



City of Rockdale Water and Wastewater CIP Overview

City Council
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KSA Engineers, Inc.

Original 2017 Prioritized CIP Roster

Water:

	<u>Cost</u>
1 Cast Iron w/Lead Joints (10,000 LF)	\$1,000,000
2 Cast Iron w/Rubber Joints (110,000 LF)	\$11,000,000
3 Asbestos Cement Pipe Replacement (28,000 LF)	\$3,640,000
4 Texas Street WTP Replacement	\$9,000,000
5 Repaint & Retro-fit Mill Street Water Tank	\$400,000
6 New Development Water Lines	\$1,500,000
7 Fire Hydrant Replacement - Frozen Valves (20)	\$250,000
8 AMR - Direct Upload Meters	\$350,000
9 Update Hydraulic Model & Base Map	\$30,000
10 Intergrated City Mapping	\$35,000
11 New Treatment, GST, and HSPS w/Pressure Tank at Airport	\$2,500,000
Subtotal	\$29,705,000

Wastewater:

1 Vitrified Clay Pipe Replacement (I/I Reduction w/CCTV or Smoke Testing)	\$3,000,000
2 East Cameron Lift Station	\$250,000
3 WWTP Retro-fit: SBR Tank, Digester, Blowers	\$6,000,000
4 Manhole Rehabilitation or Replacement	\$350,000
5 New Development Trunk Lines*	\$3,000,000
Subtotal	\$12,600,000

2017 CIP ROSTER TOTAL WATER & SEWERAGE BUDGET (today's \$)	\$42,305,000
(+) 2% Inflationary Index (for Fiscal Years 2018 & 2019)	\$1,709,122
Total 2017 CIP ROSTER TOTAL WATER & SEWERAGE BUDGET	<u>\$44,014,122</u>

Original 20 Year Look Ahead

Water:

		<u>Cost</u>
1	Elevated Water Storage Tank Northeast	\$1,800,000
2	New Well for Industrial Park near Texas Street	\$500,000
3	Mill Street WTP Replacement	\$10,500,000
4	New Mill Street Elevated Water Storage Tank	\$1,800,000
5	WWTP Expansion: SBR Tank, Auger Screen, EQ)	\$5,000,000
	Subtotal	\$19,600,000

Wastewater:

1	Vitrified Clay Pipe Replacement (I/I Reduction)	\$1,000,000
2	Manhole Rehabilitation or Replacement	\$350,000
3	Cleanouts & Existing Residents (1000)	\$750,000
	Subtotal	\$2,100,000

20 YEAR LOOK AHEAD ROSTER TOTAL WATER & SEWERAGE BUDGET **\$21,700,000**

Total Budget Major Infrastructure Improvements **\$65,714,122**

Primary Focus – Red Water





New Prioritized CIP Roster by Problem or Performance Type

Water*:

Cost

RED WATER & CORROSION ISSUES:

1	Cast Iron Pipe Replacement (120,000 LF)	12,000,000
2	Texas Street WTP Filtration Retro-fit: WTP Filtration Process Chemical Feed, SCADA, Electrical, Operations	4,500,000

Option 1.a

3	Mill Street WTP Replacement @ Airport New 12" Supply Piping to Mill Street Elevated Water Storage Tank	10,865,000 2,500,000
Subtotal:		29,865,000

Option 1.b

3	Mill Street WTP Replacement - Across the Street from Current Location	10,565,000
4	New Treatment, GST, and HSPS w/Pressure Tank @ Airport	2,500,000
Subtotal:		29,565,000

Option 1.c

3	Mill Street WTP Filter Upgrades (Underdrains)	565,000
4	New Treatment, GST, and HSPS w/Pressure Tank @ Airport	2,500,000
Subtotal:		19,565,000

MAINTENANCE & RELIABILITY:

1	Asbestos Cement Pipe Replacement (28,000 LF)	3,640,000
2	Repaint & Retro-fit Mill Street Water Tank	400,000
3	Replacement Water Lines (Capacity)	1,500,000
4	Fire Hydrant Replacement - Frozen Valves (20)	250,000
		5,790,000

CITY OPERATIONS AND EFFICIENCY:

1	AMR - Direct Upload Meters	350,000
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Water Subtotal w/Option 1.a, above:	\$36,005,000
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Wastewater:

WASTEWATER TREATMENT PLANT STRESS:

	Vitrified Clay Pipe Replacement (I/I Reduction w/CCTV or Smoke	
1	Testing)	3,000,000
2	Manhole Rehabilitation or Replacement	350,000
3	WWTP Retro-fit: SBR Tank	4,000,000
	Subtotal:	7,350,000

MAINTENANCE & RELIABILITY:

1	East Cameron Lift Station	250,000
2	Replacment Trunk Lines (Capacity)	3,000,000
	Subtotal:	3,250,000

Wastewater Subtotal:	10,600,000
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	\$46,605,00
2017 CIP ROSTER TOTAL WATER & SEWERAGE BUDGET (todays \$)	0
(+) 2% Inflationary Index (for Fiscal Years 2018 & 2019)	\$1,882,842
	\$48,487,84
Total 2017 CIP ROSTER TOTAL WATER & SEWERAGE BUDGET	2

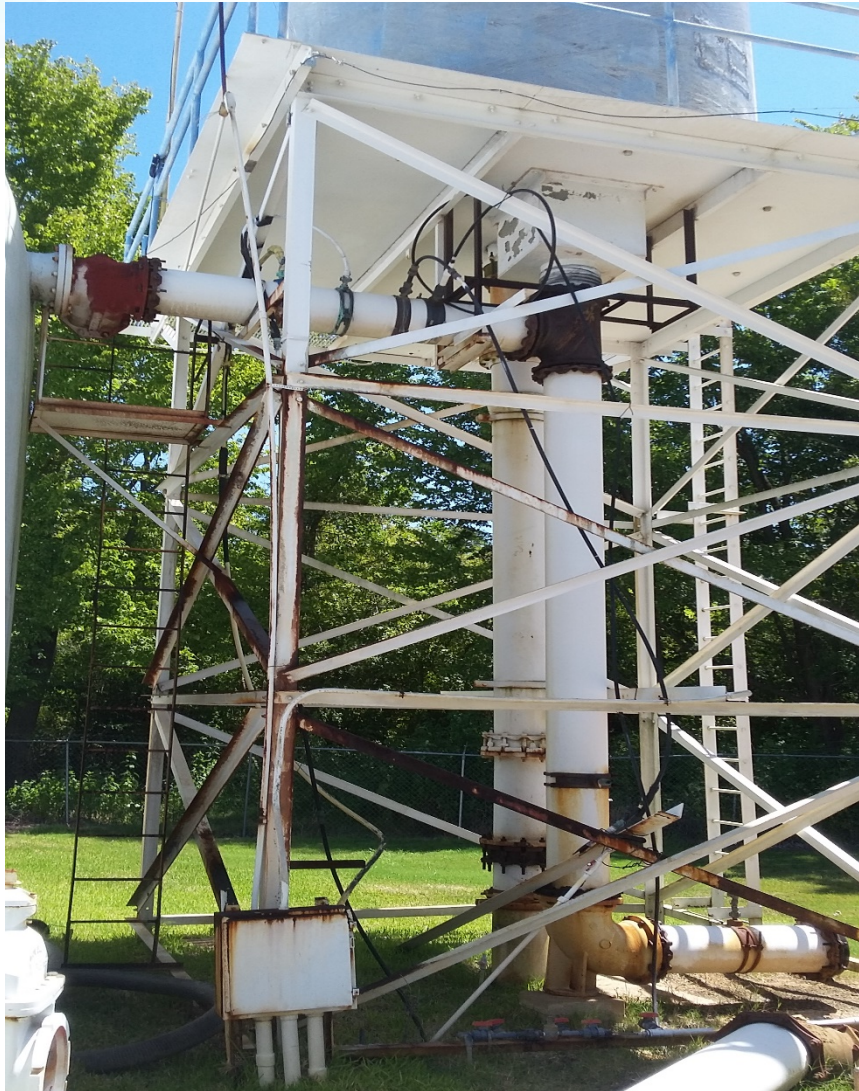
Projects Omitted from Option 1.c

(invented to save money)

- New Water Treatment Plants. Your existing plants will remain operational and both plants will be retro-fitted, as follows:
 - Mill Street WTP will receive a minor filtration media upgrade. The remainder of the plant is 61 years old and is at the end of its useful life.
 - Texas Street WTP will receive a substantial upgrade with a brand new filtration system.



Texas Street Treatment



Final Comments

(using Option 1.c)

- Over time (a period of several years) the Red Water Issue will eventually go away except for occasional system upsets and hydraulic surges.

- Sources:

 - Tanks

 - Unreplaced Lines or Breaks

 - Fire Flow shifting the flow-line inside the pipe



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