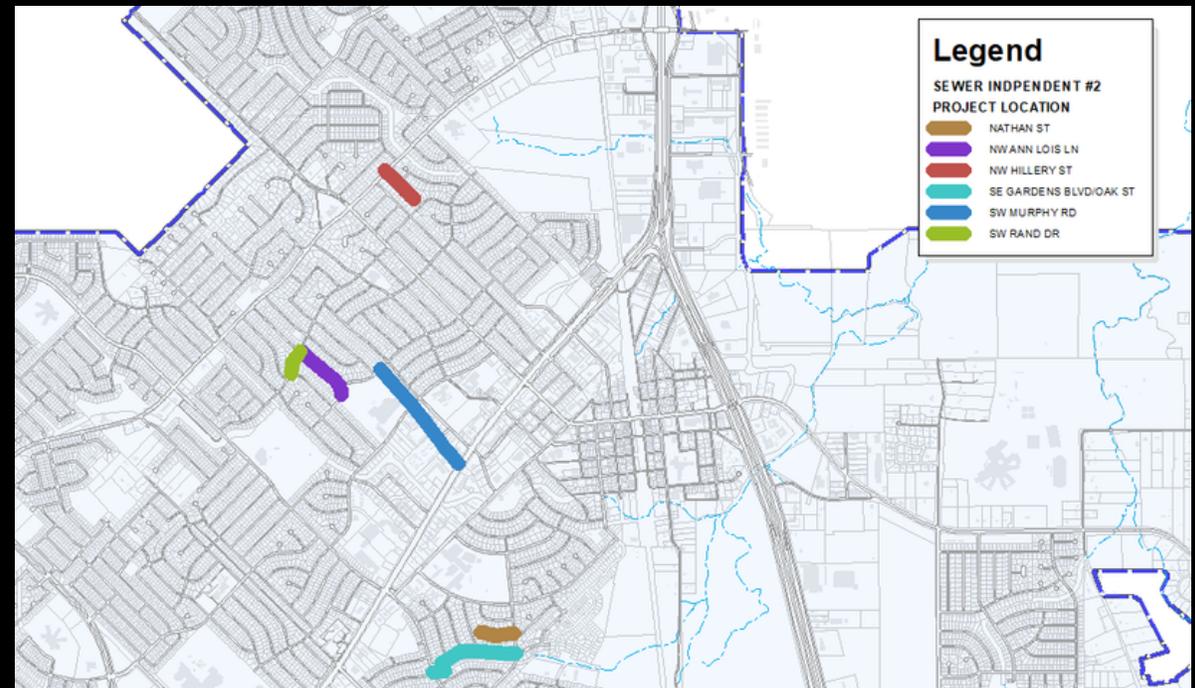
- Reduced maintenance costs
- Improved operational efficiency

STAFF PRIORITY

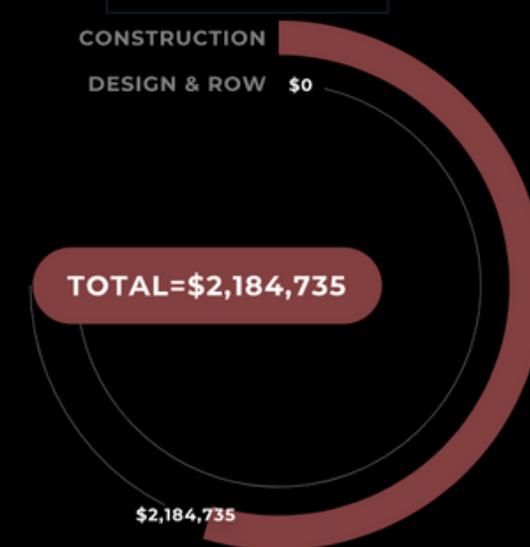
High - Scheduled for 2020 funding

BENEFIT CATEGORY

- Infrastructure Renewal



PROJECT COST



MAINTENANCE IMPACT



HIDDEN VISTAS - DOBSON ST. WATER LINE

PROJECT DESCRIPTION

- Connect 8" and 12" water lines in Big Horn Dr. and Dobson St.

EXPECTED BENEFIT

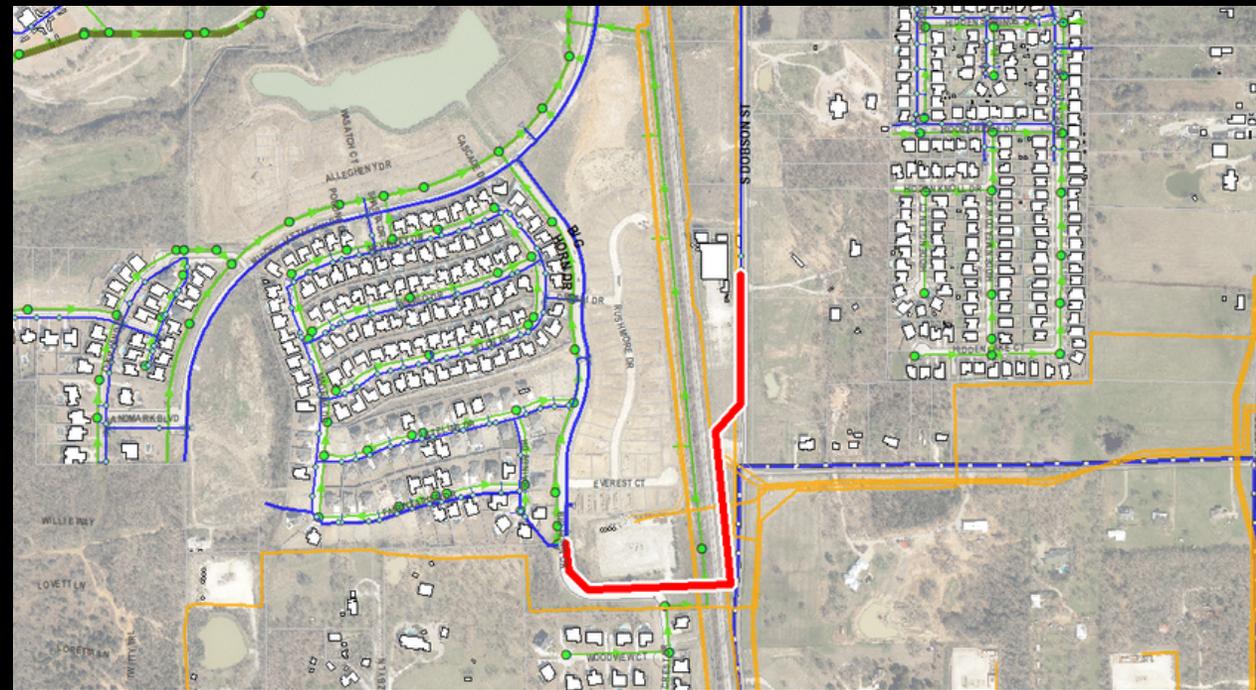
- Provide additional water line looping
- Reduce water quality issues
- Increase fire flow protection

STAFF PRIORITY

High - Scheduled for 2020 funding

BENEFIT CATEGORY

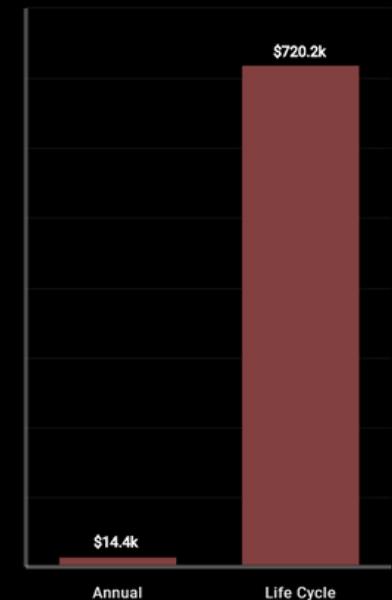
- Water Quality / Fire Flow



PROJECT COST



MAINTENANCE IMPACT



INDUSTRIAL GROUND STORAGE RESERVOIRS REHABILITATION

PROJECT DESCRIPTION

- Structural repairs to the roof of the tanks
- Sandblast and paint interior and exterior
- Upgrade tank access to current TCEQ and OSHA standards

EXPECTED BENEFIT

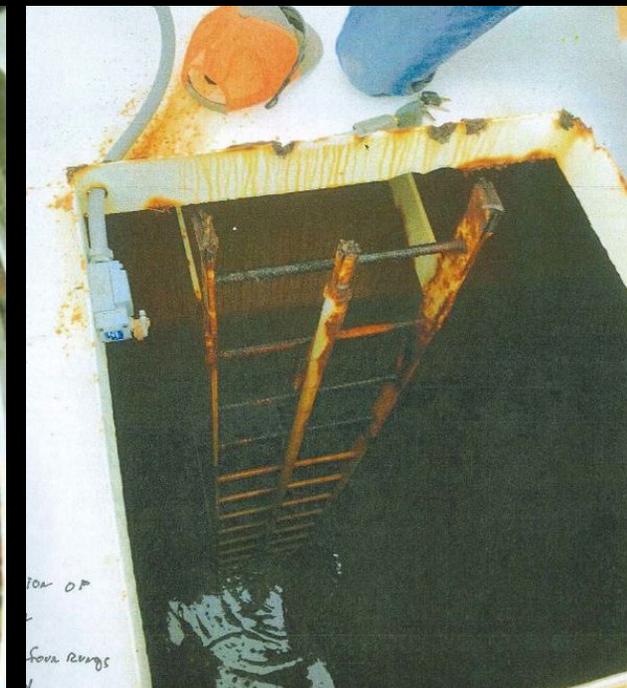
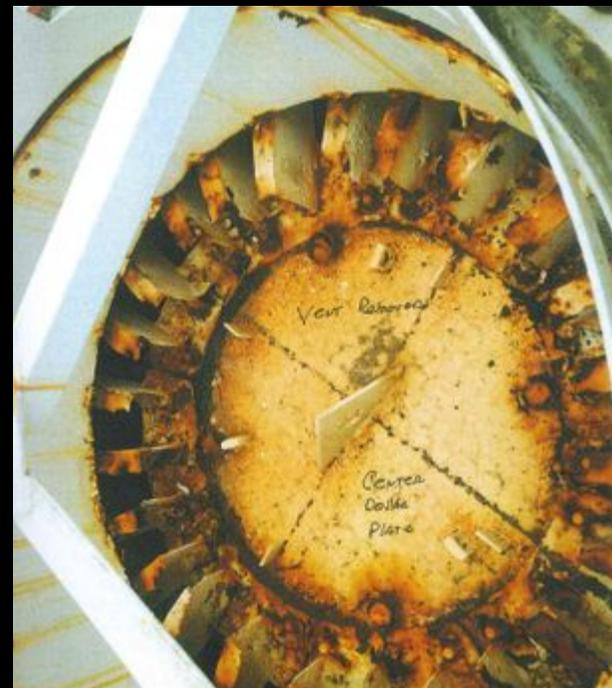
- Restore critical infrastructure
- Improved safety

STAFF PRIORITY

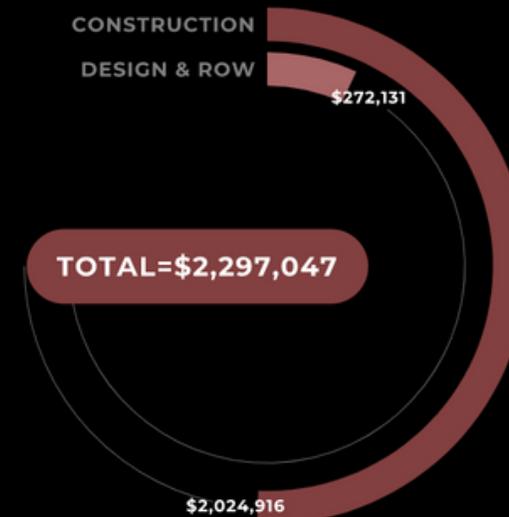
High - Scheduled for 2020 funding

BENEFIT CATEGORY

- Infrastructure Renewal



PROJECT COST



INDEPENDENT WATER LINE REHABILITATION

PROJECT DESCRIPTION

- Replace old cast iron water lines

EXPECTED BENEFIT

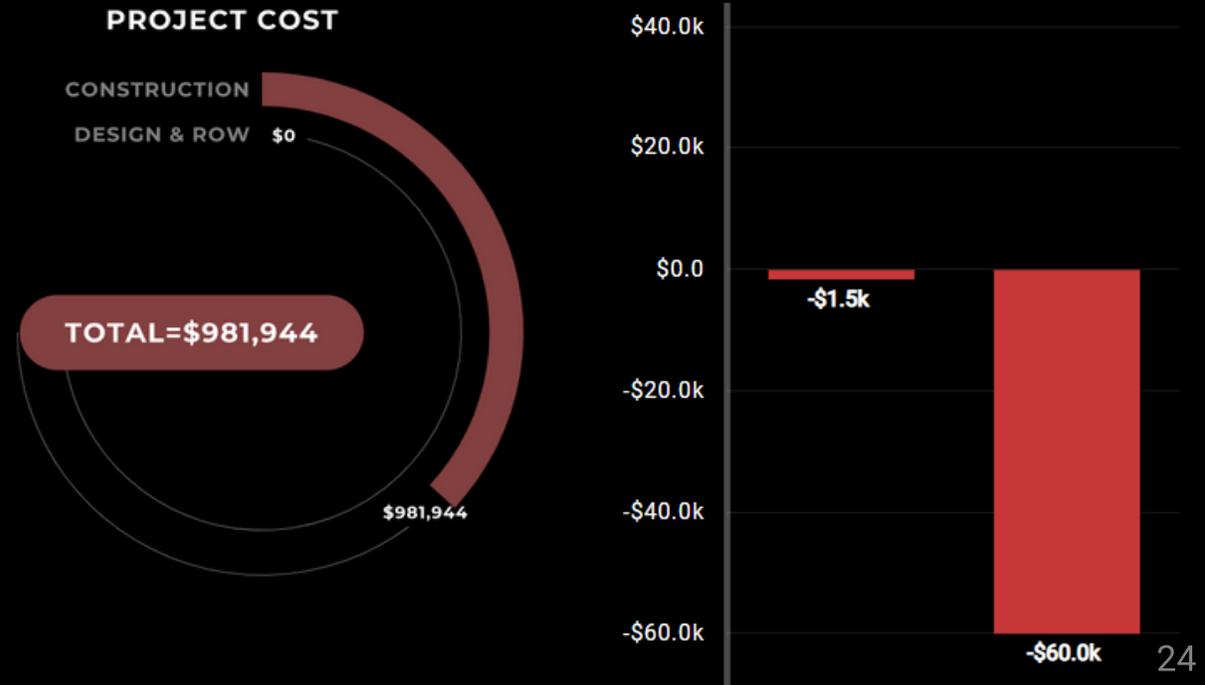
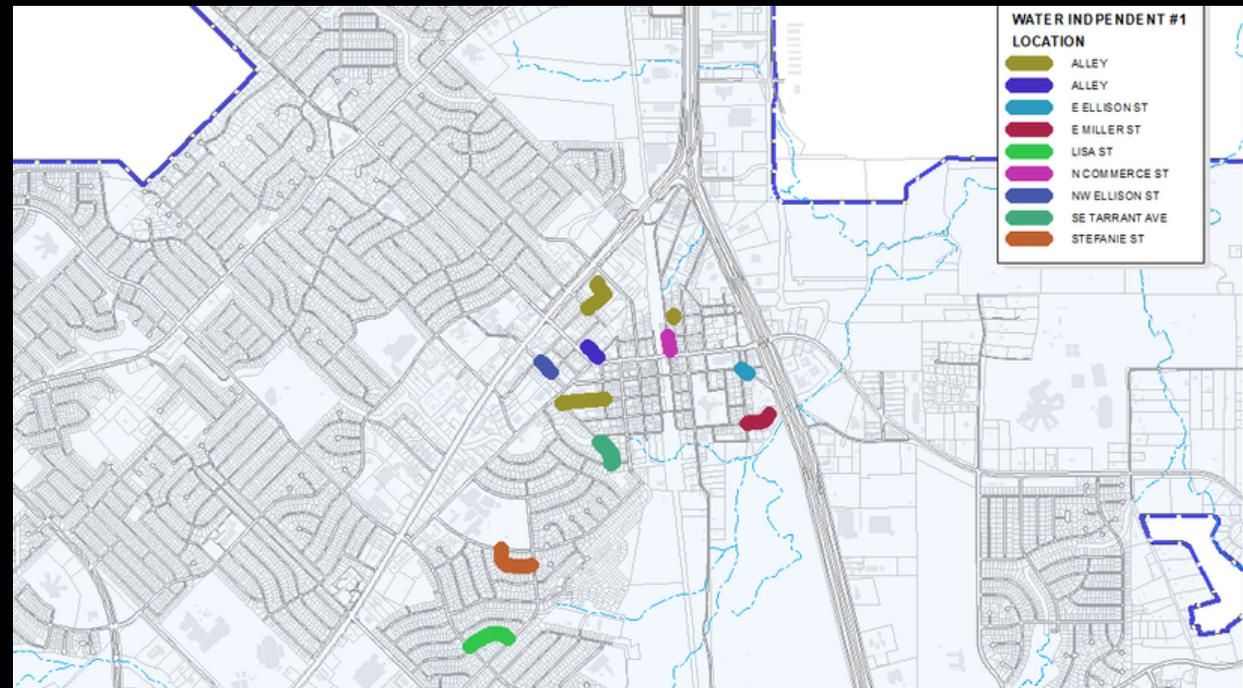
- Reduce water leaks
- Conserve water
- Reduce maintenance cost
- Improve water system reliability

STAFF PRIORITY

High - Scheduled for 2020 funding

BENEFIT CATEGORY

- Infrastructure Renewal



WATER LINE BORE ACROSS SH174 @ JOHNSON AVENUE

PROJECT DESCRIPTION

- Replace existing cast iron water line.

EXPECTED BENEFIT

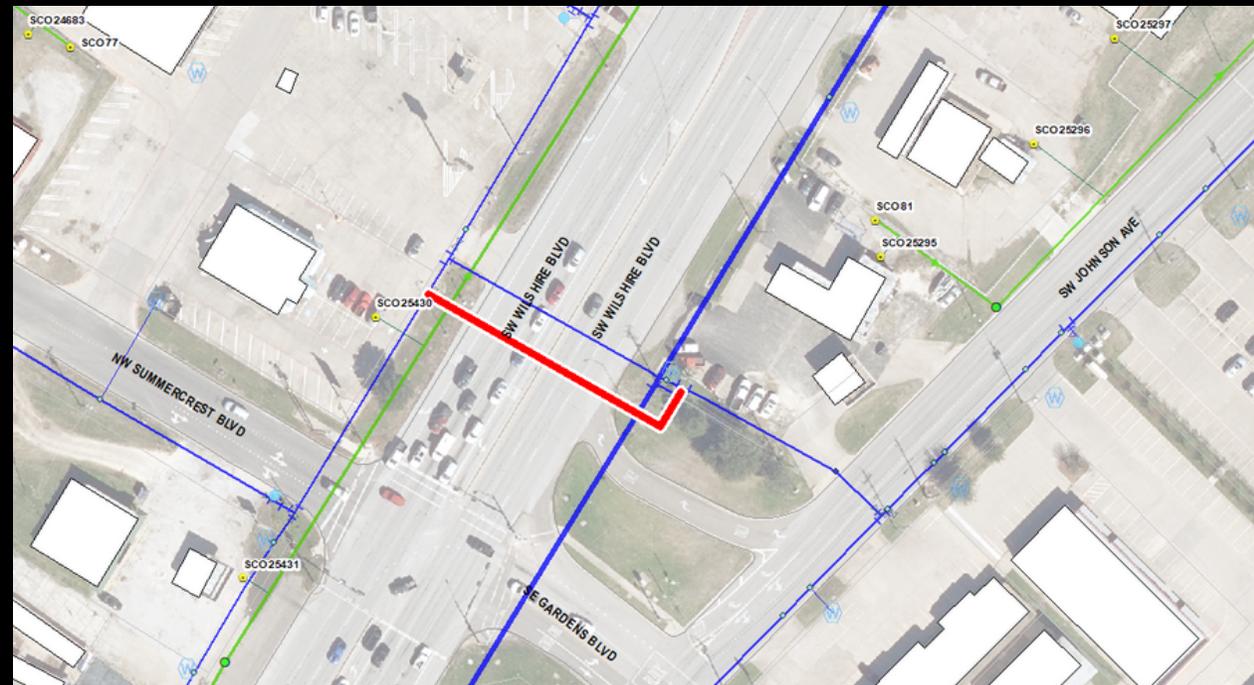
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STAFF PRIORITY

High - Scheduled for 2020 funding

BENEFIT CATEGORY

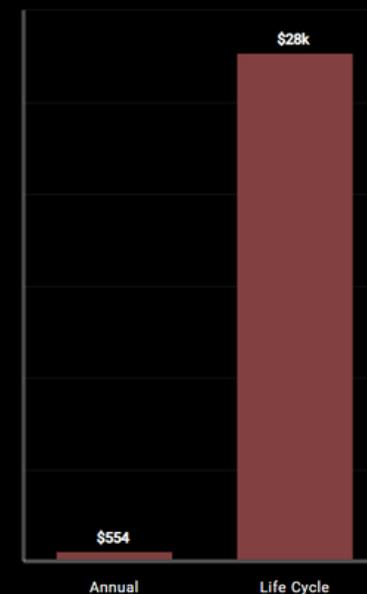
- Infrastructure Renewal



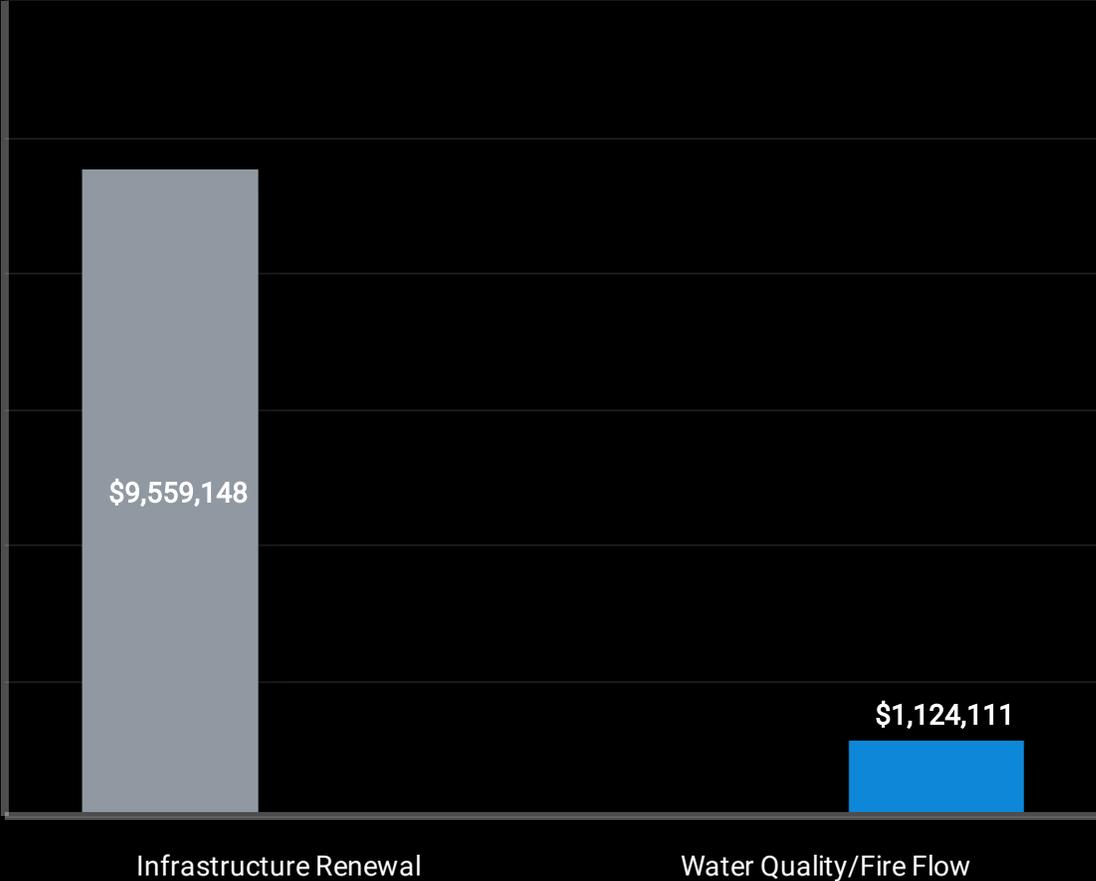
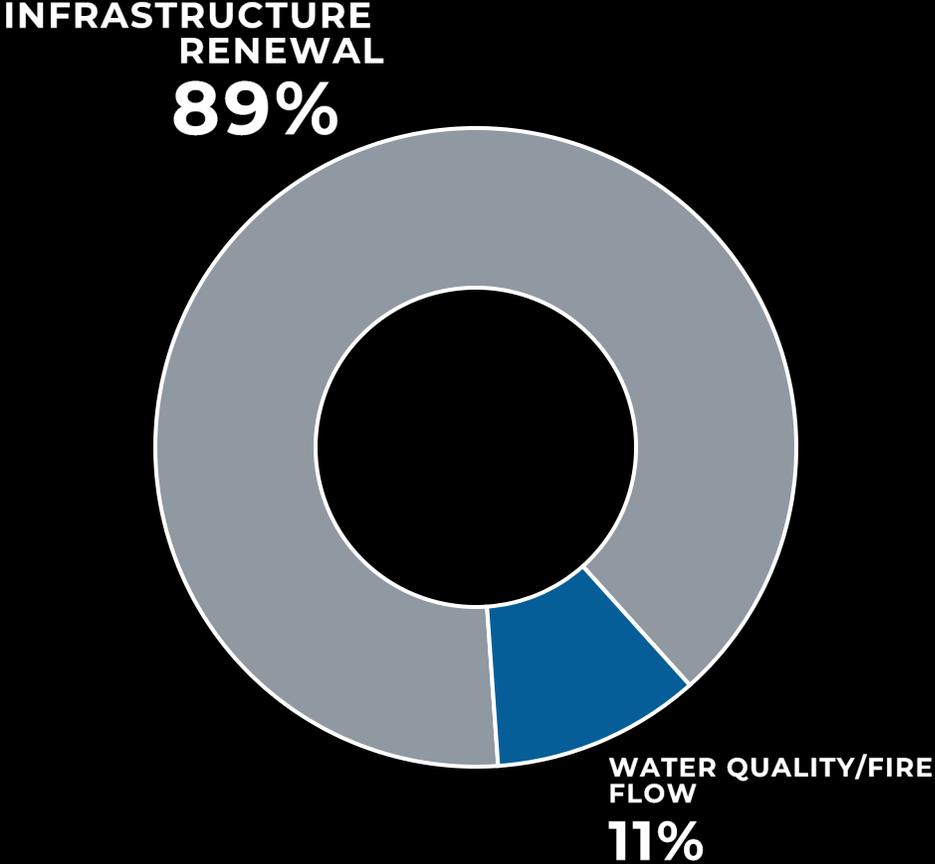
CONSTRUCTION \$89,658
DESIGN & ROW \$29,259

TOTAL=\$118,917

MAINTENANCE IMPACT



SPENDING ANALYSIS - 2020



CAPITAL IMPROVEMENTS PROGRAM

2020 - 2024



REPURPOSED FUNDS

\$8.2 MILLION

\$5.9M UNALLOCATED FUNDS

\$2.3M OPERATIONS

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4.0 MGD Alsbury #2 Pump Station Expansion			\$1,001,688			\$1,001,688
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16-Inch Line along Wilshire Blvd				\$1,665,102		\$1,665,102
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0.75 MG Mountain Valley EST				\$3,542,597		\$3,542,597
WATER SUBTOTAL	\$5,119,385	\$1,524,732	\$9,273,482	\$11,441,258	\$0	\$27,358,857



RATE REDUCTION

3% WATER - FY21

5% SEWER - FY21 & FY22

(COMPARED TO PREVIOUS PROJECTIONS)

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10 inch Sewer Extensions in the central region of Willow Creek basin		\$1,328,108				\$1,328,108
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TOTAL	\$10,683,260	\$18,127,597	\$10,483,522	\$11,577,900	\$1,415,248	\$52,287,527
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Existing Funding \$5,952,030

Net Bond Sale	\$4,731,230	\$18,127,597	\$10,483,522	\$11,577,900	\$1,415,248	\$46,335,497
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CITY COUNCIL FEEDBACK?