



Wastewater Utilities

FY 2017-18 Budget Presentation



Wastewater Utilities Goals and Accomplishments

Accomplishments for 16-17

- Completed design of Hickory Creek and West Peak Flow Detention Facility
- Awarded the Pecan Creek Interceptor Phase 4 project for construction
- Met TCEQ phosphorous limit of 0.5 mg/l due to plant improvements
- In-house construction and preventative maintenance costs lower than contracted costs
- Reduced sanitary sewer overflow volumes during a wet year
- Compost Operation received the 2017 Ron Sieger Award from Water Environment Association of Texas



Wastewater Utilities Goals and Accomplishments

Goals for 17-18

- Begin construction of Hickory Creek and West Peak Flow Detention Facility Project
- Meet EPA Administrative Order requirements
 - Completed the hydraulic model, smoke testing, CCTV of all non plastic pipes by Dec 2015 per AO. Submitted annual reports for 2015 and 2016. AO to continue through Dec 2018.
- In-house construction and preventative maintenance costs continue to be lower than contracted costs
- Complete update of Wastewater Master Plan Model



Wastewater Utilities Performance Measures

Current performance measures

- O&M cost per account
- O&M cost per million gallons treated

New performance measures

- Compost Sales Revenue plus Cost Avoidance (sludge and yard waste disposal) compared to Cost of operation
- Sanitary Sewer Overflows less than 3 per 100 miles of Sewer
- Cost Comparisons between in-house versus contracted service for sewer line cleaning, Closed-Circuit Television Video (CCTV), and construction
- Sewer Main Chokes less than 1 per 1,000 customers
 - 2014 - 1.01 per 1,000 customers
 - 2015 - 1.18 per 1,000 customers
 - 2016 - 0.56 per 1,000 customers



Wastewater Utilities Cost Containment Strategies

- Eliminated FTEs (Collections - savings of \$100,246)
- Department reorganization (Administration - savings of \$40,853)
- Budgeted salary savings of \$120,000 (vacancies and turnovers)
- Reduced \$254,739 from O&M budget (FY17 to FY18)
 - Machinery and equipment, fuel, chemicals and outside contract services
- Improved debt service efficiency by balancing CIP projects and cash flow schedules (incur debt closer to project start).
- Reduced revenue funded capital variability by leveling over 5 years
- Exceptional operation and maintenance program resulted in rescinded EPA consent decree, saving over \$100 million in studies, design, and construction
- Total reductions are approximately equal to a 2.4% rate increase



Wastewater Utilities Process Improvements

Completed Process Improvement / Lean projects

- Continued to refine condition assessments and life-cycle assumptions for Wastewater Collections asset management program
- Lean program: improved information consistency among departments by streamlining construction plan information flow

Future Process Improvements

- “Criticality” Ranking for Plant and lift station equipment
- Equipment reliability analyses
- Create work flow charts of all critical Plant activities
- Improve work order data reliability for CityWorks
- Continually improve asset management program



Wastewater Utilities Future Risks and Mitigation

- Contractor costs for CIP projects
 - Costs continue to increase – mitigating with internal crews
- Discharge limits for Sulfate and Chlorides
 - May effect discharge permit limits - currently characterizing plant discharge
- O&M costs
 - Mitigating by refining forecasts and asset management program
- Additional regulatory requirements
 - Reviewing new regulations and planning future responses



Wastewater Utilities Assumptions

- All rates based on cost of service
- Minimum debt coverage ratio is 1.25 (higher is better)
- Annual revenue funded capital based on asset management program.
- Collection system replacement funding target is 100% revenue
- Treatment plant infrastructure funding target is 25% revenue, 75% debt
- Reserves maintained within 100-140 day range
- Use multi-year financial planning to minimize rate increases



Wastewater Utilities Budget Highlights

Revenues	FY 2015-16 Actuals	FY 2016-17 Budget	FY 2016-17 Estimate	FY 2017-18 Proposed
Interest Operating	88,309	119,500	96,000	117,500
Wastewater Residential	10,888,886	11,188,269	11,005,783	11,103,223
Wastewater Commercial	11,893,034	11,462,297	11,914,171	12,256,031
Wastewater Effluent Irrigation	101,029	60,413	60,180	61,530
Wastewater Wholesale	653,474	582,400	659,818	667,670
Other Wastewater	3,224,252	1,887,866	1,707,096	1,692,282
Drainage Fees	4,496,319	4,601,201	4,582,114	4,673,206
Transfer In -	870,975	875,819	596,799	659,030
Transfer In - Other	4,438,382	-	-	-
Impact Fee Revenue Utilization	2,000,000	3,520,000	3,520,000	2,000,000
Use of Reserves	-	4,297,776	3,315,983	-
Total	\$ 38,654,660	\$ 38,595,541	\$ 37,457,944	\$ 33,230,472



Wastewater Utilities Budget Highlights

Expenses	FY 2015-16 Actuals	FY 2016-17 Budget	FY 2016-17 Estimate	FY 2017-18 Proposed
Purchased Power	1,192,928	946,000	1,021,000	1,221,000
Personal Services	7,387,387	8,237,275	7,498,269	8,103,746
Materials & Supplies	924,844	1,489,447	1,249,741	1,260,309
Maintenance & Repair	1,219,472	1,629,270	1,529,560	1,470,909
Insurance	247,655	187,676	187,676	180,492
Miscellaneous	46,911	55,108	54,645	57,131
Operations	1,848,210	2,477,777	2,277,045	2,328,347
Return on Investment	852,911	881,344	887,147	902,326
Franchise Fee	1,218,444	1,259,062	1,267,352	1,289,037
Debt Service	7,637,410	6,907,431	6,817,877	7,167,280
General Fund Transfer	996,122	974,808	974,808	961,611
Other Transfers	2,271,867	2,528,810	2,302,626	2,330,772
Transfer for Capital Projects	6,563,561	11,021,533	11,390,198	6,750,081
Total	\$ 32,407,722	\$ 38,595,541	\$ 37,457,944	\$ 34,023,041
FTEs	FY 2015-16 Actuals	FY 2016-17 Budget	FY 2016-17 Estimate	FY 2017-18 Proposed
Regular	109.25	109.25	108.25	107.25
Temporary/Seasonal	2.00	3.00	3.00	2.50
Total Personnel	111.25	112.25	111.25	109.75



Wastewater Utilities

5 Year Forecast – Zero Rate Increase

	Actual FY 2016	Budget FY 2017	Estimate FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Revenues (x 1,000)								
Rate Revenue	\$28,033	\$27,895	\$28,222	\$28,762	\$29,017	\$29,385	\$29,762	\$30,123
Non Rate Revenue	8,622*	2,883	2,400	2,469	2,516	\$2,556	2,382	2,418
Impact Fee from Reserves	2,000	3,520	3,520	2,000	2,000	2,000	1,500	1,500
Subtotal	\$38,655	\$34,298	\$34,142	\$33,230	\$33,533	\$33,941	\$33,644	\$34,041
Planned Use of Reserves	0	4,298	3,316	0	0	0	0	0
TOTAL REVENUES	\$38,655	\$38,596	\$37,458	\$33,230	\$33,533	\$33,941	\$33,644	\$34,041
Expenditures (x 1,000)								
O&M	\$13,915	\$15,779	\$14,614	\$15,430	\$15,743	\$16,162	\$16,547	\$16,958
Revenue Funded Capital	5,515	10,265	10,594	5,942	5,942	5,942	5,942	5,942
Transfers (Internal and External)	3,268	3,504	3,277	3,292	3,397	3,495	3,567	3,651
ROI/Franchise Fee	2,071	2,140	2,154	2,191	2,210	2,239	2,252	2,280
Debt Service	7,637	6,907	6,818	7,167	7,499	7,718	6,340	5,841
TOTAL EXPENSES	\$32,408	\$38,596	\$37,458	\$34,023	\$34,791	\$35,556	\$34,648	\$34,672
Net Income	\$6,247*	\$0	\$0	(\$793)	(\$1,258)	(\$1,615)	(\$1,004)	(\$631)
Rate Increases	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>FY 2017 Rate Increases</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>--</i>
RESERVE BALANCES								
Wrkng Cptl + Op Reserve (Target 100 – 140 days)	\$18,107	\$12,586	\$14,591	\$13,598	\$12,140	\$10,325	\$9,256	\$8,625
Number of Working Days	204	119	142	146	127	106	98	91
Development Plan Lines	\$135	\$335	\$335	\$535	\$735	\$935	\$1,000	\$1,000
Drainage Reserve	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Impact Fee Reserve	\$3,285	\$1,566	\$1,756	\$1,675	\$1,542	\$1,440	\$1,882	\$2,262
Debt Coverage Ratio	2.81	2.80	2.87	2.02	1.92	1.85	2.13	2.30

*Includes one-time transfer of \$4.4 million related to refunding of the Utility Revenue Bonds and release of related reserve funds.

Wastewater Utilities Options

Option 1: Zero rate increases FY 2018 to FY 2022

- \$5.3 million withdrawn from reserves FY 2018 to FY 2022
- Reserves fall below minimum target in FY 2021 and FY 2022

Option 2: Zero rate increase in FY 2018 and FY 2019, 2% future years

- \$1.1 million withdrawn from reserves FY 2018 to FY 2022
- Reserves decrease but remain within target range



Wastewater Utilities

5 Year Forecast – Proposed

	Actual FY 2016	Budget FY 2017	Estimate FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Revenues (x 1,000)								
Rate Revenue	\$28,033	\$27,895	\$28,222	\$28,762	\$29,017	\$30,350	\$31,242	\$32,146
Non Rate Revenue	8,622*	2,883	2,400	2,469	2,516	2,556	2,397	2,459
Impact Fee from Reserves	2,000	3,520	3,520	2,000	2,000	2,000	1,500	1,500
Subtotal	\$38,655	\$34,298	\$34,142	\$33,230	\$33,533	\$34,906	\$35,139	\$36,106
Planned Use of Reserves	0	4,298	3,316	0	0	0	0	0
TOTAL REVENUES	\$38,655	\$38,596	\$37,458	\$33,230	\$33,533	\$34,906	\$35,139	\$36,106
Expenditures (x 1,000)								
O&M	\$13,915	\$15,779	\$14,614	\$15,430	\$15,743	\$16,164	\$16,547	\$16,954
Revenue Funded Capital	5,515	10,265	10,594	5,942	5,942	5,942	5,942	5,942
Transfers (Internal and External)	3,268	3,504	3,277	3,292	3,397	3,495	3,567	3,651
ROI/Franchise Fee	2,071	2,140	2,154	2,191	2,210	2,321	2,378	2,452
Debt Service	7,637	6,907	6,818	7,167	7,499	7,718	6,340	5,841
TOTAL EXPENSES	\$32,408	\$38,596	\$37,458	\$34,023	\$34,791	\$35,640	\$34,773	\$34,840
Net Income	\$6,247*	\$0	\$0	(\$793)	(\$1,258)	(\$734)	\$365	\$1,266
Rate Increases	2.0%	2.0%	2.0%	0.0%	0.0%	2.0%	2.0%	2.0%
<i>FY 2017 Rate Increases</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>--</i>
RESERVE BALANCES								
Wrkng Cptl + Op Reserve (Target 100 – 140 days)	\$18,107	\$12,586	\$14,591	\$13,598	\$12,140	\$11,206	\$11,506	\$12,772
Number of Working Days	204	119	142	146	127	115	121	134
Development Plan Lines	\$135	\$335	\$335	\$535	\$735	\$935	\$1,000	\$1,000
Drainage Reserve	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Impact Fee Reserve	\$3,285	\$1,566	\$1,756	\$1,675	\$1,542	\$1,440	\$1,882	\$2,262
Debt Coverage Ratio	2.81	2.80	2.87	2.02	1.92	1.98	2.37	2.65

*Includes one-time transfer of \$4.4 million related to refunding of the Utility Revenue Bonds and release of related reserve funds.

Wastewater Utilities 5 Year Forecast – Drainage Summary

Includes Drainage, Watershed Protection and Drainage Miscellaneous

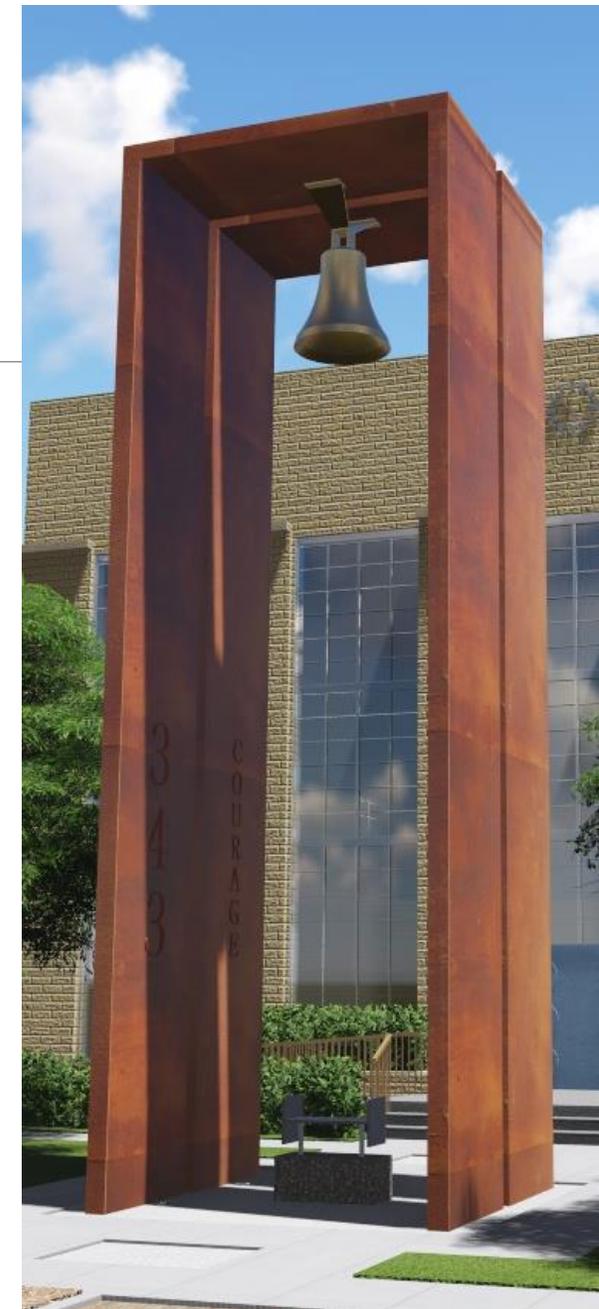
	Actual FY 2016	Budget FY 2017	Estimate FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Revenues (x 1,000)								
Rate Revenue	\$4,496	\$4,601	\$4,582	\$4,673	\$4,723	\$4,774	\$4,827	\$4,881
Non Rate Revenue	649	520	555	468	486	491	506	521
Wastewater Resources	-	-	-	-	-	-	-	-
TOTAL REVENUES	\$5,146	\$5,121	\$5,137	\$5,141	\$5,210	\$5,266	\$5,333	\$5,402
Expenditures (x 1,000)								
O&M	\$2,626	\$2,975	\$2,697	\$2,854	\$2,913	\$2,959	\$3,041	\$3,127
Revenue Funded Capital	1,017	875	1,201	1,006	1,200	1,191	1,359	1,466
Transfers (Internal and External)	579	630	602	603	620	638	657	677
Debt Service	948	641	637	678	477	478	276	132
TOTAL EXPENSES	\$5,171	\$5,121	\$5,137	\$5,141	\$5,210	\$5,266	\$5,334	\$5,402
Net Income	(\$25)	\$0	(\$0)	\$0	\$0	\$0	\$0	\$0
Rate Increases	0%	0%	0%	0%	0%	0%	0%	0%

PERSONNEL (Full Time Equivalents)	Actual FY 2016	Budget FY 2017	Estimate FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Regular	21.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Temporary/Seasonal	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
TOTAL PERSONNEL	23.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50

Wastewater Utilities 5 Year Capital Plan

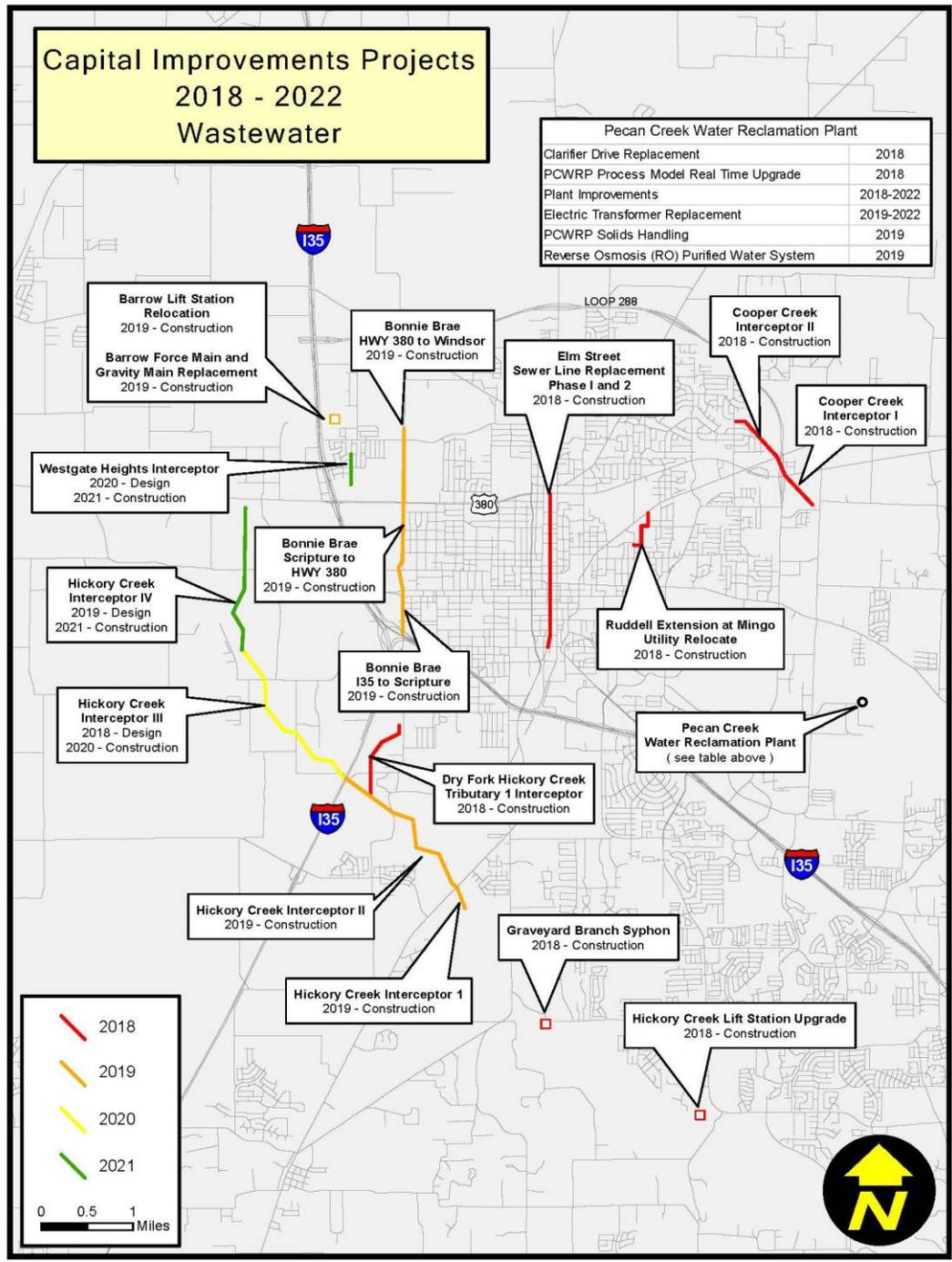
Categories	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Total
COLLECTION SYSTEM UPGRADE	\$5,811,075	\$7,027,250	\$2,655,000	\$2,675,000	\$60,000	\$18,228,325
DRAINAGE	\$46,000	\$46,000	\$46,000	\$46,000	\$46,000	\$230,000
DRAINAGE IMPROVEMENTS	\$934,505	\$1,153,648	\$1,146,964	\$1,539,007	\$830,000	\$5,604,124
FIELD SERVICES REPLCE	\$2,643,629	\$2,881,837	\$2,290,291	\$2,298,999	\$2,307,969	\$12,422,725
LIFTSTATION IMPROVEMENTS	\$558,000	\$208,000	\$8,000	\$8,000	\$8,000	\$790,000
MISC	\$580,000	\$260,000	\$260,000	\$260,000	\$260,000	\$1,620,000
OVERSIZE LINES	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
REPLACE LINES	\$290,000	\$735,000	\$50,000	\$50,000	\$50,000	\$1,175,000
TAPS,FIRE HYDS, METERS	\$79,883	\$82,279	\$84,748	\$87,291	\$89,910	\$424,111
TOOLS & EQUIPMENT	\$70,000	\$40,000	\$10,000	\$10,000	\$10,000	\$140,000
WASTEWATER EFFLUENT REUSE	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000
PLANT IMPROVEMENTS	\$154,900	\$1,130,000	\$130,000	\$130,000	\$130,000	\$1,674,900
VEHICLES	\$972,000	\$1,009,000	\$1,305,000	\$1,450,000	\$1,090,000	\$5,826,000
Total	\$12,364,992	\$14,798,014	\$8,211,003	\$8,779,297	\$5,106,879	\$49,260,185
Funding						
Aid in Construction	\$79,883	\$82,279	\$84,748	\$87,291	\$89,910	\$424,111
Revenue	\$6,195,062	\$9,847,377	\$6,480,355	\$6,855,406	\$4,766,969	\$34,145,169
New C.O. (5 year)	\$350,000			\$650,000		\$1,000,000
New C.O. (20 year)	\$2,000,000*	\$3,000,000	\$1,500,000	\$1,000,000	\$200,000	\$7,700,000
Existing C.O. (20 year)	\$3,740,047	\$1,868,358	\$145,900	\$186,600	\$50,000	\$5,990,905
Total	\$12,364,992	\$14,798,014	\$8,211,003	\$8,779,297	\$5,106,879	\$49,260,185

*Debt service balancing results in additional \$6 million (from FY17) to be sold in FY18



Capital Improvements Projects 2018 - 2022 Wastewater

Pecan Creek Water Reclamation Plant	
Clarifier Drive Replacement	2018
PCWRP Process Model Real Time Upgrade	2018
Plant Improvements	2018-2022
Electric Transformer Replacement	2019-2022
PCWRP Solids Handling	2019
Reverse Osmosis (RO) Purified Water System	2019



Barrow Lift Station Relocation
2019 - Construction

Barrow Force Main and Gravity Main Replacement
2019 - Construction

Bonnie Brae HWY 380 to Windsor
2019 - Construction

Elm Street Sewer Line Replacement Phase I and 2
2018 - Construction

Cooper Creek Interceptor II
2018 - Construction

Cooper Creek Interceptor I
2018 - Construction

Westgate Heights Interceptor
2020 - Design
2021 - Construction

Bonnie Brae Scripture to HWY 380
2019 - Construction

Hickory Creek Interceptor IV
2019 - Design
2021 - Construction

Bonnie Brae 135 to Scripture
2019 - Construction

Ruddell Extension at Mingo Utility Relocate
2018 - Construction

Hickory Creek Interceptor III
2018 - Design
2020 - Construction

Dry Fork Hickory Creek Tributary 1 Interceptor
2018 - Construction

Pecan Creek Water Reclamation Plant
(see table above)

Hickory Creek Interceptor II
2019 - Construction

Graveyard Branch Syphon
2018 - Construction

Hickory Creek Interceptor 1
2019 - Construction

Hickory Creek Lift Station Upgrade
2018 - Construction

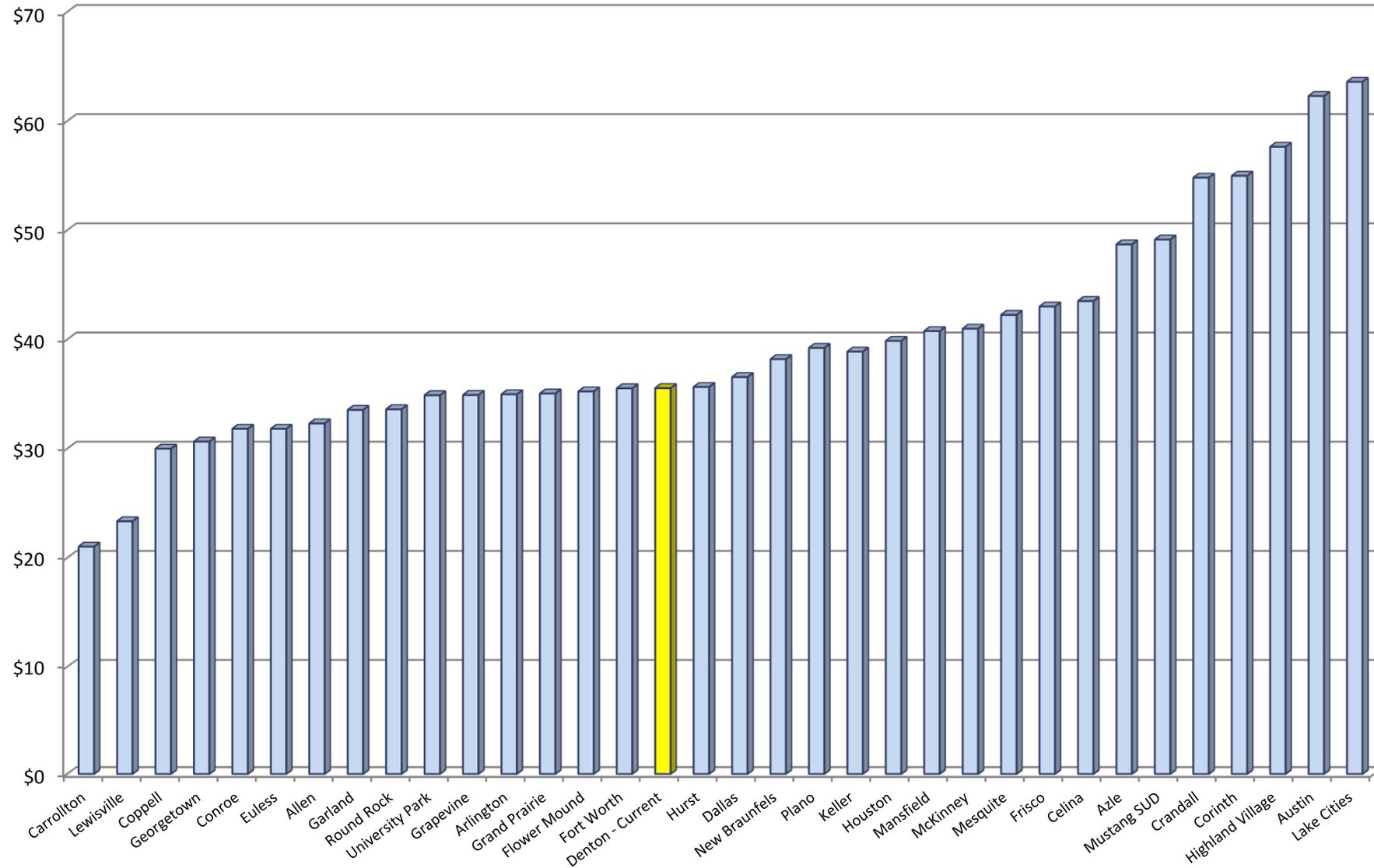
— 2018
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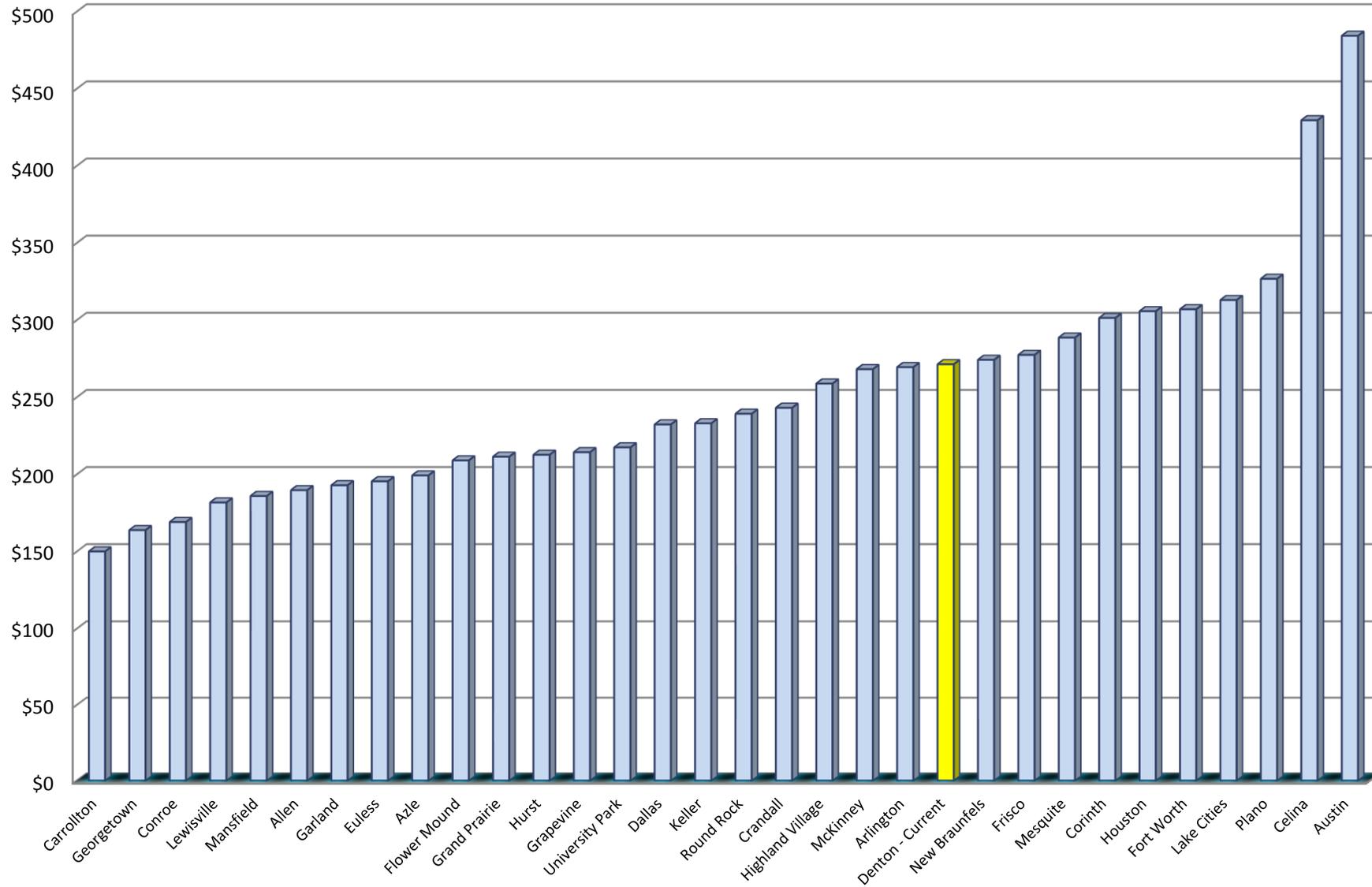
Residential Wastewater Comparison

5/8" Meter - 6,000 Gallons



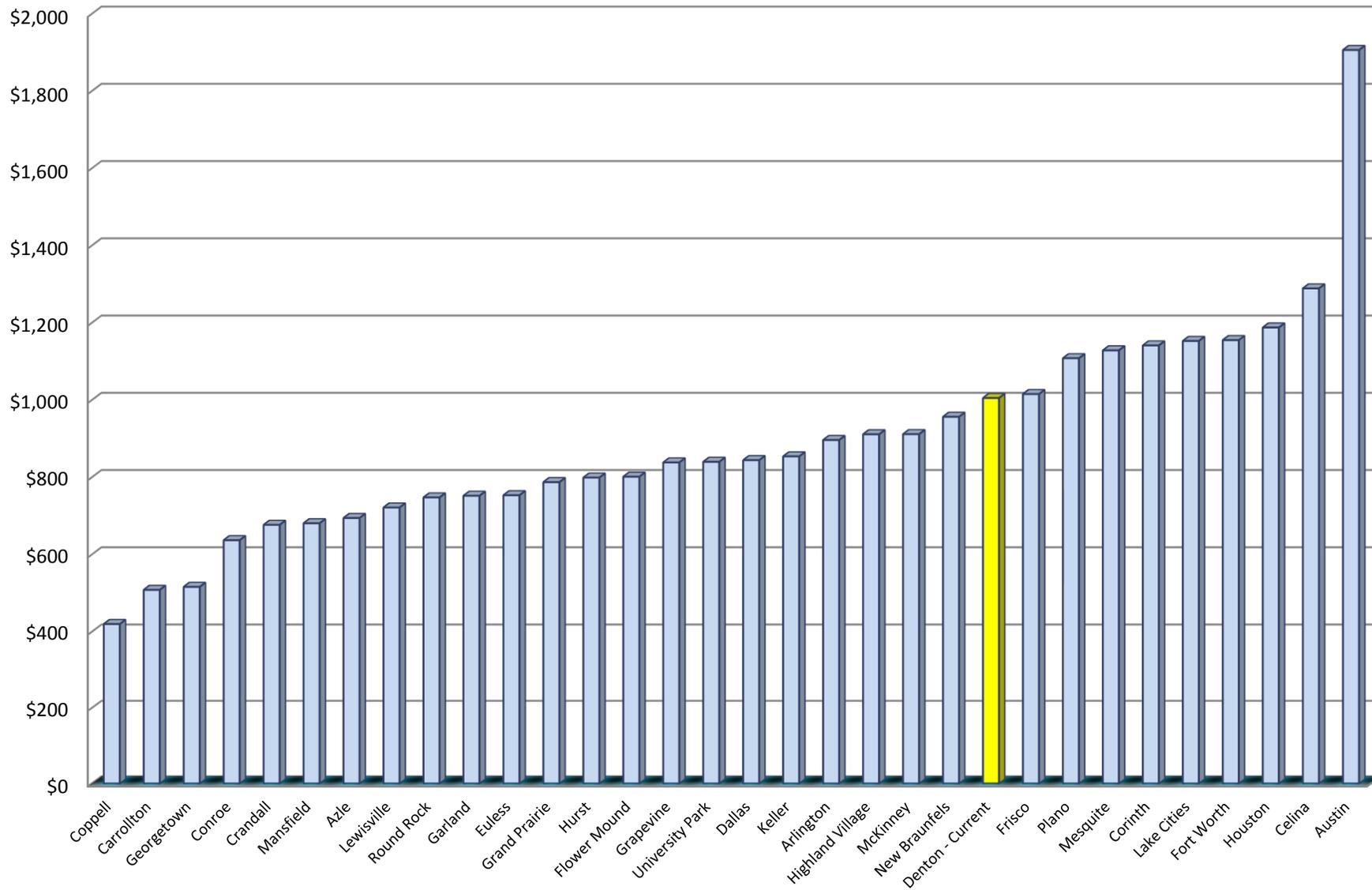
Commercial Wastewater Comparison

2" Meter - 50,000 Gallons at 95%



Commercial Wastewater Comparison

2" Meter - 200,000 Gallons at 95%





Wastewater Utilities

Questions / Comments

