

The Utilities Fund is a proprietary enterprise fund used to account for funds needed to operate, maintain and expand Stafford County's Water and Wastewater system. The Utilities Fund is financed and managed in a manner similar to private business industry.

Provision of Water Services:

Two reservoirs, Smith Lake and Lake Mooney, supply water to Stafford County's treatment facilities. The Smith Lake Water Treatment Facility (WTF), rated at 10 million gallons per day (mgd), provides water to the northern region of Stafford and to the Camp Barrett area of Marine Corps Base Quantico. The Lake Mooney WTF, rated at a maximum of 12 mgd, provides water to the southern region. Combined, the two reservoirs hold over 7.1 billion gallons of water. If needed, interconnecting piping in the water distribution system allows the transfer of treated water from one service area to the other. The Abel Lake WTF was taken offline December 2014; however, the water supply remains available for future use. The capacity is expected to be needed within the next ten to fifteen years.

The water distribution system is comprised of more than 652 miles of pipe ranging in size from 2 to 30 inches in diameter, with four primary pumping stations. Two ground storage tanks, two standpipes and eleven elevated tanks provide water storage of nearly 17.45 million gallons. The Berea Tank is scheduled to be removed.

Provision of Wastewater Services:

Wastewater treatment is provided by the Little Falls Run and Aquia wastewater treatment facilities (WWTF). The treatment capacity at Little Falls Run WWTF is currently permitted at 8 mgd. The current treatment capacity at Aquia WWTF is 10 mgd. Both treatment facilities utilize biological nutrient removal, ultraviolet light disinfection, and the low-load aeration system that allows higher flow rates without adversely affecting treatment. The wastewater collection and transmission system consists of 526 miles of sewer lines and 92 pump stations.

Utilities Department Personnel:

The Utilities Department employees provide customer service, daily inspections, planning, administration, operation and maintenance of the systems. An on-call Field Operations crew and an on-call mechanic handle after-hours emergencies. All water and wastewater treatment facility operators are fully trained and most are licensed. The treatment facilities and field crews maintain an excellent safety record.

Projected Demand for Service:

The Utilities Department finished Fiscal Year 2016 with 35,382 billed customer accounts. The number of billed customer accounts served by the Utilities Department is expected to reach 37,078 by the end of Fiscal Year 2018, assuming 2.20% growth. For the remainder of the planning period (FY19-FY22), accounts are projected to grow at a moderate rate of 1.25% per year.

Mission

Our mission is to provide water and wastewater services that satisfy the current and future needs and expectations of our customers.



Who Are We?

- The Utilities Fund is a proprietary enterprise fund used to account for funds needed to operate, maintain and expand Stafford County's Water and Wastewater system. The Utilities Fund is financed and managed in a manner similar to private business industry. The number of billed customer accounts served by the Utilities Department is expected to reach 37,078 by the end of Fiscal Year 2018, assuming 2.2% growth. For the remainder of the planning period (FY19-FY22), accounts are projected to grow at a conservative rate of 1.25% per year.

Provision of Water Services:

- Smith Lake Water Treatment Facility (WTF), rated at 10 million gallons per day (mgd), provides water to the northern region of Stafford and to the Camp Barrett area of Marine Corps Base Quantico.
- Lake Mooney provides 5.4 billion gallons of water storage and up to 12 mgd of treated water for the southern portion of Stafford.

Provision of Wastewater Services:

- Little Falls Run Wastewater Treatment Facility is currently permitted at 8 mgd.
- Aquia Wastewater Treatment Facility is currently permitted at 10 mgd.
- The wastewater collection and transmission system consists of 526 miles of sewer lines and 92 pump stations.

Utilities Department Personnel:

- Personnel provide customer service, daily inspections, planning, administration, operation and maintenance of the systems.
- An on-call Field Operations crew and an on-call mechanic handle after-hours emergencies.

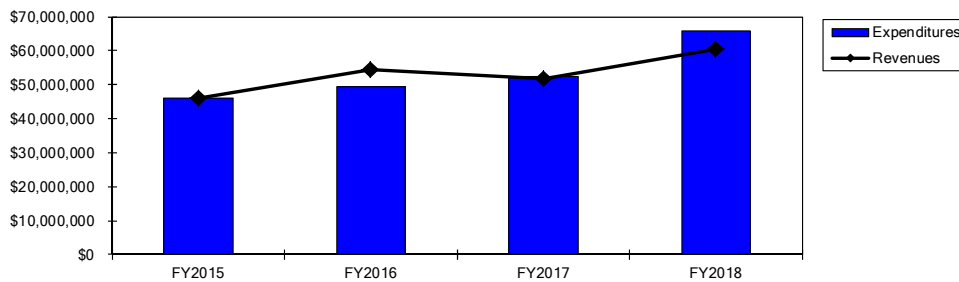
Thinking Efficiently

The Department of Utilities strives to be as efficient as possible to keep costs to a minimum. Staff has recently worked to clean and reline existing pipes that were failing. This was a significant cost savings avoiding a much more expensive design and replacement of the pipe.

Budget Summary

	FY2015 Actual	FY2016 Actual	FY2017 Adopted Budget	Adopted Budget	FY2018 17 to 18	
Revenue/Sources						
Water/Sewer Fees	\$29,018,679	\$31,027,171	\$34,192,736	\$34,765,471	\$572,735	1.68%
Availability/ProRata Fees	8,582,303	11,745,514	9,202,500	9,202,500	0	0.00%
Other Charges and Fees	1,700,181	2,008,323	1,108,000	1,489,480	381,480	34.43%
Use of Money/Property	173,872	0	116,295	0	(116,295)	-100.00%
Revenue Bond Proceeds	6,707,417	9,564,117	7,214,000	14,876,295	7,662,295	106.21%
Total Revenue/Sources	\$46,182,452	\$54,345,125	\$51,833,531	\$60,333,746	\$8,500,215	16.40%
Expenditures						
Personnel	\$11,399,646	\$11,546,502	\$11,958,636	\$12,197,809	\$239,173	2.00%
Operating	11,011,393	11,682,911	14,986,633	15,836,185	849,552	5.67%
Operating -Capital Projects	5,762,438	1,418,000	7,957,227	6,770,147	(1,187,080)	-14.92%
Expansion-Capital Projects	11,100,898	17,879,950	9,488,529	22,034,148	12,545,620	132.22%
Debt Service	6,707,417	6,755,233	7,994,289	9,014,939	1,020,650	12.77%
Total Expenditures	\$45,981,792	\$49,282,596	\$52,385,314	\$65,853,228	\$13,467,914	25.71%
Inc/(Dec) to Fund Balance	\$200,660	\$5,062,529	(\$551,783)	(\$5,519,482)	(\$4,967,699)	900.30%

Funded Positions						
Full-Time Positions	139	139	140	140	0	0.00%
Part-Time Positions	1	1	1	1	0	0.00%



Notes:

(1) In September of 2013 the Board of Supervisors approved \$45 million in water and sewer revenue bonds to meet critical infrastructure demands.

(2) FY18 Adopted Budget includes the continued improvement of the Courthouse Area Water system.

Total Budget

\$65,853,228

Notable Changes

Operating

- Increase of User Fees due to rate increase
- 2% Salary Increase
- Increase to operations for periodic equipment replacement
- Increase of maintenance cost from additional infrastructure accepted by the County from Developer projects

Operating/Capital

- Expenses for operating - capital projects decreased 15%
- Increase to the expansion-capital projects due to current and future capacity and demand requirements

Goals/Objectives

- Provide quality water and uninterrupted service by effectively managing and operating water and wastewater facilities, including water production and transmission, wastewater treatment and conveyance, and residuals disposal to meet customer demands and regulatory requirements.
- Prioritize and implement a capital improvement program to meet expansion, regulatory and other performance goals, while keeping within the constraints of the Utilities Funding sources and policies.
- Effectively manage capital projects, external consultants/contractors, schedules and quality of deliverables to ensure Stafford County citizens are getting the BEST value for every dollar invested in the water and wastewater system.
- Fund maintenance and repair of water and wastewater infrastructure at a level that will provide for continued sustainability of the system infrastructure.
- Work with a consultant to evaluate all pump and haul customer lots to determine if a conventional or alternative system can be installed to handle the sewage.

Service Levels

	FY2016 Actual	FY2017 Budget	FY2018 Plan
Billion gallons of water treated (Manual Tracking)	3.160	3.226	3.293
Billion gallons of wastewater treated (Manual Tracking)	2.948	3.000	3.052
# of water and sewer billed accounts (HTE System)	35,382	36,287	37,078
# of Miss Utility locate requests processed (Manual Tracking)	23,605	27,570	30,000
# of backflow preventers inspected and/or tested (Hansen Sys.)	256	285	317
# of water meters read (HTE System)	414,883	427,890	441,306
# of delinquency notices (HTE System)	37,445	38,271	39,116
# of delinquent water turn-offs (HTE System)	5,365	5,500	5,638
Wastewater treatment effectiveness rate - % of days (Manual Tracking)	100%	100%	100%
Drinking water compliance rate - % of days (Manual Tracking)	100%	100%	100%
Operating Cost to treat water (per thousand gallons) (Manual Tracking)	\$1.36	\$1.50	\$1.65
Operating cost to treat wastewater (per thousand gallons) (Manual Tracking)	\$1.68	\$1.80	\$1.93

Accomplishments

- Utility workers inspected 258,082 feet of sewer main and cleaned 406,132 feet of sewer main in FY2016. Currently staff is on-track to exceed both of these numbers in FY2017.
- The Little Falls Run and Aquia Wastewater Treatment Facilities both received the NACWA Peak Performance Award. The award recognizes member agency facilities for outstanding compliance of National Pollutant Discharge Elimination System permit limits.

Did You Know?

Sanitation and drinking water investments have high rates of return: for every \$1 invested, there is a projected \$3-\$34 economic development return (UN WWAP2009).

Financial and Rate Structure

Stafford County operates the Utilities system as a self-supporting entity. The Utilities Department has three major sources of revenue:

- *Monthly User Fees* pay the operations and maintenance costs of the system and a portion of annual debt service costs.
- *Availability Fees* are used to pay for outstanding debt, the construction of new water supply sources, water and wastewater treatment facilities, and neighborhood projects.
- *Pro Rata Fees* are used to construct the water tanks, water and sewer mains, and pumping stations identified in the Water and Sewer Master Plan.

Other sources of revenue include connection charges, bulk sale of water, septic haulers fees, pump & haul fees, reconnection fees, and inspection fees.

The intent of the County in setting its rates and fees is to cover all costs of providing service to its customers. The rates are structured so that new customers connecting to the system pay the majority of the cost associated with the growth of the system and current users pay the entire cost associated with current operations, including maintenance and rehabilitation.

Stafford County has authority to establish and review water and wastewater rates and adopts an annual budget and capital improvements program. System earnings and issuance of revenue bonds provide financing of capital improvements.

Billing and Collection Procedures

Customers receive a monthly bill for services, which is due within 25 days of the bill date. Meters are read monthly and are only estimated if the meter is inaccessible or cannot be read due to inclement weather.

A 10% penalty is added 25 days from the billing date, at which time the bill becomes delinquent. If the account remains unpaid 40 days from the billing date, the service may be terminated. There is a \$30 reconnection fee to re-establish service and an additional fee of \$25 if service is reconnected after normal working hours. The County utilizes the Virginia Set-off Debt Collection Program and Nationwide Credit Corporation (a recovery company) as a collection means.

Utilities Fund Revenue

Stafford County FY18 Adopted Budget

	FY 2016 Actual	FY 2017 Adopted Budget	Adopted Budget	FY 2018 Changes '17 to '18	
Revenues					
Water & Sewer Fees	\$31,027,171	\$34,192,736	\$34,765,471	\$3,738,300	12.05%
Availability/ProRata Fees	11,745,514	9,202,500	9,202,500	(2,543,014)	-21.65%
Other Charges & Fees	2,008,323	1,108,000	1,489,480	(518,843)	-25.83%
Use of Money & Property		116,295	0	0	
	<u>\$44,781,008</u>	<u>\$44,619,531</u>	<u>\$45,457,451</u>	<u>\$676,443</u>	<u>1.51%</u>
Other Sources					
Revenue Bonds	9,564,117	\$7,214,000	\$14,876,295	\$5,312,178	55.54%
Prior Year Fund Balance	0	551,783	5,519,482	5,519,482	0.00%
	<u>\$9,564,117</u>	<u>\$7,765,783</u>	<u>\$20,395,777</u>	<u>\$10,831,660</u>	<u>113.25%</u>
Total	<u><u>\$54,345,125</u></u>	<u><u>\$52,385,314</u></u>	<u><u>\$65,853,228</u></u>	<u><u>\$11,508,103</u></u>	<u><u>21.18%</u></u>

Water & Sewer Fees

Utilities customers are billed monthly for water consumption and wastewater usage. Stafford County projects 36,287 billed customer accounts by June 2017, assuming 2.2% growth. The Board of Supervisors approved a rate increase of 9% that became effective July 1, 2016. This increase will help the Department meet ever growing needs for infrastructure rehabilitation and replacement while continuing to effectively address customer concerns.

Availability Fees

Customers desiring to use the Stafford County water or wastewater system pay a one-time fee per equivalent dwelling unit (EDU). Currently the availability fees are \$6,900 for water and \$3,500 for wastewater (per EDU). These fees are designated for capital expansion and are used as a source to pay debt service for expansion projects. The budget projects 750 EDUs per year for water service and 700 for sewer service based on recent trends.

Pro-Rata Fees

Developers pay a pro-rata share of the cost of constructing Stafford's water or wastewater transmission systems. Fees are based on the estimated impact the development project will have on the appropriate water pressure or wastewater zone. The decline of Pro Rata revenue is due to prior year revenue recognition of various pro rata projects under construction.

Use of Money & Property

Interest is earned on the cash and investment balances of the Utility Enterprise Fund. Interest revenue is expected to decline over the next five years as cash balances are spent down relative to large capital projects that are underway.

Other Charges & Fees

This category includes all other fees that are not included in the categories listed above.

Revenue Bonds

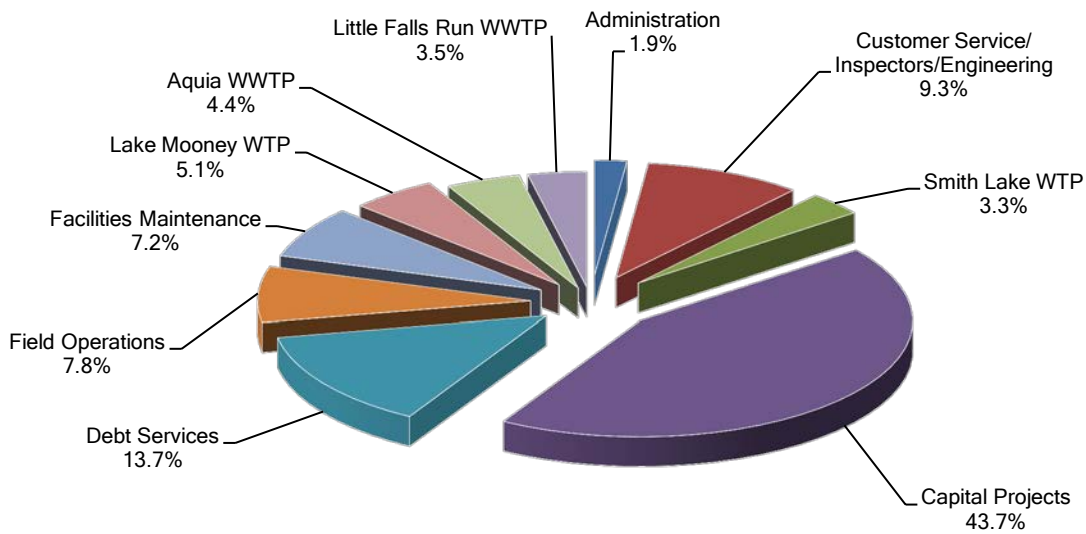
In September 2013, the Board of Supervisor's approved \$45 million of water and sewer revenue bonds. The County issued \$17 million in bonds in 2014 and \$9.5 in 2016 to fund various water and wastewater system improvements. The remaining authorization will be issued in 2018.

Grants

No grant revenues are projected for FY18

Utilities Fund Expenditures

Expenditures	FY2016	FY2017	FY2018		Changes 17 to 18
	Actual	Adopted Budget	Adopted Budget	Changes	
Administration	\$869,387	\$952,168	\$1,260,700	\$308,532	32.4%
Customer Service/ Inspectors/Engineering	4,260,111	5,849,038	6,155,182	306,144	5.2%
Smith Lake WTP	1,777,020	2,432,093	2,181,948	(250,145)	-10.3%
Capital Projects	19,297,950	17,445,800	28,804,295	11,358,495	65.1%
Debt Services	6,755,233	7,994,289	9,014,939	1,020,650	12.8%
Field Operations	4,673,995	4,979,795	5,129,119	149,324	3.0%
Facilities Maintenance	3,314,683	4,276,606	4,748,939	472,333	11.0%
Lake Mooney WTP	3,020,315	3,371,493	3,373,192	1,699	0.1%
Aquia WWTP	3,225,718	2,855,462	2,897,380	41,918	1.5%
Little Falls Run WWTP	2,071,251	2,228,570	2,287,534	58,964	2.6%
Abel Lake WTP	16,933	0	0	0	0.0%
Total Expenditures	\$49,282,596	\$52,385,314	\$65,853,228	\$13,467,914	25.71%



Projected Available Cash Balance

Stafford County FY18 Adopted Budget

6/30/2017 Projected Equity in Cash and Investments \$63,925,572

FY18 Projections:

Revenues

Water & Sewer Fees	\$34,765,471
Availability & Pro Rata Fees	9,202,500
Other Charges & Fees	1,489,480
Use of Money & Property	
Revenue Bonds	14,876,295

Total Revenues	\$60,333,746
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Expenses

Personnel	\$12,197,809
Operating	15,836,185
Capital Projects	28,804,295
Debt Service	9,014,939

Total Expenses	\$65,853,228
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Change in fund balance	(5,519,482)
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6/30/2018 Projected Equity in Cash and Investments 58,406,090

Less:

Debt Set Asides	(\$2,416,344)
Construction and Maintenance	(26,559,739)

Total Restricted Funds	(\$28,976,083)
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Unrestricted	\$29,430,007
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