



# THE PRINCE GEORGE'S COUNTY GOVERNMENT

(301) 952-3700

County Council

## MEMORANDUM

October 27<sup>th</sup>, 2016

TO: Todd M. Turner, Chair  
Transportation, Housing and Environment Committee (THE)

FROM: Hawi Sanu, Director <sup>HS</sup>  
Transportation, Housing and Environment Committee (THE)

Patrick Pope, Auditor <sup>[Signature]</sup>  
Audits and Investigations

THRU Robert Williams, Council Administrator <sup>R.W.</sup>  
Prince Georges County Council

SUBJECT: Washington Suburban Sanitary Commission  
FY 2018 Spending Control Limits

### Background

In May of 1993, the Montgomery and Prince George's County Councils created a Bi-County Working Group to focus on the financial concerns of increasing water and sewer rates, debt incurred, and debt service costs. The group's January 1994 report recommended "the creation of a **Spending Affordability Process** that would require the Counties to set annual ceilings on the Washington Suburban Sanitary Commission's (WSSC) rates and debt, thereby placing corresponding limits on the size of the capital and operating budgets of the Commission."

The Commission's FY 1996 Budget was the first budget to be formulated with the limits set by the Spending Affordability Process.

County Administration Building – Upper Marlboro, Maryland 20772

The Spending Affordability Process focused the financial performance discussions on:

- The need to balance affordability considerations against providing resources necessary to serve existing customers.
- Adherence to environmental mandates.
- Provision of facilities needed to accommodate growth.

The major objectives of this process are to establish the framework for (1) controlling costs, (2) achieving low or moderate water/sewer bill increases, and (3) slowing the rate at which the Commission incurs debt, (below 40% of the Operating Budget). The impact of this process has been integral in keeping customer bill increases at a stable and reasonable level.

**The Spending Affordability process provides a framework within which the Council can review and decide on spending control limits. The limits do not cap what the Councils can approve within the regular budget process that concludes in May of each year.**

During the FY 2016 and FY 2017 Budget process, the Commission created a new fee structure, which revised and recalibrated the Account Maintenance Fees (AMF) to recover a five year average cost for account maintenance services. An Infrastructure Funding Fee was also created and phased in at 50% in FY 2016 and was fully implemented in FY 2017. This fee exclusively covers a portion of debt service costs associated with water and sewer pipes reconstruction and rehabilitation. All corresponding funds will be dedicated to rehabilitation and reconstruction. With this new fee structure, the trajectory of rate increases will be substantially less than the pre FY 2016 era; where the rate increase included funds to subsidize account maintenance costs and fund the rehabilitation and reconstruction of the ailing infrastructure.



### **Bi- County Infrastructure Funding Work Group**

Due to the constant rate increases by the Washington Suburban Sanitary Commission, (WSSC), there was a need to create a dedicated revenue source, that will not be exclusively dependent on water and sewer rates. The growing need for the infrastructure rehabilitation and reconstruction, warranted the Commission to be financially structured to accommodate these financial challenges. The Bi-County's recommendations were as follows:

- Increase the terms on new debt from 20 to 30 years and maintain a debt service coverage target and a matching principle of benefits and costs.
- Excess cash flow will be used as PAYGO capital funding to reduce borrowing.
- Creation of a dedicated infrastructure rehabilitation charge (fixed or volumetric).
- Creation of a more robust customer affordability program which is enabled at the State level; MEAP guidelines are being utilized because it is an existing affordability program.

The increment of debt terms from 20 to 30 years was instituted in FY 2015 and produced an immediate benefit of approximately 2% reduction of water/ sewer rates. All recommendations have been implemented.

### **Benchmarking Study**

The Washington Suburban Commission (WSSC) had its previous comprehensive benchmarking study in the late 1990s. That study ultimately led to a significant reduction in the Commission's staffing. The staffing reduction was approximately 662 positions between 1996 and 2006, which represented approximately 30% of its work force. The staffing levels within the budgets prior to 1996 were approximately 2,100. These staffing reductions directly affected the maintenance and rehabilitation of the Commission's

infrastructure. There were also minimal water and sewer rate increases during this period.

Between FY 2007 and FY 2017, staffing levels were significantly increased; the FY 2017 Operating Budget included 1,776 positions. Most of the staffing and rate increases can be directly linked to the increased infrastructure rehabilitation needs and the increased environmental regulations such as its Sanitary Sewer Overflows (SSO) Consent Decree.

Within this same period, WSSC's water and sewer rates have also increased by approximately 67.8%, an average of 6.1% per year. Expenditures, within this same period increased approximately 49%. With the increases in water and sewer rates over the past decade, along with increasing staffing costs and other expenditures, both counties agreed that a benchmarking study is warranted to assess WSSC's major operations and costs as compared to similar utilities. The Council was briefed in June of this year on the benchmarking results.

**Some key conclusions of the benchmarking study are as follows:**

- WSSC's current staffing appears to be at or below the median compared with its peers.
- WSSC's bills are at or below the average in terms of total and affordability (as a percentage of household income).
- However, due to the Commission's current inclining block rate structure (with customers charged for all water used at increasing amounts based on average daily consumption), there is a great affordability impact for higher water users.
- Opportunities for improvements were found in the areas of:
  1. Customer Satisfaction
  2. Operational Optimization
  3. Infrastructure Stability.



**The Commission's financial performance results were mixed based on the following conclusions:**

- The Commission is the only utility reviewed with an across the board AAA bond rating and also has the smallest percentage of revenue coming from its top 10 customers.
- The Commission is above the median in debt per capita and has an above average "capital intensity" (ratio of net asset value to revenues).

**The Commission was shown to have four areas with business practices that needed improvements:**

1. Customer Service
2. Fleet Management
3. CIP-asset Management
4. Procurement and Utility Services

The Commission's management has assembled teams to develop action plans around the major recommendations outlined within the bench marking study.

**Current Rate Structure – History and Issues**

The Commission's current rate structure has been in place since 1978, initially with more than 100 tiers but later reduced to 16 tiers in 1992. Each tier boundary is based on average daily consumption. As a ratepayer's average daily consumption increases into a higher tier, the ratepayer pays a higher rate for every gallon of water used.

According to a 2014 consultant report commissioned by the Washington Suburban Sanitary Commission, while this inclining block structure is common among utilities in the United States, retroactively charging for all gallons used at the highest tier reached is unusual. With the Commission having 16 tiers, consumers can cross into a higher tier on the last billing day and will get billed for all of the previous usage within that cycle. Most utilities with inclining block structures do not charge for all water usage at the same

high rate and have fewer tiers (typically three to six tiers). The intent of an inclining block structure was meant to incentivize customers to conserve; however the Commission's rate structure goes further with the conservation incentive by charging at its highest tier for all water consumed.

### **Washington Suburban Sanitary Commission's**

#### **Current Rate Structure's Impact**

- Consumers may experience large fluctuations in their water bills if their average daily consumption per quarter varies, which causes the application of different rates as they move between tiers.
- The movement between tiers causes fluctuations and can cause revenues unpredictability from quarter to quarter.
- Water consumption has declined over the last 20 years, which has caused a decline in the Commission's revenue, even as customers are added to their billing base.
- Large households and commercial ratepayers are subsidizing the rest of the ratepayer base, because the rates paid by large consumers are within the higher tiers as compared to most small commercial ratepayers and small households.

### **Maryland Public Service Commission Rate Case**

On September 9, 2016, the Maryland Public Service Commission's Chief Public Utility Law Judge issued an order concluding that WSSC's volumetric rate structure is "unduly discriminatory among classes of customers, and as such is unreasonable." The judge encouraged WSSC to "undertake further studies to design a rate structure that is not unduly discriminatory."

#### **Current Rate Study**

During the FY 2017 budget review, both Councils voted to require the Commission to convene a comprehensive rate study. A comprehensive rate



study was convened with the assistance of a consultant (Black & Veatch) in the summer of this year. The Comprehensive bi-county rate study group has representatives from the Commission, both counties and a stakeholder group made up of various ratepayer bases. This study is ongoing. The intent is to implement a recommended rate structure by FY 2019. This timeframe allows time for the Commission to upgrade its Customer Service Information System (i.e. its billing system) which will be a critical prerequisite to implementing any significant rate structure changes. For the FY 2018 budget, the existing rate model is being used for purposes of the spending control limits process. Council Staff recommends updating the language in the Spending Control Limits resolution regarding the current rate study to clarify the intent to complete the rate study work with an implementation goal of FY 2019.

**FY 2018 Spending Control Limits Revised Base Case**

The FY 2018 Spending Affordability Group met on September 7<sup>th</sup> and 22<sup>nd</sup> of 2016. WSSC staff prepared a preliminary Base Case spending control limits scenario for review and comment by County staff. Based on feedback from the staff of both counties, a revised base case was developed and is summarized below: **(Attachment 1)**

**WSSC FY 2018 - Revised Base Case Scenario**

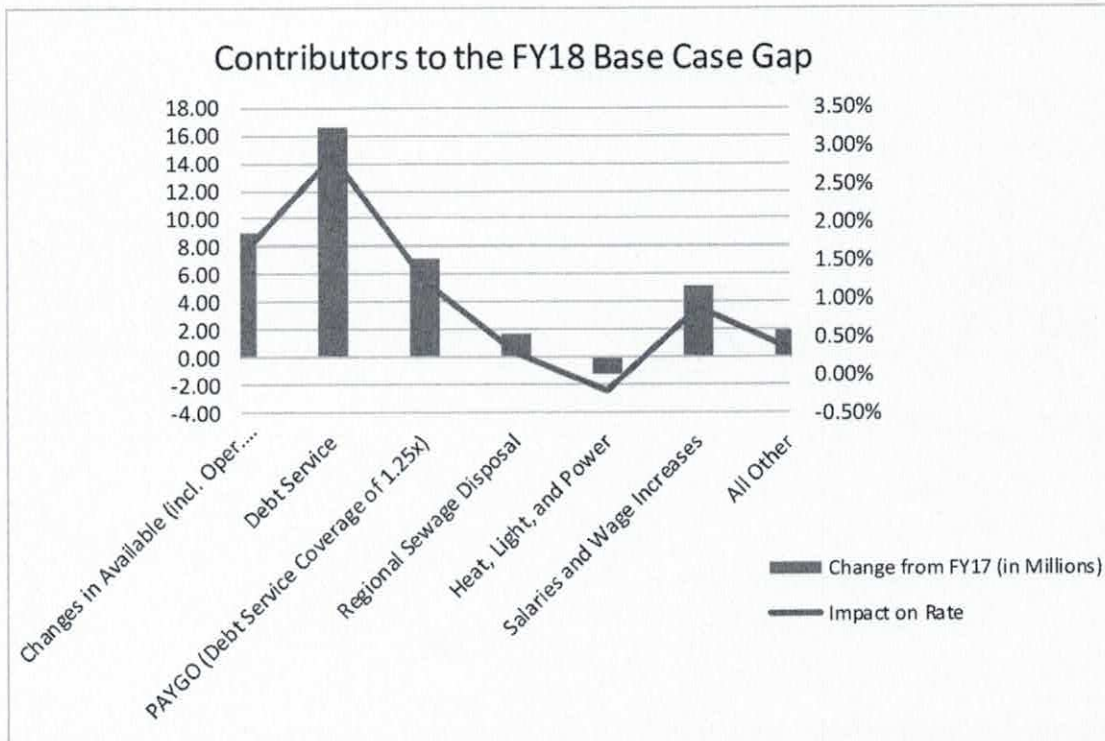
Spending Control Limits	FY 2018	Change from FY 2017 Budget %
Rate Increase	6.90%	
New Debt	\$570,022,000	7.90%
Debt Service	\$260,457,000	6.80%
Total Water & Sewer Operating Expenses	\$743,416,000	3.70%
Residential Customer Monthly Impact	Dollar Increase	% Increase
Usage of 100 gpd	\$2.12	5.30%
Usage of 137 gpd	\$2.90	5.70%
Usage of 160 gpd	\$3.86	5.90%

The revised Base Scenario assumes a 92% completion rate within the Capital Improvement Program for FY 2018. The previous year's budget assumed an 80% completion rate within the Capital Improvement Program.

The chart below shows the different components that made up the base case rate increase as compared to FY 2017.

**Revised Base Case Rate Change from FY 2017**

Contributors to the FY18 Revised Base Case Gap	Change from FY17 (in Millions)	Impact on Rate
Changes in Available (incl. Oper. Reserve Contributions)	8.99	1.55%
Debt Service	16.65	2.87%
PAYGO (Debt Service Coverage of 1.25x)	7.10	1.22%
Regional Sewage Disposal	1.62	0.28%
Heat, Light, and Power	-1.13	-0.20%
Salaries and Wage Increases	5.13	0.88%
All Other	1.96	0.34%
<b>Total Revised Base Case Gap</b>	<b>40.31</b>	<b>6.94%</b>





The recommended scenario is as follows: **(Scenario 6 – Attachment 2)**

**WSSC - FY 2018 - Spending Control Limits - Staff Recommendation**

Spending Control Limits	FY 2018	Change from FY 2017 Budget %
Rate Increase	3.50%	
New Debt	\$570,022,000	7.90%
Debt Service	\$260,457,000	6.80%
Total Water & Sewer Operating Expenses	\$730,522,000	1.90%
Residential Customer Monthly Impact	Dollar Increase	% Increase
Usage of 100 gpd	\$1.07	2.68%
Usage of 137 gpd	\$1.46	2.86%
Usage of 160 gpd	\$1.94	3.00%

\$11.3 Million of unspecified reductions is associated with the recommended scenario

**HISTORICAL DATA OF WSSC’S RATE INCREASES**

Fiscal Year =>	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Adopted Rate Increase	3.00%	6.50%	8.00%	9.00%	8.50%	8.50%	7.50%	7.25%	5.50%	1.00%	3.00%
Montgomery County SAG	3.00%	5.30%	9.70%	9.50%	9.90%	9.90%	8.50%	8.00%	6.00%	2.10%	3.50%
Prince George's County SAG	3.00%	5.30%	8.00%	6.00%	8.00%	8.00%	8.50%	7.50%	6.00%	2.10%	3.50%

Historically, the Spending Affordability Process has worked and the limits have been used as a basis to formulate the Commission’s budget. Over the years, lower rate increases were achieved by use of fund balance; staff continues to urge caution in using a one-time revenue source such as fund balance to reduce rates as this only reassigns expenses to later years and does not eliminate it. Fund balance can be used for one time expenditures or projects with a finite period. The Spending Affordability Process reviews four limits: Rates, Operating Budget, Debt Service Expense and New Debt; the most reviewed has been the rate increase and the other three limits are then adjusted accordingly.

### **Council Staff Recommendations**

- *Council Staff recommends no more than a 3.50% rate increase (Scenario 6) which adds no more than \$1.46 to a customer's average monthly bill who uses approximately 137gpd. This scenario also recommends \$11.3 million in unspecified reductions and \$21.9 million use of fund balance.*
- *Council Staff recommends that language be added to the Spending Control Limits resolution to indicate the Council's intent of a new rate structure implementation for FY 2019 budget.*
- *The Commission must continue to implement strategies and plans that will have long term benefits to the Commission and Consumers.*



# WSSC's Multi-Year Financial Forecast : Combined Water/Sewer Operating Funds Summary

FY 2018 thru 2023 Forecast : Preliminary Budget - Scenario - Revised Base Case

Estimated Revenues and Expenditures (\$1,000)

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$580,580	\$620,892	\$682,440	\$746,700	\$800,324	\$843,808
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,119	32,298	32,477	32,657	32,836	33,015
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	38,360	38,489	38,618	38,747	38,876	39,004
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
6 Rockville Sewer Use	2,632	2,632	2,664	2,680	2,711	2,741	2,771
7 Miscellaneous	17,500	18,253	18,804	19,365	19,938	20,625	20,625
8 Total Revenue	680,962	682,224	723,527	786,060	851,333	906,082	949,903
9 Adjustments to Revenue							
10 Use of Fund Balance	26,050	13,180	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization	206	-	-	-	-	-	-
12 SDC Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
13 Reconstruction Debt Service Offset	36,056	20,880	11,883	10,448	6,785	4,372	4,495
14 Adjustments to Total Revenue	717,018	703,104	735,410	796,508	858,118	910,454	954,398
15 FUNDS AVAILABLE							
16 EXPENDITURES							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	22,447	26,840	27,675	28,520	29,397	29,405
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	253,380	257,398	267,294	277,586	288,289	299,421
21 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
22 Total Operating Expenses	450,115	452,766	472,801	491,957	510,123	529,127	549,189
23 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
24 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
25 Total Financial Expenses	266,903	290,650	324,158	368,811	401,618	424,810	445,990
26 TOTAL GROSS EXPENSES (Operating & Financial)	717,018	743,416	796,959	860,768	911,741	953,937	995,179
27 NET EXPENSES	717,018	743,416	796,959	860,768	911,741	953,937	995,179
28 Revenue - Expenditure Gap before rate increase	-	(40,312)	(61,549)	(64,260)	(53,623)	(43,483)	(40,781)
29 Rate Increase	3.0%	6.9%	9.9%	9.4%	7.2%	5.4%	4.8%

**WSSC's Multi-Year Financial Forecast : Combined Water/Sewer Operating Funds Summary**  
**FY 2018 thru 2023 Forecast : Preliminary Budget - Scenario - Revised Base Case**

Estimated Revenues and Expenditures (\$1,000)

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	Approved	Proposed	Estimate	Estimate	Estimate	Estimate	Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$580,580	\$620,892	\$682,440	\$746,700	\$800,324	\$843,808
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,119	32,298	32,477	32,657	32,836	33,015
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	38,360	38,489	38,618	38,747	38,876	39,004
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
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7 Miscellaneous	17,500	18,253	18,804	19,365	19,938	20,625	20,625
8 Total Revenue	680,962	682,224	723,527	786,060	851,333	906,082	949,903
<b>9 Adjustments to Revenue</b>							
10 Use of Fund Balance	26,050	13,180	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization	206	-	-	-	-	-	-
12 SDC Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
13 Reconstruction Debt Service Offset	36,056	20,880	11,883	10,448	6,785	4,372	4,495
14 Adjustments to Total Revenue	717,018	703,104	735,410	796,508	858,118	910,454	954,398
<b>15 FUNDS AVAILABLE</b>							
16 <b>EXPENDITURES</b>							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	22,447	26,840	27,675	28,520	29,397	29,405
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	253,380	257,398	267,294	277,586	288,289	299,421
21 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
22 <b>Total Operating Expenses</b>	450,115	452,766	472,801	491,957	510,123	529,127	549,189
23 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
24 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
25 <b>Total Financial Expenses</b>	266,903	290,650	324,158	368,811	401,618	424,810	445,990
26 <b>TOTAL GROSS EXPENSES (Operating &amp; Financial)</b>	717,018	743,416	796,959	860,768	911,741	953,937	995,179
27 <b>NET EXPENSES</b>	717,018	743,416	796,959	860,768	911,741	953,937	995,179
28 Revenue - Expenditure Gap before rate increase	-	(40,312)	(61,549)	(64,260)	(53,623)	(43,483)	(40,781)
29 Rate Increase	3.0%	6.9%	9.9%	9.4%	7.2%	5.4%	4.8%



**WSSC's Multi-Year Financial Forecast : Combined Water/Sewer Operating Funds Summary**  
**FY 2018 thru 2023 Forecast : Preliminary Budget - Scenario 6**  
 Estimated Revenues and Expenditures (\$'1,000)

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 Revenue</b>							
2 Water & Sewer Rate Revenue	\$579,236	\$580,580	\$600,892	\$670,750	\$734,542	\$787,679	\$830,657
3 All Other Sources	137,782	129,630	114,518	114,068	111,417	110,129	110,590
4 Total Revenue	717,018	710,210	715,410	784,818	845,959	897,808	941,247
<b>5 Expenses</b>							
6 Maintenance & Operating	389,090	395,049	408,825	425,163	442,158	459,860	477,397
7 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
8 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
9 PAYGO	23,095	30,193	38,386	47,102	54,514	60,606	66,511
10 Additional Operating Reserve Contribution	6,524	-	5,783	6,448	5,385	4,372	4,495
11 Unspecified reductions	-	(11,294)	-	-	-	-	-
12 Unspecified reduction of future year's expenditure base	-	-	(11,690)	(12,158)	(12,644)	(13,150)	(13,676)
13 Total Expenses	717,018	730,522	785,269	848,610	899,096	940,786	981,501
14 Revenue Gap (Revenue - Expenses)	-	(20,312)	(69,859)	(63,792)	(53,137)	(42,977)	(40,254)
15 Water Production (MGD)	164.0	164.0	164.0	164.0	164.0	164.0	164.0
16 Debt Service Ratio (debt service / budget)	34.0%	35.7%	36.4%	37.9%	38.6%	38.7%	38.7%

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
17 Rate Increase	3.0%	3.5%	11.6%	9.5%	7.2%	5.5%	4.8%
18 Operating Budget	\$717,018	\$730,522	\$785,269	\$848,610	\$899,096	\$940,786	\$981,501
19 Debt Service Expense	243,808	260,457	285,772	321,709	347,104	364,204	379,479
20 New Debt	528,048	570,022	505,115	510,153	428,914	331,785	317,102

**NOTE:**

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
21 Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage	\$1.07	\$3.67	\$3.35	\$2.79	\$2.26	\$2.12

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
22 Impact of Rate Increase on Residential Monthly Bill with 137 GPD usage	\$1.46	\$5.03	\$4.59	\$3.83	\$3.09	\$2.90

# WSSC's Multi-Year Financial Forecast : Combined Water/Sewer Operating Funds Summary

FY 2018 thru 2023 Forecast : Preliminary Budget - Scenario 6

Estimated Revenues and Expenditures (\$'1,000)

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$580,580	\$600,892	\$670,750	\$734,542	\$787,679	\$830,657
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,119	32,298	32,477	32,657	32,836	33,015
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	38,360	38,489	38,618	38,747	38,876	39,004
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
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7 Miscellaneous	17,500	18,253	18,804	19,365	19,938	20,625	20,625
8 Total Revenue	680,962	682,224	703,527	774,370	839,175	893,437	936,752
<b>9 Adjustments to Revenue</b>							
10 Use of Fund Balance	26,050	20,286	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization	206	-	-	-	-	-	-
12 SDC Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
13 Reconstruction Debt Service Offset	36,056	27,986	11,883	10,448	6,785	4,372	4,495
14 Adjustments to Total Revenue	717,018	710,210	715,410	784,818	845,960	897,809	941,247
<b>15 FUNDS AVAILABLE</b>							
<b>16 EXPENDITURES</b>							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	22,447	26,840	27,675	28,520	29,397	29,405
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	253,380	257,398	267,294	277,585	288,288	299,419
21 Additional Operating Reserve Contribution	6,524	-	5,783	6,448	5,385	4,372	4,495
22 Unspecified reductions	-	(11,294)	-	-	-	-	-
23 Unspecified reduction of future year's expenditure base	-	-	(11,690)	(12,158)	(12,644)	(13,150)	(13,676)
24 Total Operating Expenses	450,115	439,872	461,111	479,799	497,478	515,976	535,511
25 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
26 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
27 Total Financial Expenses	266,903	290,650	324,158	368,811	401,618	424,810	445,990
28 TOTAL GROSS EXPENSES (Operating & Financial)	717,018	730,522	785,269	848,610	899,096	940,786	981,501
29 NET EXPENSES	717,018	730,522	785,269	848,610	899,096	940,786	981,501
30 Revenue - Expenditure Gap before rate increase	-	(20,312)	(69,859)	(63,792)	(53,136)	(42,977)	(40,254)
31 Rate Increase	3.0%	3.5%	11.6%	9.5%	7.2%	5.5%	4.8%





**Washington Suburban  
Sanitary Commission**

**FY 2018**

**SPENDING AFFORDABILITY GROUP  
MEETING #1**

**September 7, 2016**

**Rate Increase Components (FY'18 Preliminary Proposed Budget)**

	<b>FY 2017 Approved</b>	<b>FY 2018 Estimate</b>	<b>Dollar Change</b>	<b>Rate Impact</b>	<b>Description</b>
<b>Revenue</b>					
Water & Sewer Revenue	579,236,000	579,236,000	-	0.0%	No increase in water consumption projected
Account Maintenance Fee	32,552,000	32,732,000	180,000	0.0%	
Infrastructure Fee	38,962,000	39,091,000	129,000	0.0%	
Miscellaneous Revenue	29,512,700	30,465,700	953,000	-0.2%	Based on historical miscellaneous revenue
Use of Fund Balance	3,514,000	-	(3,514,000)	0.6%	Fund balance used in FY'17 to lessen impact of reduced water consumption
Use of Fund Balance	1,832,000	-	(1,832,000)	0.3%	One-time Additional & Reinstated Programs (A&R)
Use of Fund Balance	12,080,000	6,040,000	(6,040,000)	1.0%	IT Strategic Plan
Use of Fund Balance	6,524,000	1,600,000	(4,924,000)	0.9%	For operating reserve contribution
Use of Fund Balance - Watershed	1,600,000	-	(1,600,000)	0.3%	FY'18 fund balance will not be used for Easements & Land Acquisition
Reconstruction Debt Service Offset	9,800,000	7,700,000	(2,100,000)	0.4%	
SDC Debt Service Offset	206,000	-	(206,000)	0.0%	Final SDC Debt Service Offset transfer made in FY'17
<b>Revenue Subtotal</b>	<b>715,818,700</b>	<b>696,864,700</b>	<b>(18,954,000)</b>	<b>3.3%</b>	
<b>Debt Service</b>					
Debt Service	243,808,000	260,457,000	16,649,000	2.9%	
<b>Expenses</b>					
All Other	251,421,000	254,380,000	2,959,000	0.5%	
Salaries & Wages	114,088,000	119,222,000	5,134,000	0.9%	
Regional Sewage Disposal	54,501,000	56,117,000	1,616,000	0.3%	
Operating Reserve Contribution	6,524,000	1,600,000	(4,924,000)	-0.9%	
Fund Balance PAYGO	1,600,000	-	(1,600,000)	-0.3%	Easements & Land Acquisition
30 Year 1.25x Coverage PAYGO	21,495,000	30,193,000	8,698,000	1.5%	
Heat, Light & Power	23,581,000	25,661,000	2,080,000	0.4%	Based on projection from WSSC Energy Manager.
<b>Expenses Subtotal</b>	<b>473,210,000</b>	<b>487,173,000</b>	<b>13,963,000</b>	<b>2.4%</b>	
<b>Total Gross Expenses</b>	<b>717,018,000</b>	<b>747,630,000</b>	<b>30,612,000</b>	<b>8.6%</b>	



**ASSUMPTIONS**  
**WSSC's Multi-Year Financial Forecast**  
 FY 2018 thru 2023 Forecast : Preliminary Budget

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	Proposed	Estimate	Estimate	Estimate	Estimate	Estimate
<b>WATER PRODUCTION</b>						
Yearly Growth Increment (MGD)	164.0	164.0	164.0	164.0	164.0	164.0
Estimated Annual Average Water Production (MGD)	164.0	164.0	164.0	164.0	164.0	164.0

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	Proposed	Estimate	Estimate	Estimate	Estimate	Estimate
<b>OPERATING FUNDS</b>						
Salaries & Wages Rate of Increase	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Heat, Light & Power Annual Expenses (Includes savings from Energy Performance Program)	14,114	14,762	15,221	15,686	16,168	16,173
Water (\$ thousands)	11,547	12,078	12,454	12,834	13,229	13,232
Sewer (\$ thousands)	2,9%	3,7%	3,7%	3,7%	3,7%	3,7%

Blue Plains (Regional Sewage Disposal) Rate of Increase	2.00%	3.50%	4.00%	4.00%	4.00%	4.00%
All Other - % Annual Increase	10,000	10,000	10,000	10,000	10,000	10,000

GASB 045 Expense	7,700	5,600	3,500	1,400	-	-
Water REDO (\$ thousands)	-	-	-	-	-	-
Sewer REDO (\$ thousands)	-	-	-	-	-	-

Work Years / FTE \$s	-	-	-	-	-	-
Operating Program	-	-	-	-	-	-
Capital Programs	-	-	-	-	-	-

<b>BOND FUNDS</b>						
Short-term Construction Note Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Long-Term Bond Interest Rate	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Life for Non-SRF Water and Sewer Debt (years)	30	30	30	30	30	30
Life for SRF Water and Sewer Debt (years)	20	20	20	20	20	20

<b>CAPITAL EXPENDITURES RELATED PARAMETERS</b>						
Construction Inflation	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Water Construction Completion Factor	92%	92%	92%	92%	92%	92%
Sewer Construction Completion Factor	92%	92%	92%	92%	92%	92%
Blue Plains Sewer Construction Completion Factor	92%	92%	92%	92%	92%	92%
ENR Construction Completion Factor	92%	92%	92%	92%	92%	92%
Reconstruction Completion Factor	100%	100%	100%	100%	100%	100%

**WSSC's Multi-Year Financial Forecast : Combined Water/Sewer Capital and Bond Funds Summary**  
**FY 2018 thru 2023 Forecast : Preliminary Budget**  
 Estimated Revenues and Expenditures (\$'1,000)

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	
	<u>Approved</u>	<u>Proposed</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	
<b>Capital Expenditures</b>								
1	Water & Sewer CIP Projects	\$ 498,023	\$ 488,394	\$ 391,327	\$ 376,414	\$ 268,872	\$ 191,835	\$ 174,960
2	Information Only Projects (@ < 100% completion)	25,520	29,096	46,566	42,442	46,259	18,176	18,041
3	Additional High Probability Future CIP Projects	-	-	-	-	-	-	-
4	SAG Adjustments (unspecified capital spending reductions)	-	-	-	-	-	-	-
5	Subtotal - Capital Expenditures less unspecified SAG capital spending reductions	523,543	517,490	437,893	418,856	315,131	210,011	193,001
6	Subtotal - Capital Expenditures w/ scaling, completion, & inflation index factors	\$ 481,660	\$ 476,092	\$ 414,948	\$ 408,816	\$ 316,805	\$ 217,461	\$ 205,843
<b>Information Only Projects (@ 100% completion)</b>								
7	Water Reconstruction	100,226	111,956	116,721	119,342	123,560	125,302	128,987
8	Sewer Reconstruction	55,811	63,114	65,009	66,957	68,967	71,034	73,168
9	EPP & Water Storage Facility Rehab	23,150	26,189	14,075	8,000	8,000	8,000	8,000
10	<b>Total Capital Funding Required</b>	<b>660,847</b>	<b>677,351</b>	<b>610,753</b>	<b>603,115</b>	<b>517,332</b>	<b>421,797</b>	<b>415,998</b>

<b>Funding</b>								
11	Debt Issues (includes SRF Water and Sewer Debt)	528,048	570,022	505,115	510,153	428,914	331,785	317,102
12	5% Debt Buydown of Short-term Construction Notes	-	-	-	-	-	-	-
13	System Development Charges (w/ scaling, completion & inflation index factors)	71,741	37,847	34,238	16,390	5,446	4,504	4,639
14	Infrastructure Investment Fee	-	-	-	-	-	-	-
15	PAYGO	23,095	30,193	38,386	47,102	54,514	60,606	66,511
16	Grants - Federal & State (includes ENR Grants)	13,458	14,710	15,143	22,297	21,504	21,000	21,000
17	Developers and Government Contrib. (w/ scaling, completion & inflation index factors)	24,505	24,579	17,872	7,174	6,955	3,902	6,746
18	Previous Year's Funds Available after Construction	-	-	-	-	-	-	-
19	<b>Total Funds Available</b>	<b>660,847</b>	<b>677,351</b>	<b>610,753</b>	<b>603,115</b>	<b>517,332</b>	<b>421,797</b>	<b>415,998</b>
20	Funds Available after Construction	-	-	-	-	-	-	-



# WSSC's Multi-Year Financial Forecast : Combined Water/Sewer Operating Funds Summary

FY 2018 thru 2023 Forecast : Preliminary Budget  
Estimated Revenues and Expenditures (\$1,000)

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 Revenue</b>							
2 Water & Sewer Rate Revenue	\$579,236	\$579,236	\$628,802	\$686,631	\$751,112	\$804,966	\$848,690
3 All Other Sources	137,782	118,828	115,862	115,412	112,761	111,473	111,934
4 Total Revenue	717,018	698,064	744,664	802,043	863,873	916,439	960,624
<b>5 Expenses</b>							
6 Maintenance & Operating	389,090	399,263	414,360	430,919	448,145	466,087	483,874
7 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
8 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
9 PAYGO	23,095	30,193	38,386	47,102	54,514	60,606	66,511
10 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
11 Total Expenses	717,018	747,630	802,494	866,524	917,727	960,163	1,001,654
12 Revenue Gap (Revenue - Expenses)	-	(49,566)	(57,830)	(64,481)	(53,854)	(43,723)	(41,030)
13 Water Production (MGD)	164.0	164.0	164.0	164.0	164.0	164.0	164.0
14 Debt Service Ratio (debt service / budget)	34.0%	34.8%	35.6%	37.1%	37.8%	37.9%	37.9%

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Rate Increase	3.0%	8.6%	9.2%	9.4%	7.2%	5.4%	4.8%
Operating Budget	\$717,018	\$747,630	\$802,494	\$866,524	\$917,727	\$960,163	\$1,001,654
Debt Service Expense	243,808	260,457	285,772	321,709	347,104	364,204	379,479
New Debt	528,048	570,022	505,115	510,153	428,914	331,785	317,102

**NOTE:**

19 Impact of Rate Increase on Residential Monthly Bill with 160 GPD usage

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
20 Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage	\$4.78	\$5.56	\$6.20	\$5.20	\$4.18	\$3.91
	\$3.80	\$4.42	\$4.93	\$4.13	\$3.32	\$3.11

# WSSC's Multi-Year Financial Forecast : Combined Water/Sewer Operating Funds Summary

FY 2018 thru 2023 Forecast : Preliminary Budget

Estimated Revenues and Expenditures (\$1,000)

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$579,236	\$628,802	\$686,631	\$751,112	\$804,966	\$848,690
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,732	32,911	33,090	33,270	33,449	33,628
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	39,091	39,220	39,349	39,478	39,607	39,735
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
6 Rockville Sewer Use	2,632	2,632	2,664	2,680	2,711	2,741	2,771
7 Miscellaneous	17,500	18,253	18,904	19,365	19,938	20,525	20,625
8 Total Revenue	680,962	682,224	732,781	791,595	857,089	912,068	956,129
9 <b>Adjustments to Revenue</b>							
10 Use of Fund Balance	26,050	8,140	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization	206	-	-	-	-	-	-
12 SDC Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
13 Reconstruction Debt Service Offset	36,056	15,840	11,883	10,448	6,785	4,372	4,495
14 Adjustments to Total Revenue	717,018	698,064	744,664	802,043	863,874	916,440	960,624
15 <b>FUNDS AVAILABLE</b>							
16 <b>EXPENDITURES</b>							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	25,661	26,840	27,675	28,520	29,397	29,495
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	254,380	262,933	273,050	283,572	294,515	305,896
21 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
22 <b>Total Operating Expenses</b>	450,115	456,980	478,336	497,713	516,109	535,353	555,664
23 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
24 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
25 <b>Total Financial Expenses</b>	266,903	290,650	324,158	368,811	401,618	424,810	445,990
26 <b>TOTAL GROSS EXPENSES (Operating &amp; Financial)</b>	717,018	747,630	802,494	866,524	917,727	960,163	1,001,654
27 <b>NET EXPENSES</b>	717,018	747,630	802,494	866,524	917,727	960,163	1,001,654
28 Revenue - Expenditure Gap before rate increase	-	(49,566)	(57,830)	(64,481)	(53,853)	(43,723)	(41,030)
29 Rate Increase	3.0%	8.6%	9.2%	9.4%	7.2%	5.4%	4.8%



**Fund Balance Analysis**

Total

**\$ 61,907,000**

IT Strategic Plan (6,040,000)  
 FY18 Operating Reserve Contribution (to maintain 10% of budgeted revenues) (1,600,000)  
 Strategic Energy Plan Implementation (5-Year FY16 A&R) (300,000)  
 Climate Change Vulnerability Assessment (5-Year FY16 A&R) (200,000)

**Unallocated Reserve (end of FY17)**

**\$ 53,767,000**

FY19-20 Climate Change Vulnerability Assessment (A&R) (500,000)  
 FY19-20 Strategic Energy Plan Implementation (A&R) (500,000)  
 FY19-21 Use of Fund Balance AMI/Billing System Replacement (8,500,000)  
 FY19-21 Implementation of Asset Management recommendations for support facilities (12,500,000)  
 FY19-21 Increase in Operating Reserves (to maintain 10% of budgeted W&S revenues) (17,616,000)

**Unallocated Reserve**

**\$ 14,151,000**

**Working Capital Reserve**  
 Working Capital Reserve 6/30/16 61,900,000  
 FY17 Operating Reserve Contribution 6,524,000  
 Working Capital Reserve 6/30/17 68,424,000  
 FY18 Operating Reserve Contribution 1,600,000  
**\$ 70,024,000**

**Working Capital Reserve 6/30/18 (10% of budgeted revenue)**

## FY'18 Operating Ratios

<b>Capital to Operating Ratio</b>	<u>Assumptions</u>	CIP	Reconstruction	5.0%	Long -Term Interest Rate
				3.3%	Annual Amortization
				92%	Completion Factor
				100%	Desired Debt Service Savings
		\$ 1,000,000	\$ 1,000,000		Capital Expenses to achieve above debt svc savings
		\$ 13,043,478	\$ 12,000,000		
<b>Amount Needed to Impact Rates by X%</b>					
			\$ 579,236,000	1%	Water & Sewer Rate Revenue
			\$ 5,792,360		% Desired to Impact Rates
<b>Revenue Received for each MGD of Water Production</b>					
			\$ 579,236,000		Water & Sewer Rate Revenue
			164		Water Production (in MGD)
			\$ 3,531,927		Revenue Received per MGD of Production





**Washington Suburban  
Sanitary Commission**

**FY 2018**

**SPENDING AFFORDABILITY GROUP  
MEETING #2**

**September 22, 2016**

**FY'18 WSSC Multi-Year Financial Forecast  
Summary**

Forecast Scenario	30 Year 1.25x Coverage PAYGO	Additional Operating Reserve	Use of Fund Balance IT Strategic Plan	Use of Fund Balance Strategic Energy Plan Implementation	Use of Fund Balance Climate Change Vulnerability Assessment	Additional/Unspecified Use of Fund Balance	Total Use of Fund Balance	Unspecified Reductions	FY'18 Rate	FY'19 Rate Implications
Scenario 1 - Base Case - No Additional & Reinstated (A&R) (9/7/16)	30,193	1,600	6,040	300	200	-	8,140	-	8.6%	9.2%
Scenario 2 - IT Strategic Plan Fund Balance Use near FY'17 level	30,193	1,600	11,080	300	200	-	13,180	-	7.5%	9.3%
Scenario 3 - Scenario 2 with \$14.5M in unspecified reductions	30,193	1,600	11,080	300	200	-	13,180	14,508	5.0%	9.5%
Scenario 4 - Scenario 3 with \$2.9M additional use of fund balance	30,193	1,600	11,080	300	200	2,902	16,082	14,508	4.5%	10.0%
Scenario 5 - Scenario 3 with \$5.8M additional use of fund balance	30,193	1,600	11,080	300	200	5,804	18,984	14,508	4.0%	10.5%
Scenario 6 - Scenario 3 with \$8.7M additional use of fund balance	30,193	1,600	11,080	300	200	8,706	21,886	14,508	3.5%	11.1%
Scenario 7 - Scenario 3 with \$11.6M additional use of fund balance	30,193	1,600	11,080	300	200	11,608	24,788	14,508	3.0%	11.6%



**FY'18 Operating Ratios**

2

<b>Capital to Operating Ratio</b>		<u>Assumptions</u>	
		5.0%	Long -Term Interest Rate
		3.3%	Annual Amortization
		92%	Completion Factor
	\$1,000,000	\$1,000,000	Desired Debt Service Savings
	\$ 30,746,000	\$ 33,420,000	Capital Expenses to achieve above debt svc savings
			<b>Amount Needed to Impact Rates by X%</b>
	\$ 580,580,000		Water & Sewer Rate Revenue
	1%		% Desired to Impact Rates
	\$ 5,805,800		Amount Needed to Impact Rate by above %
<b>Revenue Received for each MGD of Water Production</b>			
	\$ 580,580,000		Water & Sewer Rate Revenue
	164		Water Production (in MGD)
	\$ 3,540,122		Revenue Received per MGD of Production

# Bond Funded Projects

Bond Funding Amounts

Project	Project Name	Status	Priority	Estimated FY17	Proposed FY18	FY19	FY20	FY21	FY22	FY23	Total 6 Years	Beyond
S-57.94	Western Branch WWTP Incinerator Emissions C	D-99	7		9,600							
W-12.02	Prince George's County HG415 Zone Water Main	D-70	51		2,000							
A-145.01	Brighton Dam Operations & Maintenance Facility	D-95	50		3,500							
W-34.02	Old Branch Avenue Water Main	D-95	45		4,300							
W-138.02	Shady Grove Standpipe Replacement	D-99	39		5,200							
W-34.05	Marlboro Zone Reinforcement Main	D-70	31		2,600							
W-172.07	Patuxent Raw Water Pipeline	D-90	20		3,000							
W-73.32	Potomac W/FP Main Zone Pipeline	D-10	12		9,200							
W-161.01	Large Diameter Water Pipe Rehabilitation Progr	Ongoing	10		0							
W-1.00	Water Reconstruction Program	Ongoing	9		11,000							
S-170.09	Trunk Sewer Reconstruction Program	Ongoing	3		17,000							
S-1.01	Sewer Reconstruction Program	Ongoing	1		7,000							
	Unspecified Cuts to Reconstruction Programs				18,000							
	Total Reduction				92,400							

Project on hold  
 defer  
 Prequalifying now.  
 defer (Bond/SDC)  
 Ready to RTA  
 defer  
 defer - partial  
 defer

W-34.04 is critical one - currently in construction.

already \$7M lower than FY'17 (\$48M to \$41M) (FY'16 = \$38M)  
 trim back to FY'17 level  
 trim back to FY'16/FY'17 level; delay Force Main initiative  
 trim back to FY'17 level  
 to be determined



**Rate Increase Components (FY'18 Preliminary Proposed Budget - Scenario 3)**

	FY 2017 Approved	FY 2018 Estimate	Dollar Change	Rate Impact	Description
<b>Revenue</b>					
Water & Sewer Revenue	579,236,000	580,580,000	1,344,000	-0.2%	Customer Assistance Program (CAP) netted against rate revenue instead of fees
Account Maintenance Fee	32,552,000	32,119,000	(433,000)	0.1%	Fees not collected due to CAP
Infrastructure Fee	38,962,000	38,360,000	(602,000)	0.1%	Fees not collected due to CAP
Miscellaneous Revenue	29,512,700	30,465,700	953,000	-0.2%	Based on historical miscellaneous revenue
Use of Fund Balance	3,514,000	-	(3,514,000)	0.6%	Fund balance used in FY'17 to lessen impact of reduced water consumption
Use of Fund Balance	1,832,000	-	(1,832,000)	0.3%	One-time Additional & Reinstated Programs (A&R)
Use of Fund Balance	12,080,000	11,080,000	(1,000,000)	0.2%	IT Strategic Plan
Use of Fund Balance	6,524,000	1,600,000	(4,924,000)	0.8%	For operating reserve contribution
Use of Fund Balance - Watershed	1,600,000	-	(1,600,000)	0.3%	FY18 fund balance will not be used for Easements & Land Acquisition
Reconstruction Debt Service Offset	9,800,000	7,700,000	(2,100,000)	0.4%	
SDC Debt Service Offset	206,000	-	(206,000)	0.0%	Final SDC Debt Service Offset transfer made in FY'17
<b>Revenue Subtotal</b>	<b>715,818,700</b>	<b>701,904,700</b>	<b>(13,914,000)</b>	<b>2.4%</b>	
<b>Debt Service</b>					
Debt Service	243,808,000	260,457,000	16,649,000	2.9%	
<b>Expenses</b>					
All Other	251,421,000	253,380,000	1,959,000	0.3%	
Salaries & Wages	114,088,000	119,222,000	5,134,000	0.9%	
Regional Sewage Disposal	54,501,000	56,117,000	1,616,000	0.3%	
Operating Reserve Contribution	6,524,000	1,600,000	(4,924,000)	-0.8%	
Fund Balance PAYGO	1,600,000	-	(1,600,000)	-0.3%	Easements & Land Acquisition
30 Year 1.25x Coverage PAYGO	21,495,000	30,193,000	8,698,000	1.5%	
Heat, Light & Power	23,581,000	25,661,000	2,080,000	0.4%	Based on projection from WSSC Energy Manager.
Unspecified Reductions	-	(14,508,000)	(14,508,000)	-2.5%	
<b>Expenses Subtotal</b>	<b>473,210,000</b>	<b>471,665,000</b>	<b>(1,545,000)</b>	<b>-0.3%</b>	
<b>Total Gross Expenses</b>	<b>717,018,000</b>	<b>732,122,000</b>	<b>15,104,000</b>	<b>5.0%</b>	

# WSSC Information Technology Strategic Plan Annual Costs

(\$ In millions)

	FY15	FY16	FY17	FY18	FY19
	Budget	Budget	Budget	Request	Projected
IT Strategic Plan Costs	\$ 18	\$ 17	\$ 22	\$ 21	\$ 16.5
Budgeted Fund Balance Use for ITSP	9	8	12	11	-
Base	9	9	10	10	\$ 16.5

There is \$10 million in IT's base budget. \$877K (FY'17 A&R) was added to IT's budget for maintenance fees on new system implementations. The on-going cost of maintaining and licensing new implementations is estimated at \$16.5 million beginning in FY'19. The funding gap is approximately \$5.6 million.

\$2 million will be saved through the retirement of legacy systems. These costs are associated with mainframe maintenance and licensing. Remaining legacy mainframe systems to be retired after the implementation of the Customer Care & Billing System are:

- Retirement System - completion date TBD
- AIS (Front-Foot Benefit Assessments System) - completion date TBD



WSSC Budgeted Uses of Fund Balance

FY'15 Budgeted Uses	(5,643,000)
Use of Fund Balance Billing Factor Reduction Offset	(9,000,000)
IT Strategic Plan	(5,000,000)
PAYGO	(1,000,000)
Supply Chain Management Transformation	(2,000,000)
Modular Data Center	(1,500,000)
Watershed improvements	(250,000)
Electric Rate Intervention Cases	(24,393,000)

FY'16 Budgeted Uses	(1,500,000)
REDO Extinguishment	(91,000)
Debt service on Bi-County adjustments to Blue Plains projects	(8,000,000)
Use of Fund Balance IT Strategic Plan	(2,000,000)
Use of Fund Balance AMI/Billing System Replacement (Reserve)	(1,600,000)
Easements & Land Acquisition for Watershed Protection (A&R) - PAYGO	(555,000)
Use of Fund Balance Supply Chain Management Transformation (A&R)	(150,000)
Vibration Analysis Pilot (A&R)	(125,000)
Analysis of Water Production Trends & Projections (A&R)	(300,000)
Climate Change Vulnerability Assessment (A&R)	(156,000)
Communications & Community Relations Special Projects	(200,000)
Strategic Energy Plan Implementation (A&R)	(500,000)
Warehouse Distribution & Inventory Optimization Study (A&R)	(100,000)
Globally Harmonized System of Classification and Labeling of Chemicals (GHS) (A&R)	(15,277,000)

FY'17 Budgeted Uses	(12,080,000)
IT Strategic Plan	(200,000)
Windows 10/ Office 2013 Upgrade	(80,000)
Historical Archiving	(216,000)
WSSC 100th Anniversary	(250,000)
Demolition on Land Acquisition	(336,000)
Supply Chain Management Transformation	(750,000)
Contact Center Optimization	(1,600,000)
Easements & Land Acquisition for Watershed Protection - PAYGO	(3,514,000)
Decrease in water consumption	(250,000)
Strategic Energy Plan Implementation (5-Year FY16 A&R)	(250,000)
Climate Change Vulnerability Assessment (5-Year FY16 A&R)	(19,526,000)

### Heat, Light & Power Projections

The requested energy budget for FY'18 (revised) of \$22,447,193 is \$1,133,807 less than the approved FY budget of \$23,581,000. This is due to the following factors:

- Projected electricity unit cost for FY'18 decreased by 7% compared to the FY'17 budgeted electricity unit cost (due to continued weakness in the natural gas market);
- The sewage flow projections for FY'18 wastewater pumped and treated decreased by 5% compared to FY'17
- As a comparison, actual FY16 energy costs were \$22,385,459

Note: The revised FY18 energy projection is not reflected in the model scenarios. The \$3.2 million reduction from current model scenarios is equivalent to a 0.55% on the rates. The reduction will be reflected in the proposed budget.

### Schedule of REDO Drawdowns

As reflected in six-year forecast:

FY'18 - \$7.7M
FY'19 - \$5.6M
FY'20 - \$3.5M
FY'21 - \$1.4M
FY'22 - \$0

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 Revenue</b>							
2 Water & Sewer Rate Revenue	\$579,236	\$580,580	\$624,106	\$682,440	\$746,700	\$800,324	\$843,808
3 All Other Sources	137,782	122,524	114,518	114,068	111,417	110,129	110,590
4 Total Revenue	717,018	703,104	738,624	796,508	858,117	910,453	954,398
<b>5 Expenses</b>							
6 Maintenance & Operating	389,090	398,263	408,825	425,163	442,159	459,861	477,399
7 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
8 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
9 PAYGO	23,095	30,193	38,386	47,102	54,514	60,606	66,511
10 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
11 Total Expenses	717,018	746,630	796,959	860,768	911,741	953,937	995,179
12 Revenue Gap (Revenue - Expenses)	-	(43,526)	(58,335)	(64,260)	(53,624)	(43,483)	(40,781)
13 Water Production (MGD)	164.0	164.0	164.0	164.0	164.0	164.0	164.0
14 Debt Service Ratio (debt service / budget)	34.0%	34.9%	35.9%	37.4%	38.1%	38.2%	38.1%

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Rate Increase	3.0%	7.5%	9.3%	9.4%	7.2%	5.4%	4.8%
Operating Budget	\$717,018	\$746,630	\$796,959	\$860,768	\$911,741	\$953,937	\$995,179
Debt Service Expense	243,808	260,457	285,772	321,709	347,104	364,204	379,479
New Debt	528,048	570,022	505,115	510,153	428,914	331,785	317,102

**NOTE:**

19 Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage

20 Impact of Rate Increase on Residential Monthly Bill with 145 GPD usage

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage	\$2.29	\$3.07	\$3.38	\$2.82	\$2.29	\$2.14
Impact of Rate Increase on Residential Monthly Bill with 145 GPD usage	\$3.31	\$4.44	\$4.90	\$4.09	\$3.31	\$3.11



WSSC's Multi-Year Financial Forecast : Combined Water/Sewer Operating Funds Summary

FY 2018 thru 2023 Forecast : Preliminary Budget - Scenario 2

Estimated Revenues and Expenditures (\$'1,000)

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	Approved	Proposed	Estimate	Estimate	Estimate	Estimate	Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$580,580	\$624,106	\$682,440	\$746,700	\$800,324	\$843,808
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,119	32,298	32,477	32,657	32,836	33,015
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	38,360	38,489	38,618	38,747	38,876	39,004
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
6 Rockville Sewer Use	2,632	2,632	2,664	2,680	2,711	2,741	2,771
7 Miscellaneous	17,500	18,253	18,804	19,365	19,938	20,625	20,625
8 Total Revenue	680,962	682,224	726,741	786,060	851,333	906,082	949,903
9 Adjustments to Revenue							
10 Use of Fund Balance	26,050	13,180	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization							
12 SDC Debt Service Offset	206	-	-	-	-	-	-
13 Reconstruction Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
14 Adjustments to Total Revenue	36,056	20,880	11,883	10,448	6,785	4,372	4,495
15 FUNDS AVAILABLE	717,018	703,104	738,624	796,508	858,118	910,454	954,398
<b>16 EXPENDITURES</b>							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	25,661	26,840	27,675	28,520	29,397	29,405
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	253,380	257,398	267,294	277,586	288,289	299,421
21 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
22 Total Operating Expenses	450,115	455,980	472,801	491,957	510,123	529,127	549,189
23 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
24 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
25 Total Financial Expenses	266,903	290,650	324,158	368,811	401,618	424,810	445,990
26 TOTAL GROSS EXPENSES (Operating & Financial)	717,018	746,630	796,959	860,768	911,741	953,937	995,179
27 NET EXPENSES	717,018	746,630	796,959	860,768	911,741	953,937	995,179
28 Revenue - Expenditure Gap before rate increase	-	(43,526)	(58,335)	(64,260)	(53,623)	(43,483)	(40,781)
29 Rate Increase	3.0%	7.5%	9.3%	9.4%	7.2%	5.4%	4.8%

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 Revenue</b>							
2 Water & Sewer Rate Revenue	\$579,236	\$580,580	\$609,598	\$667,424	\$731,084	\$784,084	\$826,918
3 All Other Sources	137,782	122,524	114,518	114,068	111,417	110,129	110,590
4 Total Revenue	717,018	703,104	724,116	781,492	842,501	894,213	937,508
<b>5 Expenses</b>							
6 Maintenance & Operating	389,090	398,263	408,825	425,163	442,159	459,861	477,399
7 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
8 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
9 PAYGO	23,095	30,193	38,386	47,102	54,514	60,606	66,511
10 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
11 Unspecified reductions	-	(14,508)	-	(15,616)	(16,240)	(16,890)	(17,566)
12 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
13 Total Expenses	717,018	732,122	781,943	845,152	895,501	937,047	977,613
14 Revenue Gap (Revenue - Expenses)	-	(29,018)	(57,827)	(63,660)	(53,000)	(42,833)	(40,105)
15 Water Production (MGD)	164.0	164.0	164.0	164.0	164.0	164.0	164.0
16 Debt Service Ratio (debt service / budget)	34.0%	35.6%	36.5%	38.1%	38.8%	38.9%	38.8%

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Rate Increase	3.0%	5.0%	9.5%	9.5%	7.2%	5.5%	4.8%
Operating Budget	\$717,018	\$732,122	\$781,943	\$845,152	\$895,501	\$937,047	\$977,613
Debt Service Expense	243,808	260,457	285,772	321,709	347,104	364,204	379,479
New Debt	528,048	570,022	505,115	510,153	428,914	331,785	317,102

**NOTE:**

21 Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	\$1.52	\$3.04	\$3.35	\$2.79	\$2.25	\$2.11

22 Impact of Rate Increase on Residential Monthly Bill with 145 GPD usage

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	\$2.21	\$4.41	\$4.85	\$4.04	\$3.26	\$3.06



	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$580,580	\$609,598	\$667,424	\$731,084	\$784,084	\$826,918
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,119	32,298	32,477	32,657	32,836	33,015
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	38,360	38,489	38,618	38,747	38,876	39,004
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
6 Rockville Sewer Use	2,632	2,632	2,664	2,680	2,711	2,741	2,771
7 Miscellaneous	17,500	18,253	18,804	19,365	19,938	20,525	20,625
8 Total Revenue	680,962	682,224	712,233	771,044	835,717	889,842	933,013
9 <b>Adjustments to Revenue</b>							
10 Use of Fund Balance	26,050	13,180	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization	206	-	-	-	-	-	-
12 SDC Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
13 Reconstruction Debt Service Offset	36,056	20,880	11,883	10,448	6,785	4,372	4,495
14 Adjustments to Total Revenue	717,018	703,104	724,116	781,492	842,502	894,214	937,508
15 <b>FUNDS AVAILABLE</b>							
16 <b>EXPENDITURES</b>							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	25,661	26,840	27,675	28,520	29,397	29,405
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	253,380	257,398	267,294	277,586	288,289	299,421
21 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
22 Unspecified reductions	-	(14,508)	-	-	-	-	-
23 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
24 <b>Total Operating Expenses</b>	450,115	441,472	457,785	476,341	493,883	512,237	531,623
25 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
26 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
27 <b>Total Financial Expenses</b>	266,903	290,650	324,158	368,811	401,618	424,810	445,990
28 <b>TOTAL GROSS EXPENSES (Operating &amp; Financial)</b>	717,018	732,122	781,943	845,152	895,501	937,047	977,613
29 <b>NET EXPENSES</b>	717,018	732,122	781,943	845,152	895,501	937,047	977,613
30 Revenue - Expenditure Gap before rate increase	-	(29,018)	(57,827)	(63,660)	(52,999)	(42,833)	(40,105)
31 Rate Increase	3.0%	5.0%	9.5%	9.5%	7.2%	5.5%	4.8%



	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 Revenue</b>							
2 Water & Sewer Rate Revenue	\$579,236	\$580,580	\$606,696	\$667,424	\$731,084	\$784,084	\$826,918
3 All Other Sources	137,782	125,426	114,518	114,068	111,417	110,129	110,590
4 Total Revenue	717,018	706,006	721,214	781,492	842,501	894,213	937,508
<b>5 Expenses</b>							
6 Maintenance & Operating	389,090	398,263	408,825	425,163	442,159	459,861	477,399
7 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
8 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
9 PAYGO	23,095	30,193	38,386	47,102	54,514	60,606	66,511
10 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
11 Unspecified reductions	-	(14,508)	-	-	-	-	-
12 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
13 Total Expenses	717,018	732,122	781,943	845,152	895,501	937,047	977,613
14 Revenue Gap (Revenue - Expenses)	-	(26,116)	(60,729)	(63,660)	(53,000)	(42,833)	(40,105)
15 Water Production (MGD)	164.0	164.0	164.0	164.0	164.0	164.0	164.0
16 Debt Service Ratio (debt service / budget)	34.0%	35.6%	36.5%	38.1%	38.8%	38.9%	38.8%

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Rate Increase	3.0%	4.5%	10.0%	9.5%	7.2%	5.5%	4.8%
Operating Budget	\$717,018	\$732,122	\$781,943	\$845,152	\$895,501	\$937,047	\$977,613
Debt Service Expense	243,808	260,457	285,772	321,709	347,104	364,204	379,479
New Debt	528,048	570,022	505,115	510,153	428,914	331,785	317,102

NOTE:

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
21 Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage	\$1.37	\$3.19	\$3.35	\$2.79	\$2.25	\$2.11

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
22 Impact of Rate Increase on Residential Monthly Bill with 145 GPD usage	\$1.99	\$4.63	\$4.85	\$4.04	\$3.26	\$3.06

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$580,580	\$606,696	\$667,424	\$731,084	\$784,084	\$826,918
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,119	32,298	32,477	32,657	32,836	33,015
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	38,360	38,489	38,618	38,747	38,876	39,004
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
6 Rockville Sewer Use	2,632	2,632	2,664	2,680	2,711	2,741	2,771
7 Miscellaneous	17,500	18,253	18,804	19,365	19,938	20,625	20,625
8 Total Revenue	680,962	682,224	709,331	771,044	835,717	889,842	933,013
9 Adjustments to Revenue							
10 Use of Fund Balance	26,050	16,082	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization	206	-	-	-	-	-	-
12 SDC Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
13 Reconstruction Debt Service Offset	36,056	23,782	11,883	10,448	6,785	4,372	4,495
14 Adjustments to Total Revenue	717,018	706,006	721,214	781,492	842,502	894,214	937,508
15 FUNDS AVAILABLE							
16 EXPENDITURES							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	25,661	26,840	27,675	28,520	29,397	29,405
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	253,380	257,398	267,294	277,586	288,289	299,421
21 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
22 Unspecified reductions	-	(14,508)	-	-	-	-	-
23 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
24 Total Operating Expenses	450,115	441,472	457,785	476,341	493,883	512,237	531,623
25 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
26 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
27 Total Financial Expenses	266,903	290,650	324,158	368,811	401,618	424,810	445,990
28 TOTAL GROSS EXPENSES (Operating & Financial)	717,018	732,122	781,943	845,152	895,501	937,047	977,613
29 NET EXPENSES	717,018	732,122	781,943	845,152	895,501	937,047	977,613
30 Revenue - Expenditure Gap before rate increase	-	(26,116)	(60,729)	(63,660)	(52,999)	(42,833)	(40,105)
31 Rate Increase	3.0%	4.5%	10.0%	9.5%	7.2%	5.5%	4.8%



	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 Revenue</b>							
2 Water & Sewer Rate Revenue	\$579,236	\$580,580	\$603,794	\$667,424	\$731,084	\$784,084	\$826,918
3 All Other Sources	137,782	128,328	114,518	114,068	111,417	110,129	110,590
4 Total Revenue	717,018	708,908	718,312	781,492	842,501	894,213	937,508
<b>5 Expenses</b>							
6 Maintenance & Operating	389,090	398,263	408,825	425,163	442,159	459,861	477,399
7 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
8 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
9 PAYGO	23,095	30,193	38,386	47,102	54,514	60,606	66,511
10 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
11 Unspecified reductions	-	(14,508)	-	-	-	-	-
12 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
13 Total Expenses	717,018	732,122	781,943	845,152	895,501	937,047	977,613
14 Revenue Gap (Revenue - Expenses)	-	(23,214)	(63,631)	(63,660)	(53,000)	(42,833)	(40,105)
15 Water Production (MGD)	164.0	164.0	164.0	164.0	164.0	164.0	164.0
16 Debt Service Ratio (debt service / budget)	34.0%	35.6%	36.5%	38.1%	38.8%	38.9%	38.8%

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
17 Rate Increase	3.0%	4.0%	10.5%	9.5%	7.2%	5.5%	4.8%
18 Operating Budget	\$717,018	\$732,122	\$781,943	\$845,152	\$895,501	\$937,047	\$977,613
19 Debt Service Expense	243,808	260,457	285,772	321,709	347,104	364,204	379,479
20 New Debt	528,048	570,022	505,115	510,153	428,914	331,785	317,102

**NOTE:**

21 Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage

22 Impact of Rate Increase on Residential Monthly Bill with 145 GPD usage

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
21	\$1.22	\$3.34	\$3.35	\$2.79	\$2.25	\$2.11
22	\$1.77	\$4.85	\$4.85	\$4.04	\$3.26	\$3.06



	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$580,580	\$603,794	\$667,424	\$731,084	\$784,084	\$826,918
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,119	32,298	32,477	32,657	32,836	33,015
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	38,360	38,489	38,618	38,747	38,876	39,004
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
6 Rockville Sewer Use	2,632	2,632	2,664	2,680	2,711	2,741	2,771
7 Miscellaneous	17,500	18,253	18,804	19,365	19,938	20,625	20,625
8 Total Revenue	680,962	682,224	706,429	771,044	835,717	889,842	933,013
9 <b>Adjustments to Revenue</b>							
10 Use of Fund Balance	26,050	18,984	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization	206	-	-	-	-	-	-
12 SDC Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
13 Reconstruction Debt Service Offset	36,056	26,684	11,883	10,448	6,785	4,372	4,495
14 Adjustments to Total Revenue	717,018	708,908	718,312	781,492	842,502	894,214	937,508
15 <b>FUNDS AVAILABLE</b>							
16 <b>EXPENDITURES</b>							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	25,661	26,840	27,675	28,520	29,397	29,405
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	253,380	257,398	267,294	277,586	288,289	299,421
21 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
22 Unspecified reductions	-	(14,508)	-	-	-	-	-
23 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
24 <b>Total Operating Expenses</b>	450,115	441,472	457,785	476,341	493,883	512,237	531,623
25 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
26 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
27 <b>Total Financial Expenses</b>	266,903	290,650	324,158	368,811	401,618	424,810	445,990
28 <b>TOTAL GROSS EXPENSES (Operating &amp; Financial)</b>	717,018	732,122	781,943	845,152	895,501	937,047	977,613
29 <b>NET EXPENSES</b>	717,018	732,122	781,943	845,152	895,501	937,047	977,613
30 Revenue - Expenditure Gap before rate increase	-	(23,214)	(63,631)	(63,660)	(52,999)	(42,833)	(40,105)
31 Rate Increase	3.0%	4.0%	10.5%	9.5%	7.2%	5.5%	4.8%

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 Revenue</b>							
2 Water & Sewer Rate Revenue	\$579,236	\$580,580	\$600,892	\$667,424	\$731,084	\$784,084	\$826,918
3 All Other Sources	137,782	131,230	114,518	114,068	111,417	110,129	110,590
4 Total Revenue	717,018	711,810	715,410	781,492	842,501	894,213	937,508
<b>5 Expenses</b>							
6 Maintenance & Operating	389,090	398,263	408,825	425,163	442,159	459,861	477,399
7 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
8 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
9 PAYGO	23,095	30,193	38,386	47,102	54,514	60,606	66,511
10 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
11 Unspecified reductions	-	(14,508)	-	-	-	-	-
12 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
13 Total Expenses	717,018	732,122	781,943	845,152	895,501	937,047	977,613
14 Revenue Gap (Revenue - Expenses)	-	(20,312)	(66,533)	(63,660)	(53,000)	(42,833)	(40,105)
15 Water Production (MGD)	164.0	164.0	164.0	164.0	164.0	164.0	164.0
16 Debt Service Ratio (debt service / budget)	34.0%	35.6%	36.5%	38.1%	38.8%	38.9%	38.8%

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Rate Increase	3.0%	3.5%	11.1%	9.5%	7.2%	5.5%	4.8%
Operating Budget	\$717,018	\$732,122	\$781,943	\$845,152	\$895,501	\$937,047	\$977,613
Debt Service Expense	243,808	260,457	285,772	321,709	347,104	364,204	379,479
New Debt	528,048	570,022	505,115	510,153	428,914	331,785	317,102

**NOTE:**

21 Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage	\$1.07	\$3.50	\$3.35	\$2.79	\$2.25	\$2.11

22 Impact of Rate Increase on Residential Monthly Bill with 145 GPD usage

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Impact of Rate Increase on Residential Monthly Bill with 145 GPD usage	\$1.54	\$5.07	\$4.85	\$4.04	\$3.26	\$3.06



	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$580,580	\$600,892	\$667,424	\$731,084	\$784,084	\$826,918
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,119	32,298	32,477	32,657	32,836	33,015
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	38,360	38,489	38,618	38,747	38,876	39,004
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
6 Rockville Sewer Use	2,632	2,632	2,664	2,680	2,711	2,741	2,771
7 Miscellaneous	17,500	18,253	18,804	19,365	19,938	20,525	20,625
8 Total Revenue	680,962	682,224	703,527	771,044	835,717	889,842	933,013
9 Adjustments to Revenue							
10 Use of Fund Balance	26,050	21,886	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization	206	-	-	-	-	-	-
12 SDC Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
13 Reconstruction Debt Service Offset	36,056	29,586	11,883	10,448	6,785	4,372	4,495
14 Adjustments to Total Revenue	717,018	711,810	715,410	781,492	842,502	894,214	937,508
15 FUNDS AVAILABLE							
16 EXPENDITURES							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	25,661	26,840	27,675	28,520	29,397	29,405
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	253,380	257,398	267,294	277,566	288,289	299,421
21 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
22 Unspecified reductions	-	(14,508)	-	-	-	-	-
23 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
24 Total Operating Expenses	450,115	441,472	457,785	476,341	493,883	512,237	531,623
25 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
26 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
27 Total Financial Expenses	266,903	290,650	324,158	368,811	401,618	424,810	445,990
28 TOTAL GROSS EXPENSES (Operating & Financial)	717,018	732,122	781,943	845,152	895,501	937,047	977,613
29 NET EXPENSES	717,018	732,122	781,943	845,152	895,501	937,047	977,613
30 Revenue - Expenditure Gap before rate increase	-	(20,312)	(66,533)	(63,660)	(52,999)	(42,833)	(40,105)
31 Rate Increase	3.0%	3.5%	11.1%	9.5%	7.2%	5.5%	4.8%



	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	Approved	Proposed	Estimate	Estimate	Estimate	Estimate	Estimate
<b>1 Revenue</b>							
2 Water & Sewer Rate Revenue	\$579,236	\$580,580	\$597,990	\$667,424	\$731,084	\$784,084	\$826,918
3 All Other Sources	137,782	134,132	114,518	114,068	111,417	110,129	110,590
4 Total Revenue	717,018	714,712	712,508	781,492	842,501	894,213	937,508
<b>5 Expenses</b>							
6 Maintenance & Operating	389,090	398,263	408,825	425,163	442,159	459,861	477,399
7 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
8 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
9 PAYGO	23,095	30,193	38,386	47,102	54,514	60,606	66,511
10 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
11 Unspecified reductions	-	(14,508)	-	-	-	-	-
12 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
13 Total Expenses	717,018	732,122	781,943	845,152	895,501	937,047	977,613
14 Revenue Gap (Revenue - Expenses)	-	(17,410)	(69,435)	(63,660)	(53,000)	(42,833)	(40,105)
15 Water Production (MGD)	164.0	164.0	164.0	164.0	164.0	164.0	164.0
16 Debt Service Ratio (debt service / budget)	34.0%	35.6%	36.5%	38.1%	38.8%	38.9%	38.8%

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Rate Increase	3.0%	3.0%	11.6%	9.5%	7.2%	5.5%	4.8%
Operating Budget	\$717,018	\$732,122	\$781,943	\$845,152	\$895,501	\$937,047	\$977,613
Debt Service Expense	243,808	260,457	285,772	321,709	347,104	364,204	379,479
New Debt	528,048	570,022	505,115	510,153	428,914	331,785	317,102

**NOTE:**

21 Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Impact of Rate Increase on Residential Monthly Bill with 100 GPD usage	\$0.91	\$3.65	\$3.35	\$2.79	\$2.25	\$2.11
Impact of Rate Increase on Residential Monthly Bill with 145 GPD usage	\$1.32	\$5.29	\$4.85	\$4.04	\$3.26	\$3.06

	FY 2017 Approved	FY 2018 Proposed	FY 2019 Estimate	FY 2020 Estimate	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate
<b>1 REVENUE</b>							
2 Water / Sewer Use Charges	\$579,236	\$580,580	\$597,990	\$667,424	\$731,084	\$784,084	\$826,918
3 Account Maintenance Fee (Ready to Serve Charge)	32,552	32,119	32,298	32,477	32,657	32,836	33,015
4 Infrastructure Renewal Fee (Ready to Serve Charge)	38,962	38,360	38,489	38,618	38,747	38,876	39,004
4 Interest Income	700	700	700	700	700	700	700
5 Plumbing/Inspection Fees	9,380	9,580	9,680	9,780	9,880	9,980	9,980
6 Rockville Sewer Use	2,632	2,632	2,664	2,680	2,711	2,741	2,771
7 Miscellaneous	17,500	18,253	18,804	19,365	19,938	20,525	20,625
8 Total Revenue	680,962	682,224	700,625	771,044	835,717	889,842	933,013
9 Adjustments to Revenue							
10 Use of Fund Balance	26,050	24,788	6,283	6,948	5,385	4,372	4,495
11 Less Rate Stabilization	206	-	-	-	-	-	-
12 SDC Debt Service Offset	9,800	7,700	5,600	3,500	1,400	-	-
13 Reconstruction Debt Service Offset	36,056	32,488	11,883	10,448	6,785	4,372	4,495
14 Adjustments to Total Revenue	717,018	714,712	712,508	781,492	842,502	894,214	937,508
15 FUNDS AVAILABLE							
16 EXPENDITURES							
17 Salaries and Wages	114,088	119,222	124,587	130,194	136,053	142,175	148,573
18 Heat, Light and Power	23,581	25,661	26,840	27,675	28,520	29,397	29,405
19 Regional Sewage Disposal	54,501	56,117	58,193	60,346	62,579	64,894	67,295
20 All Other	251,421	253,380	257,398	267,294	277,586	288,289	299,421
21 Additional Operating Reserve Contribution	6,524	1,600	5,783	6,448	5,385	4,372	4,495
22 Unspecified reductions	-	(14,508)	-	-	-	-	-
23 Unspecified reduction of future year's expenditure base	-	-	(15,016)	(15,616)	(16,240)	(16,890)	(17,566)
24 Total Operating Expenses	450,115	441,472	457,785	476,341	493,883	512,237	531,623
25 Debt Service	243,808	260,457	285,772	321,709	347,104	364,204	379,479
26 Debt Reduction (PAYGO)	23,095	30,193	38,386	47,102	54,514	60,606	66,511
27 Total Financial Expenses	266,903	290,650	324,158	368,811	401,618	424,810	445,990
28 TOTAL GROSS EXPENSES (Operating & Financial)	717,018	732,122	781,943	845,152	895,501	937,047	977,613
29 NET EXPENSES	717,018	732,122	781,943	845,152	895,501	937,047	977,613
30 Revenue - Expenditure Gap before rate increase	-	(17,410)	(69,435)	(63,660)	(52,999)	(42,833)	(40,105)
31 Rate Increase	3.0%	3.0%	11.6%	9.5%	7.2%	5.5%	4.8%



**Fund Balance Analysis (Scenario 4)**

Total

**\$ 61,907,000**

**Unallocated Reserve (end of FY'17)**

IT Strategic Plan (11,080,000)  
 Rate Buydown (2,902,000)  
 FY18 Operating Reserve Contribution (to maintain 10% of budgeted revenues) (1,600,000)  
 Strategic Energy Plan Implementation (5-Year FY16 A&R) (300,000)  
 Climate Change Vulnerability Assessment (5-Year FY16 A&R) (200,000)

**Unallocated Reserve (end of FY'18)**

FY19-20 Climate Change Vulnerability Assessment (A&R) (500,000)  
 FY19-20 Strategic Energy Plan Implementation (A&R) (500,000)  
 FY19-21 Use of Fund Balance AMI/Billing System Replacement (8,500,000)  
 FY19-21 Implementation of Asset Management recommendations for support facilities (12,500,000)  
 FY19-21 Increase in Operating Reserves (to maintain 10% of budgeted W&S revenues) (17,616,000)

**\$ 6,209,000**

**Unallocated Reserve**

**Working Capital Reserve**  
 Working Capital Reserve 6/30/16  
 FY17 Operating Reserve Contribution  
 Working Capital Reserve 6/30/17  
 FY18 Operating Reserve Contribution  
**Working Capital Reserve 6/30/18 ( 10% of budgeted revenue)**

**\$ 70,024,000**

61,900,000  
 6,524,000  
 68,424,000  
 1,600,000



**Fund Balance Analysis (Scenario 5)**

Total

**\$ 61,907,000**

(11,080,000)

(5,804,000)

(1,600,000)

(300,000)

(200,000)

**42,923,000**

(500,000)

(500,000)

(8,500,000)

(12,500,000)

(17,616,000)

**\$ 3,307,000**

61,900,000

6,524,000

68,424,000

1,600,000

**\$ 70,024,000**

**Unallocated Reserve (end of FY'17)**

IT Strategic Plan

Rate Buydown

FY'18 Operating Reserve Contribution (to maintain 10% of budgeted revenues)

Strategic Energy Plan Implementation (5-Year FY16 A&R)

Climate Change Vulnerability Assessment (5-Year FY16 A&R)

**Unallocated Reserve (end of FY'18)**

FY19-20 Climate Change Vulnerability Assessment (A&R)

FY19-20 Strategic Energy Plan Implementation (A&R)

FY19-21 Use of Fund Balance AMI/Billing System Replacement

FY19-21 Implementation of Asset Management recommendations for support facilities

FY19-21 Increase in Operating Reserves (to maintain 10% of budgeted W&S revenues)

**Unallocated Reserve**

**Working Capital Reserve**

Working Capital Reserve 6/30/16

FY17 Operating Reserve Contribution

Working Capital Reserve 6/30/17

FY18 Operating Reserve Contribution

**Working Capital Reserve 6/30/18 ( 10% of budgeted revenue)**



**Fund Balance Analysis (Scenario 6)**

Total

**\$ 61,907,000**

**Unallocated Reserve (end of FY'17)**

IT Strategic Plan (11,080,000)  
 Rate Buydown (8,706,000)  
 FY18 Operating Reserve Contribution (to maintain 10% of budgeted revenues) (1,600,000)  
 Strategic Energy Plan Implementation (5-Year FY16 A&R) (300,000)  
 Climate Change Vulnerability Assessment (5-Year FY16 A&R) (200,000)

**Unallocated Reserve (end of FY'18)**

FY19-20 Climate Change Vulnerability Assessment (A&R) (500,000)  
 FY19-20 Strategic Energy Plan Implementation (A&R) (500,000)  
 FY19-21 Use of Fund Balance AMI/Billing System Replacement (8,500,000)  
 FY19-21 Implementation of Asset Management recommendations for support facilities (12,500,000)  
 FY19-21 Increase in Operating Reserves (to maintain 10% of budgeted W&S revenues) (17,616,000)

**\$ 405,000**

**Unallocated Reserve**

**Working Capital Reserve**  
 Working Capital Reserve 6/30/16 61,900,000  
 FY17 Operating Reserve Contribution 6,524,000  
 Working Capital Reserve 6/30/17 68,424,000  
 FY18 Operating Reserve Contribution 1,600,000  
**\$ 70,024,000**

**Working Capital Reserve 6/30/18 ( 10% of budgeted revenue)**

**Fund Balance Analysis (Scenario 7)**

Total	<u>\$ 61,907,000</u>
	(11,080,000)
	(11,608,000)
	(1,600,000)
	(300,000)
	(200,000)
	<u>37,119,000</u>
	(500,000)
	(500,000)
	(500,000)
	(500,000)
	(8,500,000)
	(12,500,000)
	(17,616,000)
	<u>\$ (2,497,000)</u>
	61,900,000
	6,524,000
	68,424,000
	1,600,000
	<u>\$ 70,024,000</u>

**Unallocated Reserve (end of FY'17)**

IT Strategic Plan  
 Rate Buydown  
 FY18 Operating Reserve Contribution (to maintain 10% of budgeted revenues)  
 Strategic Energy Plan Implementation (5-Year FY16 A&R)  
 Climate Change Vulnerability Assessment (5-Year FY16 A&R)

**Unallocated Reserve (end of FY'18)**

FY19-20 Climate Change Vulnerability Assessment (A&R)  
 FY19-20 Strategic Energy Plan Implementation (A&R)  
 FY19-21 Use of Fund Balance AMI/Billing System Replacement  
 FY19-21 Implementation of Asset Management recommendations for support facilities  
 FY19-21 Increase in Operating Reserves (to maintain 10% of budgeted W&S revenues)

**Unallocated Reserve**

**Working Capital Reserve**  
 Working Capital Reserve 6/30/16  
 FY17 Operating Reserve Contribution  
 Working Capital Reserve 6/30/17  
 FY18 Operating Reserve Contribution  
**Working Capital Reserve 6/30/18 ( 10% of budgeted revenue)**