

WATER FUND



San Jose Splash Pad

WATER FUND

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WATER SERVICES FUND

The Water Services Fund is used to account for the revenues generated from operating and maintenance activities related to the Water, Wastewater, and Irrigation utilities. Each of these utility services is tracked separately within this fund to ensure the rate and rate design will fully recover the cost of providing each service. The City operates three water treatment plants and five wastewater treatment plants. The City's water supply is 35% ground water and 65% surface water.

Expenses include debt service payments, capital costs, and transfers out to the General Fund per the City's return on investment (ROI) policy. The ROI represents the value that owners receive for owning the utility.

FISCAL YEAR 2017

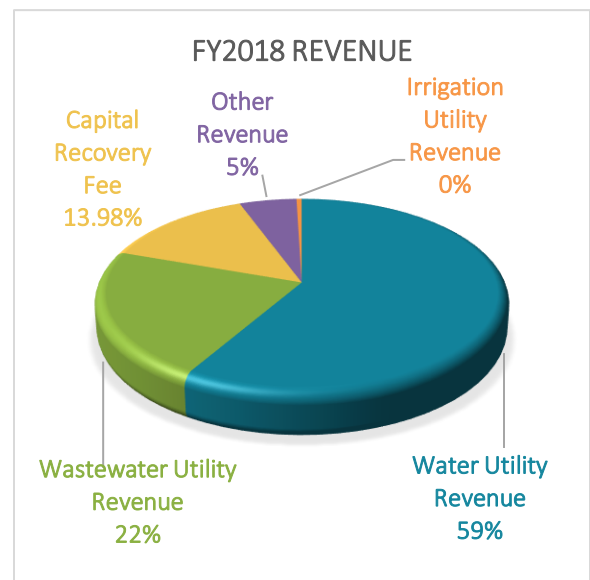
Total operating revenues are projected to be \$49.8 million, which is 6% higher than the current budget. The higher than expected revenue is primarily the result of higher water and wastewater sales, as well as capital recovery fees (impact fees).

Total non-operating revenues are \$20.3 million of primarily bond proceeds, which is on budget.

Total operating expenditures are projected to be \$30.7 million, or 4.6% less than the current budget.

Total non-operating expenditures are \$77.8 million, which is 2.8% less than budget. Capital projects that are not completed in FY2017 will be rolled into the following year.

Total fund balance is projected to be \$16 million as of September 30, 2017. Excess fund balance over the Fiscal and Budgetary Policy required contingency is available to fund non-recurring expenditures and is expected to be used to cash fund CIP projects in FY2018.



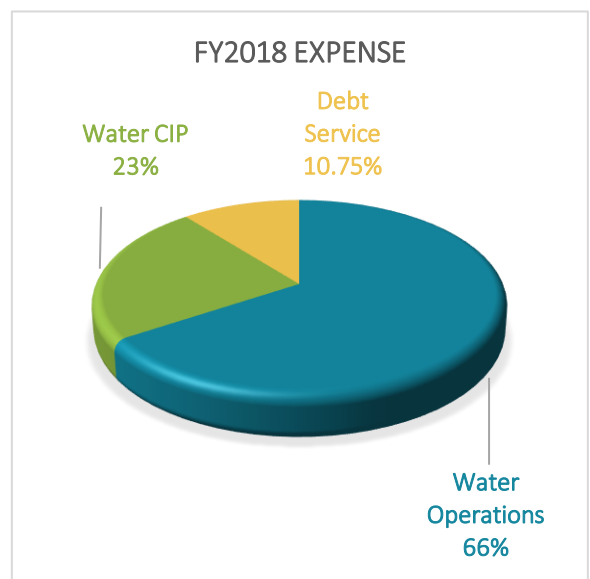
FISCAL YEAR 2018

Budgeted operating revenues total \$48.1 million, a 3.4% decrease from projection. The decrease reflects conservative growth in capital recovery and development related fees.

Budgeted operating expenses total \$32.7 million which represents a 6% increase over FY2017 projections. This is primarily due to the water meter conversion project discussed below under budget enhancements.

Budgeted non-operating revenues show no new bond proceeds in 2018.

Budgeted non-operating expenses are \$16.9 million, a decrease of almost 80%. The decrease is primarily due to a reduction in new capital projects while the utility completes the large amount of projects accumulated in the past two years. New capital projects include tank rehabilitation, miscellaneous line upgrades, and Water Treatment Plant expansion.



Total fund balance is projected to be \$14.6 million, meeting the contingency requirement.

Approved Enhancements:

- ***Water Distribution: Water Meter Conversions to AMI:*** The acquisition of the former Chisholm Trail service territory and customers resulted in the addition of over 8,500 meters using multiple Automatic Meter Reading (AMR/drive-by) technologies. Conversion of these meters to AMI technology (fixed network) will reduce metering technician trips out to those areas by giving utility staff the ability to read and diagnose metering problems more efficiently. The conversion will also provide enhanced service offerings (AquaMessenger, GUARD) to the newly acquired customers. The conversion is a multi-year project. Proposed Cost: \$402,500.
- ***Water Operations: Water Services Crew:*** Personnel additions to Water Services is needed due to the customer and system growth of over 7% since the last field staff addition. The addition of two technicians returns the staffing /customer ratio to prior levels established by benchmark with similar utilities and also facilitates improvement of Key Performance Indicators (KPI) that have deteriorated due to existing staffing levels. Current On-Time Maintenance KPI is at 90% with a current goal of 95%. Proposed Cost: \$175,649.
- ***Water Operations: Hydrant Testing Truck:*** The additional vehicle will improve efficiency by separating a crew into two vehicles to improve fire hydrant maintenance timeliness and increase leak detection activities to improve Key Performance Indicator for Water Loss. Current Water Loss KPI is at 14.4% with the future goal of reducing water loss to less than 10%. Proposed Cost: \$29,425.

FUND SCHEDULE

	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Beginning Fund Balance	49,133,361	24,911,779	54,428,066	16,101,907	-	16,101,907
	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Operating Revenue						
Water Utility Revenue	24,942,260	26,878,500	27,276,460	27,926,695	-	27,926,695
Wastewater Utility Revenue	9,732,012	10,733,475	10,541,459	10,850,000	-	10,850,000
Capital Recovery Fee	6,442,030	4,767,300	7,998,019	6,672,500	-	6,672,500
Other Revenue	3,250,671	3,747,088	3,477,951	2,173,750	-	2,173,750
Irrigation Utility Revenue	259,810	225,000	174,515	225,000	-	225,000
Interest	225,704	199,975	260,010	192,385	-	192,385
Transfer	175,803	115,839	115,839	116,613	-	116,613
Raw Water Revenue	186,853	-	0	-	-	-
Operating Revenue Total	45,215,145	46,667,177	49,844,253	48,156,943	-	48,156,943
	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Operating Expense						
0000 - Transfer Out	1,592,710	715,750	565,750	515,981	62,000	577,981
0000 - Transfer Out, ROI	2,704,418	2,604,339	2,605,536	2,686,505	-	2,686,505
0302 - Rural Water Customer Care	24,473	-	-	-	-	-
0338 - Bond Issuance Cost	-	-	-	-	-	-
0353 - Rural Water Customer Care	93,462	-	-	-	-	-
0527 - Water Administration	11,795,779	16,600,932	16,052,822	17,147,063	-	17,147,063
0528 - Water Distribution	3,013,650	2,209,230	2,251,093	2,320,800	402,500	2,723,300
0529 - Water Plant Management	2,242,418	2,779,631	2,559,251	2,548,726	-	2,548,726
0530 - Wastewater Distribution	1,861,818	737,700	647,466	613,000	-	613,000
0531 - Wastewater Plant Management	2,341,044	2,670,507	2,335,887	2,437,025	-	2,437,025
0532 - Irrigation	216,889	205,472	192,472	204,300	-	204,300
0549 - Rural Water Admin	3,175,644	-	-	-	-	-
0550 - Rural Water System Operations	1,126,752	-	-	-	-	-
0551 - Rural Water Technical Services	123,099	-	-	-	-	-
0552 - Rural Water Systems Engineering	277,606	-	-	-	-	-
0553 - Water Operations	-	3,713,479	3,509,434	3,626,471	143,074	3,769,545
9990 - Water Debt Service	-	-	-	-	-	-
Operating Expense Total	30,589,762	32,237,040	30,719,711	32,099,871	607,574	32,707,445
	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Available Operating Fund Balance	63,758,744	39,341,916	73,552,608	32,158,979	(607,574)	31,551,405
	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Non-Operating Revenue						
Bond Proceeds	7,858,868	20,000,000	20,000,000	-	-	-
Other Revenue	-	-	380,692	2,500	-	2,500
Special Improvement Fees	639,248	205,000	-	-	-	-
Non-Operating Revenue Total	8,498,116	20,205,000	20,380,692	2,500	-	2,500
	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Non-Operating Expense						
0501 - Debt Service	-	-	-	-	-	-
0580 - WATER CIP	11,910,961	31,237,114	28,925,066	7,150,000	-	7,150,000
0581 - Wastewater CIP	1,579,858	43,723,839	43,723,839	4,500,000	-	4,500,000
0582 - Wastewater CIP	-	-	-	-	-	-
9990 - Water Debt Service	2,837,786	2,779,076	2,779,076	3,229,164	-	3,229,164
9991 - Wastewater Debt Service	1,769,254	2,273,925	2,273,925	2,002,740	-	2,002,740
9992 - Irrigation Debt Service	128,481	129,486	129,486	112,631	-	112,631
Non-Operating Expense Total	18,226,340	80,143,440	77,831,392	16,994,535	-	16,994,535
	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Ending Fund Balance	54,030,519	(20,596,524)	16,101,907	15,166,944	(607,574)	14,559,370
CAFR Adjustment	397,547	-	-	-	-	-
Contingency	4,565,000	5,000,000	5,000,000	6,000,000	-	6,000,000
Available Fund Balance	49,863,066	(25,596,524)	11,101,907	9,166,944	(607,574)	8,559,370

WATER ADMINISTRATION & WATER SERVICES

DEPARTMENT DESCRIPTION

The Water Administration and Water Services Departments are responsible for the operation and maintenance of the infrastructure that provides potable water for over 37,000 metered connections in a 450 square mile area. The water infrastructure includes 4 treatment plants, 9 elevated storage tanks, 8 ground storage tanks, 13 pumping stations, and 888 miles water distribution piping, with associated valves, hydrants, and meters. Department activities are regulated by the Texas Commission on Environmental Quality (TCEQ), Public Utility Commission (PUC), and the Environmental Protection Agency (EPA).

WATER FUND

WATER ADMINISTRATION &
WATER SERVICES

52.5 FTEs

MAJOR DEPARTMENT ACCOMPLISHMENTS FOR FY2017

- ✓ Met or exceeded all regulatory standards for water service.
- ✓ Provided reliable and safe drinking water service by operating and maintaining the water system in a cost efficient and safe manner.
- ✓ Transitioned water treatment plant operations from use of contract operators to city staff, a move expected to save the City money over the next five years.
- ✓ Completed the Water Treatment Plant Operator Training and Progression Program.
- ✓ Developed new sampling and testing programs to address increased regulatory requirements.
- ✓ Upgraded the Lake Water Treatment Plant intake controls.
- ✓ Improved water loss measurement through development of a daily loss indicator.
- ✓ Commenced operation of the Rabbit Hill elevated storage tank.
- ✓ Attended Texas American Water Works Association, TCEQ, and Texas Municipal Utilities Association (TMUA) conferences.
- ✓ Awarded the TMUA Award – 2017 Utility of the Year.

MAJOR DEPARTMENT GOALS & STRATEGIES FOR FY2018

- Continue to meet Environmental Protection Agency (EPA) and Texas Commission on Environmental Quality (TCEQ) standards for water service (pressure, flow, and water quality).
- Provide reliable and safe drinking water service by operating and maintaining the water system in a cost efficient and safe manner.
- Upgrade the Park Water Treatment Plant filter controls.
- Finalize and complete upgrade at the Domel water treatment plant.
- Commence operation of the Cedar Breaks elevated storage tank.
- Improve the treatment plant performance metrics to operate more efficiently.
- Upgrade automatic controls at South Side Water Treatment Plant.
- Extend advanced metering infrastructure (AMI) network into Western District Areas.



Notable Budget Item(s)

Water Meter Conversion to
AMI
\$402,500

Water Service Crew
\$175,649

Water Tower near Fire Station
 #2

DEPARTMENTAL BUDGET

	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Water Services						
Personnel	1,577,893	4,121,732	4,067,365	4,016,381	124,924	4,141,305
Operations	14,927,085	19,699,602	18,858,399	20,731,679	20,650	20,752,329
Capital	546,599	1,481,938	1,446,835	895,000	400,000	1,295,000
Total	17,051,577	25,303,272	24,372,600	25,643,060	545,574	26,188,634

DEPARTMENTAL PERFORMANCE MEASURES

Providing safe drinking water service to customers while maintaining the water system in a cost efficient and reliable manner is a top priority for the Department. Several performance measures are in place to ensure these goals are met.

Water Service Quality (WSQ) is measured across the Average Service Availability Index (ASAI), System Average Interruption Frequency Index (SAIFI), and the Customer Average Interruption Duration Index (CAIDI).

ASAI is a measure of the average availability of the sub transmission and distribution systems to serve customers. It is the ratio of the total customer minutes that service was available to the total customer minutes demanded in a time period. Water Services aims for a value of 99 or greater for ASAI. The most recent value was 99.973.

SAIFI and *CAIDI* are used as a reliability indicator by the utilities. The equations below show how these ratios are calculated. Water Services aims for a value of 1 or less for SAIFI and a value of 116 or less for CAIDI. The most recent values were 0.22 and 81.04 respectively.

$$SAIFI = \frac{\text{Total Number of Customer Interruptions}}{\text{Total Number of Customers Served}}$$

$$CAIDI = \frac{\text{Total Duration of Customer Interruptions}}{\text{Total Number of Customer Interruptions}}$$

$$ASAI = \frac{\text{Customer Hours Service Availability}}{\text{Customer Hours Service Demand}}$$

WASTEWATER SERVICES

DEPARTMENT DESCRIPTION

The Wastewater Department is responsible for the operation and maintenance of the infrastructure that provides wastewater for over 24,041 customers. The wastewater infrastructure includes 5 treatment plants, 24 pumping stations, 7,076 manholes, and 337 miles of wastewater collection mains. This Department's activities are regulated by the Texas Commission on Environmental Quality (TCEQ) and the Environmental Protection Agency (EPA).

WATER FUND

WASTEWATER SERVICES

7 FTEs

MAJOR DEPARTMENT ACCOMPLISHMENTS FOR FY2017

- ✓ Provided reliable wastewater service to customers by operating and maintaining the wastewater system in a cost efficient and safe manner.
- ✓ Met or exceeded all regulatory standards for wastewater service (discharge limits, system integrity).
- ✓ Completed Edwards Aquifer Recharge Zone (EARZ) testing of 1/5 of the collection system.
- ✓ Commenced expansion of the Pecan Branch Wastewater Treatment Plant.
- ✓ Completed the Wastewater Treatment Plant Operator Training and progression program.
- ✓ Transitioned wastewater treatment plant operations from use of contract operators to city staff.
- ✓ Completed 2016 Edwards Aquifer Recharge Zone (EARZ) repairs resulting in a substantial reduction in inflow and infiltration system.
- ✓ Renewed the Berry Creek permit.
- ✓ Began operation of 5 new lift stations.
- ✓ Commenced permit renewal process for Cimarron Hills Wastewater Treatment Plant.
- ✓ Awarded the Texas Municipal Utilities Association Award – 2017 Utility of the Year.

MAJOR DEPARTMENT GOALS & STRATEGIES FOR FY2018

- Provide reliable wastewater service to customers by operating and maintaining the wastewater system in a cost efficient and safe manner.
- Continue to meet and exceed all regulatory standards for wastewater service (discharge limits, system integrity).
- Complete expansion of the Pecan Branch Wastewater Treatment Plant.
- Permit renewal for Pecan Branch, Cimarron Hills, San Gabriel, Dove Springs and Northlands WWTP.
- Commence San Gabriel sludge press Capital Improvement.
- Complete EARZ testing of 1/5 of the collection system.



Dove Springs Wastewater Treatment Plant

DEPARTMENTAL BUDGET

	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Wastewater Services						
Personnel	1,216,875	550,409	549,686	559,614	-	559,614
Operations	2,985,988	2,807,798	2,371,487	2,230,411	-	2,230,411
Capital	-	50,000	62,180	260,000	-	260,000
Total	4,202,862	3,408,207	2,983,353	3,050,025	-	3,050,025

DEPARTMENTAL PERFORMANCE MEASURES

The provision of reliable, safe wastewater service to customers while maintaining the system in a cost efficient and reliable manner is a top priority for the Wastewater Services Department.

Performance measures are in place to monitor Operations and Maintenance (O&M), Systems Metrics, Project Metrics, Resource and Financial Metrics. **Metrics for O&M** include on-time service delivery, safety, training, and productivity. **Systems Metrics** focus on reliability, availability, output, and capacity for service provision. **Project Metrics** are also in place to monitor infrastructure to ensure continued service provision that is on schedule, within budget, and within allotted resources. **Resource and Financial Metrics** focus on pricing and risk management to ensure the Department is capable of providing debt coverage in the form of return on investment. The image to the right is a graphical representation of monthly performance measures monitored by the Department.

June 2017									
	GUS Safety	Water O&M	Water Service Quality	Electric O&M	Electric Service Quality	Good	Caution	Alert	
Combined Water Services Safety	93%					>90%	90%-80%	<80%	
Electric Ops Safety	92%					>90%	90%-80%	<80%	
Water Loss		↑12.2%				<15%	15%-17%	>17%	
SO OTC				↑100%		>90%	90%-80%	<80%	
PM WO OTC		↑97%		↓96%		>90%	90%-80%	<80%	
CM WO OTC		↑92%		↓99%		>90%	90%-80%	<80%	
CM WO Backlog		28		0		N/A	N/A	N/A	
ASAI			99.97		99.98	>99	99-98	<98	
SAIFI			0.21		0.71	<1	1-2	>2	
CAIDI			81.06		21.90	<116	116-200	>200	
ASAI-Average Service Availability Index									
SAIFI-System Average Interruption Frequency									
CAIDI-Customer Average Interruption Duration Index									
Comments:									
Water Ops Safety - Meeting Attendance 80% (No Incidents) Observations 79%									
Water Plant Safety - Meeting Attendance 100% (No Incidents) (100% Overall)									
Wastewater Plant Safety - Meeting Attendance 87% (No Incidents) (93% Overall)									
Electric Ops Safety - Meeting Attendance 82% (No Incidents) Observations 93%									
Tech Services / Systems Engineering - Meeting Attendance 77% (No Incidents) (88% Overall)									

REUSE IRRIGATION

DEPARTMENT DESCRIPTION

The Reuse Irrigation Department is responsible for the operation and maintenance of infrastructure that distributes reuse irrigation water to five major irrigation customers. Reuse Irrigation infrastructure includes two storage tanks, four pumping stations, piping, and valves. The Department activities are regulated by the Texas Commission on Environmental Quality (TCEQ) and the Environmental Protection Agency (EPA).

WATER FUND

REUSE IRRIGATION

0 FTEs

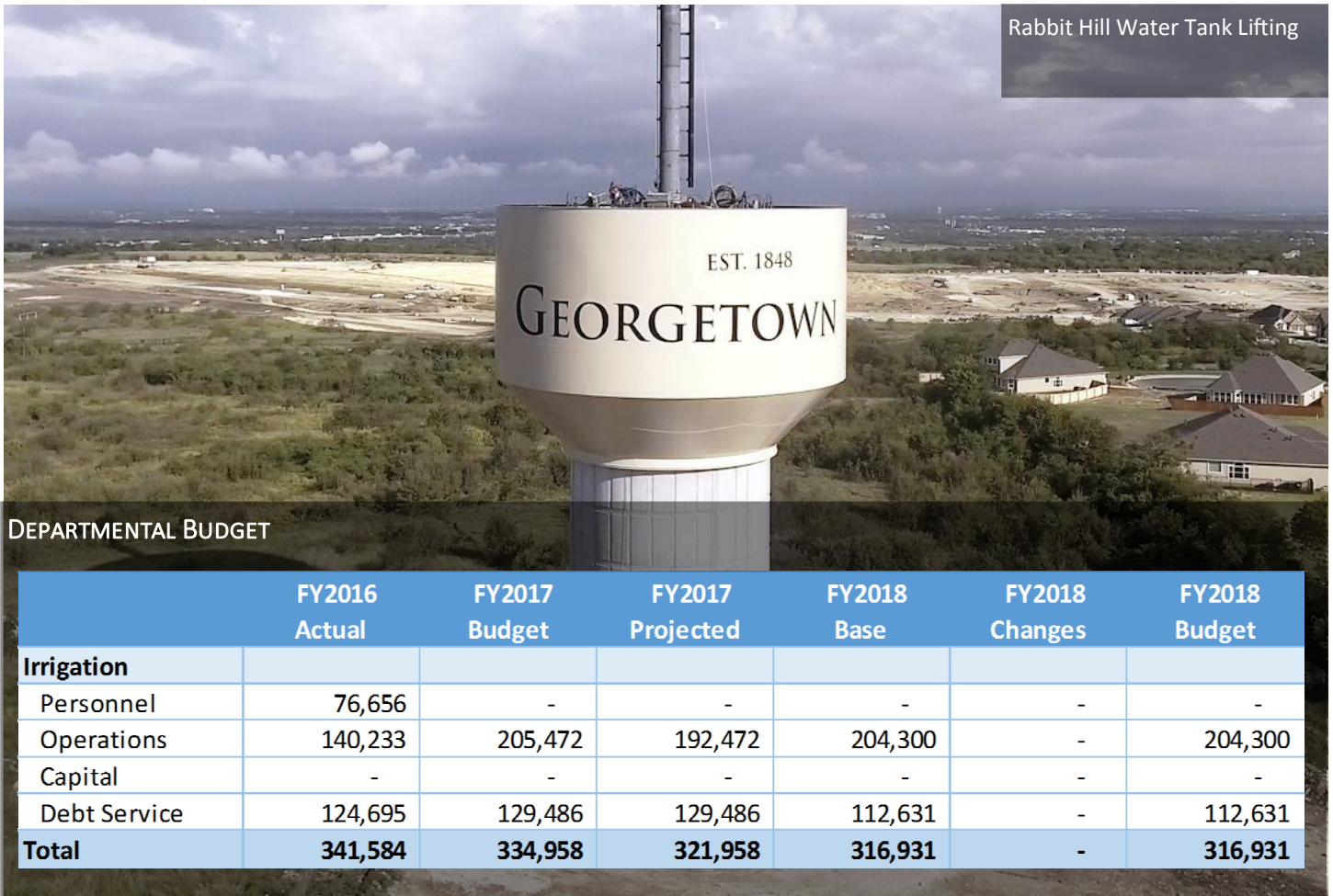
MAJOR DEPARTMENT ACCOMPLISHMENTS FOR FY2017

- ✓ Provided reliable Reuse Irrigation service to customers by operating and maintaining the irrigation system in a cost efficient and safe manner.
- ✓ Met Texas Commission on Environmental Quality (TCEQ) standards for Reuse Irrigation service (water quality).
- ✓ Provided 85 million gallons to reuse customers which preserved 260 acre-feet of water resources.
- ✓ Upgraded the controls on the Airport pump station.



MAJOR DEPARTMENT GOALS & STRATEGIES FOR FY2018

- Complete Pecan Branch Wastewater Treatment Plant Expansion to increase reuse irrigation capability.
- Continue to provide reliable Reuse Irrigation service to customers by operating and maintaining the irrigation system in a cost efficient and safe manner.
- Meet TCEQ standards for Reuse Irrigation service (water quality).
- Complete Airport Ground Storage Tank rehabilitation project.



DEPARTMENTAL BUDGET

	FY2016 Actual	FY2017 Budget	FY2017 Projected	FY2018 Base	FY2018 Changes	FY2018 Budget
Irrigation						
Personnel	76,656	-	-	-	-	-
Operations	140,233	205,472	192,472	204,300	-	204,300
Capital	-	-	-	-	-	-
Debt Service	124,695	129,486	129,486	112,631	-	112,631
Total	341,584	334,958	321,958	316,931	-	316,931

DEPARTMENTAL PERFORMANCE MEASURES

The City operates a reuse irrigation system that utilizes wastewater effluent to provide water for irrigation. One of the goals for the irrigation department is to *maintain Type I effluent water that is safe* for public contact 100% of the time.

Municipal reclaimed water is treated water that is primarily derived from permitted sewage treatment plants. These plants primarily treat human waste and wastewater from activities such as washing, bathing, and food preparation. These wastes are then treated to the extent at which they are safe and suitable for reuse as reclaimed water. Reuse of untreated wastewater is prohibited.

Examples of Type I uses include watering: public parks, school yards, residential lawns, athletic fields, fire protection, food-crop irrigation, and application to pastures grazed by milking animals.

The system currently provides effluent from four of its five wastewater treatment plants to five golf courses in the Georgetown area. Effluent irrigation water is also provided to Southwestern University's athletic fields and the City's parks.

After the system has been completed an inspection by a State certified back flow prevention tester must be conducted and a cross connection test report form must be completed. This form must be returned to the Inspection Services Department within 72 hours of test completion.



WATER FUND FIVE-YEAR PROJECTIONS

Five-year Water Fund Assumptions:

- Revenues in Water and Wastewater sales are expected to increase due to growing customer base in the City and Western District
- 5-year CIP project schedule is weighted toward the initial few years to help meet system capacity needs
- Debt service payments are expected to increase over the next five years to pay for capital improvements in the system

	FY2018 Budget	FY2019 Projected Budget	FY2020 Projected Budget	FY2021 Projected Budget	FY2022 Projected Budget
Beginning Fund Balance	16,101,907	14,559,360	11,703,034	15,008,251	24,347,533
	FY2018 Budget	FY2019 Projected Budget	FY2020 Projected Budget	FY2021 Projected Budget	FY2022 Projected Budget
Operating Revenue					
Water Utility Revenue	27,926,695	28,205,962	28,488,022	28,772,902	29,060,631
Wastewater Utility Revenue	10,850,000	11,284,000	11,735,360	12,204,774	12,692,965
Capital Recovery Fee	6,672,500	6,839,313	7,010,295	7,185,553	7,365,192
Other Revenue	2,173,750	2,206,356	2,228,420	2,250,704	2,273,211
Irrigation Utility Revenue	225,000	225,000	225,000	225,000	225,000
Interest	192,385	194,309	196,252	198,214	200,197
Transfer	116,613	120,000	120,000	120,000	120,000
Operating Revenue Total	48,156,943	49,074,940	50,003,349	50,957,147	51,937,195
	FY2018 Budget	FY2019 Projected Budget	FY2020 Projected Budget	FY2021 Projected Budget	FY2022 Projected Budget
Operating Expense					
0000 - Transfer Out	577,981	600,000	600,000	600,000	600,000
0000 - Transfer Out, ROI	2,686,505	2,780,047	2,831,387	2,884,187	2,938,502
0527 - Water Administration	17,147,063	17,747,210	18,368,363	19,011,255	19,676,649
0528 - Water Distribution	2,723,300	2,818,616	2,917,267	3,019,371	3,125,049
0529 - Water Plant Management	2,548,726	2,637,931	2,730,259	2,825,818	2,924,722
0530 - Wastewater Distribution	613,000	634,455	656,661	679,644	703,432
0531 - Wastewater Plant Management	2,437,025	2,522,321	2,610,602	2,701,973	2,796,542
0532 - Irrigation	204,300	211,451	218,851	226,511	234,439
0553 - Water Operations	3,769,545	3,769,545	3,769,545	3,769,545	3,769,545
Operating Expense Total	32,707,445	33,721,576	34,702,935	35,718,305	36,768,880
	FY2018 Budget	FY2019 Projected Budget	FY2020 Projected Budget	FY2021 Projected Budget	FY2022 Projected Budget
Available Operating Fund Balance	31,551,405	29,912,724	27,003,448	30,247,093	39,515,848
	FY2018 Budget	FY2019 Projected Budget	FY2020 Projected Budget	FY2021 Projected Budget	FY2022 Projected Budget
Non-Operating Revenue					
Bond Proceeds	-	-	-	30,000,000	-
Other Revenue	2,500	2,500	2,500	2,500	2,500
Non-Operating Revenue Total	2,500	2,500	2,500	30,002,500	2,500
	FY2018 Budget	FY2019 Projected Budget	FY2020 Projected Budget	FY2021 Projected Budget	FY2022 Projected Budget
Non-Operating Expense					
0501 - Debt Service	5,344,545	5,244,690	5,267,697	5,152,061	7,168,532
0580 - Water CIP	11,650,000	12,967,500	6,730,000	30,750,000	12,450,000
Non-Operating Expense Total	16,994,545	18,212,190	11,997,697	35,902,061	19,618,532
	FY2018 Budget	FY2019 Projected Budget	FY2020 Projected Budget	FY2021 Projected Budget	FY2022 Projected Budget
Ending Fund Balance	14,559,360	11,703,034	15,008,251	24,347,533	19,899,817
CAFR Adjustment	-	-	-	-	-
Contingency	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000
Available Fund Balance	8,559,360	5,703,034	9,008,251	18,347,533	13,899,817