



City of Rockdale Water and Wastewater CIP Overview

City Council January 2018

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Original 2017 Prioritized CIP Roster

<u>Water:</u>	<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
<u>Wastewater:</u>	
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 (todays \$)	\$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

<u>Water:</u>		<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
<u>Wastewater:</u>		
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		<u>\$65,714,122</u>

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
	Subtotal:	2,500,000
		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
	Subtotal:	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	Replacement Trunk Lines (Capacity)	3,000,000
	Subtotal:	3,250,000

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

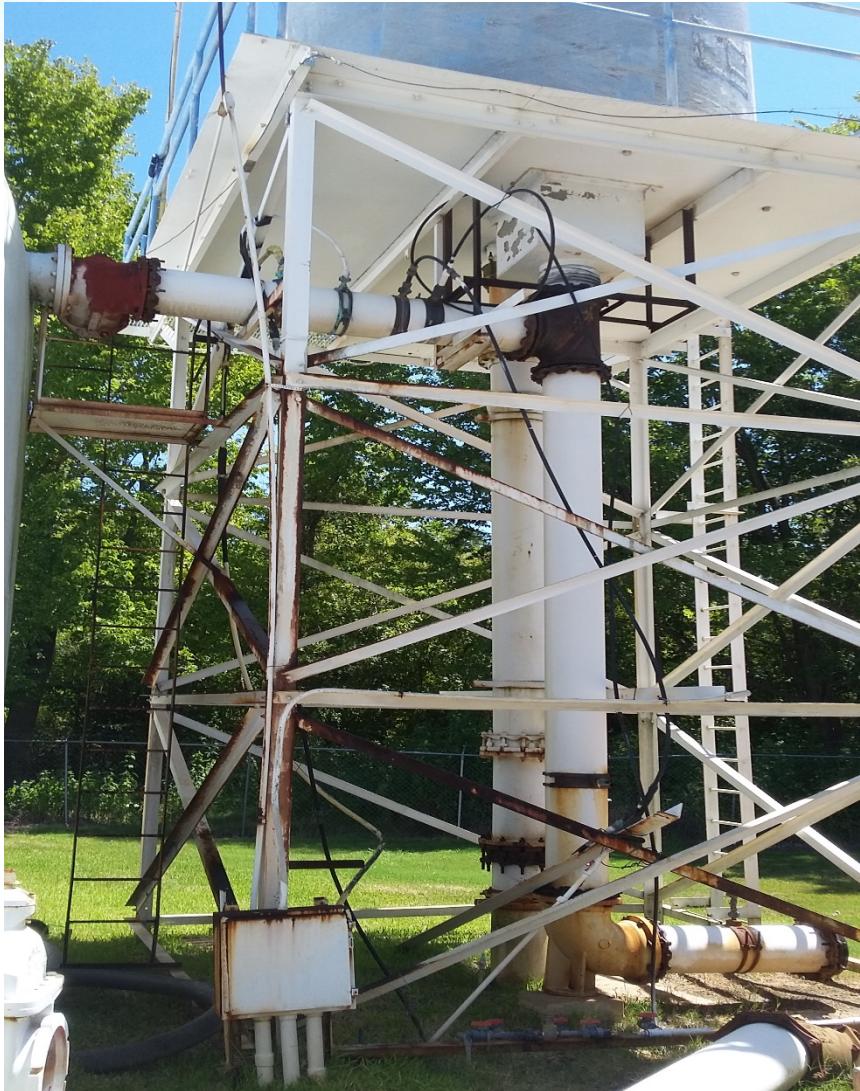
Projects Omitted from Option 1.c

(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



This project is funded by the Office of Rural Affairs of the Texas Department of Agriculture with funds allocated by the United States Department of Housing and Urban Development through the Community Development Block Grant Program.



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