

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 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.

The water distribution system is comprised of more than 613 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 ten elevated tanks provide water storage of nearly 16.7 million gallons.

### 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 506 miles of sewer lines and 91 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 number of billed customer accounts served by the Utilities Department is expected to reach 35,518 by the end of Fiscal Year 2016, assuming 3.00% growth. For the remainder of the planning period (FY17-FY20), accounts are projected to grow at a moderate rate of 1.25% per year.

# Utilities Fund Budget

Stafford County FY16 Adopted Budget

## Revenues/Sources

	User Fees	Expansion Fees	Total
Water/Sewer Fees	\$30,870,885	\$0	\$30,870,885
Availabilities/ProRata Fees	0	9,202,500	9,202,500
Other Charges and Fees	1,108,000	0	1,108,000
Use of Money/Property	0	116,295	116,295
Bond Proceeds	0	11,528,821	11,528,821
Subtotal	\$31,978,885	\$20,847,616	\$52,826,501
Prior Year Fund Balance	117,634	0	117,634
<b>Total Revenues</b>	<b>\$32,096,519</b>	<b>\$20,847,616</b>	<b>\$52,944,135</b>

## Expenditures

	Operating	Expansion	Total
<b>Personnel &amp; Operating</b>			
Administration	\$869,387	\$0	\$869,387
Customer Service/ Inspection/Engineering	5,259,223	0	5,259,223
Smith Lake WTP	2,358,933	0	2,358,933
Lake Mooney WTP	3,243,717	0	3,243,717
Field Operations	5,190,201	0	5,190,201
Aquia WWTF	2,832,215	0	2,832,215
Little Falls Run WWTF	2,216,223	0	2,216,223
Maintenance	4,120,072	0	4,120,072
<b>Total Personnel &amp; Operating:</b>	<b>\$26,089,971</b>	<b>\$0</b>	<b>\$26,089,971</b>
<b>Debt Service</b>	<b>0</b>	<b>7,556,214</b>	<b>7,556,214</b>
<b>Total Personnel, Operating &amp; Debt Service</b>	<b>\$26,089,971</b>	<b>\$7,556,214</b>	<b>\$33,646,185</b>

## Capital Expenditures

342 Zone, Phase 2	\$0	\$8,558,000	\$8,558,000
Centreport Sewer Mains	0	800,000	800,000
Falls Run PS Force Main Replacement	0	2,357,000	2,357,000
Falls Run Sewer Interceptor, Phase 2A	0	1,200,000	1,200,000
Hilldrup Pump Station	0	175,000	175,000
Hilldrup PS Force Main	0	74,000	74,000
Sewer Extension Projects	0	223,000	223,000
Water Extension Projects	0	223,000	223,000
370N Water Booster Pump Station	0	120,000	120,000
Centreport Water Tank	0	168,000	168,000
Equipment Replacement - Aquia WWTF	910,000	0	910,000
Equipment Replacement - Little Falls WWTF	651,000	0	651,000
Vehicle and Equipment Replacement	350,000	0	350,000
Water System Rehabilitation Program	104,000	0	104,000
Wastewater Pump Station Rehabilitation	250,000	0	250,000
Wastewater System Rehabilitation Program	250,000	0	250,000
Small Sewer Projects	347,000	0	347,000
Small Water Projects	234,000	0	234,000
Courthouse Area Sewer Improvements Phase I-IV	450,000	0	450,000
Smith Lake WTF Filter Replacements	780,000	0	780,000
Potomac Creek Pump Station & Force Main Replacement	155,000	0	155,000
Contingency Allowance	409,600	509,350	918,950
<b>Total Capital Expenditures</b>	<b>\$4,890,600</b>	<b>\$14,407,350</b>	<b>\$19,297,950</b>
<b>Total Expenditures</b>	<b>\$30,980,571</b>	<b>\$21,963,564</b>	<b>\$52,944,135</b>

## 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 35,518 by the end of Fiscal Year 2016, assuming 3.00% growth. For the remainder of the planning period (FY17-FY20), accounts are projected to grow at a moderate 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 430 miles of sewer lines and 91 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.

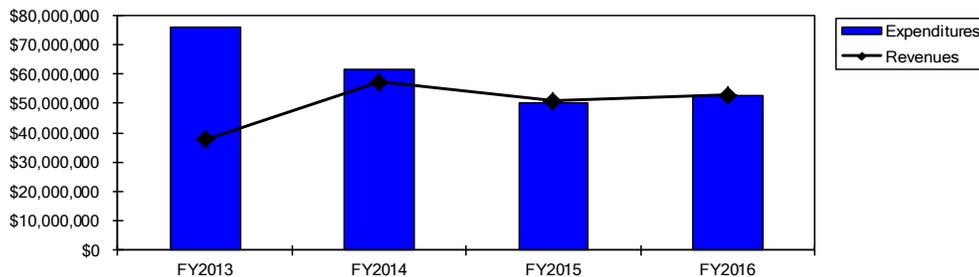
## Thinking Efficiently

The Department of Utilities strives to be as efficient as possible to keep costs to a minimum. The new Lake Mooney Water Treatment Facility will be able to produce more water, but at the same staffing level, as we temporarily take the Abel Lake Facility off-line for several years. This will save the County over \$2 million dollars each year in operating costs.

## Budget Summary

	FY2013 Actual	FY2014 Actual	FY2015 Adopted Budget	FY2016 Adopted Budget	FY2016 FY15 to FY16	
<b>Revenue/Sources</b>						
Water/Sewer Fees	\$24,743,052	\$26,160,971	\$28,884,000	\$30,887,080	\$2,003,080	6.93%
Availability/ProRata Fees	11,029,161	12,391,971	8,658,000	9,202,500	544,500	6.29%
Other Charges and Fees	1,429,776	1,271,040	1,108,000	1,072,100	(35,900)	-3.24%
Use of Money/Property	328,451	327,112	106,000	136,000	30,000	28.30%
Grants	276,145	0	0	0	0	0.00%
Revenue Bond Proceeds	0	17,240,766	12,131,000	11,528,821	(602,179)	-4.96%
<b>Total Revenue/Sources</b>	<b>\$37,806,585</b>	<b>\$57,391,860</b>	<b>\$50,887,000</b>	<b>\$52,826,501</b>	<b>\$1,939,501</b>	<b>3.81%</b>
<b>Expenditures</b>						
Personnel	\$11,187,321	\$11,430,007	\$11,157,873	\$11,568,488	\$410,615	3.68%
Operating	10,306,018	10,362,559	14,380,316	14,521,483	141,167	0.98%
Operating -Capital Projects	568,394	1,364,238	3,399,828	1,418,000	(1,981,828)	-58.29%
Expansion-Capital Projects	48,560,133	31,977,657	14,045,000	17,879,950	3,834,950	27.30%
Debt Service	5,154,856	6,272,352	7,399,000	7,556,214	157,214	2.12%
<b>Total Expenditures</b>	<b>\$75,776,722</b>	<b>\$61,406,813</b>	<b>\$50,382,017</b>	<b>\$52,944,135</b>	<b>\$2,562,118</b>	<b>5.09%</b>
<b>Inc/(Dec) to Fund Balance</b>	<b>(\$37,970,137)</b>	<b>(\$4,014,953)</b>	<b>\$504,983</b>	<b>(\$117,634)</b>	<b>(\$622,617)</b>	<b>-123.29%</b>

<b>Funded Positions</b>						
Full-Time Positions	139	139	139	139	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. The bonds are expected to be issued in two series. Approximately \$11.53 million of capital project costs will be funded with bond proceeds in FY16.
- (2) FY16 Adopted Budget includes the continued improvement of the Courthouse Area Water system.

**Total Budget**  
**\$52,944,135**

**Notable Changes**

**Personnel**

- 2% salary increase
- Health Insurance premium increase

**Operating**

- Expenses for operational capital projects increased due to the need to replace centrifuge equipment at both wastewater facilities and one sand filter at the Smith Lake Water Treatment Facility
- The capacity capital projects cost has remained the same, but will elevate next year as new projects are planned to spur Economic Development

## 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.
- Develop and support professional and forward-thinking staff to fulfill the technical, administrative, operating and maintenance requirements of the water and wastewater system.

## Service Levels

	FY2014 Actual	FY2015 Budget	FY2016 Plan
Billion gallons of water treated (Manual Tracking)	3.3	3.655	3.623
Billion gallons of wastewater treated (Manual Tracking)	3.1	2.805	2.746
# of water and sewer billed accounts (HTE System)	33,768	34,491	34,484
# of Miss Utility locate requests processed (Manual Tracking)	17,936	19,000	20,000
# of backflow preventers inspected and/or tested (Hansen Sys.)	500	500	500
# of water meters read (HTE System)	371,323	390,933	400,000
# of delinquency notices (HTE System)	28,492	30,609	31,500
# of delinquent water turn-offs (HTE System)	4,330	4,728	4,800
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)	\$1.11	\$1.50	\$1.48
Operating cost to treat wastewater (per thousand gallons) (Manual Tracking)	\$1.34	\$1.74	\$1.82

## Accomplishments

- The construction of Lake Mooney's reservoir is complete. On August 19, 2014, the Board of Supervisors approved the naming of Rocky Pen Run Reservoir after Deputy Jason Mooney. Deputy Mooney was killed in the line of duty in 2007. The new dam hosts a 521-acre, 5.54 billion gallon reservoir and pump station.
- The Little Falls Run Wastewater Treatment Facility 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?

The average person in the United States uses 80 to 100 gallons of water per day. Flushing the toilet takes up the largest amount of this water.

## 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 the issuance of warrants in debt as a collection means.

# Utilities Fund Revenue

Stafford County FY16 Adopted Budget

	FY 2014 Actual	FY 2015 Adopted Budget	Adopted Budget	FY 2016 Changes '15 to '16	
<b>Revenues</b>					
Water & Sewer Fees	\$26,160,971	\$28,884,000	\$30,870,885	\$1,986,885	6.88%
Availability/ProRata Fees	12,391,971	8,658,000	9,202,500	544,500	6.29%
Other Charges & Fees	1,271,040	1,108,000	1,108,000	0	0.00%
Use of Money & Property	327,112	106,000	116,295	10,295	9.71%
	<u>\$40,151,094</u>	<u>\$38,756,000</u>	<u>\$41,297,680</u>	<u>\$2,541,680</u>	<u>6.56%</u>
<b>Other Sources</b>					
Revenue Bonds	\$17,240,766	\$12,131,000	\$11,528,821	(\$602,179)	-4.96%
Grants	0	0	0	0	0%
Donated Assets	0	0	0	0	0%
Prior Year Fund Balance	0	0	117,634	117,634	0.00%
	<u>\$17,240,766</u>	<u>\$12,131,000</u>	<u>\$11,646,455</u>	<u>(\$484,545)</u>	<u>-3.99%</u>
<b>Total</b>	<u><u>\$57,391,860</u></u>	<u><u>\$50,887,000</u></u>	<u><u>\$52,944,135</u></u>	<u><u>\$2,057,135</u></u>	<u><u>4.04%</u></u>

## Water & Sewer Fees

Utilities customers are billed monthly for water consumption and wastewater usage. Stafford County projects 34,800 billed customer accounts by June 2015, a 1.5% increase. The Board of Supervisors approved a rate increase of 7% that became effective July 1, 2014. The Board also approved a 6% increase for FY 2016. In order to meet the Department's financial policy and complete the adopted CIP, which includes numerous projects designed to enhance economic development, additional rate increases will be required in the coming years.

## 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 700 EDUs per year for water service and 665 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

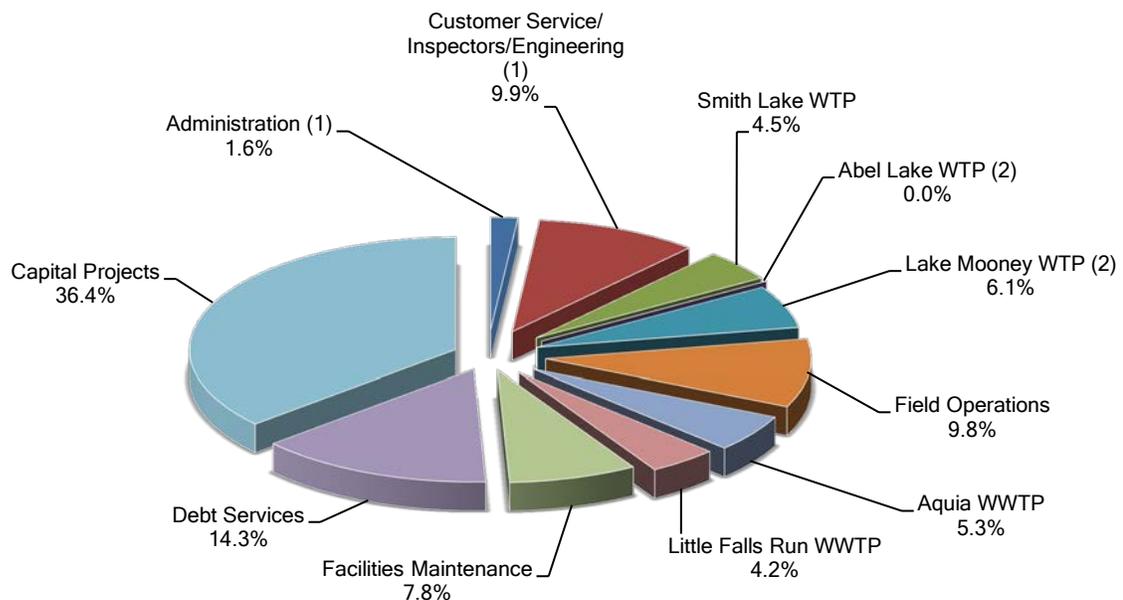
In September 2013, the Board of Supervisor's approved \$45 million of water and sewer revenue bonds. The County issued \$17 million in bonds in 2014 to fund various water and wastewater system improvements. The remaining authorization will be issued over the next few years. The FY16 & 17 Capital Improvement Plan identifies \$24.895 million of bond funded projects.

## Grants

No grant revenues are projected for FY16

# Utilities Fund Expenditures

Expenditures	FY2014	FY2015	FY2016	Changes	
	Actual	Adopted Budget	Adopted Budget	15 to 16	
Administration (1)	\$2,530,582	\$2,552,528	\$869,387	(\$1,683,141)	-65.9%
Customer Service/ Inspectors/Engineering (1)	3,354,493	3,372,127	5,259,223	1,887,096	56.0%
Smith Lake WTP	1,939,631	2,314,410	2,358,933	44,523	1.9%
Abel Lake WTP (2)	2,062,332	230,663	0	(230,663)	-100.0%
Lake Mooney WTP (2)	163,242	3,053,914	3,243,717	189,803	6.2%
Field Operations	4,322,360	5,048,040	5,190,201	142,161	2.8%
Aquia WWTP	2,462,667	2,706,575	2,832,215	125,640	4.6%
Little Falls Run WWTP	1,736,831	2,050,814	2,216,223	165,409	8.1%
Facilities Maintenance	3,220,428	4,209,117	4,120,072	(89,045)	-2.1%
Debt Services	6,272,352	7,399,000	7,556,214	157,214	2.1%
Capital Projects	33,341,895	17,444,828	19,297,950	1,853,122	10.6%
<b>Total Expenditures</b>	<b>\$61,406,813</b>	<b>\$50,382,017</b>	<b>\$52,944,135</b>	<b>\$2,562,119</b>	<b>5.09%</b>



**Notes:**

(1) Administration was combined with Customer Service/Inspectors/Engineering in previous budgets. On a combined basis (excluding the CIP) the budget increases approximately \$265,860 or 1% in FY16 from FY15 funding levels.

(2) In 2013 the Board of Supervisors authorized \$45 million of water and sewer revenue bonds for improvements to the water and sewer system. In FY16 & 17, it is expected that \$24.89 million of bonds proceeds will be used to fund various water and sewer.

# Projected Available Cash Balance

Stafford County FY16 Adopted Budget

6/30/2015 Projected Equity in Cash and Investments \$33,801,816

## FY16 Projections:

### Revenues

Water & Sewer Fees	\$30,870,885
Availability & Pro Rata Fees	9,202,500
Other Charges & Fees	1,108,000
Use of Money & Property	116,295
Revenue Bonds	11,528,821

Total Revenues \$52,826,501

### Expenses

Personnel	\$11,568,890
Operating	14,521,081
Capital Projects	19,297,950
Debt Service	7,556,214

Total Expenses \$52,944,135

Change in fund balance (117,634)

6/30/2016 Projected Equity in Cash and Investments 33,684,182

### Less:

Debt Set Asides	(\$10,100,097)
Construction and Maintenance	(8,579,198)

Total Restricted Funds (\$18,679,295)

Unrestricted \$15,004,887

