FAUQUIER COUNTY

WATER AND SANITATION AUTHORITY

Approved

Annual Budget

Fiscal 2018

May 23, 2017

Table of Contents
FY2018 Budget

Part 7: Capital Improvement Plan

A. Five Year Capital Improvement Plan

Part 8: Budget Summary

A. Operating Budget
B. Capital Budget

MEMORANDUM

Date: May 23, 2017

From: General Manager

To: Authority Board

Via: Finance Committee
Personnel Committee

Subject: Fiscal Year 2018 Operating and Capital Budget

Introduction - It is my pleasure to forward the proposed Fiscal Year 2018 Operating and Capital Budget for your review. This budget proposes total operating expenses, including depreciation, of $10,330,666. This represents a 4.82% increase ($487,163) over Fiscal Year 2017. During the past year, inflation has increased the business costs by approximately 2.4%, while the number of customers being provided services has also increased:

	Jan 16	Jan 17	Increase	% Increase
Accounts	9601	9735	134	1.39%

Operating Revenues for Fiscal Year 2018 are anticipated to be $10,187,780 approximately, 13.12% ($1,181,778) above the level contained in the adjusted Fiscal Year 2017 Budget. This includes proposed rate increases as detailed below. Other highlights of this proposed Budget are as follows:

1. **Rates, Fees and Charges** - This Budget incorporates an increase to the Water and Sewer Base Service Fees and the Water and Sewer Usage Fees of 7% to cover the increased operating costs and permanent borrowing for the construction loan for the water treatment plant as well as borrowing for planned CIP projects.

2. **Personnel** – There is one new position being requested. A Cost of Living Adjustment of 2% is included in this Budget. Funding in the amount of $10,000 is proposed and included to maintain the Spot Awards Program so that we may continue to recognize extraordinary service. Additionally, funding is included to support the Longevity Step Increase Program. The FY18 salary and benefits, including the Construction Department, are 6.25% over last year's salary and benefits.

   As established by new legislation, any employee hired after January 1, 2014 is required to become a member of the Hybrid Retirement Plan (HRP). The HRP consist of two components, a Defined Benefit and a Defined Contribution. At a minimum, 1% of the employer and employee contribution must go into the Defined Contribution plan. The Virginia Retirement System (VRS) has not changed the employees' contribution rate. The employer's FY18 VRS contribution rate is 4.38% and FY18 VRS Life insurance rate is 1.32%. The

employee's FY18 contribution rate is 5%. The Employer's payment for the contribution rate is made based on the current rates. At present, the rates are not anticipated to increase. Finally, the legislation requires that new employees hired after January 1, 2014, be covered for short-term disability at a rate of 0.60%.

3. **Administration** – Administration expenses have increased 3.56% from the level contained in last year's adjusted budget. The increase is primarily due to a full year interest on refinanced loans and legal fees.

4. **Maintenance/Construction** – Maintenance/Construction has increased by 8.10% due to increases in Repairs & Maintenance and Supplies for Pipes, etc.

5. **Operations** - Operations costs have increased by approximately 7.64% from those contained in last year's adjusted budget, primarily due to increases in Water Treatment Facility, Analytical Services, Repairs & Maintenance, Utilities, Chemicals and Refuse Services.

6. **Repair and Replacement (R & R) and Depreciation** – (R&R is the repair or replacement of a broken, damaged, or failed devise, equipment, or property to an acceptable operating usable condition or state.) The FY 2018 Budget contains R&R cash funding in the amount of $750,00 for projects throughout our systems. It is important to note that our depreciation expense is $3,000,000, the same as the prior years. This number has increased in the past 10 years as infrastructure and facility upgrades have been added to the Authority's assets. Although treated as a non-cash item, depreciation is directly related to the level of expenditures that will be necessary to fund the R&R program so that existing systems can be replaced as they reach the end of their useful lives.

7. **Capital Improvement Program (CIP)** – (CIP is a lengthy investment used to build, add, or improve on a project. It is any task that requires the use of significant capital, both financial and labor, to start and finish. Capital projects are defined by their large scale and large cost relative to other investments that involve less planning and resources.) The five-year CIP plan is intended to address issues in the water system. The Authority is cash funding $750,000 of the CIP projects. The current cash funding is to cover well treatments and exploratory expenses. CIP includes projects for the New Baltimore, Bealeton and Marshall Service District including water sources (wells), a tank, and a water treatment facility. At the end of FY 2017, the Authority borrowed $10,000,000 to cover the cost of these water projects.

   By effective utilization and management of the nutrient waste load allocations assigned to our WWTPs under the Water Quality Management Planning Regulation, the Marshall and Remington WWTP compliance upgrade projects have been divided into two phases. Barring any significant changes to regulations, the phasing of these projects has allowed the deferral of significant levels of additional debt service (c. $25M+) until sometime after FY2028.

We look forward to working with the Committees, as well as the full Board, as we proceed through the review and approval process for the FY2018 Budget.

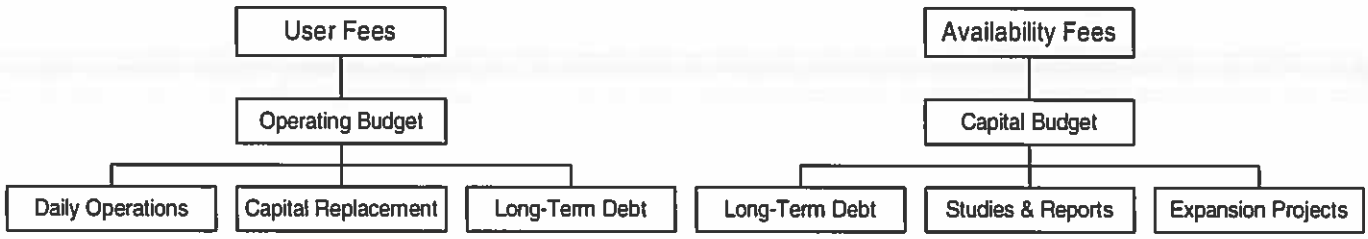
FY 2018 Budget Overview

The Fauquier County Water and Sanitation Authority's Budget is divided into Operating and Capital components, with each component intended to be financially self-sufficient. In this new format, the cash requirements of the Authority are presented with revenues that cover these cash needs. The cash requirement to be covered by the Authority includes Operation and Debt Service, Capital Improvement Program (CIP) and the Repair and Replacement plan (R&R). Also, the Authority understands the obligation of starting to restrict cash for capital needs in the future. The Authority will take advantage of the low interest rates and cover some of the projects with debt service. This will assist in meeting restricted cash balances. Within the context of slow to moderate growth, continued outside pressures and regulatory requirements, the User fees and Capital revenue will be used to meet cash obligations.

In ideal conditions, the Operating Budget receives most of its revenue from user charges. The typical activities charged to this Budget are related to providing service to the Authority's existing customers. Activities include operation, maintenance, administration and replacement of existing facilities and equipment.

Similarly, the Capital Budget receives its revenue from the collection of Water and Sewer Availability Fees. The activities charged to this Budget are related to the expansion of water and wastewater capacity to serve future and present customers. Activities include Capital construction projects, planning studies and long-term debt service on expansion projects.

The chart below illustrates the preferred flow of funds within the Operating and Capital Budgets:



There are times when growth does not pay for growth. In less than ideal conditions however, of necessity, revenues and necessary expenses are comingled so that essential services are provided and loan covenant obligations are met, whether funded by Operating or Capital Revenues. In the past, the Capital Revenues were not sufficient to cover debt service payments and assistance from the Operating Revenues was required. In effect, the Authority's

Water and Sewer Base Service and Usage Fees include a portion to cover the Capital and debt service obligations.

The FY18 Budget projects $10,187,780 in Operating Revenues, representing an increase of 13.12% from the adjusted FY17 Budget, with an increase to the User Fees (7%) to offset rising costs related to a) increasing chemical, utilities, fuel expenses, b) inflation, c) increased Operating Costs from having to operate more advanced Chesapeake Bay compliant facilities, d) water treatment facilities, e) new debt service and f) the necessity of maintaining adequate Cash Reserves. Total operating expenses, including depreciation, are budgeted at $10,330,666. This is an increase of approximately 4.82% from the adjusted FY17 Budget. Depreciation expense is projected at $3,000,000 in FY18 is the same as FY17. The Depreciation Expense is 29% of the FY18 Operating Expenses.

Availability Fee Revenue projected for FY18 is $779,324 for water and $445,900 for sewer as the development market is projected to show positive growth.

The table below summarizes the projected FY18 Operating Budget:

	FY 2017 (Adjusted)	*FY 2018*
Revenues	$ 9,006,002	$10,187,780
Expenses	$ 9,855,241	$10,330,666
Net Income (Loss)	$ (849,239)	$ (142,887)
Depreciation	$ 3,000,000	$ 3,000,000
Income (Loss) Before Depreciation	$ 2,150,761	$ 2,857,113

Minimizing the budget variance requires aggressive budgeting and budget management by staff. This is particularly critical in the context of the requisite improvements of the Authority's WWTP's imposed by the partially funded mandates of the Chesapeake Bay Initiative. While Department Managers minimize the overall budget variance and retain most of the authority for budgeting of individual line items, they have focused effectively on cost containment and the identification of the fundamental expenses required for our provision of essential services to the Authority's customers. The Authority's Executive Management commends them for their efforts and will continue to focus on the reasonableness of their expenses and how the overall departmental budgets meet necessary budget limits.

Growth Assumptions in the FY 2018 Budget

The number of Building Permit Releases issued by our Developer's Services Department has remained steady with approximately 146 as we approach the fourth quarter of FY 2017. This trend is likely to continue through FY 2018 and a conservative growth factor of 2% will be used for FY 2018. For the out-years, 2% will be used for FY 2019 through FY 2022. Revenue trends dating back to FY 2010 indicate that a slow growth in the customer base and in related service fee revenues can be expected during FY 2018.

Availability Fee Revenue estimates are a projection of probable growth based on the currently active development projects being constructed throughout the Authority's Service Areas and the actual collection of Availability Fees for the first half of FY 2017. Based primarily on the number of housing starts throughout the County, total Availability Fees from developer projects for FY 2018 are projected on the assumption that 85 Water and 35 Sewer Availability Fees will be collected.

FAUQUIER COUNTY WATER SANITATION AUTHORITY

Fiscal Operation History
FY 09 - FY 18

DESCRIPTION	FY 09 AUDIT (Jul 08/Jun 09)	FY 10 AUDIT (Jul 09/Jun 10)	FY 11 AUDIT (Jul 10/Jun 11)	FY 12 AUDIT (Jul 11/Jun 12)	FY 13 AUDIT (Jul 12/Jun 13)	FY 14 AUDIT (Jul 13/Jun 14)	FY 15 AUDIT (Jul 14/Jun 15)	FY 16 AUDIT (Jul 15/Jun 16)	FY 17 BUDGET (Jul 16/Jun 17)	FY 18 BUDGET (Jul 17/Jun 18)
Water Service Fees	$3,031,716	$2,807,897	$3,150,219	$2,722,134	$2,780,103	$3,290,504	$3,079,242	$3,343,929	$3,914,765	$4,449,452
Sewer Service Fees	$2,054,635	$2,807,471	$3,132,887	$3,119,616	$3,202,582	$3,390,211	$3,478,965	$3,874,505	$4,312,894	$4,904,184
Operating Revenues	$5,675,696	$6,180,467	$6,755,338	$7,185,949	$7,185,949	$7,394,122	$7,345,545	$8,299,393	$9,006,002	$10,187,780
Water Customers	5,467	5,467	5,470	5,512	5,584	5,640	5,696	5,753	5,811	5,869
Sewer Customers	3,653	3,653	3,667	3,705	3,756	3,794	3,832	3,870	3,909	3,948
Personnel	$2,204,681	$2,163,497	$2,172,426	$2,316,456	$2,383,249	$2,515,181	$2,589,339	$2,779,630	$3,262,018	$3,458,644
Benefits	$818,458	$748,240	$786,446	$807,772	$750,307	$829,358	$896,947	$1,004,765	$1,097,792	$1,154,715
Number of Employees	49.0	45.0	45.0	45.0	45.0	45.0	45.0	46.0	46.0	47.0
Depreciation Expense	$2,486,274	$2,485,492	$2,521,187	$2,750,000	$3,000,000	$3,276,736	$3,000,000	$3,113,012	$3,000,000	$3,000,000
Grand Total Operating Expenses	$7,450,944	$7,170,215	$7,269,103	$9,284,078	$8,787,858	$9,350,790	$8,638,048	$9,368,078	$9,855,241	$10,330,666
Less Depreciation Expenses	$2,486,274	$2,100,000	$2,521,187	$2,750,000	$3,002,676	$3,276,736	$3,000,000	$3,113,012	$3,000,000	$3,000,000
Operating Expenses Before Depreciation	$4,964,670	$5,070,215	$4,747,916	$6,534,078	$5,785,182	$6,074,054	$5,638,048	$6,255,066	$6,855,241	$7,330,666
Net Operating Profit (Loss)	($1,775,248)	($989,748)	($513,766)	($2,098,129)	($1,601,909)	($1,956,668)	($1,292,503)	($1,068,685)	($849,239)	($142,887)
Operating Profit (Loss) Before Depreciation	$711,026	$1,110,252	$2,007,422	$651,871	$1,400,767	$1,320,068	$1,707,497	$2,044,327	$2,150,761	$2,857,113
Capital Revenues	$392,230	$342,625	$554,896	$0	$0	$3,719,970	$2,202,139	$949,130	$1,134,315	$1,225,224
Debt Service	$1,304,633	$1,365,223	$1,464,917	$24,201,258	$15,413,831	$1,339,498	$1,062,225	$1,500,674	$1,853,956	$1,132,506
Purchase of Plant, Prop. and Equip.	$2,780,478	$9,149,938	$4,209,594	$669,330	$501,260	$1,101,518	$2,006,609	$1,360,000	$560,000	$1,640,000
Cash on hand	$4,440,291	$4,785,296	$4,642,064	$4,203,289	$5,196,213	$5,082,642	$5,879,111	$7,872,859	$7,539,214	$9,588,382

FAUQUIER COUNTY WATER & SANITATION AUTHORITY
Target & Approved Budget
FY 2018

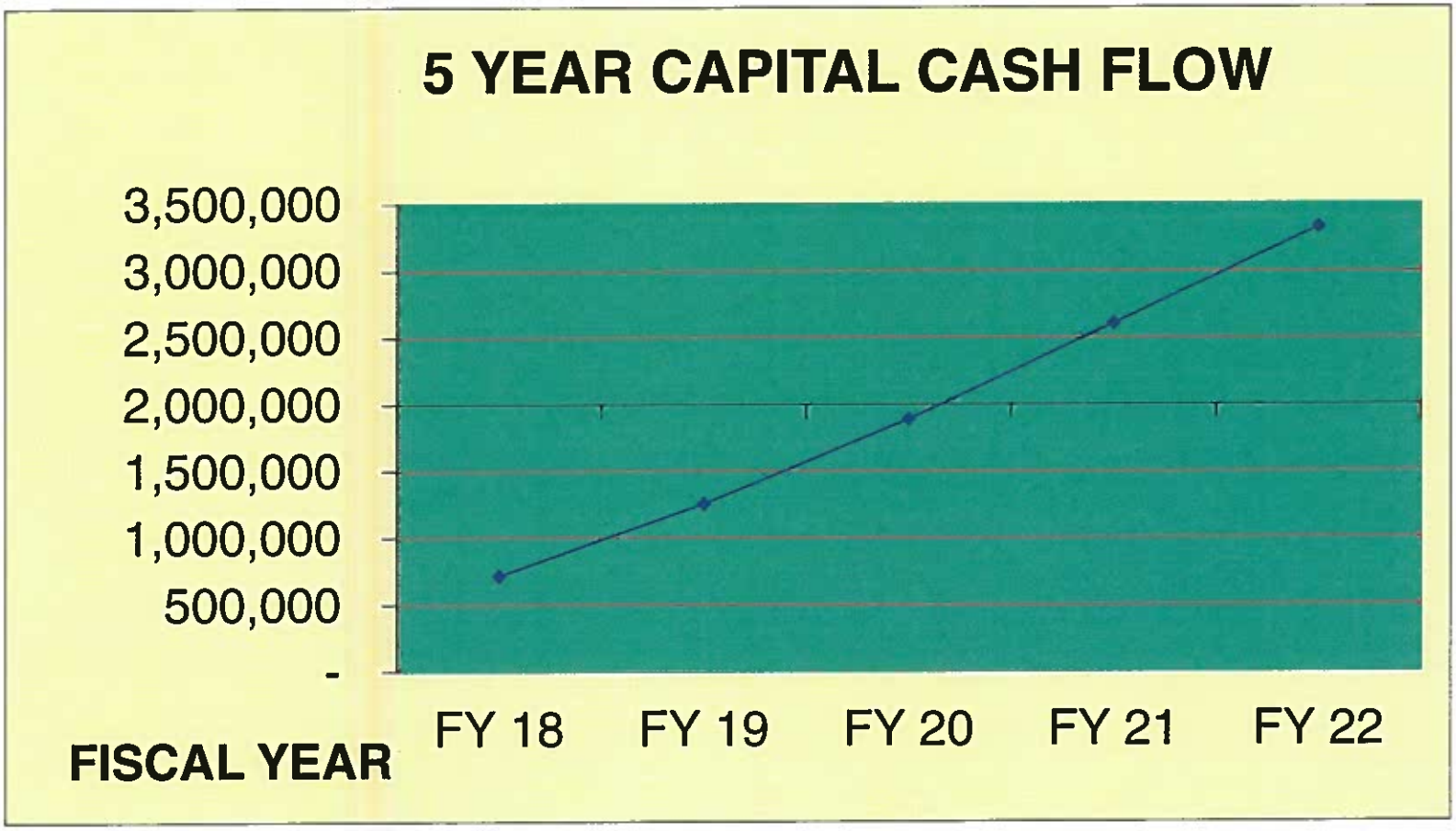
	Description	FY 18 Target Budget	FY 18 Proposed Budget	Changes
Operations Budget				
Revenue	Water & Sewer Service Fees	$ 9,689,913	$ 9,353,636	(336,277)
	Availability Fees(Direct Expense & Legal Component)	121,176	121,176	-
	Interest Income	71,410	66,707	(4,703)
	Availability Fees for Operations	735,134	735,134	-
	Other Income	622,776	646,261	23,485
	Total Operating Revenue	11,240,409	10,922,914	(317,495)
Expenditures	Salaries	3,515,909	3,458,644	(57,265)
	Fringe Benefits	1,353,625	1,154,715	(198,910)
				-
	Administration	552,500	580,800	28,300
	Operations	2,132,908	2,136,508	3,600
Capital Expenses	Cash Funded CIP	500,000	750,000	250,000
	Cash Funded R&R	500,000	750,000	250,000
	Machinery & Equipment	150,000	140,000	(10,000)
	Debt Service	1,667,230	1,853,956	186,726
	Depreciation	3,000,000	3,000,000	-
	Operations Expense Total	13,372,172	13,824,622	452,450
	(Shortage)/Surplus	(2,131,763)	(2,901,708)	769,945
Capital Budget				
Revenue	Availability Fees	1,225,224	1,225,224	-
	Availability Fees to Operations	(735,134)	(735,134)	-
	Capital Revenue	490,090	490,090	-
	(Shortage)/Surplus	490,090	490,090	-
Synopsis	Grand Total Revenues	11,730,499	11,413,004	(317,495)
	Grand Total Expenses	13,372,172	13,824,622	452,450
	Gross Cash (Shortage)/Surplus	(1,641,673)	(2,411,618)	769,945
	Net Cash (Shortage)/Surplus	1,358,327	588,382	(769,945)
Loan Covenants	GT Expenses (Less Deprec.& Capital Exp.)	7,554,942	7,330,666	(224,276)
	Debt Service Requirements (DSx1.15)	1,917,315	2,132,049	214,735
	Covented Revenues (GT Exp's and 1.15 DS)	9,472,257	9,462,716	(9,541)
	Grand Total Revenues	11,730,499	11,413,004	(317,495)
	Covented (Shortage)/Surplus	2,258,241	1,950,289	(307,953)
	Cash Balance at End of FY 17	6,180,887	9,000,000	2,819,113
Cash Balance	Cash Balance at End of FY 18	$ 7,539,214	$ 9,588,382	$2,049,168

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Five Year Cash Flow
FY 2018
Availability Fees to Operations 60%, 40%, 30%, 20% and FY24+ 0%

Assumptions
1. Includes 2% growth for FY18 - FY28
2. Increase in User Rates , FY18@ 7% ,FY19,- FY22 @ 3%
3. Availabilities assigned FY18 85 w & 35s, FY19,FY20 FY21, F22 70w& 15s
Availability percentage moved to Operation FY18 60% FY19 40% FY20 30% & FY21 &FY22, 20%
4. Debt Service Fee based on users' service fees, FY18 8.14% FY19-0%&20-FY21 5.9% The Debt Service's coverant of 1.15% is covered with the set rates
5. Interest Rate of 18@.75%,19@1.%,20@1.5% 21@2%,22@2.5%,
6. Employee Health Ins FY18, $20,561,FY19$41,119 FY20,$61,679, FY21,$82,238 & FY22, $102,798

	Description	FY 18 Projected Budget	FY 19 Projected Budget	FY 20 Projected Budget	FY 21 Projected Budget	FY 22 Projected Budget
Operations Budget						
Revenue	Water & Sewer Service Fees	$ 8,741,716	$ 9,528,470	$ 10,004,893	$ 10,505,138	$ 11,030,395
	Availability Fees(Direct Expense & Legal Component)	121,176	88,956	88,956	88,956	88,956
	Availability Fees percentage from Capital	735,134	359,778	269,833	179,889	179,889
	Rate Adjustments,	611,920	285,854	300,147	315,154	330,912
	Interest Income	66,707	92,953	144,855	199,216	255,234
	Other Income	646,261	679,747	713,903	748,742	784,278
	Total Operating Revenue	10,922,914	11,035,758	11,522,588	12,037,096	12,669,663
Expenditures	Salaries	3,458,644	3,596,989	3,740,869	3,890,504	4,046,124
	Fringe Benefits	1,154,715	1,384,841	1,440,235	1,497,844	1,557,758
	Administration	580,800	601,128	622,167	643,943	666,481
	Operations	2,136,508	2,211,286	2,288,681	2,368,785	2,451,692
	Cash Funded R&R	750,000	750,000	1,000,000	1,000,000	1,000,000
	Cash Funded CIP	750,000	750,000	750,000	750,000	750,000
	Machinery & Equipment	140,000	210,000	150,000	150,000	150,000
	Debt Service	1,853,956	1,829,845	1,701,854	2,326,953	2,326,953
	Depreciation	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
	Operations Expense Total	13,824,622	14,334,089	14,693,805	15,628,028	15,949,008
	(Shortage)/Surplus	(2,901,708)	(3,298,332)	(3,171,218)	(3,590,933)	(3,279,344)
	Depreciation	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
	Cash (shortage) Surplus w/o depreciation	98,292	(298,332)	(171,218)	(590,933)	(279,344)
Capital Budget						
Revenue	Availability Fees	1,225,224	899,444	899,444	899,444	899,444
	Availability Fees used in Operations	(735,134)	(359,778)	(269,833)	(179,889)	(179,889)
	Total Capital & Debt Service Revenue	490,090	539,666	629,611	719,555	719,555
Synopsis	Grand Total Revenues	11,413,004	11,575,424	12,152,199	12,756,651	13,389,218
	Grand Total Expenses	13,824,622	14,334,089	14,693,805	15,628,028	15,949,008
	Gross Cash (Shortage)/Surplus	(2,411,618)	(2,758,665)	(2,541,607)	(2,871,377)	(2,559,789)
	Net Cash (Shortage)/Surplus	588,382	241,335	458,393	128,623	440,211
Loan Covenants	GT Expenses (Less Deprec.& Capital Exp.)	7,330,666	7,794,244	8,091,952	8,401,076	8,722,055
	Debt Service Requirements (DSx1.15)	2,132,049	2,104,322	1,957,132	2,675,995	2,675,995
	Covented Revenues (GT Exp's and 1.15 DS)	9,462,716	9,898,566	10,049,083	11,077,071	11,398,050
	Grand Total Revenues	11,413,004	11,575,424	12,152,199	12,756,651	13,389,218
	Covented (Shortage)/Surplus	1,950,288	1,676,858	2,103,115	1,679,580	1,991,168
Cash Balance	Restricted for Capital	716,953	1,256,619	1,886,230	2,605,785	3,325,340
	Cash balance for Operation	8,871,429	8,573,097	8,401,880	7,810,947	7,531,603
	Cash Balance at End of FY	$ 9,588,382	$ 9,829,716	$ 10,288,109	$ 10,416,732	$ 10,856,943

FAUQUIER COUNTY WATER SANITATION AUTHORITY
FY18 Approved Budget



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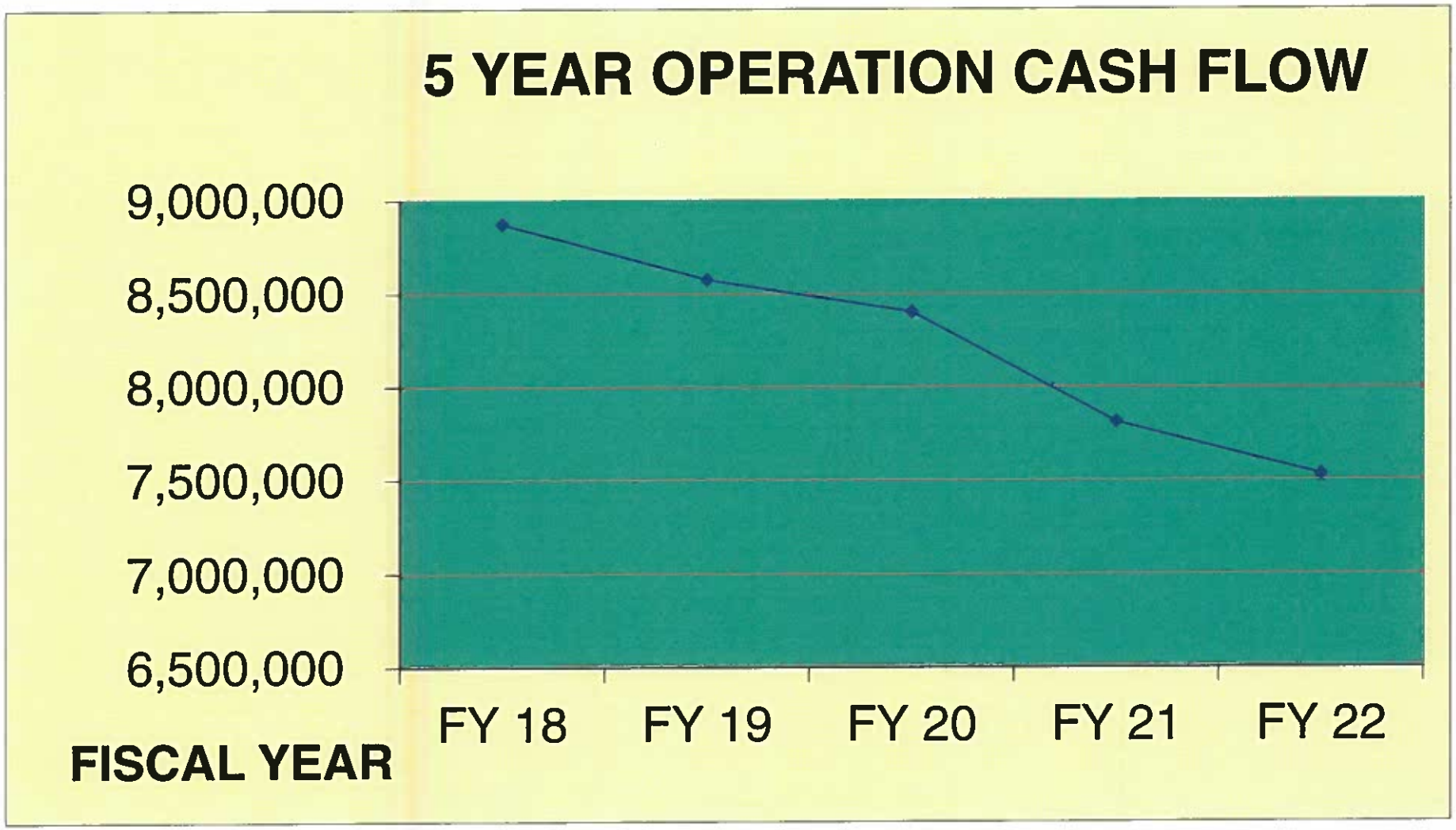
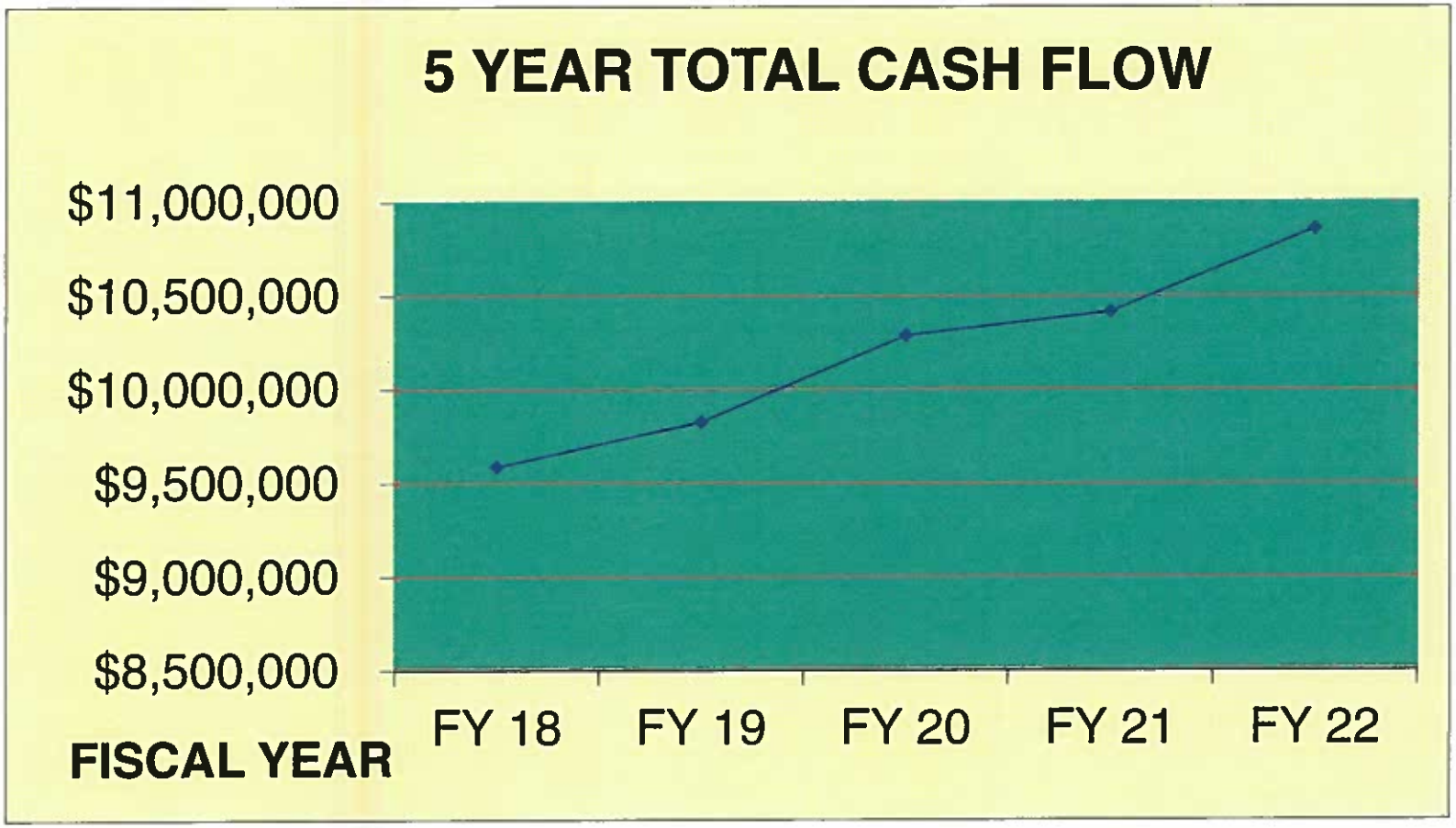


FAUQUIER COUNTY WATER AND SANITATION AUTHORITY
FY18 Approved Budget



Revenue and Expenses Overview

The Authority recognizes the slow economic recovery from the down turn of the last several years, as well as mixed signals for future recovery. By primarily funding only essential services, moving some contracted service in-house, and using the Construction Department for projects, the Operating Expenses have maintained approximately the same levels for the last six years.

In FY18, the Authority's Total Operating Expenses have been increased by 4.82%. As stated above, a significant portion of the expense increase is due to the ENR operating costs and depreciation expense. Also, a COLA and longevity step has been included in the salary program for the employees, but at the rate less than prior years before the current economic down turn occurred.

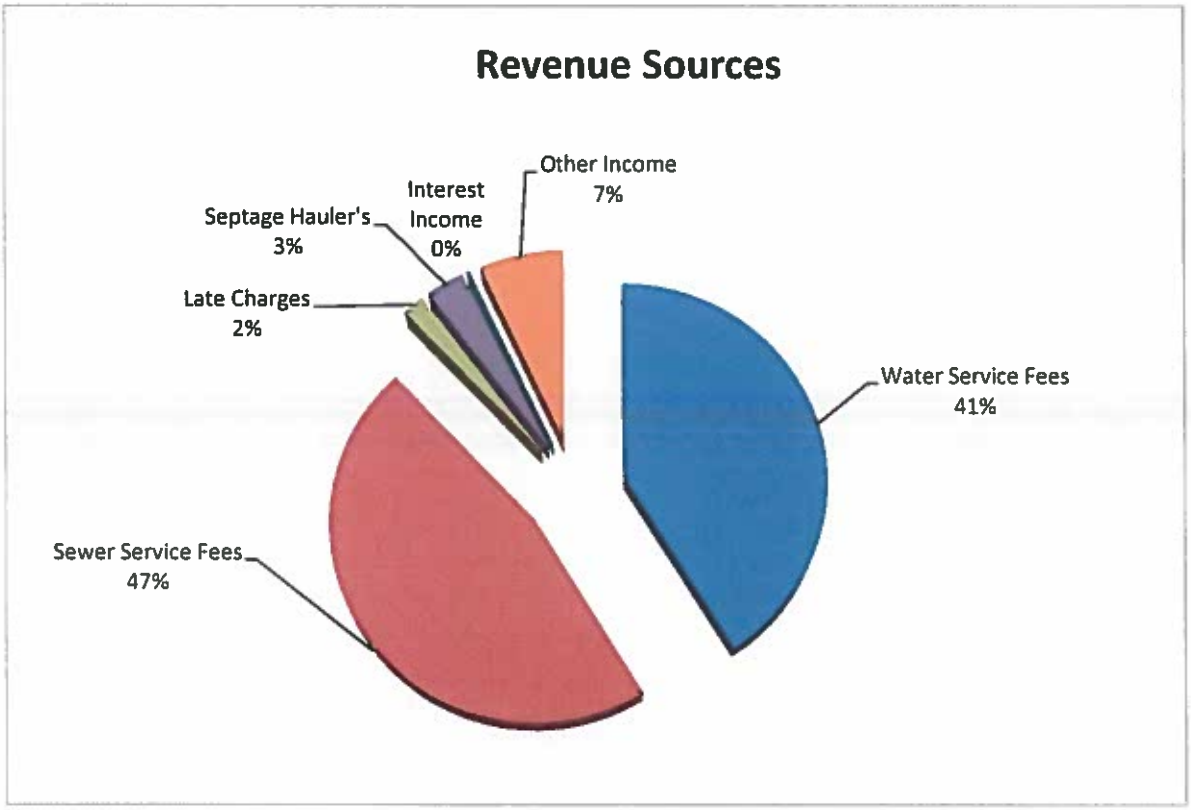
An important strategy in helping to keep the expenses down for our customers is to manage the debt service. Taking advantage of low interest rates, the Authority borrowed $10 million in FY2017 to cover the construction loan on the Bealeton Water Treatment plant and several CIP projects: G-4 Well, Baldwin Ridge Storage Tank, and Salem Wells 3 and 4. The Authority plans to borrow again in FY2021 to fund additional CIP projects. The Chesapeake Bay Enhanced Nutrient Reduction program, a partially funded mandate, will continue to be a major cost for the Authority and our customers. The Authority has planned to upgrade the Marshall and Remington plants to meet the nutrient requirement in two phases. However, the major costs for these plants will not come until after 2028 at an approximate cost of $25 million.

FAUQUIER COUNTY WATER & SANITATION AUTHORITY
Income Statement Approved Budget
FY 2018

	Amended FY 16 Budget	Amended FY 17 Budget	Approved FY 18 Budget	Percentage Change
Revenues				
Water Service Fees	$ 3,343,929	$ 3,914,765	$ 4,449,452	13.66%
Sewer Service Fees	3,874,505	4,312,894	4,904,184	13.71%
Water Availability Fees	566,930	688,415	779,324	13.21%
Sewer Availability Fees	382,200	445,900	445,900	0.00%
Interest Income	31,869	40,458	66,707	64.88%
Other Income	1,049,090	737,885	767,437	4.00%
Total Income	9,248,523	10,140,317	11,413,004	12.55%
Expenses				
Personnel	2,779,630	3,262,018	3,458,644	6.03%
Benefits	1,004,765	1,097,792	1,154,715	5.19%
Operation	2,455,594	2,448,031	2,639,708	7.83%
Depreciation	3,113,012	3,000,000	3,000,000	-
Capital	15,077	47,400	77,600	63.71%
Total Expenses	9,368,078	9,855,241	10,330,666	4.82%
Net Income	(119,555)	285,076	1,082,337	279.67%
Depreciation	3,113,012	3,000,000	3,000,000	0.00%
Income (Loss) before Depreciation	$ 2,993,457	$ 3,285,076	$ 4,082,337	24.27%

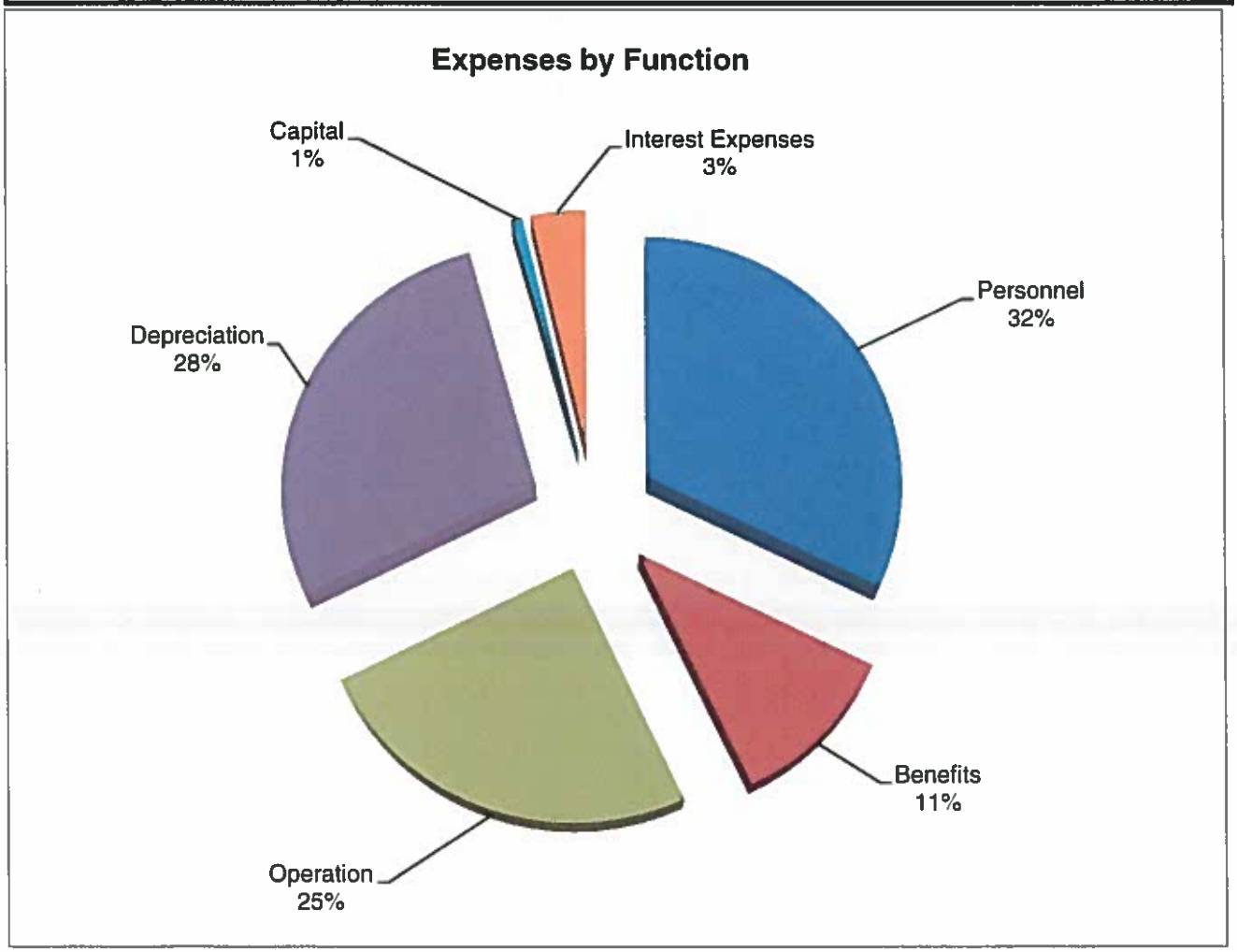
FAUQUIER COUNTY WATER & SANITATION AUTHORITY
Revenues
FY 2018

		Amended FY 17 Budget	Approved FY 18 Budget	Percentage Change
Operating Revenues	Water Service Fees	3,914,765	$ 4,449,452	13.66%
	Sewer Service Fees	4,312,894	4,904,184	13.71%
	Late Charges	150,000	150,000	0.00%
	Septage Hauler's	250,000	250,000	0.00%
	Meter Installation	7,200	7,200	0.00%
	Inspection Fees	20,000	10,000	-50.00%
	Plan Review Fees	20,000	30,000	50.00%
	Miscellaneous Income	50,000	50,000	0.00%
	Interest Income	40,458	66,707	64.88%
	Other Income	240,685	270,237	12.28%
	Total Operating Revenue	9,006,002	10,187,780	13.12%
Capital Revenue				
	Water Availability Fees	688,415	779,324	13.21%
	Sewer Availability Fees	445,900	445,900	0.00%
	Total Capital Revenue	1,134,315	1,225,224	8.01%
Total Revenues		10,140,317	11,413,004	12.55%



FAUQUIER COUNTY WATER & SANITATION AUTHORITY
Expenses
FY 2018

		Amended FY 17 Budget	Approved FY 18 Budget	Percentage Change
Operating Expenses				
	Personnel	3,262,018	3,458,644	6.03%
	Benefits	1,097,792	1,154,715	5.19%
	Operation	2,448,031	2,639,708	7.83%
	Depreciation	3,000,000	3,000,000	0.00%
	Capital	47,400	77,600	63.71%
	Total Operating Expenses	9,855,241	10,330,666	4.82%
Capital Expenses				
	Interest Expenses	384,000	384,811	0.21%
	Total Capital Expenses	384,000	384,811	0.21%
Total Expenses		**10,239,241**	**10,715,477**	4.65%



Personnel Overview

The FY 18 Budget proposes a change to the Authority's currently authorized staffing levels. This includes an addition of a Water Operator. In support of staff's budgetary cost containment efforts, the total approved Salary and Benefit Budget for FY 18 is $4,613,358 including the Construction Department personnel, whose salaries and benefit costs are funded from specific project budgets. The Salary and Benefits is an increase of $271,553 (6.25%) over prior year. However, the increase without the new requested position is $201,667 (4.64%). The Budget contains a 2% cost of living adjustment (COLA) and a 2% funding of the longevity step increases. No funding for the employee bonus, awards or cost savings programs are included as a base line in the FY18 Budget. There is, however, a $10,000 expenditure line reserved for the Authority's Spot Award Program as may be earned throughout the year by the exemplary performances of individual employees, as recognized by their supervisors and/or peers. Since increase in growth, revenues or demand for the Authority's services is anticipated, as summarized below, one additional position is currently required. Given the general growth of the economy and revenues and the unfunded mandatory regulatory expenses resultant from the Chesapeake Bay Initiative, salaries in this year's budget are designed to maintain service levels.

Summary of Staffing Levels

Department	Positions FY 15	Positions FY 16	Positions FY 17	Positions FY 18
Administration	9	9	9	9
Engineering	4	4	4	4
Wastewater	11	11	12	12
Water	8	8	8	9
Maintenance	8	8	8	8
Construction	5	5	5	5
Total	45	45	46	47

FAUQUIER COUNTY WATER AND SANITATION AUTHORITY
7172 KENNEDY ROAD • WARRENTON, VA 20187
PHONE (540) 349-2092 • FAX (540) 347-7689
WEBSITE: fcwsa.org

November 9, 2016

Subject: Request for New Position
Waterworks Utility Worker

Reference: FY 18 Budget Request

This is to request the approval of one (1) full time position in the FY 18 budget.

In the past few years the responsibilities of the water department have increased due to economic growth, regulatory changes, new treatment processes, technology changes, aging infrastructure and climate change that produces severe weather that has a direct impact on the continuous operation of the facilities.

The water department operates 16 community and 2 non-community water systems. As each of the water systems grow in customers the Virginia Department of Health also increases the testing program to include distribution system bacteriological and lead/copper samples. The addition of distribution piping as a result of development also increases the water system flushing requirements in order to maintain water quality.

There has been an addition of two membrane filtration, one ion exchange and projected four iron/manganese, 3 nitrate/nitrite treatment systems and perhaps additional treatment systems in the Marshall area. The additional treatment systems have a significant impact on the time an operator is required to spend operating, testing, monitoring, adjusting and performing preventative maintenance in each water system as required by Virginia Department of Health (VDH).

New water facilities will also come online such as the Baldwin Ridge second storage tank with the associated booster pump station, 2 new wells in New Baltimore, 2 new wells in Bealeton, and additional wells in Opal and Marshall.

The proposed position will be a hybrid position that will be able to assist in water operator and meter reader duties. The waterworks utility worker is recommended to be a grade 11 and provides a career path for a water meter reader, grade 9, the opportunity to advance into the waterworks utility worker, grade 11, with a Class IV water operators' license and on upward to a water operator Class III license, senior operator class II and water supervisor. Attached is the proposed position description.

WATERWORKS UTILITY WORKER (CLASS IV)

GENERAL STATEMENT: Under regular supervision of the Waterworks Supervisor performs routine technical work in the operation and maintenance of waterworks equipment and facilities; performs related work as required.

EXAMPLES OF WORK: Monitors and adjusts water system components as necessary; inspects well houses bi-weekly; makes required entries into operational logs; performs required water sampling and testing; performs flushing operation of water systems as required; performs minor repairs to equipment and plumbing as necessary; performs grounds keeping on WSA sites as necessary; maintains records and reports pertinent to assigned work and submits operational reports to supervisor including unusual activities or incidents requiring attention or corrective action; ensures safety procedures are followed at all times.

Independently reads water meter readings, identifies and investigates any unusual conditions such as high water consumption or damaged equipment, computes monthly usages; turns water service on or off; installs or removes water meters.

Investigates and troubleshoots instrumentation, PLC and SCADA issues within the water systems. Maintains the cross connection control program.

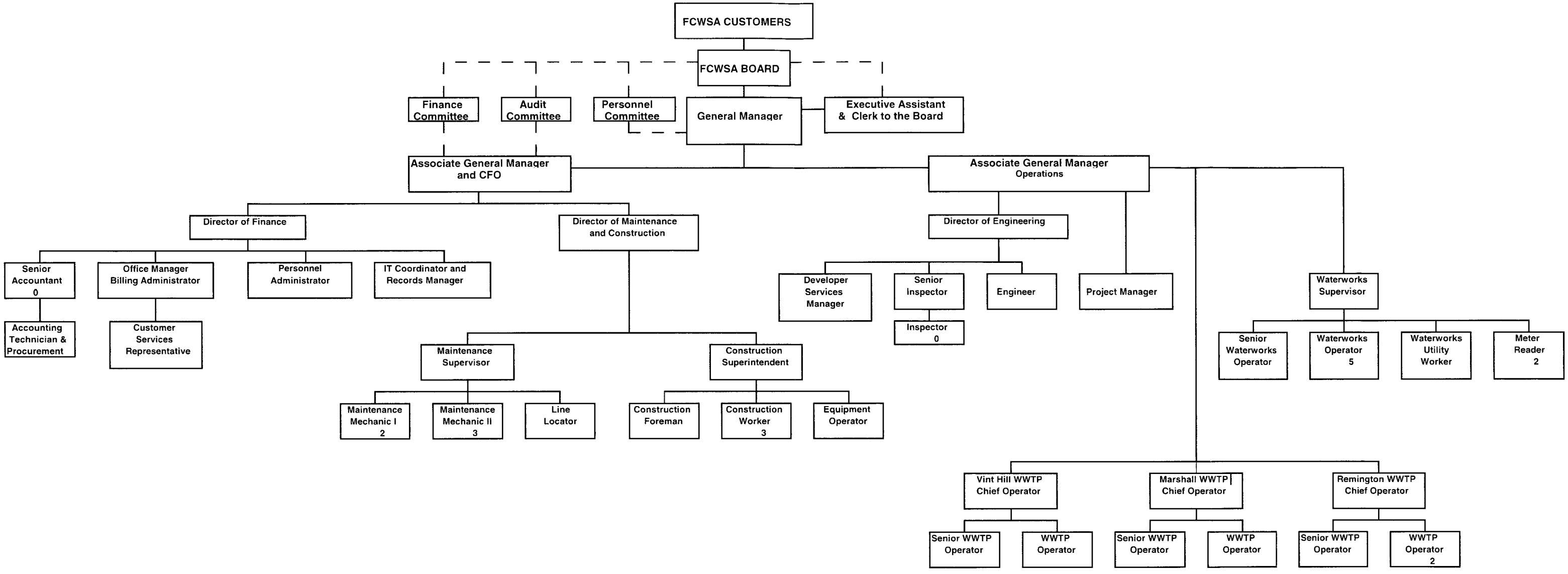
REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES: General knowledge of the functions and servicing requirements of mechanical equipment and machinery; general knowledge of the technical processes relating to waterworks including some knowledge of chemistry; ability to inspect machinery and mechanical equipment and to detect flows and defects in operation; ability to read meters and charts accurately and to maintain records; ability to maintain effective working relations with co-workers, supervisors, and the public.

PHYSICAL REQUIREMENTS: Ability to lift up to 70 pounds. Ability to work outdoors in varying weather conditions; ability to overcome physical barreirs (such as fences and brush).

NECESSARY EDUCATION AND EXPERIENCE: Graduation from high school or any equivalent combination of education and experience which provides the required skill, knowledge, and abilities.

ADDITIONAL REQUIREMENTS: Possession of a valid Virginia Driver's License which is free of violations for a period of three years; possession of a current Virginia Class IV Waterworks Operator's Certificate. Certification in cross connection control.

FCWSA ORGANIZATION



FAUQUIER COUNTY WATER & SANITATION AUTHORITY

Personnel and Benefits

FY 2018 Approved Budget

Departments	FY 15 SALARY	FY 16 SALARY	FY 17 SALARY	FY 18 SALARY	FICA	VRS RET.	VRS LIFE	HEALTH INS PLAN	WORK'S COMP	TOTAL BENEFITS	TOTAL SAL/BEN
Board of Directors	49,088	55,547	55,547	51,600	3,947	-	-	-	-	3,947	55,547
Administration:											
Salary & Benefits	934,163	996,579	1,038,670	827,751	58,059	29,796	8,763	143,543	800	240,961	1,068,711
Overtime	-	-			-	-	-	-	-	-	-
Total Administration	934,163	996,579	1,038,670	827,751	58,059	29,796	8,763	143,543	800	240,961	1,068,711
Engineering Department											
Salary & Benefits	334,293	375,669	439,698	338,495	25,895	15,206	4,468	65,008	6,518	117,095	455,590
Overtime	-	-	1,151	1,050	80	-	-	-	20	101	1,151
Total Engineering	334,293	375,669	440,849	339,545	25,975	15,206	4,468	65,008	6,538	117,196	456,741
Water Department											
Salary & Benefits	609,702	612,031	662,076	574,757	43,969	26,675	7,587	79,154	17,028	174,412	749,169
Overtime	18,525	9,350	11,066	18,000	1,377	-	-	-	542	1,919	19,919
Total Water	628,227	621,381	673,142	592,757	45,346	26,675	7,587	79,154	17,571	176,332	769,088
Sewer Department											
Salary & Benefits	842,337	926,781	948,567	729,425	55,801	32,655	9,628	134,207	13,017	245,308	974,732
Overtime	-	-	25,827	23,600	1,805	-	-	-	421	2,227	25,827
Total Sewer	842,337	926,781	974,394	753,025	57,606	32,655	9,628	134,207	13,438	247,534	1,000,559
Maintenance Department											
Salary & Benefits	690,260	657,117	753,052	602,174	46,000	27,467	7,949	131,479	21,837	234,732	836,906
Overtime	25,816	22,172	22,256	20,000	1,530	-	-	-	726	2,256	22,256
Total Maintenance	716,076	679,289	775,308	622,174	47,530	27,467	7,949	131,479	22,563	236,988	859,162
Construction Department											
Salary & Benefits	380,887	394,321	373,130	261,793	20,027	12,221	3,456	85,836	9,452	130,992	392,785
Overtime	-	-	-		-	-	-	-	-	-	-
Total Construction	380,887	394,321	373,130	261,793	20,027	12,221	3,456	85,836	9,452	130,992	392,785
Departmental Totals	**3,885,071**	**4,049,567**	**4,331,040**	**3,448,644**	**258,491**	**144,020**	**41,851**	**639,226**	**70,362**	**1,153,950**	**4,602,593**
Merit Pay	10,765	10,765	10,765	10,000	765	-	-	-	-	765	10,765
Grand Total	**3,895,836**	**4,060,332**	**4,341,805**	**3,458,644**	**259,256**	**144,020**	**41,851**	**639,226**	**70,362**	**1,154,715**	**4,613,358**

Fauquier County Water Sanitation Authority
FY 18

Approved Pay Scale

Step/Grade	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	28,687	29,846	31,052	32,306	33,611	34,969	36,382	37,852	39,381	40,972	42,627	44,350	46,141	48,005	49,945	1
2	29,261	30,443	31,673	32,952	34,284	35,669	37,110	38,609	40,169	41,792	43,480	45,237	47,064	48,965	50,944	2
3	29,846	31,052	32,306	33,611	34,969	36,382	37,852	39,381	40,972	42,627	44,350	46,141	48,005	49,945	51,963	3
4	30,443	31,673	32,952	34,284	35,669	37,110	38,609	40,169	41,792	43,480	45,237	47,064	48,965	50,944	53,002	4
5	31,052	32,306	33,611	34,969	36,382	37,852	39,381	40,972	42,627	44,350	46,141	48,005	49,945	51,963	54,062	5
6	31,673	32,952	34,284	35,669	37,110	38,609	40,169	41,792	43,480	45,237	47,064	48,965	50,944	53,002	55,143	6
7	32,306	33,611	34,969	36,382	37,852	39,381	40,972	42,627	44,350	46,141	48,005	49,945	51,963	54,062	56,246	7
8	32,952	34,284	35,669	37,110	38,609	40,169	41,792	43,480	45,237	47,064	48,965	50,944	53,002	55,143	57,371	8
9	33,611	34,969	36,382	37,852	39,381	40,972	42,627	44,350	46,141	48,005	49,945	51,963	54,062	56,246	58,518	9
10	34,284	35,669	37,110	38,609	40,169	41,792	43,480	45,237	47,064	48,965	50,944	53,002	55,143	57,371	59,689	10
11	34,969	36,382	37,852	39,381	40,972	42,627	44,350	46,141	48,005	49,945	51,963	54,062	56,246	58,518	60,882	11
12	35,669	37,110	38,609	40,169	41,792	43,480	45,237	47,064	48,965	50,944	53,002	55,143	57,371	59,689	62,100	12
13	36,382	37,852	39,381	40,972	42,627	44,350	46,141	48,005	49,945	51,963	54,062	56,246	58,518	60,882	63,342	13
14	37,110	38,609	40,169	41,792	43,480	45,237	47,064	48,965	50,944	53,002	55,143	57,371	59,689	62,100	64,609	14
15	37,852	39,381	40,972	42,627	44,350	46,141	48,005	49,945	51,963	54,062	56,246	58,518	60,882	63,342	65,901	15
16	38,609	40,169	41,792	43,480	45,237	47,064	48,965	50,944	53,002	55,143	57,371	59,689	62,100	64,609	67,219	16
17	39,381	40,972	42,627	44,350	46,141	48,005	49,945	51,963	54,062	56,246	58,518	60,882	63,342	65,901	68,563	17
18	40,169	41,792	43,480	45,237	47,064	48,965	50,944	53,002	55,143	57,371	59,689	62,100	64,609	67,219	69,935	18
19	40,972	42,627	44,350	46,141	48,005	49,945	51,963	54,062	56,246	58,518	60,882	63,342	65,901	68,563	71,333	19
20	41,792	43,480	45,237	47,064	48,965	50,944	53,002	55,143	57,371	59,689	62,100	64,609	67,219	69,935	72,760	20
21	42,627	44,350	46,141	48,005	49,945	51,963	54,062	56,246	58,518	60,882	63,342	65,901	68,563	71,333	74,215	21
22	43,480	45,237	47,064	48,965	50,944	53,002	55,143	57,371	59,689	62,100	64,609	67,219	69,935	72,760	75,700	22
23	44,350	46,141	48,005	49,945	51,963	54,062	56,246	58,518	60,882	63,342	65,901	68,563	71,333	74,215	77,214	23
24	45,237	47,064	48,965	50,944	53,002	55,143	57,371	59,689	62,100	64,609	67,219	69,935	72,760	75,700	78,758	24
25	46,141	48,005	49,945	51,963	54,062	56,246	58,518	60,882	63,342	65,901	68,563	71,333	74,215	77,214	80,333	25
26	47,064	48,965	50,944	53,002	55,143	57,371	59,689	62,100	64,609	67,219	69,935	72,760	75,700	78,758	81,940	26
27	48,005	49,945	51,963	54,062	56,246	58,518	60,882	63,342	65,901	68,563	71,333	74,215	77,214	80,333	83,578	27
28	48,965	50,944	53,002	55,143	57,371	59,689	62,100	64,609	67,219	69,935	72,760	75,700	78,758	81,940	85,250	28
29	49,945	51,963	54,062	56,246	58,518	60,882	63,342	65,901	68,563	71,333	74,215	77,214	80,333	83,578	86,955	29
30	50,944	53,002	55,143	57,371	59,689	62,100	64,609	67,219	69,935	72,760	75,700	78,758	81,940	85,250	88,694	30

Fauquier County Water Sanitation Authority
FY 18

Approved Pay Scale

Step/Grade	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
1	51,963	54,062	56,246	58,518	60,882	63,342	65,901	68,563	71,333	74,215	77,214	80,333	83,578	86,955	90,468	1
2	53,002	55,143	57,371	59,689	62,100	64,609	67,219	69,935	72,760	75,700	78,758	81,940	85,250	88,694	92,277	2
3	54,062	56,246	58,518	60,882	63,342	65,901	68,563	71,333	74,215	77,214	80,333	83,578	86,955	90,468	94,123	3
4	55,143	57,371	59,689	62,100	64,609	67,219	69,935	72,760	75,700	78,758	81,940	85,250	88,694	92,277	96,005	4
5	56,246	58,518	60,882	63,342	65,901	68,563	71,333	74,215	77,214	80,333	83,578	86,955	90,468	94,123	97,925	5
6	57,371	59,689	62,100	64,609	67,219	69,935	72,760	75,700	78,758	81,940	85,250	88,694	92,277	96,005	99,884	6
7	58,518	60,882	63,342	65,901	68,563	71,333	74,215	77,214	80,333	83,578	86,955	90,468	94,123	97,925	101,882	7
8	59,689	62,100	64,609	67,219	69,935	72,760	75,700	78,758	81,940	85,250	88,694	92,277	96,005	99,884	103,919	8
9	60,882	63,342	65,901	68,563	71,333	74,215	77,214	80,333	83,578	86,955	90,468	94,123	97,925	101,882	105,998	9
10	62,100	64,609	67,219	69,935	72,760	75,700	78,758	81,940	85,250	88,694	92,277	96,005	99,884	103,919	108,118	10
11	63,342	65,901	68,563	71,333	74,215	77,214	80,333	83,578	86,955	90,468	94,123	97,925	101,882	105,998	110,280	11
12	64,609	67,219	69,935	72,760	75,700	78,758	81,940	85,250	88,694	92,277	96,005	99,884	103,919	108,118	112,486	12
13	65,901	68,563	71,333	74,215	77,214	80,333	83,578	86,955	90,468	94,123	97,925	101,882	105,998	110,280	114,735	13
14	67,219	69,935	72,760	75,700	78,758	81,940	85,250	88,694	92,277	96,005	99,884	103,919	108,118	112,486	117,030	14
15	68,563	71,333	74,215	77,214	80,333	83,578	86,955	90,468	94,123	97,925	101,882	105,998	110,280	114,735	119,371	15
16	69,935	72,760	75,700	78,758	81,940	85,250	88,694	92,277	96,005	99,884	103,919	108,118	112,486	117,030	121,758	16
17	71,333	74,215	77,214	80,333	83,578	86,955	90,468	94,123	97,925	101,882	105,998	110,280	114,735	119,371	124,193	17
18	72,760	75,700	78,758	81,940	85,250	88,694	92,277	96,005	99,884	103,919	108,118	112,486	117,030	121,758	126,677	18
19	74,215	77,214	80,333	83,578	86,955	90,468	94,123	97,925	101,882	105,998	110,280	114,735	119,371	124,193	129,211	19
20	75,700	78,758	81,940	85,250	88,694	92,277	96,005	99,884	103,919	108,118	112,486	117,030	121,758	126,677	131,795	20
21	77,214	80,333	83,578	86,955	90,468	94,123	97,925	101,882	105,998	110,280	114,735	119,371	124,193	129,211	134,431	21
22	78,758	81,940	85,250	88,694	92,277	96,005	99,884	103,919	108,118	112,486	117,030	121,758	126,677	131,795	137,119	22
23	80,333	83,578	86,955	90,468	94,123	97,925	101,882	105,998	110,280	114,735	119,371	124,193	129,211	134,431	139,862	23
24	81,940	85,250	88,694	92,277	96,005	99,884	103,919	108,118	112,486	117,030	121,758	126,677	131,795	137,119	142,659	24
25	83,578	86,955	90,468	94,123	97,925	101,882	105,998	110,280	114,735	119,371	124,193	129,211	134,431	139,862	145,512	25
26	85,250	88,694	92,277	96,005	99,884	103,919	108,118	112,486	117,030	121,758	126,677	131,795	137,119	142,659	148,422	26
27	86,955	90,468	94,123	97,925	101,882	105,998	110,280	114,735	119,371	124,193	129,211	134,431	139,862	145,512	151,391	27
28	88,694	92,277	96,005	99,884	103,919	108,118	112,486	117,030	121,758	126,677	131,795	137,119	142,659	148,422	154,419	28
29	90,468	94,123	97,925	101,882	105,998	110,280	114,735	119,371	124,193	129,211	134,431	139,862	145,512	151,391	157,507	29
30	92,277	96,005	99,884	103,919	108,118	112,486	117,030	121,758	126,677	131,795	137,119	142,659	148,422	154,419	160,657	30

Fauquier County Water Sanitation Authority
FY 18

Approved Pay Scale

Step/Grade	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
1	94,123	97,925	101,882	105,998	110,280	114,735	119,371	124,193	129,211	134,431	139,862	145,512	151,391	157,507	163,870	1
2	96,005	99,884	103,919	108,118	112,486	117,030	121,758	126,677	131,795	137,119	142,659	148,422	154,419	160,657	167,148	2
3	97,925	101,882	105,998	110,280	114,735	119,371	124,193	129,211	134,431	139,862	145,512	151,391	157,507	163,870	170,491	3
4	99,884	103,919	108,118	112,486	117,030	121,758	126,677	131,795	137,119	142,659	148,422	154,419	160,657	167,148	173,900	4
5	101,882	105,998	110,280	114,735	119,371	124,193	129,211	134,431	139,862	145,512	151,391	157,507	163,870	170,491	177,378	5
6	103,919	108,118	112,486	117,030	121,758	126,677	131,795	137,119	142,659	148,422	154,419	160,657	167,148	173,900	180,926	6
7	105,998	110,280	114,735	119,371	124,193	129,211	134,431	139,862	145,512	151,391	157,507	163,870	170,491	177,378	184,545	7
8	108,118	112,486	117,030	121,758	126,677	131,795	137,119	142,659	148,422	154,419	160,657	167,148	173,900	180,926	188,235	8
9	110,280	114,735	119,371	124,193	129,211	134,431	139,862	145,512	151,391	157,507	163,870	170,491	177,378	184,545	192,000	9
10	112,486	117,030	121,758	126,677	131,795	137,119	142,659	148,422	154,419	160,657	167,148	173,900	180,926	188,235	195,840	10
11	114,735	119,371	124,193	129,211	134,431	139,862	145,512	151,391	157,507	163,870	170,491	177,378	184,545	192,000	199,757	11
12	117,030	121,758	126,677	131,795	137,119	142,659	148,422	154,419	160,657	167,148	173,900	180,926	188,235	195,840	203,752	12
13	119,371	124,193	129,211	134,431	139,862	145,512	151,391	157,507	163,870	170,491	177,378	184,545	192,000	199,757	207,827	13
14	121,758	126,677	131,795	137,119	142,659	148,422	154,419	160,657	167,148	173,900	180,926	188,235	195,840	203,752	211,984	14
15	124,193	129,211	134,431	139,862	145,512	151,391	157,507	163,870	170,491	177,378	184,545	192,000	199,757	207,827	216,223	15
16	126,677	131,795	137,119	142,659	148,422	154,419	160,657	167,148	173,900	180,926	188,235	195,840	203,752	211,984	220,548	16
17	129,211	134,431	139,862	145,512	151,391	157,507	163,870	170,491	177,378	184,545	192,000	199,757	207,827	216,223	224,959	17
18	131,795	137,119	142,659	148,422	154,419	160,657	167,148	173,900	180,926	188,235	195,840	203,752	211,984	220,548	229,458	18
19	134,431	139,862	145,512	151,391	157,507	163,870	170,491	177,378	184,545	192,000	199,757	207,827	216,223	224,959	234,047	19
20	137,119	142,659	148,422	154,419	160,657	167,148	173,900	180,926	188,235	195,840	203,752	211,984	220,548	229,458	238,728	20
21	139,862	145,512	151,391	157,507	163,870	170,491	177,378	184,545	192,000	199,757	207,827	216,223	224,959	234,047	243,503	21
22	142,659	148,422	154,419	160,657	167,148	173,900	180,926	188,235	195,840	203,752	211,984	220,548	229,458	238,728	248,373	22
23	145,512	151,391	157,507	163,870	170,491	177,378	184,545	192,000	199,757	207,827	216,223	224,959	234,047	243,503	253,340	23
24	148,422	154,419	160,657	167,148	173,900	180,926	188,235	195,840	203,752	211,984	220,548	229,458	238,728	248,373	258,407	24
25	151,391	157,507	163,870	170,491	177,378	184,545	192,000	199,757	207,827	216,223	224,959	234,047	243,503	253,340	263,575	25
26	154,419	160,657	167,148	173,900	180,926	188,235	195,840	203,752	211,984	220,548	229,458	238,728	248,373	258,407	268,847	26
27	157,507	163,870	170,491	177,378	184,545	192,000	199,757	207,827	216,223	224,959	234,047	243,503	253,340	263,575	274,224	27
28	160,657	167,148	173,900	180,926	188,235	195,840	203,752	211,984	220,548	229,458	238,728	248,373	258,407	268,847	279,708	28
29	163,870	170,491	177,378	184,545	192,000	199,757	207,827	216,223	224,959	234,047	243,503	253,340	263,575	274,224	285,302	29
30	167,148	173,900	180,926	188,235	195,840	203,752	211,984	220,548	229,458	238,728	248,373	258,407	268,847	279,708	291,008	30

Administrative Budget FY 18

Overview:

The Administrative Department, led by the Associate General Manager/CFO, is made up Finance (Director of Finance and Accounting Technician), Human Resources (Personnel Administrator), Customer Services (Billing Administrator and Customer Services Representative), and IT (Records Manager). The responsibilities of these departments are to keep abreast of any new legislative action that will affect the operations of the Authority, plan and execute the independent audit of the financial reports and records, develop and execute the budget and finances, have effective internal controls, and to make recommendations to the Board of Directors.

Principle Expenditures:

While the FY 18 Administrative Budget has an overall increase of 3.56%, the operations' expenses have increased due to legal fees, maintenance contracts advertising, utilities, and computer purchases. Depreciation expenses, although not a cash outlay, is flat. The Interest expense increased 0.21% over FY 17. This increase is due to refinancing of a construction loan to a permanent loan and a new money bond.

The following table gives the number of checks issued and percentage issued within the allotted time periods:

Year	Number of check issued	Issued within 30 days	Issued within 45 days	Over 45 days
FY2016	4406	97.6%	0.9%	1.5%
FY2015	1872	95%	3.5%	1.5%
FY2014	1751	96%	2%	2%
FY2013	1663	97%	2%	1%
FY2012	1410	97%	2%	1%
FY2011	1336	94.5%	3.4%	2.1%
FY2010	1501	93%	6%	1%

FAUQUIER COUNTY WATER & SANITATION AUTHORITY

Administration
FY 2018

	Actual 2015	Actual 2016	Amended 2017	Approved 2018	PCT. Change
Personnel	744,188	803,986	864,556	889,351	2.87%
Benefits	239,063	248,140	240,425	245,673	2.18%
Operation	441,759	501,587	376,100	517,200	37.52%
Interest	188,494	168,652	384,000	384,811	0.21%
Depreciation	2,982,641	3,113,012	3,000,000	3,000,000	0.00%
Capital	5,975	5,015	11,700	13,500	15.38%
Total	4,602,120	4,840,392	4,876,781	5,050,535	3.56%

Engineering Department Budget FY 18

Overview

Overseen by the Associate General Manager/Director of Operations, the Engineering Department consists of the Director of Engineering, an Engineer, the Engineering Technician/Developer Services Coordinator and a Construction Inspector.

The Engineering Department is responsible for coordination of all developer-related engineering and construction activities, as well as management of the Authority's Capital Improvements Plan, managing engineering design contracts and construction contracts, keeping the Utility Standards Manual current, and maintaining the Authority Geographic Information System.

Principle Expenditures

The principle expenditures in the Engineering Department are the salaries and benefits of the 4 employees in the department.

The proposed FY 18 operating budget for the Engineering Department is 7.02% higher than in the FY 18 budget. The majority of the increase is attributed to updates to the automation capabilities of the Authority, including maintenance contracts for GIS and SCADA.

The Engineering Department reviews and provides comments for all Plats and Plans submitted to the Authority for review. These plats and plans are resubmitted for a second, and sometimes third review. The following tables represent all plan and plat reviews performed during the previous fiscal years:

PLATS AND PLANS REVIEWED

Year	Plats	Plans
2016	33	59
2015	56	160
2014	106	96
2013	14	32
2012	10	20
2011	42	50
2010	26	28
2009	22	24
2008	24	40

FAUQUIER COUNTY WATER & SANITATION AUTHORITY

Engineering/Inspection
FY 2018

	Actual 2015	Actual 2016	Amended 2017	Approved 2018	PCT. Change
Personnel	237,517	277,676	326,088	339,545	4.13%
Benefits	96,776	97,993	114,760	117,196	2.12%
Operation	19,028	32,300	31,225	38,100	22.02%
Capital	3,119	4,500	1,500	12,000	700.00%
Total	356,440	412,469	473,573	506,841	7.02%

Department of Operations – Budget FY 18

Overview

The Department of Operations is responsible for the continuous operation of the WSA's water and wastewater facilities, and their associated infrastructure. The Department of Operations is also contracted to operate and maintain the Vint Hill water system (as owned by the Buckland Water). Further, the Department of Operations performs monthly meter reading in support of customer billing, responds to service calls when customers initiate or discontinue service, detect leaks, have water quality issues or other needs. Finally, the Department of Operations provides monitoring, testing and billing functions for the Old Dominion Electrical Cooperative (ODEC) Marsh Run Generating Plant.

The Associate General Manager/Director of Operations (AGM/DO) oversees the two divisions within the Department of Operations: The Waterworks Department consists of seven Waterworks Operators and two Meter Readers. The Wastewater Department consists of three plants (Remington, Marshall, and Vint Hill) and ten Wastewater Operators. Also, the AGM/DO and a floater are included in the Wastewater department.

The utilization of Work Order tracking software has allowed us to estimate the efficiency of individual departments by comparing available work time (i.e. regular time and overtime less leave and holidays) to time on site (which includes travel time). It also allows for tracking of repairs and associated cost. This history helps to determine major equipment replacements.

Principal Expenditures

The proposed FY 2018 budget for the Department of Operations is $3,477,747 This represents a $246,871 (7.64%) increase from the department's FY2017 budget.

The increase in cost is due the additional water position and four main line items: chemicals, sludge disposal, fuel and utilities expenses associated with the WSA's Water and Wastewater Systems daily operations. Cost increases within these line items are due to a combination of increased regulatory treatment requirements and increases in the market price for commodities.

The following table shows KWH usage and water loss percentage:

Annual KWH Used	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012
KWH	5,776,858	5,701,419	5,809,851	5,419,477	5,173,289
Water loss	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012
Percentage	11.72%	11.23%	8.57%	10.71%	19.57%

FAUQUIER COUNTY WATER & SANITATION AUTHORITY

Water Department
FY 2018

	Actual		Amended	Approved	PCT.
	2015	2016	2017	2018	Change
Personnel	494,104	554,307	529,566	592,757	11.93%
Benefits	134,123	144,480	149,312	176,332	18.10%
Operation	529,107	507,432	545,955	600,000	9.90%
Capital	27,392	26,402	41,500	42,500	2.41%
Total	1,184,726	1,232,621	1,266,333	1,411,588	11.47%

FAUQUIER COUNTY WATER & SANITATION AUTHORITY

Remington WWTP
FY 2018

	Actual 2015	2016	Amended 2017	Approved 2018	PCT. Change
Personnel	233,205	279,863	282,075	293,656	4.1%
Benefits	109,466	98,509	99,193	100,947	1.8%
Operation	424,303	505,200	522,389	546,600	4.6%
Capital	12,682	12,507	8,500	13,300	56.5%
Total	779,656	896,079	912,157	954,503	4.6%

Marshall WWTP
FY 2018

	Actual 2015	2016	Amended 2017	Approved 2018	PCT. Change
Personnel	194,879	199,195	215,059	224,378	4.3%
Benefits	54,133	58,495	71,250	72,671	2.0%
Operation	122,435	169,546	159,180	175,000	9.9%
Capital	1,531	4,154	5,000	4,500	-10.0%
Total	372,978	431,390	450,489	476,548	5.8%

Vint Hill WWTP
FY 2018

	Actual 2015	2016	Amended 2017	Approved 2018	PCT. Change
Personnel	198,400	220,081	225,817	234,991	4.1%
Benefits	52,254	70,638	81,000	73,917	-8.7%
Operation	255,180	253,226	291,040	322,700	10.9%
Capital	11,285	2,748	4,000	3,500	-12.5%
Total	517,119	546,693	601,857	635,108	5.5%

Department of Maintenance and Construction – Budget FY 18

Overview

The department is overseen by the Associate General Manager/CFO, the Director of Maintenance and Construction runs the two divisions within this department. The Maintenance Division consists of one Maintenance Supervisor, five Maintenance Mechanics, and one Line Locator. The Construction Division consists of one Superintendent, one Foreman, one Equipment Operator, and two Construction Workers.

The Department of Maintenance and Construction is responsible for maintaining and/or repairing all of the Authority's water and wastewater facilities and related distribution/collection infrastructures to facilitate the continual provision of our utility services. The Maintenance Division staffs a twenty-four hour on-call service for emergency repairs. The Maintenance Department also locates all of the Authority's water and/or sewer lines in accordance with the requirements of Miss Utility. The Construction Division is responsible for constructing upgrades and expansion projects for the improvement and/or expansion of the Authority's water and/or sewer systems and has consistently done so at a cost that has been lower than would be incurred utilizing third party contractors. In addition Construction Division personnel and resources are employed in assisting the Maintenance Division during major emergency repairs.

The utilization of new Work Order tracking software has allowed us to estimate the efficiency of the department. The following table shows the work orders received and completed:

Fiscal Year	Work Orders	Completed	Pending	Percentage
2016	563	540	23	96%
2015	364	364	0	100%
2014	332	329	3	99%
2013	366	365	1	99%
2012	358	358	0	100%
2011	370	370	0	100%

Principle Expenditures

The proposed FY 18 budget for the Maintenance Department is $1,680,355. This represents a $117,092 (8.04%) increase in Operating Costs and a $8,755 (8.99%) increase in the Capital Expenses from the department's FY 17 budget. The total budget increase for the department is $125,847 (8.10%).

The majority of the increases for the remainder of the department's budget stems from repair and maintenance costs, tools, and communications. The fuel expenses have been estimated based on historical experience, gallons used, and an average price of $2.30/gallon.

Although, traditionally the subcontracted maintenance service expenses have been a major cost, some of these tasks, such as well lot mowing and generator maintenance are now performed in-house for further cost savings. The Construction Division's salary and benefits have been added in the Maintenance Department budget.

FAUQUIER COUNTY WATER & SEWER AUTHORITY

Maintenance Department and Construction

	2018 Actual		Amended	Approved	PCT.
	2015	2016	2017	2018	Change
Personnel	519,798	499,992	808,757	883,967	9.3%
Benefits	196,277	184,235	338,248	367,980	8.8%
Operation	302,703	293,237	310,100	322,250	3.9%
Capital	62,971	81,455	97,403	106,158	9.0%
Total	1,081,749	1,058,919	1,554,508	1,680,355	8.10%

FAUQUIER COUNTY WATER & SANITATION AUTHORITY

Five Year Replacement and Renewal Program

FY 2018 Approved Budget

Project		FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	5 YR Totals
GENERAL							
Integrated Water Plan		100,000	100,000	100,000	100,000	100,000	500,000
SCADA Communication Maintenance		50,000	50,000	50,000	50,000	50,000	250,000
Generator Replacement		71,970	60,000	60,000	60,000	60,000	311,970
Arc Flash analysis		50,000					50,000
Road maintenance - gravel, seal pave			20,000	20,000	20,000	20,000	80,000
WATER SYSTEMS							
New Baltimore							
Marstella Water System			248,866	352,656	680,993	680,993	1,963,508
Rock Spring Water System			237,045	233,385	298,524	359,222	1,128,176
Grapewood pressure relief work					503,812	113,657	617,469
Mill Run Rehabilitation, valve intersection work				100,000			100,000
High Rock Rehabilitation			40,000				40,000
Marshall							
Piedmont Well house repair project		100,000					100,000
Green Meadows							
Green Meadows Electrical Upgrade			60,000				60,000
Waterloo							
Waterloo rehabilitation, redrill, tie in well #4			440,000				440,000
Systemwide Work							
Water Loss Study			40,000				40,000
Meter Testing and Calibration Services		50,000	50,000	50,000	50,000	50,000	250,000
Well House Control Upgrades			14,692				14,692
Water System - Hydrotank Replacement projects		60,000	60,000	60,000	60,000	60,000	300,000
Repair Well Houses		20,000	20,000	20,000	20,000	20,000	100,000
Protective Roof over Control Panels		20,000					20,000
Upgrade Water Meters with radio read		70,000	70,000	70,000	70,000	70,000	350,000
Water Tank Maintenance		105,000	105,000	105,000	105,000	105,000	525,000
Utility Services Main valve exercise program		100,000					100,000
Fire Hydrant Testing Program ($ 135 per x 800 FH every 5 years) 2014			108,000				108,000
Treatment media exchange (Green Meadows, 17/66, Turnbull)		50,000	50,000	50,000	50,000	50,000	250,000
Water System Major Replacements		61,800	63,654	65,564	67,531	69,556	328,105
WASTEWATER SYSTEMS							
Remington WWTP							
I&I Pipe Replacement Program - Remington (41 miles, $ 70/ft, 800 manholes, $ 3,000)		500,000	500,000	500,000	500,000	500,000	2,500,000
Replace Centrifuge				453,873	46,127		500,000
Asphalt roads		60,000					60,000
SCADA software upgrade (Ignition, Add old bldgs)		100,000					100,000
Digester tank crack repair		44,000					44,000
Reactor tracks (2) resurface		16,000					16,000
Repipe Septic Side, Valves, Diffusers		8,000					8,000
Replace Grit Classifier		30,000					30,000
Blower rebuild		25,000					25,000
Filter Feed Pump		30,000					30,000
Extend Sludge Bay		$300,000					300,000
Vint Hill WWTP							
Replace belt press			500,000				500,000
Install influent magmeter/wetwell bypass		50,000					50,000
Protective Roof over methanol		5,000					5,000
SCADA remote pump stations - Brookside, East End, Riley Rd		100,000					100,000
Sand filter structure - reseal, stop leaks from trough $17,643.86		18,000					18,000
Effluent pump		55,900					55,900
Influent pump		19,690					19,690
Headworks Project: Walkway, Overhaul Microstrainer, Replace Grit Classifer		100,000					100,000
Marshall WWTP							
I&I Pipe Replacement Program - Marshall, (21 miles, 350 manholes)		200,000	500,000	500,000	500,000	500,000	2,200,000
Microstrainer rebuild (recommend every 5 years, Marshall (2012) and VH (2016)		20,000					20,000
LS I improvements						50,000	50,000
Influent flow meter		5,530					5,530
Close in shop		20,000					20,000
Effluent Pump Drive		5,000					5,000
Railroad Crossing at Rt 55		150,000					150,000
Systemwide Work							
Lift Station Improvements			10,000				10,000
Lift Station Pump Replacements			75,000				75,000
Wastewater Systems Major Replacements		61,800	63,654	65,564	67,531	69,556	328,105
Cash Funded		750,000	750,000	1,000,000	1,000,000	617,770	4,117,770
Cash Funded to be determined			-	-	-	382,230	382,230
Not Funded		2,082,690	2,735,911	1,871,321	2,264,797	2,310,215	8,954,719
Totals		2,832,690	3,485,911	2,871,321	3,264,797	2,927,985	15,382,704

PROJECT DATA SHEET

Type:	Operations
Title:	Integrated Water Plan
Fiscal Year:	2018
Service District:	All

Deficiency Description:
The strategic plan for WSA is over 20+ years old and is obsolete. The Authority is moving towards an integrated water planning document.

Project Description:
To develop an integrated water plan by service district. This will be a multiple year project.

1. Establish a vision, strategies and goals for effective, system-wide infrastructure.
2. Maximize business and operational benefits
3. Identify and prioritize business, operational and technical requirements
4. Understand how service level objectives impact control
5. Establish a coordinated, prioritized program to meet operational goals
6. Define specific, short term and long term projects including costs, resource commitment, schedules and dependencies in order to deliver projects on time and within budget.
7. Identify immediate concerns and high impact projects
8. Define and identify policies, procedures, organization, technologies and a controlled means of managing change
9. Establish buy in among stakeholders and executive sponsors

Project Benefits:
An integrated plan that will assist with asset management which will lower business risk and optimize operational performance while providing access to strategic planning that is required for effective business decisions.

Project Budget Breakdown		
	FY 2018	**FY 2018–FY 2022**
Total:	**$100,000**	**$400,000**

Project Total = $500,000

PROJECT DATA SHEET

Type:	Operations
Title:	SCADA Communications
Fiscal Year:	2018
Service District:	All

Deficiency Description:
Change from a manually monitored system to an automatic monitoring and control system that can be accessed remotely.

Project Description:
Expand the current Supervisory Control and Data Acquisition (SCADA) system to include water and wastewater systems in conjunction with the communication system provided by Blaze.

Project Benefits:
This project will allow for remote monitoring and control of water and wastewater systems.

Project Budget Breakdown		
	FY 2018	**FY 2019– FY 2022**
Total:	**$50,000**	**$200,000**

Project Total = $250,000

PROJECT DATA SHEET

Type:	Maintenance/Construction
Title:	Generator Replacement
Fiscal Year:	2018
Service District:	All

Deficiency Description: Generators that have reached their life expectancy.

Project Description: Ongoing program to replace aging generators.

Project Benefits: This project will replace aging equipment and increase the system's reliability as required by the VDH and DEQ.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$71,970**	**$240,000**

Project Total = $311,970

PROJECT DATA SHEET

Type:	Operations
Title:	Arc Flash Analysis
Fiscal Year:	2018
Service District:	All

Deficiency Description:
The FCWSA is in need of an Electrical Safety Program to meet regulatory requirements and to establish safe practices for employees.

Project Description:
Professional Engineering Services are needed to assist in identifying the Arc Flash and Electrical Safety Hazards within the FCWSA water and wastewater facilities in order for the FCWSA to develop an Electrical Safety Program.
This is an ongoing program in its third year of evaluating facilities. Completed to date:
First Year
1. Vint Hill WWTP
2. Marshall WWTP
3. 17/66 Water and Wastewater facilities
4. Safety policy
5. Utilities standard for future facilities

Second Year
6. Bealeton WTF
7. Remington WWTP

Third Year
Remainder water facilities and wastewater pump stations. Additional funding may be necessary for FY 19 but will be evaluated during that year.

Project Benefits:
The program will meet the regulatory requirements of OSHA, NFPA, and the IEEE as well as promote employee safety.

PROJECT DATA SHEET

Project Budget Breakdown		
	FY 2018	FY 2019 – FY 2022
Total:	$50,000	$0

Project Total = $50,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Road Maintenance
Fiscal Year:	2018
Service District:	All

Deficiency Description: Water and Wastewater facilities require road maintenance. minor renovations.

Project Description: Provide gravel, sealing and paving to various water and wastewater facilities.

Project Benefits: Ensure continuous accessibility to facilities.

Project Budget Breakdown		
	FY 2018	**FY 2019 - FY2022**
Total:	**$ 0**	**$80,000**

Project Total = $ 80,000

PROJECT DATA SHEET

Type:	Construction
Title:	Marstella Water System
Fiscal Year:	2018
Service District:	New Baltimore

Deficiency Description: The water mains are cast iron which can break easily and the meter boxes are undersized.

Project Description: Upgrade water mains; replace meter boxes & service lines.

Project Benefits: Provide a dependable service & reduce the frequency of water system leaks & emergency repairs.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$ 0**	**$1,963,508**

Project Total = $1,963,508

PROJECT DATA SHEET

Type:	Construction
Title:	Replace Rock Springs Water Mains
Fiscal Year:	2018
Service District:	New Baltimore

Deficiency Description: The Rock Springs water system was constructed as a privately-owned water system. During the 1970's, the system was connected to the New Baltimore Water System. The water lines in the Rock Springs system are undersized, have inadequate valving and lack locations at which to flush the system. Undersized lines result in inadequate system pressure and deficient water availability in portions of this water system.

Project Description: Additional water valves and flushing hydrants will be installed throughout the system. Selected smaller diameter lines will be upsized, and system looping increased, in a manner that will maximize the improvement of water quantity and pressure throughout the Rock Springs Subdivision.

Project Benefits: This project will increase the reliability, and enhance the flow and sustained pressure characteristics of the distribution system within the Rock Springs Subdivision. Installing additional valves on the system will make future repairs easier to effect and cause fewer service interruptions while such repairs are underway. Adequate flushing locations allow water quality to be improved via implementation of a regular flushing program throughout the system.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$ 0**	**$1,128,176**

Project Total = $1,128,176

PROJECT DATA SHEET

Type:	Construction
Title:	Mill Run Rehabilitation and Intersection Work
Fiscal Year:	2018
Service District:	New Baltimore

Deficiency Description: Rehabilitate the Mill Run section and add valves in the intersection.

Project Description: Additional water valves and flushing hydrants will be installed throughout the system. Selected smaller diameter lines will be upsized, and system looping increased, in a manner that will maximize the improvement of water quantity and pressure throughout the Mill Run Subdivision.

Project Benefits: This project will increase the reliability, and enhance the flow and sustained pressure characteristics of the distribution system within the Mill Run Subdivision. Installing additional valves on the system will make future repairs easier to effect and cause fewer service interruptions while such repairs are underway. Adequate flushing locations allow water quality to be improved via implementation of a regular flushing program throughout the system.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$0**	**$100,000**

Project Total = $100,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Water – High Rock Well Rehabilitation
Fiscal Year:	2018
Service District:	New Baltimore

Deficiency Description: The High Rock well is very high in iron which causes extensive corrosion within the well and well house. This well need frequent rehabilitation.

Project Description: Replacement of drop pipe, valves and periodic cleaning.

Project Benefits: To maintain continuous operation of this water supply.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$ 0**	**$40,000**

Project Total = $40,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Piedmont Well House Repair
Fiscal Year:	2018
Service District:	Marshall

Deficiency Description: Piedmont well house is in need of repair. These conditions are from normal weathering.

Project Description: Repair well house as needed.

Project Benefits: The equipment housed at this location will be protected from the weather elements.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$100,000**	**$ 0**

Project Total = $100,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Green Meadows Electrical Upgrade
Fiscal Year:	2018
Service District:	Bealeton

Deficiency Description: The Green Meadows water system is a standalone community waterworks system having a capacity of 40,400 gpd. The system consists of two drilled wells, manganese greensand filters, 20,000 gallon storage tank, 2 booster pumps and 5,000 gallon hydropneumatic tank. The system has been in operation since 2002 and the electrical control system is in need of rehabilitation and upgrade. The system currently has problems with consistently running and there are frequent electrical malfunctions.

Project Description: The electrical controls for the system will be replaced to include electrical breakers, panels, instrumentation and controls.

Project Benefits: Once the Green Meadows electrical system is upgraded there will be a reduction in maintenance cost, less down time and increased efficiency to include energy reduction due to newer control systems.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$0**	**$60,000**

Project Total = $60,000

PROJECT DATA SHEET

Type:	Operations
Title:	Waterloo Rehabilitation, Redrill/Tie in Well #4
Fiscal Year:	2018
Service District:	Waterloo Estates

Deficiency Description: The Waterloo system consists of six (6) small yielding wells. Well #4 is a high yielding well that is currently not in the permit and would offer the system additional capacity, redundancy and flexibility however well #4 may have impact on the surrounding wells. A yield and drawdown along with water quality testing is needed to determine the influence on other wells, safe operating parameter and whether this well can be added to the system.

Project Description: Conduct a yield and drawdown and water quality analysis while monitoring the adjacent wells.

Project Benefits: The addition of a high yielding well will provide redundancy, flexibility in operation and enhanced maintainability of the system

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$ 0**	**$440,000**

Project Total = $440,000

PROJECT DATA SHEET

Type:	Operations
Title:	Water System Loss Study
Fiscal Year:	2018
Service District:	Multiple

Deficiency Description:
To identify water loss.

Project Description:
To conduct an AWWA water loss study.

Project Benefits:
Identify areas of improvement to reduce water loss.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$ 0**	**$40,000**

Project Total = $40,000

PROJECT DATA SHEET

Type:	Operations
Title:	Water Meter Testing and Calibration Services
Fiscal Year:	2018
Service District:	Multiple

Deficiency Description:

Water use metering is an essential element of efficiency and conservation management, and is necessary in order to conduct a system audit. Metering is a requirement for loss control, accounting and rate making, verification of water and cost savings, and the evaluation of the effectiveness of efficiency and conservation measures. Metering must be provided at all important water production processes and delivery locations including at the supply source, at critical in-plant control points, at wholesale delivery points, and at service connections. An effective metering program allows comparison of measured flows in the system and metered deliveries to customers, which can be used to identify leaks. Water meters not only help utilities collect the revenue they are due, they also help pinpoint leaks, locate pressure problems along their waterways, and identify and study periods of peak and non-peak use among both residential and business consumers. But meters can only perform these feats if they are accurate.

Project Description:

Meters should be regularly calibrated and tested in accordance with the manufacturer's recommendations or the guidelines by the American Water Works Association (AWWA).
The AWWA recommends that meters in service be tested, on average, as follows:
Meter sizes 5/8 in. to 1 in = Every 10 years
Meter sizes 1 in. to 4 in. = Every 5 years
Meter sizes 4 in. and larger = Every year

Project Benefits:

Identify areas of improvement to reduce water loss.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$50,000**	**$200,000**

Project Total = $250,000

PROJECT DATA SHEET

Type:	Operations
Title:	Water Well House Automation Control Upgrades
Fiscal Year:	2018
Service District:	Multiple

Deficiency Description:
Most well houses are need of automation controls to ensure continuous operation.

Project Description:
Install automatic controls at the well houses.

Project Benefits:
Automatic controls provide for consistent and continuous operations.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$ 0**	**$ 14,692**

Project Total = $14,692

PROJECT DATA SHEET

Type:	Operations
Title:	Water System HydroTank Replacement
Fiscal Year:	2018
Service District:	Multiple

Deficiency Description:
Several hydrotanks are in poor condition and require replacement.

Project Description:
Replace hydrotanks.

Project Benefits:
Maintain the tank water infrastructure to provide continuous water supply to all the service districts.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$60,000**	**$240,000**

Project Total = $300,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Repair Well Houses
Fiscal Year:	2018
Service District:	All Districts

Deficiency Description: Several well houses are in need of repair. These conditions are from normal weathering.

Project Description: Repair various well houses as needed.

Project Benefits: The equipment housed at these locations will be protected from the weather elements.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$20,000**	**$80,000**

Project Total = $100,000

PROJECT DATA SHEET

Type:	Construction
Title:	Water - Protective Roof Over Control Panels
Fiscal Year:	2018
Service District:	Multiple

Deficiency Description: The control panels at various wells are installed outside with no protection for the equipment. Continuous exposure to the weather will cause premature failure of the equipment. A protective roof will allow for some protection from the elements.

Project Description: Install a wood roof over the control panel.

Project Benefits: Protect the equipment.

Project Budget Breakdown		
	FY 2018	**FY 2019– FY 2022**
Total:	**$20,000**	**$0**

Project Total = $20,000

PROJECT DATA SHEET

Type:	Operations
Title:	Meter Replacement to Radio Read
Fiscal Year:	2018
Service District:	N/A

Deficiency Description: Current meters are older and are manual/touch read.

Project Description: Replace old meters to more efficient radio read meters.

Project Benefits: More accurate customer reads and less time for meter readers in the field.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$70,000**	**$280,000**

Project Total = $350,000

PROJECT DATA SHEET

Type:	Operations
Title:	Water Tank Maintenance
Fiscal Year:	2018
Service District:	Multiple

Deficiency Description:
FCWSA tanks were inspected to meet OSHA, EPA, AWWA and NFPA regulations. From this inspection 18 tanks require continual maintenance to include washouts, painting and minor repairs.

Project Description:
A maintenance contract was established on June 4, 2012, to provide continual maintenance for all WSA aboveground water storage tanks. This maintenance contract will include annual inspections and servicing of all tanks which will also include tank washouts, painting, and repairs.

Project Benefits:
Maintain the water tank infrastructure to provide continuous water supply to all the service districts.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$105,000**	**$420,000**

Project Total = $525,000

PROJECT DATA SHEET

Type:	Operations
Title:	Utility Services Main Valve Exercise Program
Fiscal Year:	2018
Service District:	All

Deficiency Description: Every water system has valves—devices that regulate, stop, or start the flow of water in the distribution lines. Being able to operate these valves at a moment's notice is extremely important. In an emergency, sections of a distribution system may need to be shut down without delay. However, if a valve is not used over a period of time it can seize-up from corrosion and get stuck, making the valve inoperable. In addition, it is also necessary to know where all the valves are in order to efficiently and effectively isolate a system during an emergency.

Project Description: This project will be contracted out to Utility Services to exercise the valves, obtain GIS information and produce a GIS layer for use by field and office staff.

Project Benefits:

Some of the benefits of fully operational valves include:

- Being able to isolate a water main break, meaning reduced water loss, easier repairs, and less property damage.
- Knowing where the valves are will help locate the rest of the distribution system, which is often an issue, particularly with older utilities.
- Obtaining detailed information on the valve type and size, as well as the line where it's located.
- Having confidence the valves will last much longer.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$100,000**	**$0**

Project Total = $100,000

PROJECT DATA SHEET

Type:	Operations
Title:	Fire Hydrant Testing Program
Fiscal Year:	2018
Service District:	Multiple

Deficiency Description:
Maintain compliance with regulatory testing of fire hydrants, NFPA.

Project Description:
Utility Services Group (USG) is utilized to provide Fire Hydrant services to include hydrant and isolation valve assessments, GPS location data for GIS, fire flow testing, NFPA color code identification painting services. Inspection and testing is required every five (5) years and was last performed in calendar year 2014.

Project Benefits:
WSA is not responsible for guaranteeing fire flow. WSA is responsible as the owner of the system for properly maintaining the water based fire protection system.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$0**	**$108,000**

Project Total = $108,000

PROJECT DATA SHEET

Type:	Operations
Title:	Water System Treatment Media Exchange
Fiscal Year:	2018
Service District:	Multiple

Deficiency Description:
Media needs to be periodically replaces in treatment system that remove iron, manganese and arsenic to maintain good quality water that meets regulations.

Project Description:
Media replacement at various water treatment systems when it is spent.

Project Benefits:
Compliance with regulation and provide customer with good quality water.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$50,000**	**$200,000**

Project Total = $250,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Water System Major Replacements
Fiscal Year:	2018
Service District:	All Districts

Deficiency Description: N/A

Project Description: These funds would be used for major unforeseen repair and/or replacement expenses in the Water Department.

Project Benefits: This will allow a more accurate budgeting within the line item expenses for the Water Department while providing for emergency funding should it be needed.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$61,800**	**$266,305**

Project Total = $328,105

PROJECT DATA SHEET

Type:	Maintenance
Title:	Inflow & Infiltration (I&I) Pipe Replacement Remington
Fiscal Year:	2018
Service District:	Remington

Deficiency Description:

In 2014, WSA began a comprehensive study of the inflow and infiltration (I&I) problems in the sewage collection system for the Remington wastewater treatment plant (WWTP). The Remington WWTP collections consists of a gravity system of approximately 41 miles of 6 to 16 inch lines, over 800 manholes, 8 miles of force main and 6 pumping stations.

I&I can come from many sources. Inflow is the direct connection of storm water into the sanitary sewer. Some typical sources of inflow are leaking manhole covers and illegal connections of roof gutters and sump pumps from residences to the sanitary sewer. Infiltration is the seeping of groundwater into the sanitary sewer through defects in the sewers, such as pipe joints, cracks in the pipe, lateral connections, manhole connections and manhole sections.

During significant rainfall events, the Remington collection system has experienced Sanitary Sewer Overflows (SSOs) as well as flows received at the WWTP that are peaking nearly five (5) times the average flows. This results in several major consequences; overflows directly impact customers, regulatory reporting of SSOs to the Department of Environmental Quality and increased treatment costs to process the additional flow. Ultimately if the I&I is not addressed and continues to worsen then WSA could face potential regulatory action and/or earlier multimillion dollar WWTP upgrades to increase capacity due to the storm water.

Project Description

The goal of this comprehensive program is to identify the sources of I&I, recommend solutions, and prioritize the solutions into phased, cost effective projects to resolve the problems.

This project has been divided into ten (10) tasks:

- Task 1 – System Wide Flow Monitoring and Flow Data Analysis
- Task 2 – System Wide Sewer System Modeling
- Task 3 – System Wide Comprehensive Sewer System Improvement and Data Management Plan
- Task 4 – Sewer System Evaluation Surveys for Phase 1 Study Area
- Task 5 – Preliminary Design for Phase 1 Study Area

PROJECT DATA SHEET

- Task 6 – Design Phase 1
- Task 7 – Permitting and Utility Coordination for Phase 1 Study Area
- Task 8 – Bid Phase 1
- Task 9 – Construction Phase 1
- Task 10 – Inspection Services Phase 1

Program Status

Task 1 – System Wide Flow Monitoring and Flow Data Analysis – Completed September 2014, cost $ 71,966

This task consisted of installing six (6) flow monitors and one rainfall gage within the Remington WWTP collections system for a period of not less than thirty (30) days. The flow meters were installed and provided data from April 10 through May 18, 2014, for a total duration of 39 days. Flow data was recorded at 5 minute increments. During this period, WSA was fortunate to have multiple rainfall events with 15 total and 5 events that had a total rainfall of more than 0.25 inches.

The data was analyzed and documented in a comprehensive report that prioritized the areas. A couple of keys points from the study:

- During Dry Weather, approximately 30% of the flow that enters into the WWTP is due to I&I.
- During Wet Weather, at least 10% of all rainfall enters directly into the WWTP.

Tasks 2 and 3 – System Wide Sewer System Modeling, Comprehensive Improvement Plan, Completed, **cost $ 85,851**

This task will model the sewer collection system to evaluate the capacity to convey the flow. The modeling will identify sewer lines that have insufficient capacity and determine the equivalent relief or replacement alternatives that may be required to provide needed capacity. The modelling will also identify the percent reduction of inflow and infiltration required to alleviate the capacity concerns. The flow monitoring and modeling results will be used to develop a comprehensive and prioritized sewer system improvement plan. The Plan will identify capacity issues that may exist in the sewer system, rehabilitation areas needed for the existing sewer system to reduce I&I and address operation and maintenance concerns. The engineer will also advise and assist FCWSA concerning policies related to privately owned sewer laterals, sewer laterals within the public right of way, roof drains, areaway drains, building drains and sump pumps.

Task 4 - Sewer System Evaluation Surveys for Phase 1 Study Area, $ 99,601 – FY 16 & 17

FCWSA will be performing detailed Sewer System Evaluation Surveys (SSES) to determine the rehabilitation method for the Town of Remington. Sewers selected for inspection are located near Remington and include approximately 24,200 ft of sanitary sewers. The inspection will include smoke testing, manhole inspection and Closed Circuit Television Inspection (CCTV). The SSES will allow the Engineer to provide a Rehabilitation Development Plant for this area.

PROJECT DATA SHEET

Project Benefits: Reduction in I&I, customer impact due to overflow, reduction in process costs, meet DEQ regulations.

Project Budget Breakdown for Remington		
	FY 2018	**FY 2019 - FY 2022**
Total:	**$500,000**	**$2,000,000**

Project Total = $2,500,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Replace Centrifuge
Fiscal Year:	2018
Service District:	Remington

Deficiency Description: There is only one piece of sludge dewatering equipment for Remington WWTP which is over 20+ years old. The centrifuge has and can be rebuild/rehabilitated several times however this piece of equipment is approaching its life expectancy and will need to be replaced with a newer more efficient centrifuge.

Project Description: Replace sludge dewatering equipment – centrifuge.

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$0**	**$500,000**

Project Total = $500,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Asphalt Road
Fiscal Year:	2018
Service District:	Remington

Deficiency Description: The Remington WWTP roads have deteriorated and need repair and asphalt.

Project Description: Replace asphalt on roads within Remington WWTP.

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$60,000**	**$0**

Project Total = $60,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Upgrade SCADA Software
Fiscal Year:	2018
Service District:	Remington WWTP

Deficiency Description: The Remington SCADA system needs to upgrade its software system from 32 to 64 bit because the manufacturer no longer supports upgrades to that platform. This system is responsible for monitoring and control of the wastewater process and is essential to permit compliance.

Project Description: Upgrade SCADA software from 32 to 64 bit.

Project Benefits: Maintain continuous operation of the Remington WWTP

Project Budget Breakdown		
	FY 2018	**FY 2019– FY 2022**
Total:	**$100,000**	**$0**

Project Total = $100,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Digester Tank Crack Repair
Fiscal Year:	2018
Service District:	Remington

Deficiency Description: The Digester tank has cracks in the concrete, some of which are leaking through. Cracks need to be repaired before there is significant concrete deterioration.

Project Description: Repair cracks in Digester concrete tanks located at the Remington WWTP. An engineering firm was hired in FY 17 to do a structural/crack evaluation of the digester for $ 19,977.44. Based upon that evaluation the engineer has recommended that

1. Cracks in the concrete that are 0.005" wide or greater, or noted as an open crack should be sealed and pressure injected.
2. Cracks in the concrete that are less than 0.005" in width generally do not require pressure injection. It is recommended that these cracks be sealed on the surface to prevent water infiltration with a cementitious waterproofing and protective slurry mortar be installed over these hairline cracks.
3. Areas of missing or spalled concrete, or areas containing imminent spalling shall be repaired with a cementitious repair mortar.

The following is a preliminary construction cost estimate for the above recommended repairs to the concrete spalls and cracking that was observed and noted.

Recommended Repairs

Repair Type	Unit	Quantity	Unit Cost	Cost
Mobilization	LS	1	$10,000.00	$10,000.00
Crack Injection with Polyurethane Grout (Open crack with width 0.005" or greater)	LF	230	$65.00	$14,950.00
Crack Sealing with Protective Slurry Mortar (Closed hairline crack with width less than 0.005")	SF	320	$10.00	$3,200.00
Spall Repair with Polymer Modified Mortar	CF	20	$400.00	$8,000.00
			Subtotal	$36,150.00
			20% Contingency	$7,230.00
			Total	$43,380.00
			Say	$44,000.00

PROJECT DATA SHEET

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$44,000**	**$0**

Project Total = $44,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Reactor Tracks (2) Resurface
Fiscal Year:	2018
Service District:	Remington

Deficiency Description: The reactor mechanism travels along a concrete track on a 24/7 basis to maintain the biological system. The track is getting worn and needs to be resurfaced so that the wheel does not get damaged.

Project Description: Resurface the two reactor basin concrete tracks at Remington WWTP.

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$16,000**	**$0**

Project Total = $16,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Repipe Septic Side, Valves and Diffusers
Fiscal Year:	2018
Service District:	Remington

Deficiency Description: The Septage Receiving tank needs rehabilitation. This is the tank where septage haulers discharge to and requires aeration before it enters the head of the plant.

Project Description: Replace the pipes, valves and diffusers within the septage receiving tank.

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$8,000**	**$0**

Project Total = $8,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Replace Grit Classifier
Fiscal Year:	2018
Service District:	Remington

Deficiency Description: The grit classifier for Remington WWTP is over 20+ years old. The grit classifier valves are showing signs of deterioration and need to be replaced before failure.

Project Description: Replace the grit classifier.

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$30,000**	**$0**

Project Total = $30,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Air Blowers - rebuild
Fiscal Year:	2018
Service District:	Remington

Deficiency Description: The Remington WWTP air blowers are required to meet the regulatory requirements for nutrient specifically nitrogen. These blowers have been in service since 20010 and required maintenance work in order to continuously operate.

Project Description: Rebuild five (5) Air Blowers at Remington WWTP.

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$25,000**	**$0**

Project Total = $25,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Filter Feed Pump
Fiscal Year:	2018
Service District:	Remington

Deficiency Description: The Remington WWTP filter feed pump needs to be replaced.

Project Description: Replace one filter feed pump.

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$30,000**	**$ 0**

Project Total = $30,000

PROJECT DATA SHEET

Type:	Operations
Title:	Remington WWTP Sludge Bay Extension
Fiscal Year:	2018
Service District:	Remington

Deficiency Description: The sludge storage area is used to house dewatered sludge generated at Remington WWTP and Vint Hill WWTP. There is a need to increase the sludge storage capacity at the Remington WWTP to provide for additional storage for time periods when land application cannot occur due to freezing or wet weather conditions. Sludge is usually sent to the landfill during time periods when land application cannot occur but the landfill has limited hours, 1 day a week, for disposal of the cake since it has transitioned to a transfer station. This has resulted in an overload in the sludge storage areas at both plants and impacted sludge dewatering which will eventually affect the liquids processing and the discharge permit. In addition, there has been an increase in sludge production due to growth.

Project Description: An engineering firm performed a preliminary design for $ 22,382.27 in FY17. Based upon the preliminary design the Remington WWTP can extend the sludge storage area by building a second building adjacent to the existing storage facility. In addition, a permanent ramp can be constructed to help safely load the land application trucks. The estimated construction cost for the upgrades is $ 195,000 which includes a 20% contingency and does not include engineering, inspection, or administration costs (add 15%) = $225,000 plus Butler building $ 75,000. Total $ 300,000.

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

PROJECT DATA SHEET

Project Budget Breakdown		
	FY 2018	FY 2019 – FY 2022
Total:	$300,000	$0

Project Total = $300,000

PROJECT DATA SHEET

Type:	Operations
Title:	Vint Hill WWTP Replace Belt Press
Fiscal Year:	2018
Service District:	Vint Hill

Deficiency Description: The Vint Hill WWTP has only one piece of sludge dewatering equipment. It has and can be rebuild/rehabilitated however it is approaching its life expectancy and needs to be replaced.

Project Description: Replace sludge dewatering equipment – belt press

Project Benefits: Maintain continuous operations of the wastewater plant and continue to serve customers. Comply with regulatory permit.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$0**	**$500,000**

Project Total = $500,000

PROJECT DATA SHEET

Type:	Construction
Title:	Vint Hill WWTP Install Influent Wetwell Bypass
Fiscal Year:	2018
Service District:	Vint Hill

Deficiency Description: The influent wetwell has no way to bypass to allow for maintenance of the system.

Project Description: Install influent wetwell bypass

Project Benefits: Continuous operations and maintainability of the system.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$50,000**	**$0**

Project Total = $50,000

PROJECT DATA SHEET

Type:	Construction
Title:	Vint Hill WWTP Protective Roof Over Methanol
Fiscal Year:	2018
Service District:	Vint Hill

Deficiency Description: The methanol system was installed outside with no protection for the equipment. Continuous exposure to the weather will cause premature failure of the equipment. A protective roof will allow for some protection from the elements.

Project Description: Install a wood roof over the methanol systems.

Project Benefits: Protect the equipment.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$5,000**	**$ 0**

Project Total = $5,000

PROJECT DATA SHEET

Type:	Operations
Title:	Vint Hill WWTP Install SCADA at Remote Pump Stations
Fiscal Year:	2018
Service District:	Vint Hill

Deficiency Description: Automatic control and monitoring is not available for the remote collection system pump stations. Manual observation is required.

Project Description: Install SCADA controls at Remote Pump Stations

Project Benefits: Maintain continuous operation collection systems for the Vint Hill WWTP. Helps to prevent SSO.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$100,000**	**$0**

Project Total = $100,000

PROJECT DATA SHEET

Type:	Operations
Title:	Vint Hill WWTP Sand Filter Structure Repair
Fiscal Year:	2018
Service District:	Vint Hill

Deficiency Description: The Denitrification filters located at the Vint Hill WWTP needs concrete repair and sealing of the troughs to stop the leaks.

Project Description: Reseal and repair concrete tank.

Project Benefits: Maintain continuous operation for the Vint Hill WWTP.

Project Budget Breakdown		
	FY 2018	FY 2019 – FY 2022
Total:	$18,000	$0

Project Total = $18,000

PROJECT DATA SHEET

Type:	Operations
Title:	Vint Hill WWTP Effluent Pumps
Fiscal Year:	2018
Service District:	Vint Hill

Deficiency Description: The effluent pumps are in need of replacement/rebuild.

Project Description: Replace/rebuild effluent pump.

Project Benefits: Maintain continuous operations of the pump station and continue to serve customers. Comply with regulatory permit.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$55,900**	**$0**

Project Total = $55,900

PROJECT DATA SHEET

Type:	Operations
Title:	Vint Hill WWTP Influent Pumps
Fiscal Year:	2018
Service District:	Vint Hill

Deficiency Description: The influent pumps are in need of replacement/rebuild.

Project Description: Replace/rebuild influent pump.

Project Benefits: Maintain continuous operations of the pump station and continue to serve customers. Comply with regulatory permit.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$19,690**	**$0**

Project Total = $19,690

PROJECT DATA SHEET

Type:	Operations
Title:	Vint Hill WWTP Replace Headworks Project
Fiscal Year:	2018
Service District:	New Baltimore

Deficiency Description: The headworks for Vint Hill WWTP is showing signs of deterioration and need to be replaced before failure.

Project Description: Replace the Headworks Project consists of replacement/rebuild of microstrainer, grit classifer, and walkway.

Project Benefits: Maintain continuous wastewater operation to meet regulatory permit and serve the customers.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$100,000**	**$0**

Project Total = $100,000

PROJECT DATA SHEET

Type:	Operations
Title:	Inflow & Infiltration (I&I) Flow Monitoring - Marshall
Fiscal Year:	2018
Service District:	Marshall

Deficiency Description: I&I can come from many sources. Inflow is the direct connection of storm water into the sanitary sewer. Some typical sources of inflow are leaking manhole covers and illegal connections of roof gutters and sump pumps from residences to the sanitary sewer. Infiltration is the seeping of groundwater into the sanitary sewer through defects in the sewers, such as pipe joints, cracks in the pipe, lateral connections, manhole connections and manhole sections.

During significant rainfall events, the Marshall collection system has experienced Sanitary Sewer Overflows (SSOs) as well as flows received at the WWTP that are peaking nearly ten (10) times the average flows. This results in several major consequences; overflows directly impact customers, regulatory reporting of SSOs to the Department of Environmental Quality and increased treatment costs to process the additional flow. Ultimately if the I&I is not addressed and continues to worsen then WSA could face potential regulatory action and/or earlier multimillion dollar WWTP upgrades to increase capacity due to the storm water.

Project Description

The goal of this comprehensive program is to identify the sources of I&I, recommend solutions, and prioritize the solutions into phased, cost effective projects to resolve the problems.

This project has been divided into ten (10) tasks:

- Task 1 – System Wide Flow Monitoring and Flow Data Analysis
- Task 2 – System Wide Sewer System Modeling
- Task 3 – System Wide Comprehensive Sewer System Improvement and Data Management Plan
- Task 4 – Sewer System Evaluation Surveys for Phase 1 Study Area
- Task 5 – Preliminary Design for Phase 1 Study Area
- Task 6 – Design Phase 1
- Task 7 – Permitting and Utility Coordination for Phase 1 Study Area
- Task 8 – Bid Phase 1
- Task 9 – Construction Phase 1
- Task 10 – Inspection Services Phase 1

PROJECT DATA SHEET

For FY 17, Task 1 Flow Monitoring and Data Analysis and Task 2 Flow modeling for a total of $ 90,564.
FY 17, Task 3 and 4 Sewer System Evaluation and Improvement Plan for a total of $ 99,783. WSA construction crew has completed The Plains SSES and will continue with the remainder of the Marshall collections system.

Project Benefits:

Reduction in I&I, customer impact due to overflow, reduction in process costs, meet DEQ regulations.

Project Budget Breakdown for Marshall		
	FY 2018	FY 2019 - FY 2022
Total:	**$200,000**	**$2,000,000**

Project Total = $2,200,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Microstrainer Rebuild – Marshall WWTP
Fiscal Year:	2018
Service District:	Marshall

Deficiency Description: The microstrainer is recommended to be rebuilt every 5 years.

Project Description: Rebuild microstrainers located at Marshall WWTP. Last rebuild was calendar year 2012

Project Benefits: This project will rebuilding aging equipment and increase the systems reliability providing continued compliance with DEQ Sewerage Regulations.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$20,000**	**$ 0**

Project Total = $20,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Upgrade Marshall Lift Station "I"
Fiscal Year:	2018
Service District:	Marshall

Deficiency Description: The current pumps and controls are nearing their life expectancy. In order to ensure continued operational reliability at the pump station these items would be upgraded.

Project Description: The current pumps and pump controls would be replaced.

Project Benefits: This project will replace aging equipment and increase the systems reliability providing continued compliance with VDH Sewerage Regulations.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$ 0**	**$50,000**

Project Total = $50,000

PROJECT DATA SHEET

Type:	Operations
Title:	Marshall WWTP Influent Flow Meter
Fiscal Year:	2018
Service District:	Marshall

Deficiency Description: The influent flow meter has failed at Marshall WWTP and is necessary to determine how much flow is entering the plant.

Project Description: Replace influent flow meter.

Project Benefits: Maintain continuous operations of the pump station and continue to serve customers. Comply with regulatory permit.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$5,530**	**$0**

Project Total = $5,530

PROJECT DATA SHEET

Type:	Operations
Title:	Marshall WWTP Maintenance Shop
Fiscal Year:	2018
Service District:	Marshall

Deficiency Description: The maintenance shop is open to the air with only a roof. This project would enclose and protect the equipment and tools.

Project Description: Enclose maintenance shop

Project Benefits: Maintain continuous operations and continue to serve customers. Comply with regulatory permit.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$20,000**	**$0**

Project Total = $20,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Reactor Effluent Pump Drive Replacement
Fiscal Year:	2018
Service District:	Marshall WWTP

Deficiency Description: The current drive/controls are nearing their life expectancy. In order to ensure continued operational reliability at the WWTP the pump need to be replaced.

Project Description: The current drive/controls would be replaced.

Project Benefits: This project will replace aging equipment and increase the systems reliability providing continued compliance with DEQ Sewerage Regulations.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$5,000**	**$0**

Project Total = $5,000

PROJECT DATA SHEET

Type:	Construction
Title:	Railroad Crossing at Route 55
Fiscal Year:	2018
Service District:	Marshall

Deficiency Description: This wastewater line is in poor condition and beyond repair.

Project Description: Replace wastewater line under the Railroad crossing.

Project Benefits: Reduction of maintenance repair cost and I&I.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$150,000**	**$0**

Project Total = $150,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Lift Station Improvement
Fiscal Year:	2018
Service District:	All Districts

Deficiency Description: Lift station improvement and maintenance is required throughout the year.

Project Description: Major maintenance to lift stations.

Project Benefits: To ensure continuous operation.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$10,000**	**$0**

Project Total = $10,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Lift Station Pump Replacement
Fiscal Year:	2018
Service District:	All Districts

Deficiency Description: Lift stations requirement pump replacements.

Project Description: Major pump replacements at lift stations.

Project Benefits: To ensure continuous operation.

Project Budget Breakdown		
	FY 2018	**FY 2019 – FY 2022**
Total:	**$ 0**	**$75,000**

Project Total = $75,000

PROJECT DATA SHEET

Type:	Maintenance
Title:	Wastewater System Major Replacements
Fiscal Year:	2018
Service District:	All Districts

Deficiency Description: N/A

Project Description: These funds would be used for major unforeseen repair/ replacement expenses in wastewater.

Project Benefits: This will allow a more accurate budgeting within the line item expenses for wastewater while providing emergency funding should it be needed.

Project Budget Breakdown		
	FY 2018	**FY 2019 - FY 2022**
Total:	**$61,800**	**$266,305**

Project Total = $328,105

FAUQUIER COUNTY WATER & SANITATION AUTHORITY
Machinery & Equipment
FY2017 Approved Budget

Maintenance and Water Department
Vehicle & Equipment:

There are several vehicles that have met the criteria to be replaced (7 years or 150,000 miles); purchases will be determined during the year.

Total Machinery & Equipment	**$140,000**

Fauquier County Water and Sanitation Authority
Vehicle List
FY18 Approved Budget

Garage #	Year	Vehicle Description	Mileage	VIN #	Tag #	Title #	Employee/Dept.	Repl. Year	Est. Cost
ADMINISTRATION									
2ws011	2015	Ford Fusion Hybrid	8,051	3FA6P0LU3FR131507	186247L	73084836	Administration	2022	29000
2ws056	2008	Ford Expedition	37,838	1FMFU16558LA15879	144206L	72868020	Administration	2022	50000
CONSTRUCTION									
2ws007	2003	Ford F750 Dump Truck (new 10/13)	117,646	3FDXX75N43M602339	179501L	54531609	Construction	2020	50000
2ws014	1997	Ford 1 Ton Utility 4x4 Pickup (Spare)	144,088	1FTHF36F4VEC16930	34568L	72669831	Spare	n/a	n/a
2ws028	2004	Ford F350 4x4 Crew Cab	105,968	1FTSW31P84EA58029	119236L	72788037	K. Crossman	2018	46000
2ws030	2004	Ford F350 4x4 Reg. Cab	156,335	1FTSF31P44EA58030	119237L	72788038	R. Good	2016	46000
2ws045	2007	Ford F350 4x4 Ext. Cab	67,643	1FDWX37P97EA02431	135097L	72844528	G. Saravia	2018	46000
2ws018	2017	Ford F150 4x4 EXT Cab Pickup	1,571	1FTEX1E84HFA88730		1404601179	R. Good	2027	26000
ENGINEERING									
2ws049	2007	Ford F150 4x4 Ext. Cab	103,755	1FTPX14V27NA79612	143472L	72862727	D. Ennis	2018	26000
MAINTENANCE									
2ws008	1993	GMC Top Kick Dump Truck	56,849	1GDM7H1J3PJ512841	20049L	48775742	Maintenance	2018	n/a
2ws010	2014	Ford F150 4x4 Ext. Cab (new 8/14)	17,518	1FTFX1EF7EKE92594	185447L	73080704	R. Landis	2021	29000
2ws026	2003	GMC C-4500, Prime Mover Truck	21,460	1GDE4E1143F522528	119234L	72784196	Maintenance	2021	55000
2ws032	2004	Ford F350 4x4 Ext. Cab	174,787	1FDWX37P14EB68244	120520L	72795540	Mainenance	n/a	n/a
2ws043	2005	Ford F150 4x4 Ext. Cab	105,071	1FTRX14WX5FB72807	130506L	72826968	J. Reed	2017	29000
2ws046	2007	Ford F350 4x4 Ext. Cab	154,475	1FDWX37P77EA02430	135098L	72844529	D. Caniford	2018	55000
2ws057	2008	Ford F350 4x4 Ext. Cab	132,366	1FDSX35R38EB66956	144204L	72868016	J. Settle	2017	46000
2ws058	2008	Ford F350 4x4 Ext. Cab	119,101	1FDSX35R38EB66957	144207L	72868017	A.Stephens	2018	46000
2ws059	2008	Ford F350 4x4 Ext. Cab	174,985	1FDSX35R38EB66958	144205L	72868022	R. Wiley	2016	46000
2ws060	2008	Ford F350 4x4 Ext. Cab	75,251	1FDSX35R48EC52812	144203L	72868013	S. Brown	2020	46000
2ws063	2007	Ford F550 Crane Truck (new 12/12)	68,292	1FDAF57P47EA77420	175000L	53986219	Maintenance	2019	46000
	2017	Chevy 3500 4x4 Ext. Cab					R. Griffith	2027	46000
MARSHALL WWTP									
2ws016	1999	Dodge Dakota 4x4 Pickup	252,178	1B7GG26X8XS254712	34603L	72698698	Mashall WWTP	n/a	n/a
2ws029	2003	Chevy S10 4x4 Ext. Cab	127,055	1GCDT19X938275368	119235L	72788034	Marshall WWTP	2015	29000
2ws035	2004	GMC Dump Truck	48,954	1GDM7C1C64F513808	123951L	72797648	Marshall WWTP	2020	50000
	2017	Ford F150 4x4 EXT Cab Pickup						2027	29000
REMINGTON WWTP									
2ws012	1996	Chevy Blazer	152,260	1GNCT18W1TK229726	30416L	72640873	Remington WWTP	n/a	n/a
2ws015	2008	Ford Ranger 4x4 Pickup (new 1/15)	120,934	1FTZR15E98PA88279	188303L	73088920	Remington WWTP	2022	29000
2ws027	1990	Ford Super Duty Utility Truck (Crane)	147,106	2FDLF47M4LCA42174	61449L	43151949	Maintenance	2025	n/a
	2017	Ford F150 4x4 EXT Cab Pickup						2027	29000
VINT HILL FARMS STATION WWTP									
2ws005	2001	Ford F750 Dump Truck (new 1/13)	137,076	3FDWF75H91MA58697	175940L	53987396	Vint Hill WWTP	2020	50000
2ws013	2006	Ford F150 4x4 Pickup (new 1/15)	134,259	1FTPX14516NB29592	188302L	73088917	Vint Hill WWTP	2022	29000
2ws021	2001	Dodge Dakota 4x4 Pickup(Plant use)	157,522	1B7GG26X91S189151	38112L	72730479	Vint Hill WWTP	n/a	n/a
	2017	Ford F150 4x4 EXT Cab Pickup					Vint Hill WWTP	2027	29000
WATER									
2ws001	2012	Chev. Colorado 4x4 Pickup	90,124	1GCGTBF94C8151551	171948L	53974476	N. Grigsby	2019	29000
2ws002	2012	Chev. Colorado 4x4 Pickup	67,621	1GCGTBF96C8151194	171947L	53974475	K. Stevenson	2019	29000
2ws004	2012	Chev. Colorado 4x4 Pickup	93,305	1GCGTBF93C8151735	171969L	53975470	C. Cummings	2019	29000
2ws009	2016	Ford F150 4x4 EXT Cab Pickup	15,722	1FTEX1E89GFC07791	109069L	79562012	B. Lambert	2023	29000
2ws020	2016	Ford F150 4x4 EXT Cab Pickup	14,563	1FTEX1E80GFC07792	196671I	79562019	R Keyser	2023	29000
2ws024	2016	Ford F150 4x4 EXT Cab Pickup	16,007	1FTEX1E82GHC07793	196670I	79562016	J Flohr	2023	29000
2ws044	2006	GMC 4x4 Lift Gate Pickup	104,253	1GTHK24096E262360	135076L	72843640	J. Dzenkowski	2017	35000
2ws050	2007	Ford F150 4x4 Ext. Cab Pickup	137,195	1FTPX14V47NA79613	143471L	72862726	E. Barker	2017	29000
2ws053	2007	Ford F150 4x4 Ext. Cab Pickup	212,221	1FTPX14V37KD32910	144155L	72863667	Water	n/a	n/a
	2017	Ford F150					R. Stieringer	2024	29000

FAUQUIER COUNTY WATER & SANITATION AUTHORITY
Capital Expenses less than $3,500
FY2017 Approved Budget

Water:		
	Small Chemical Metering Pumps (3)	$ 9,000
	Turbidity Analyzer	3,000
	Chlorine Analyzer	3,000
		$ 15,000
Wastewater:		
	pH & DO Probes	$ 6,400
	Computer	900
		$ 7,300
Maintenance:		
	Scaffolding	$ 3,800
	Pack Rats (3)	4,500
	Computers (2)	1,800
		$ 9,800
Administration:		
	Computers (5)	$ 4,500
		$ 4,500
Grand Total		**$36,600**

Fauquier County Water & Sanitation Authority Capital Improvement Program FY 2018 Approved Budget 5 Year Projections						
Project	FY2018	FY2019	FY 2020	FY 2021	FY 2022	TOTAL
New Baltimore						
Exploratory						
Exploratory well work (County)	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000
Supply						
H-3 Connection		$ 100,000				$ 100,000
K well				$ 2,596,872		$ 2,596,872
Storage						
Baldwin Ridge 2nd Tank	Carryover	$ 563,000				$ 563,000
New Baltimore modeling	$ 100,000					$ 100,000
New Baltimore Automation	$ 250,000					$ 250,000
Treatment						
Rogues Road Treatment - Phase 1	$ -	$ 1,036,028				$ 1,036,028
Howell Manor treatment - Iron/Mn - Greensand filters	Carryover					$ -
Mill Run treatment - Iron/Mn - Greensand filters	Carryover					$ -
High Rock treatment		$ 275,000	$ 50,000			$ 325,000
Terranova treatment		$ 275,000	$ 50,000			$ 325,000
Bealeton						
A-1 well (70 gpm), line (3,400 feet) and automation				$ 1,354,360		$ 1,354,360
A-3 well (135 gpm), line (4,000 feet) and automation				$ 1,487,640		$ 1,487,640
Marshall						
Project 1 - Rehabilitation Salem 4	$ 664,000					$ 664,000
Project 2 - Salem 3 to 4	$ 867,000	$ 867,000				$ 1,734,000
Exploratory well work (County)	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000
Vint Hill						
Interconnection NB water (Developer)		$ 200,000				$ 200,000
Water Reuse Project (County/Dev)	$ 500,000					$ 500,000
North End LS SCADA controls	$ 250,000					$ 250,000
Opal						
Phase 1A, 250 gpm well, 250,000 gal storage tank (County Funded)	$ 500,000	$ 2,700,000				$ 3,200,000
Plains						
The Plains - Nitrate Treatment (Ion Exchange)			250,000			$ 250,000
Bethel						
Nitrate Treatment (Ion Exchange)			$ 300,000			$ 300,000
Botha						
Nitrate Treatment (Ion Exchange)				$ 300,000		$ 300,000
FCWSA	$ 700,000	$ 750,000	$ 750,000	$ 400,000	$ 100,000	$ 2,700,000
Unsigned cash funds	$ 50,000			$ 350,000	$ 650,000	$ 1,050,000
County Funded	$ 600,000	$ 2,800,000	$ 100,000	$ 100,000	$ 100,000	$ 3,700,000
Loans	$ 1,531,000	$ 2,466,028		$ 5,438,872		$ 9,435,900
Unfunded						
Developer Funded	$ 500,000	$ 200,000				$ 700,000
Total	$ 3,331,000	$ 6,216,028	$ 850,000	$ 5,938,872	$ 200,000	$ 16,535,900

PROJECT DATA SHEET

Type:	CIP
Title:	System Overview
Fiscal Year:	2018-2022
Service District:	New Baltimore

Project Description:

The New Baltimore Regional Water System consist of eleven (11) drilled wells, various pressure tanks, a 5,000 gallon baffled storage tank (Terranova), a 350,000 gallon storage tanks (Rogues Road), a 760,000 gallon storage tank (Baldwin Ridge), booster pumps and hypochlorination/sequestration treatment.

The waterworks is permitted for a design capacity of 1,105,600 gpd due to limited source capacity. The design capacity 1,105,600 gpd equates to approximately 2,764 equivalent residential connections (ERC).

Supply Summary

The following is a summary table of potential source supply wells.

Source	GPM	GPD	ERC
Mosby Woods Redrill	52	41,600	104
G-4	135	108,000	270
All Remaining Known Wells Require Treatment			
H-3	60	48,000	120
K	200	160,000	400
E-6	350	280,000	0
E-7	75	60,000	150
E-3	85	68,000	170
M 6A	100	80,000	200

Note that the Mosby Woods well was originally in the operating permit but was taken offline as of March 2009 due to the reduction of pumping due to grit and sand. The well is considered inactive by VDH regulations and has been redrilled as a new source.

Another well G-4 has been identified as a new source. Finally, the most important issue is that there must be continued Phase III-V hydro-geological work to develop the groundwater in New Baltimore.

PROJECT DATA SHEET

Demand Summary

Over the next six years, the total projected demand is an additional 524 connections or 209,600 gpd.

Supply Projects

There are no supply projects scheduled in FY 2018.

Supply projects are scheduled in the 5 year CIP to include H-3 (FY 19) and the K or E Wells (FY20/21). These wells will require treatment systems.

The other options to increase supply capacity is to pursue exploratory drilling in areas I, N, and C. This is a 7 – 10 year timeframe to bring online a new water source given that there WSA will need to procure the land and easements for wells in these areas.

Storage

New Baltimore storage consists of a 5,000 gallon baffled storage tank (Terranova), a 350,000 gallon storage tank (Rogues Road), and a 760,000 gallon storage tank (Baldwin Ridge). The storage capacity is 1,327,000 gpd or 3,319 ERC.

Permit	3,319
Connections	2,885
Available	434

A co-located storage tank located at the Baldwin Ridge site will be built in FY17/18. While it will be a 750,000 gallon tank the effective added capacity will be approximately 350,000 gallons until the pump station is built in FY 19 to allow full tank usage for both tanks. Additional ERCs for storage tank capacity without the pump station is 1,750 ERCs.

Treatment

There are two types of treatment projects: those related to improving the water quality for existing wells and treatment related to bringing on additional supply capacity.

Water Quality Improvement Projects – Existing Wells

1. Howell Manor and Mill Run – FY 17/18

Howell Manor (161 gpm) and Mill Run (104 gpm) well treatment systems. These wells have water quality issues with iron and manganese. The wells are used only during high usage times and generally result in customer complaints for dirty water. A media based filtration system will be installed such as a green sand filter.

2. Terranova and High Rock – FY 19

Water Quality/Supply Projects

1. Rogues Road

WSA will be bringing on new capacity well G-4 into the centralized Rogues Road booster station which consists of G-2, G-3, H-1 wells. The G-2 well has high concentrations of total dissolved solids (TDS) and sulfate. Our permit requires running this well and blending this

raw water with G-3 well. At this time we are looking at bringing on the G-4 well now and in the future H-1 well which had bacteria issues. Blending treatment option will be the first treatment option for the G-4 well. Additional chlorine and mixing option treatment may be the second step in the treatment to bring on H-1.
2. Baldwin Ridge Treatment
E wells (E7 – 75 gpm, back up wells E6 350 gpm, E3 – 85 gpm) or K Well (200 gpm)
If the K well is brought on line the well will need to be treated for high total dissolved solids, sulfates, manganese and hardness.
E wells: The High Rock well (312 gpm) has water quality issues with iron and slightly higher radionuclides. This well is currently pumped directly on a trunk line to Baldwin Ridge storage tank where it received blending treatment. Since this well discharge is on a trunk line to the storage tank and the well lot is of sufficient area this makes it a prime area for a centralized treatment system. WSA is reviewing the E area wells for the possibility to bring them on as additional capacity and to this site if treatment is needed. E-7 (75 gpm) is recommended to be blended with High Rock well. E-6 (350 gpm) interconnects with High Rock and has the same quality issues of Iron. E-3 (85 gpm) was recommended as a back up well and needs full testing.

WSA does not own any of the wells or property for the E or K wells.

Supply/Demand Assessment Summary

In the next five (5) years, the following source, storage and treatment facilities will need to be brought on line to meet the development demand:

1. H-1 well – complete FY 15
2. Mosby Woods well rehabilitation – FY 17
3. G-4 well – in progress, FY 17
4. Howell Manor and Mill Run well treatment, FY 17
5. Baldwin Ridge Storage Tank #2, FY 17/18
6. Rogues Road Treatment, FY 19
7. High Rock and Terranova well treatment, FY 19
8. Storage pumping FY 19
6. H-3 well, FY 19
7. K well (or E wells) plus treatment, FY 20/21

PROJECT DATA SHEET

Supply Budget Breakdown		
	FY 18	FY 2019 – FY2022
Exploratory	$100,000	$400,000
H-3 Well connection	$ 0	$100,000
K well or E wells	$ 0	$2,596,872
Total:	$100,000	$3,096,872

Supply Projects Total = $3,196,872

Storage System Breakdown		
	FY 18	FY 2019 – FY2022
BR Storage Tanks Pump Station	$ 0	$563,000
System Automation	$ 250,000	$ 0
Modeling	$ 100,000	
Total:	$ 350,000	$563,000

Storage Projects Total = $ 913,000

Treatment Systems Budget Breakdown		
	FY 18	FY 2019 – FY2022
Rogues Road	$ 0	$1036028
Howell Manor	carryover	
Mill Run	carryover	
High Rock		$250,000
Terranova		$250,000
Total:	$ 0	$1,536,028

Treatment Projects Total = $ 1,686,028

Service District Total = $ 5,795,900

PROJECT DATA SHEET

Type:	CIP
Title:	System Overview
Fiscal Year:	2018-2022
Service District:	Bealeton

Project Description:

The Bealeton Regional Water System is supplied with groundwater from five (5) production wells; Mintbrook 1 (B-3), Mintbrook 2 (B-1), Mintbrook 4, (B-4), Meadowbrook 2 (MS-5) and Miller School for a total capacity of 569,600 gpd. There is a 500,000 gallon elevated storage tank, microfiltration treatment facility that includes hypochlorination/sequestration.

The waterworks is permitted for a design capacity of 569,600 gpd due to limited source capacity. The design capacity 569,600 gpd equates to approximately 1,424 ERC. The actual connections to the system are 1,324 making the current availabilities 100.

Supply

Meadowbrook #1 which is out of service due to arsenic exceedances will be redrilled and require 2,000 foot of line to be installed to the microfilter treatment facility. This work will be performed in FY 2017/8.

Future wells to be brought on due to demand will be A-1 and A-3 wells. These wells are anticipated to be brought online in FY 2020 and FY 2021, respectively.

PROJECT DATA SHEET

Supply

The water supply for Bealeton is detailed below with all hydrogeological work complete for this service district.

The future demand for the next 5 years is for an additional 415 connections or 166,000 gpd. In order to meet this supply the following wells will need to be brought into production:

FY 17/18 MS-3
FY 20 A-1
FY 21 A-3

This will provide the following additional capacity.

Wells	Capacity	ERC
MS-3	80,000	200
A-1	56,000	140
A-3	108,000	270
Total	**244,000**	**610**

Supply Budget Breakdown		
	FY 18	**FY 2019 – FY2022**
Meadowbrook Well 1	**carryover**	**$0**
Meadowbrook Line	**carryover**	**$0**
A-1 Well	**$0**	**$1,354,360**
A-3 Well	**$0**	**$1,487,640**
Total:	**$ 0**	**$2,842,000**

Project Total = $2,842,000

Service District Total = $2,842,000

PROJECT DATA SHEET

Type:	CIP
Title:	System Overview
Fiscal Year:	2018-2022
Service District:	Marshall

Project Description:

The waterworks consists of seven drilled wells (4 are inactive); treatment facilities consist for hypochlorination, corrosion control, sequestration, filtration for removal of iron and manganese; and storage facilities. This waterworks is permitted for a design capacity of 355,920 gpd or 889 ERC. The effective capacity due to inactive wells is 307,920 gpd or 770 ERC.

Supply

The water supply for Marshall is detailed below. Current connection is 713.

Source	GPM	GPD	ERC
Permitted and online			
Salem	50	72000	180
17/66 (2)	150	217200	543
Piedmont	13	18720	47
Permitted and Offline			
Lawrence (TCE)	35	20000	0
Potential New Sources			
Salem 3	125	100000	250

The future demand for the next 5 years is for an additional 572 connections or 228,800 gpd. Note that a developer will be responsible for bringing on supply for 350 ERC or 140,000 gpd. To address current supply issues Salem 3 well will be brought online and Salem 4 will be rehabilitated to ensure continuous operation and supply.

FY 17 Rehab Salem 4
FY 18 Salem 3

PROJECT DATA SHEET

Marshall Status		
Permit	355,920	
Effective Supply	307,920	
Add Salem 3	100,000	
Total Supply	**407,920**	
Current Demand		285,200
Future Demand		108,800
Total Demand		**394,000**
Do Nothing	(86,080)	
Add Salem 3	13,920	

In addition, hydrogeological work will continue for this service district and needs to continue.

Supply Budget Breakdown		
	FY 18	**FY 2019 – FY2022**
Exploratory	**$ 100,000**	**$ 400,000**
Salem 4 Rehabilitation	**$ 664,000**	**$ 0**
Salem 3 Well	**$ 867,000**	**$ 867,000**
Total:	**$1,631,000**	**$ 1,267,000**

Project Total = $ 2,898,000

Service District Total = $2,898,000

PROJECT DATA SHEET

Type:	CIP
Title:	System Overview
Fiscal Year:	2018-2022
Service District:	Vint Hill Water System

Project Description:
The Vint Hill water system is privately owned and WSA is contracted to operate the system. The owner and WSA are exploring the possibility of hydraulically connecting the Vint Hill and New Baltimore water systems.

A preliminary engineering report (PER) is being developed based off a technical feasibility memorandum. The cost for this preliminary engineering is being jointly shared between the owner and WSA.

Engineering Project Budget Breakdown		
	FY 18	**FY 2019 – FY2022**
Total:	**$ 0**	**$ 200,000**

Project Total = $ 200,000

Service District Total = $ 200,000

PROJECT DATA SHEET

Type:	CIP
Title:	System Overview
Fiscal Year:	2018-2022
Service District:	Vint Hill Sewer System

Project Description:
The Vint Hill wastewater collection system is comprised of private and WSA owned lines and pump stations. When the private collection system is replaced it is agreed that WSA will assume ownership. The North End pump station will be a new pump station that a developer is building and the SCADA controls will be integrated into the WSA system. The developer will pay for the controls via availabilities and WSA will manage the SCADA project.

SCADA Project Budget Breakdown		
	FY 18	**FY 2019 – FY2022**
Total:	**$0**	**$250,000**

Project Total = $ 250,000

Service District Total = $ 250,000

PROJECT DATA SHEET

Type:	CIP
Title:	System Overview
Fiscal Year:	2018-2022
Service District:	Opal

Project Description:

The Opal Gateway was approved by the County Board of Supervisors on 2/21/14. Development approved for hotel, restaurant, office and stores totaling 200,000 square feet, 175 RV park and campground.

The water supply will be the first infrastructure project. A hydrogeological study was performed in May 2005 and a preliminary engineering report (PER) was performed in August 2008.

In August 2016, an Opal Public Water System Funding Agreement was signed between WSA and County BOS for $ 500,000. WSA has 18 months to complete a design (February 2018).

In August 2016, permission was requested from the property owner to test the well.

In October 2016, authorization was approved and WSA located the well site.

In December 2016, a yield and drawdown test of the well was completed and a complete Water quality tests were performed. Report received March 2017.

In FY 18, WSA will complete the Preliminary Engineering Report and Design.

This water system will be County funded and is in their Capital Improvement Budget.

Phase 1A Well and Storage Tank (County Funded) Budget Breakdown		
	FY 18	**FY 2019 – FY2022**
Total:	**$500,000**	**$2,700,000**

Project Total = $ 3,200,000

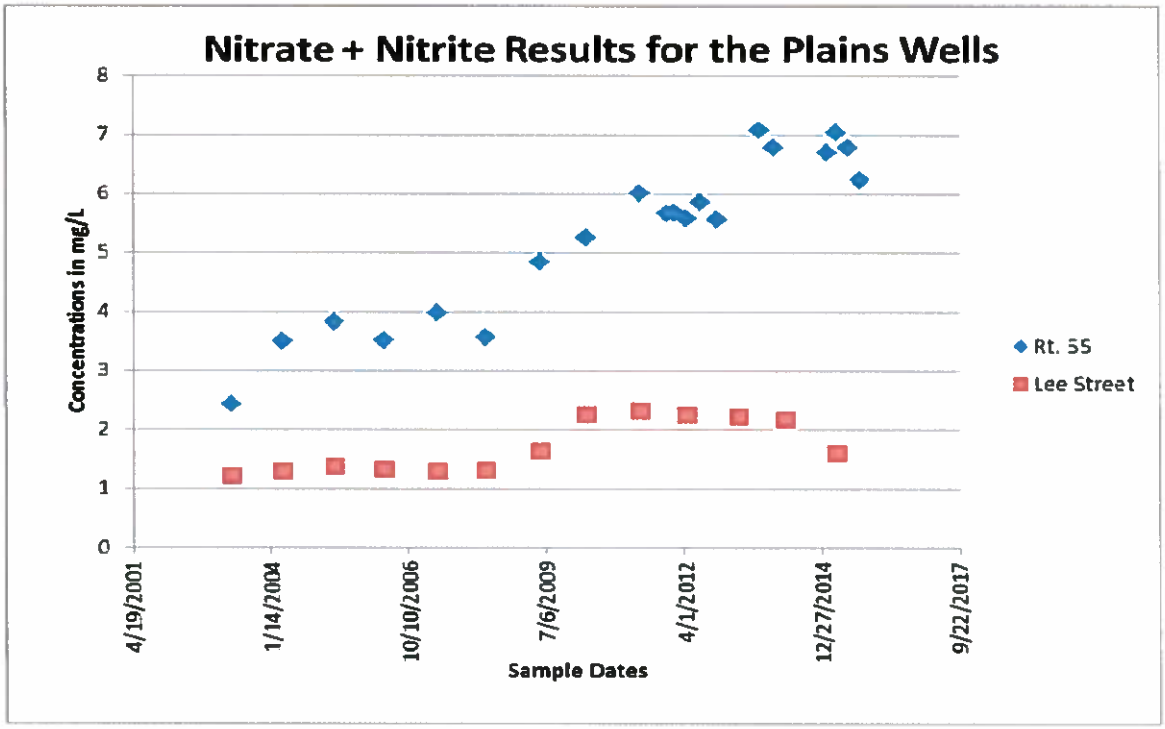
Service District Total = $3,200,000

PROJECT DATA SHEET

Type:	CIP
Title:	System Overview
Fiscal Year:	2018-2022
Service District:	The Plains

Project Description:

The Route 55 well has nitrate/nitrite levels that are approaching the Virginia Department of Health's maximum contaminant level of 10 mg/l.



Treatment

A treatment system will be installed to reduce the nitrates and improve the water quality.

Treatment System Budget Breakdown		
	FY 18	**FY 2019 – FY2022**
Total:	**$0**	**$ 250,000**

Project Total = $ 250,000

Service District Total = $ 250,000

PROJECT DATA SHEET

Type:	CIP
Title:	System Overview
Fiscal Year:	2018-2022
Service District:	Bethel

Project Description:

Bethel water system has a nitrite/nitrate that is greater than half the Virginia Department of Health's primary maximum contaminant level (PMCL) (10 mg/l).

A treatment system will help to remove/reduce the nitrate/nitrite levels and improved the overall quality of the water.

Treatment System Budget Breakdown		
	FY 18	**FY 2019 – FY2022**
Total:	**$ 0**	**$300,000**

Project Total = $ 300,000

Service District Total = $ 300,000

PROJECT DATA SHEET

Type:	CIP
Title:	System Overview
Fiscal Year:	2018-2022
Service District:	Botha

Project Description:

The Botha system is being tested on a monthly basis since 2004 per an agreement with the operational agreement with the County. The nitrate levels are approximately half the primary maximum contaminant limit (PMCL) of 10 mg/l. A treatment system to remove/reduce nitrates may be necessary in the future.

This water system is owned by Fauquier County and operated by WSA. If a treatment system is necessary then it would be funded by the County.

Treatment System Budget Breakdown		
	FY 18	**FY 2019 – FY2022**
Total:	**$0**	**$300,000**

Project Total = $ 300,000

Service District Total = $ 300,000

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Operating Approved Budget
FY 2018

OPERATING BUDGET	Actual FY 14 BUDGET	Actual FY 15 BUDGET	Actual FY 16 BUDGET	Budget FY 17 BUDGET	DEPT. 111-113 ADMIN. FY 18 BUDGET	DEPT. 421 WATER FY 18 BUDGET	DEPT. 425-427 SEWER FY 18 BUDGET	DEPT. 423 950 MAINT. CONST FY 18 BUDGET	DEPT. 113 ENGINEERING FY 18 BUDGET	TOTAL APPROVED FY 18 BUDGET
INCOME										
Water Service Fees	$ 2,877,796	$ 3,098,922	$ 3,343,929	$ 3,914,765	$ 4,449,452					$ 4,449,452
Sewer Service Fees	3,390,211	3,524,999	3,874,505	4,312,894	4,904,184					4,904,184
Water Demand Fees (Oper)	67,277	66,714	38,559	-	-					-
Water Surcharge - Interest	69,611	81,141	55,963	-	-					-
Chesapeake ENR Rev - Interest	-			-	-					-
Late Charges	161,898	151,975	129,880	150,000	150,000					150,000
Septage Hauler's Fees	222,908	295,896	337,780	250,000	250,000					250,000
Meter Installations	16,907	10,360	12,240	7,200	7,200					7,200
Inspection Fees	70,986	74,474	31,154	20,000	10,000					10,000
Plan Review Fees	58,661	36,175	21,551	20,000	30,000					30,000
Legal Services (Availability)	167,370	97,060	103,618	62,325	77,076					77,076
Admin Services (Availability)	133,896	77,648	82,714	49,860	44,100					44,100
Miscellaneous Income	52,710	84,171	81,600	50,000	50,000					50,000
Interest Income	32,504	40,078	31,869	40,458	66,707					66,707
Other Income	29,334	50,141	54,031	28,500	28,500					28,500
Employee Health Insurance Payments	-				20,561					20,561
Insurance Proceeds	434,030									-
Vint Hill/County Reimbursement	100,000	100,000	100,000	100,000	100,000					100,000
Prior Years' Fund Balance	-									-
TOTAL OPERATING INCOME	$ 7,886,099	$ 7,789,754	$ 8,299,393	$ 9,006,002	$ 10,187,780	$ -	$ -	$ -	$ -	$ 10,187,780

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Operating Approved Budget
FY 2018

OPERATING BUDGET	Actual FY 14 BUDGET	Actual FY 15 BUDGET	Actual FY 16 BUDGET	Budget FY 17 BUDGET	DEPT. 111-113 ADMIN. FY 18 BUDGET	DEPT. 421 WATER FY 18 BUDGET	DEPT. 425-427 SEWER FY 18 BUDGET	DEPT. 423 950 MAINT. CONST FY 18 BUDGET	DEPT. 113 ENGINEERING FY 18 BUDGET	TOTAL APPROVED FY 18 BUDGET
EXPENSES										
GROSS SALARIES										
Board Members	$ 40,400	$ 45,600	$ 51,600	$ 51,600	$ 51,600					$ 51,600
Administration Department	674,167	693,449	744,857	802,956	827,751					827,751
Engineering Department	256,317	235,250	288,916	326,088	338,495				-	338,495
Water Department	405,651	471,533	513,763	528,616		574,757				574,757
Sewer Department	683,450	587,150	587,150	699,351			729,425			729,425
Maintenance Department	384,064	489,216	457,201	788,757				863,967		863,967
Overtime	57,930	79,888	106,950	54,650	62,650	-	-	-	-	62,650
Merit Pay	44,071	20,007	29,193	10,000	10,000					10,000
TOTAL SALARIES	$ 2,546,050	$ 2,622,093	$ 2,779,630	$ 3,262,018	$ 1,290,495	$ 574,757	$ 729,425	$ 863,967	$ -	$ 3,458,644
EMPLOYEE OVERHEAD										
Hospitalization	$ 462,360	$ 553,088	$ 588,469	$ 629,277	$ 143,543	$ 79,154	$ 134,207	$ 217,314	$ 65,008	$ 639,226
VSRS - Retirement	154,773	63,232	123,403	128,615	29,796	26,675	32,655	39,688	15,206	144,020
VSRS - Life Insurance	26,403	26,390	28,640	38,385	8,763	7,587	9,628	11,404	4,468	41,851
FICA Employer	156,015	159,349	171,567	192,956	59,573	45,346	57,606	67,557	25,975	256,057
FICA/MED Employer	36,657	37,894	40,677	46,133	3,199	-	-	-	-	3,199
Workman's Compensation	23,757	37,730	47,767	62,427	800	17,571	13,438	32,015	6,538	70,362
Virginia State Unemployment	2,646	7,182	4,242	-						-
TOTAL EMPLOYEE OVERHEAD	$ 862,611	$ 884,865	$ 1,004,765	$ 1,097,792	$ 245,673	$ 176,332	$ 247,534	$ 367,980	$ 117,196	$ 1,154,715

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Operating Approved Budget
FY 2018

OPERATING BUDGET	Actual FY 14 BUDGET	Actual FY 15 BUDGET	Actual FY 16 BUDGET	Budget FY 17 BUDGET	DEPT. 111-113 ADMIN. FY 18 BUDGET	DEPT. 421 WATER FY 18 BUDGET	DEPT. 425-427 SEWER FY 18 BUDGET	DEPT. 423 950 MAINT. CONST FY 18 BUDGET	DEPT. 113 ENGINEERING FY 18 BUDGET	TOTAL APPROVED FY 18 BUDGET
ADMINISTRATION										
Auditing Services	$ 27,250	$ 27,450	$ 27,750	$ 30,000	$ 30,000					$ 30,000
WSA 50th Anniversary	-	4,200	5,043	-						
Consulting Services	5,029	7,001	-	8,000	8,000					8,000
Engineering Services	1,650	(142)	11,532	5,000					12,000	12,000
Contracted Services	60,858	53,371	61,221	70,000	60,000				-	60,000
Legal Services	132,959	104,324	152,589	100,000	150,000					150,000
Issurance cost	-	2,500	-	-						
IT Services	30,428	24,677	28,846	30,000	30,000					30,000
Temporary Services	-									-
R & M - Building	310	62	-	-	-					-
R & M - General	1,832	5,947	1,779	2,500	2,000				500	2,500
Maintenance Agreements	4,390	12,813	14,763	8,000	15,000				3,000	18,000
Refuse Services	1,529	1,365	1,766	1,600	1,600					1,600
Printing	-	-	-	-	-				-	-
Advertising	13,918	5,557	25,443	8,000	12,000					12,000
Miscellaneous Services	3,435	6,660	2,327	3,200	3,500				-	3,500
Utilities	25,835	16,944	14,251	15,500	16,500					16,500
Postage	2,112	2,250	4,529	2,700	3,000					3,000
Telephone/Communications	32,611	36,037	19,211	16,100	18,000				1,100	19,100
Insurance Expense	90,332	57,289	52,637	67,000	67,000					67,000
Travel Reimbursement	-	-	1,331	-	500					500
Subsistence & Lodging	-	-	3,925	-	-					-
Training	22,459	25,822	27,099	30,000	25,000				5,000	30,000
Licenses/Permits	16,047	18,544	17,614	20,000	20,000				3,000	23,000
Dues/Memberships	6,549	9,182	11,759	9,000	9,000				-	9,000
Reconnection Fees	4,654	5,104	2,462	5,000	5,000					5,000
Misc. Expense	6,014	6,520	12,515	6,125	6,000				-	6,000
Bad Debt Expense	-	-	-	10,000	10,000					10,000
Bank Charges	80	63	72	200	200					200
Office Supplies	12,009	11,141	13,720	18,000	13,000				5,000	18,000
Janitorial(Cleaning) Service	6,600	6,600	6,610	7,000	7,000					7,000

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Operating Approved Budget
FY 2018

OPERATING BUDGET	Actual FY 14 BUDGET	Actual FY 15 BUDGET	Actual FY 16 BUDGET	Budget FY 17 BUDGET	DEPT. 111-113 ADMIN. FY 18 BUDGET	DEPT. 421 WATER FY 18 BUDGET	DEPT. 425-427 SEWER FY 18 BUDGET	DEPT. 423 950 MAINT. CONST FY 18 BUDGET	DEPT. 113 ENGINEERING FY 18 BUDGET	TOTAL APPROVED FY 18 BUDGET
Fuel	3,682	5,314	3,582	5,500	1,500				4,000	5,500
Uniforms	777	1,032	1,084	900	400				500	900
Safety & Traffic Control Equip	120	208	437	500	-				500	500
Software	1,596	-	-	-					2,500	2,500
Data Processing Supplies	2,209	-	-	3,000	3,000					3,000
Tools	278	-	-	1,000	-				1,000	1,000
Capital <$3,500	3,710	2,352	3,902	2,700	4,500				-	4,500
Office Equipment Expense	9,489	5,975	3,241	9,000	9,000				12,000	21,000
Interest Expense	219,958	188,494	168,652	384,000	384,811					384,811
TOTAL ADMINISTRATIVE & ENGINEERING	$ 750,709	$ 654,656	$ 701,692	$ 879,525	$ 915,511				$ 50,100	$ 965,611

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Operating Approved Budget
FY 2018

OPERATING BUDGET	Actual FY 14 BUDGET	Actual FY 15 BUDGET	Actual FY 16 BUDGET	Budget FY 17 BUDGET	DEPT. 111-113 ADMIN. FY 18 BUDGET	DEPT. 421 WATER FY 18 BUDGET	DEPT. 425-427 SEWER FY 18 BUDGET	DEPT. 423 950 MAINT. CONST FY 18 BUDGET	DEPT. 113 ENGINEERING FY 18 BUDGET	TOTAL APPROVED FY 18 BUDGET
OPERATING EXPENSES										
Contracted Analytical Services	$ 105,508	$ 96,791	$ 107,903	$ 119,000		$ 50,000	$ 93,000	$ -		$ 143,000
Repairs & Maintenance	378,443	397,921	444,120	490,615		148,000	248,600	186,000		582,600
Contracted Electrical Services	28,071	40,376	28,264	35,500		10,000	14,000	12,000		36,000
Maintenance Agreement Contracts	7,697	14,878	14,588	8,900		7,000	-	7,900		14,900
Water Tank Maintenance	-	91,749	47,836	75,000						-
Contracted Mechanical Services	3,025	-	140	5,000		-	-	5,000		5,000
Contracted Construction Services	-	2,684	3,538	12,000		-	-	12,000		12,000
Refuse Services	29,308	25,000	24,351	26,000		-	27,000	1,000		28,000
Water hauling	450	675	31,142	5,000		5,000	-	-		5,000
Sludge Disposal	80,575	87,136	101,247	87,500		-	88,000	-		88,000
Contracted Misc. Services	1,525	177	48	500		-	-	500		500
Utilities	485,977	506,947	522,638	520,000		200,000	335,000	-		535,000
Telephone & Communications	7,485	16,087	39,885	27,600		20,000	16,000	6,600		42,600
Rental Equipment	2,788	7,029	196	3,000		1,000	-	3,000		4,000
Training	9,856	9,297	26,838	26,500		10,000	12,000	5,000		27,000
Licenses & Permits	17,724	14,096	15,333	14,700		8,000	17,200	-		25,200
Membership/Dues	-	10	-	-		5,000	-			5,000
Miscellaneous Expenses	2,360	1,295	2,154	500		1,500	-	500		2,000
Office Supplies	993	462	1,197	1,150		-	1,200	150		1,350
Construction Supplies	3,549	5,421	8,611	7,000		-	-	10,000		10,000
Laboratory Supplies	19,405	16,001	28,104	23,000		10,000	18,000	-		28,000
Janitorial Supplies	3,515	3,229	3,303	4,500		500	2,000	2,000		4,500
R & M Supplies	17,204	15,173	16,063	19,400		1,000	8,000	10,000		19,000
Fuel	78,058	72,546	52,957	72,000		32,000	9,000	30,000		71,000
Oils and Grease	2,891	2,312	303	3,350		-	2,300	1,000		3,300
Electrical Supplies	5,464	3,446	2,951	5,513		-	500	6,000		6,500
Uniforms	10,004	11,379	12,001	12,800		4,000	4,300	3,600		11,900
Paint Products	3,279	2,969	2,205	6,000		-	2,500	2,500		5,000
Other Operating Supplies	3,260	6,945	8,929	6,500		5,000	4,500	500		10,000
Safety & Traffic Control Equip.	12,086	11,006	15,945	11,000		1,500	4,500	10,000		16,000
Chemicals	133068	180649 42	180495	224475		82,000	141,200	12,000		235,200

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Operating Approved Budget
FY 2018

OPERATING BUDGET	Actual FY 14 BUDGET	Actual FY 15 BUDGET	Actual FY 16 BUDGET	Budget FY 17 BUDGET	DEPT. 111-113 ADMIN. FY 18 BUDGET	DEPT. 421 WATER FY 18 BUDGET	DEPT. 425-427 SEWER FY 18 BUDGET	DEPT. 423 950 MAINT. CONST FY 18 BUDGET	DEPT. 113 ENGINEERING FY 18 BUDGET	TOTAL APPROVED FY 18 BUDGET
Tools	5,754	5,801	9,907	15,000		1,000	3,000	5,000		9,000
Water Meters	25,853	24,934	24,839	25,000		25,000	-	-		25,000
Pipes and Plumbing Fixtures	52,203	51,139	69,453	61,703		-	6,500	66,358		72,858
Capital	24,275	18,511	-	8,500		-	-	20,000		20,000
Capital <$3,500	28,951	6,882	7,934	35,700		15,000	7,300	9,800		32,100
TOTAL OPERATIONS	$ 1,590,604	$ 1,750,953	$ 1,855,418	$ 1,999,906	$ -	$ 642,500	$ 1,065,600	$ 428,408	$ -	$ 2,136,508
GENERAL OPERATIONS										
Depreciation	$ 3,276,735	$ 2,982,641	$ 3,113,012	$ 3,000,000	$ 3,000,000					$ 3,000,000
TOTAL GENERAL OPERATIONS	$ 3,000,000	$ 2,982,641	$ 3,113,012	$ 3,000,000	$ 3,000,000					$ 3,000,000
GRAND TOTAL EXPENSES	$ 8,706,285	$ 8,895,208	$ 9,454,517	$ 10,239,241	$ 5,451,680	$ 1,393,588	$ 2,042,559	$ 1,660,355	$ 167,296	$ 10,715,477
TOTAL OPERATING INCOME	$ 7,294,217	$ 7,789,754	$ 8,299,393	$ 9,006,002	$ 10,187,780					$ 10,187,780
TOTAL OPERATING EXPENSES	$ 8,706,285	$ 8,895,208	$ 9,454,517	$ 10,239,241	$ 5,451,680	$ 1,393,588	$ 2,042,559	$ 1,660,355	$ 167,296	$ 10,715,477
NET OPERATING INCOME	$ (1,412,068)	$ (1,105,454)	$ (1,155,124)	$ (1,233,239)	$ 4,736,101	$ (1,393,588)	$ (2,042,559)	$ (1,660,355)	$ (167,296)	$ (527,698)
DEPRECIATION	3,000,000	2,982,641	3,113,012	3,000,000	3,000,000					3,000,000
INCOME BEFORE DEPRECIATION	$ 1,587,932	$ 1,877,187	$ 1,957,888	$ 1,766,761	$ 7,736,101	$ (1,393,588)	$ (2,042,559)	$ (1,660,355)	$ (167,296)	$ 2,472,302

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Operating Approved Budget
FY 2018

OPERATING BUDGET	Actual FY 14 BUDGET	Actual FY 15 BUDGET	Actual FY 16 BUDGET	Budget FY 17 BUDGET	DEPT. 111-113 ADMIN. FY 18 BUDGET	DEPT. 421 WATER FY 18 BUDGET	DEPT. 425-427 SEWER FY 18 BUDGET	DEPT. 423 950 MAINT. CONST FY 18 BUDGET	DEPT. 113 ENGINEERING FY 18 BUDGET	TOTAL APPROVED FY 18 BUDGET
FIXED ASSET ADDITIONS										
Building										
Vehicles	$ 110,000	$ 110,000	$ 110,000	$ 110,000	$ 140,000					$ 140,000
(A) Machinery & Equipment	-									-
(A) Furniture & Fixtures	-									-
(A) Office Equipment	-									-
TOTAL FIXED ASSET ADDITIONS	$ 110,000	$ 110,000	$ 110,000	$ 110,000	$ 140,000	$ -	$ -	$ -	$ -	$ 140,000
REPLACEMENTS & RENEWALS										
SCADA Master Planning				40,000	40,000					$ 40,000
Scada Communication Maintenance				50,000		50,000				$ 50,000
Water Tank Maintenance	$ 100,000	$ 100,000	$ 100,000	$ 126,000		$ 126,000				$ 126,000
School house road	250,000	358,330	193,157	-						-
Marshall RR crossing	27,000			100,000				$ 100,000		100,000
Refurnish Administration Building	Carryover		32,000	75,000	75,000					75,000
Upgrade the Paris Water Distribution System	-									-
Generator replacement	-	32,000	66,560	69,200				69,200		69,200
Remingtpon Communitor for Septic Tnk	125,000									-
SBR #3 electric room AC	-	20,000								-
Upgrade Water Meters & relocation	60,073	46,650								-
Vint Hill Corrosion Evaluation & Pump Rebuild	-									-
Vint Hill influent wetwell	91,000									
Meadow Brook #1 well line connection	Carryover	Carryover	Carryover							-
General projects										
Brookside L/S Improvements	-									-
Inflow/infiltration Reduction Program	89,098	43,464	179,620							-
Refurbish Lift Station A The Plains	-									-
Lift Station Bypasses-Six (6) Stations	30,000	40,000								-
Arc Flash analysis			50,000	50,000		25,000	25,000			50,000
Repair Well Houses & fencing	-	51,505								-
Hydrotanks automation (6)				14,800		14,800				14,800
Secondary Clarifier				15,000			15,000			15,000
RAS values				21,000			21,000			21,000
SCADA Water System	66,000		50,000							-
Post Air Blowers				7,000			7,000			7,000
Sludge Feed Pmps				30,000			30,000			30,000
UV PLC Screen & Motherboard				12,000			12,000			12,000
Reacter effuent pump				20,000			20,000			20,000
Catlett Tank Wind Rod(Safety Project)	-									-
Backflow Value Installation Program	44,500	45,800								-
Water Tank Lightning Protection	-									-
	-									-
Turnbull Well & Tank Project	-									-
	-									-
Blow off Valve Installation Program	49,700	51,688								-
Install Sample Taps	40,000									-
	-									-
Lift Station Inprovements & Spare Pumps	-	30,000								-
	-									-
Wastewater Systems Major Replacements	37,978	39,118	38,372	60,000	-	60,000				60,000
	-									-
Water System Major Replacements	36,169	37,254	40,291	60,000			60,000			60,000
TOTAL REPLACEMENTS & RENEWALS	$ 1,046,518	$ 895,809	$ 750,000	$ 750,000	$ 115,000	$ 275,800	$ 190,000	$ 169,200	$ -	$ 750,000
TOTAL VEH., EQUIP. AND R&R'S	$ 1,156,518	$ 1,005,809	$ 860,000	$ 860,000	$ 255,000	$ 275,800	$ 190,000	$ 169,200	$ -	$ 890,000

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Capital Approved Budget
FY 18

CAPITAL BUDGET	Actual FY 15 Budget	Amended FY 16 Budget	Amended FY 17 Budget	FY 2018 BUDGET ADMIN.	WATER	SEWER	MAINT.	APPROVED
INCOME								
Marshall Water Surcharge	$ 228,139	$ 232,466	$ -		$ -	$ -	$ -	$ -
Water Demand Fee (Cap)	44,482	60,000	-		-		-	-
Water Availability Fees (Capital Component)	886,400	566,930	688,415		779,324	-	-	779,324
Sewer Availibility Fees (Capital Component)	891,800	382,200	445,900			445,900		445,900
TOTAL CAPITAL REVENUES	$ 2,050,821	$ 1,241,596	$ 1,134,315	$ -	$ 779,324	$ 445,900	$ -	$ 1,225,224
EXPENSES								
Interest Paid on Notes	188,494	265,575	384,000	384,811				384,811
TOTAL EXPENSES	$ 188,494	$ 265,575	$ 384,000	$ 384,811	$ -	$ -	$ -	$ 384,811
TOTAL CAPITAL INCOME	2,050,821	1,241,596	1,134,315	-	779,324	445,900	-	1,225,224
TOTAL CAPITAL EXPENSES	188,494	265,575	384,000	384,811	-	-	-	384,811
NET CAPITAL INCOME	$ 1,862,327	$ 976,021	$ 750,315	$ (384,811)	$ 779,324	$ 445,900	$ -	$ 840,413
CAPITAL DEBT SERVICE - PRINCIPAL								
Consolidated Loans(Opal,Marshall water & enr)	551,239	562,458	573,906	585,587				585,587
Bealeton Water Treatment Facility				-	144,615		-	144,615
G wells, Salem wells & meadowbrook					411,595		-	411,595
2008 Bonds Phase I Marshall Water System							-	-
VRLF Remington $2.7m	64,018	130,659	137,914			137,914		137,914
Marahall ENR Projects(Taxable)	40,366	41,742	43,165		44,636		-	44,636
R&R Project FY 11	131,955	136,104	140,384				144,798	144,798
TOTAL DEBT SERVICE	$ 787,577	$ 870,963	$ 895,368	$ 585,587	$ 600,846	$ 137,914	$ 144,798	$ 1,469,145
TOTAL DEBT AND INTEREST	$ 976,071	$ 1,136,538	$ 1,279,368	$ 970,398	$ 600,846	$ 137,914	$ 144,798	$ 1,853,956
FIXED ASSET ADDITIONS								
Real Estate								
Buildings								
Water Meters	10,000	10,000		-	10,000	-	-	10,000
TOTAL FIXED ASSET ADDITIONS	$ 10,000	$ 10,000	$ -	$ -	$ 10,000	$ -	$ -	$ 10,000

FAUQUIER COUNTY WATER SANITATION AUTHORITY
Capital Approved Budget
FY 18

CAPITAL BUDGET	Actual FY 15 Budget	Amended FY 16 Budget	Amended FY 17 Budget	FY 2018 BUDGET ADMIN.	WATER	SEWER	MAINT.	APPROVED
CWIP'S								
B-3 well reconnection	$ -	$ 50,000		$		$	$	-
NBSD water modeling					$ 100,000			100,000
Exploratory well projects -MSD			$ 200,000		100,000			100,000
Automation Wells	50,000	100,000			250,000			250,000
Filters- Greensand **			500,000					-
Rehabilitation Salem 4**	300,800							-
Piedmont/Lawrence wells	10,000							-
TPL -1A rehabilitation wells		273,912						-
Noth End L/S SCADA controls						250,000		250,000
Paris Treatment for bacterological issues (pilot)	80,000							-
GIS Systems Upgrade	-							-
Mosby Woods Rehab	200,000							-
Marshall Water System Phase I & Hydro Study	-							-
Meadowbrook Well #1	360,000	73,088						-
TOTAL CWIP'S	$ 1,000,800	$ 447,000	$ 500,000	$ -	$ 450,000	$ 250,000	$ -	700,000
** Debt Funding								
STUDIES AND PLANS								
Update Utility Master Plan	Carryover balance	Carryover balance		Carryover balance				
TOTAL STUDIES AND PLANS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL Fixed Assets, CWIP & Studies	$ 1,000,800	$ 447,000	$ 500,000	$ -	$ 450,000	$ 250,000	$ -	$ 700,000