



PRINCE GEORGE'S COUNTY GOVERNMENT

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County Council

April 11, 2019

TO: Deni Taveras, Chair
Transportation, Infrastructure, Energy and Environment Committee
(TIEE)

FROM: Canjor D. Reed, Sr. Auditor *CDR*
Office of Audits and Investigations

THRU: Robert J. Williams *RJW*.
Council Administrator

RE: ***WSSC FY 2020 Operating, Capital and Capital Improvement Program (CIP) Budgets***

This report contains a detailed summary of the Washington Suburban Sanitary Commission (WSSC) FY 2020 Proposed Operating, Capital and Capital Improvement Program (CIP) budgets, including an overview of revenues and expenditures, updates and highlights of major projects, discussion points of key performance indicators, and staff's recommendation to the Transportation Infrastructure, Energy and Environment Committee (TIEE). The purpose of this report is to provide the Prince Georges County Councilmembers and the TIEE Committee members with relevant information to support a staff recommendation which allows for a WSSC rate increase to meet the County's system demands. This report is the result of collaboration with the County staff represented by the Office of the County Executive, Office of Finance, and Audits and Investigations along with the WSSC management team.

Committee Report Outline

- Section 1: WSSC Goals and Budget Overview
- Section 2: Proposed Rates, Fees and Charges
- Section 3: Spending Affordability Guidelines (SAG)
- Section 4: Revenues
- Section 5: Expenditures
- Section 6: Debt Service
- Section 7: Performance Metrics
- Section 8: Capital Improvement Program (CIP)
- Section 9: Staff Recommendation

Section 1: WSSC Goals and Budget Overview

The Washington Suburban Sanitary Commission (WSSC/Commission) provides water and sewer services to approximately 1.8 million residents of Prince George's and Montgomery Counties. To fulfill its primary mission of providing safe and reliable water and returning clean water to the environment, WSSC operates and maintains an extensive array of highly automated facilities. The WSSC's two water filtration plants drawing raw water from the Potomac and Patuxent Rivers are projected to produce an average of 164 million gallons of water per day in FY 2020 and deliver that water to homes and businesses in the region through a system of over 5,772 miles of water mains. To ensure a reliable water supply, WSSC operates three reservoirs with a total capacity exceeding 14 billion gallons.

Sewage treatment is provided by six water resource recovery facilities (WRRF) and the Blue Plains Advanced Wastewater Treatment Plant (Blue Plains) operated by the DC Water and Sewer Authority (DC Water). In FY 2020, it is projected that an average of 201.4 million gallons of waste water per day will move to these facilities through over 5,582 miles of sewer lines maintained by WSSC. It should be noted that WSSC pays a proportionate share of the Blue Plains' operating and capital expenses. Other WSSC responsibilities include the enforcement of plumbing and gas fitting regulations and participation in numerous environmental initiatives.

FY 2020 Strategic Priorities and Key Provisions

- I. Enhance Customer Experience and Community Engagement
 - Provide maintenance service to customers within 2 hours and restoration within 24 hours
 - Implement a new Customer to Meter Billing System (C2M)
 - Fund the Customer Assistance Program (CAP) with revenue offset of \$888,000
 - Provide an additional \$1.0 million in funding to enhance customer assistance
- II. Improve Infrastructure
 - Implement the FY 2020 – 2025 CIP
 - Fund the replacement of 25 miles of water mains and 26 miles of sewer mains and laterals
 - Optimize biosolids management at WRRF
 - Inspect and monitor large diameter water mains and large valves
 - Construct new septage discharge facilities
- III. Achieve Business Process Excellence and Maintain Financial Stability
 - Issue \$384.9 million in new water, sewer and general construction debt

- Pay debt services of \$319.9 million of which \$306.3 million is in the water and sewer operating funds
- Continue to implement the IT Strategic Plan
- Implement a new four-tier water and sewer rate structure
- Maintain the highest “AAA” credit rating on bonds and notes
- Maintain an operating reserve at 10% of operating revenues
- Continue to focus on lowering costs through strategic sourcing in procurement
- Improve business process through Innovation and Research Programs

IV. Protect People, Infrastructure, Systems and Resources

- Treat and deliver 164 million gallons per day (MGD) of water to over 460,000 customer accounts
- Treat 201.4 MGD of wastewater and responsibly manage up to 1,000 tons of biosolids per day
- Comply with the Sanitary Sewer Overflow (SSO) and Potomac Plant Consent Decrees
- Continue to upgrade automated and physical security equipment

V. Inspire Employee Engagement

- Fund employee salary enhancements in a manner consistent with the County
- Continue employee reward programs
- Provide employee learning and growth opportunities

FY 2020 Proposed Operating and Capital Budgets

The proposed total budget for FY 2020 for all operating and capital funds totals \$1.456 billion or \$18.0 million (1.3%) more than the Approved FY 2019 budget.

Comparative Expenditure by Fund

	FY 2017 Actual	FY 2018 Actual	FY 2019 Approved	FY 2020 Proposed	over/(Under) FY 2019	FY 2020	% Change
Operating Fund							
Water Operating	\$ 300,598,657	\$ 320,087,985	\$ 340,082,785	\$ 352,471,682	\$ 12,388,897		3.64%
Sewer Operating	374,234,124	385,526,736	422,609,826	450,147,720	\$ 27,537,894		6.52%
General Bond Debt Service	15,557,107	19,107,983	18,888,188	14,773,624	(4,114,564)		-21.78%
Total Operating	\$ 690,389,888	\$ 724,722,704	\$ 781,580,799	\$ 817,393,026	\$ 35,812,227		4.58%
Capital Fund							
Water Supply	\$ 263,568,816	\$ 261,602,119	\$ 306,478,722	\$ 287,256,345	\$ (19,222,377)		-6.27%
Sewage Disposal	280,632,043	190,058,178	328,890,176	334,377,286	5,487,110		1.67%
General Construction	12,783,881	23,555,308	20,957,052	16,892,473	(4,064,579)		-19.39%
Total Capital	\$ 556,984,740	\$ 475,215,605	\$ 656,325,950	\$ 638,526,104	\$ (17,799,846)		-2.71%
Grand Total	\$ 1,247,374,628	\$ 1,199,938,309	\$ 1,437,906,749	\$ 1,455,919,130	\$ 18,012,381		1.25%

Operating Funds

The Proposed Operating Budget of \$817.4 million represents an increase of \$35.8 million (4.6%) over the FY 2019 Approved Operating Budget of \$781.6 million. This increase is primarily driven by:

- A \$25.5 million increase in debt service to support infrastructure renewal in the FY 2020 capital budget,
- A \$5.4 million increase in regional sewage disposal expenses as DC Water's operation and maintenance cost share with the Blue Plains Inter-Municipal Agreement has been revised; and,
- A \$2.8 million increase in paving costs.

In general, when controlling the non-discretionary increases in debt service and regional sewage disposal costs, the FY 2020 Operating Budget is 1.1% over the FY 2019 Approved Operating Budget.

Capital Funds

The Proposed Capital Budget of \$638.5 million represents a decrease of \$17.8 million (-2.7%) from the FY 2019 Approved Capital Budget of \$656.3 million.

WSSC budget is capital intensive and driven by changes in the construction market, commodity prices and tariffs. It is not driven by the more commonplace consumer price index (CPI), but are legally mandated and not easily deferred or reduced. Other investments which drive the WSSC budget, include:

- Compliance with Sanitary Sewer Overflow (SSO)
- Potomac Plant Consent Decree
- Environmental regulations directives
- Maintaining security of the water infrastructure
- Security of staff and field personnel
- IT improvements

Section 2: Proposed Rates, Fees and Charges

I. Fund and Fee Structure

The proposed FY 2020 Water Operating Fund is \$352.5 million, increasing by approximately \$12.4 million (3.64%); the Sewer Operating Fund is \$450.1 million, increasing by approximately \$27.5 million (6.5%); and the General Bond Debt Service Fund is \$14.8 million, decreasing by approximately \$4.1 million (21.8%). These comparisons are being made to the FY 2019 Approved Operating Budget. The Proposed FY 2020 Combined Water and Sewer Operating Budget provides for a 5.0% average water and sewer rate revenue increase.

II. Infrastructure Investment Fee

The Infrastructure Investment Fee (IIF) funds a portion of the debt service associated with the Commission's water and sewer pipe reconstruction programs. The Infrastructure Investment fee is expected to generate approximately \$39.3 million in FY 2020 as compared to \$38.9 million in FY 2019. (For more details see, FY 2020 Proposed Budget, page 2-6)

III. Account Maintenance Fee

The Account Maintenance fee recoups servicing costs associated with the maintenance of customers' accounts. The Account Maintenance Fee (AMF) is expected to generate \$32.3 million in FY 2020 as compared to \$32.2 million in FY 2019. (For more details see, FY 2020 Proposed Budget, page 2-5)

IV. System Development Charge

No increase is proposed for the System Development Charge for FY 2020 in any category. The maximum allowable charge is being adjusted pursuant to

Division II, Section 25-403 (c) of the Public Utilities Article, based on the 1.5% change in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). (For more details see, FY 2020 Proposed Budget, page 2-7)

V. Miscellaneous Fees

WSSC has conducted a comprehensive review of fees and charges and has proposed various changes to align service costs with the fees charged. (For more details see, FY 2020 Proposed Budget, page 2-8 thru 2-13)

VI. Other Revenues

Other revenues include the Reconstruction Debt Service Offset (REDO). This was established in FY 1983 and uses surplus funds in the General Bond Debt Service account to offset a portion of the debt service costs of the Systems Reconstruction Program, thereby benefiting all ratepayers. The Offset, a transfer of funds from the General Bond Debt Service to the Water and Sewer Operating Funds, is set at \$11.6 million in FY 2020. The REDO for FY 2019 was proposed at \$12.5 million. When the unallocated balance in the General Bond Debt Service Fund is exhausted, the associated expenses will have to be incorporated into the rate structure.

COMBINED WATER/SEWER OPERATING FUNDS - FY 2020 PROPOSED RATE IMPACT

(\$ in Thousands)

5.0% Average Rate Revenue Increase Proposed for FY 2020

Funding Sources	FY 2020 Proposed
Revenues at Current Rates	
Consumption Charges	\$ 627,523
Account Maintenance Fee	32,296
Infrastructure Investment Fee	39,331
Miscellaneous Revenues	41,200
Subtotal	740,350
 Reconstruction Debt Service Offset	 11,600
SDC Debt Service Offset	4,658
Miscellaneous Offset	395
Premium Transfer	2,900
Use of Fund Balance	11,341
Total Funding Sources	771,244
 Requirements	
 Expenses	
Operating, Maintenance & Support Services Expenses	465,297
Debt Service	306,307
PAYGO	31,016
Total Expenditures	802,620
 Shortfall to be Covered by Rate Revenue Increase	 \$ (31,376)
 Proposed Average Water and Sewer Rate Revenue Increase	5.0%

Section 3: Spending Affordability

In 2018, staff of Prince George's and Montgomery Counties, met with staff of the WSSC to discuss the spending affordability limits for FY 2020. The rehabilitation and maintenance of buried assets continued to be the area that required the most resources. In November 2018, the Prince George's County and Montgomery County Councils approved resolutions establishing the four limits on the WSSC FY 2020 budget. As indicated in the following table, the proposed FY 2020 budget is in compliance with the spending affordability limits for New Water and Sewer Debt, Debt Service and Water/Sewer Rate Revenue Increase.

The proposed budget calls for a combined 5.0% increase in water and sewer consumption revenue. The proposed increase meets the Spending Affordability Guidelines (SAG) as established by both Prince George's and Montgomery counties. Even with this change, WSSC suggests that its rates continue to be favorable when compared to other service providers of similar size water and sewer utilities. The average WSSC customers residential bill is 1 % of the median household income.

FY 2020 Proposed Budget vs. Spending Affordability Limits (\$ in Millions)		
	FY 2020 Proposed Budget	Prince George's County Limits
New Water and Sewer Debt	\$384.9	\$385.5
Total Water and Sewer Debt Service	\$306.3	\$306.4
Total Water and Sewer Operating Expenses	\$802.6	\$799.0
Water/Sewer Rate Revenue Increase	5.0%	5.0%

The impact of the revenue increase, combined with the implementation of the new 4-tier rate structure, will add approximately \$1.29 per month to the bill of a customer using 165 gallons per day (the average per person consumption of 55 gallons per day for a 3-person household). A low-usage residential customer with consumption of 100 gallons per day will experience an increase of approximately \$3.98 per month, while a large household using 500 gallons per day will see a decrease of approximately \$19.11 per month.

In order to reconcile the Commissions' initial FY 2020 budget request with the County's Spending Affordability Guidelines, a funding gap of approximately \$30 million was required to be closed. Actions to close this gap shall include:

- Limiting growth for certain budget programs
- Reduce or defer implementation of certain initiatives
- No new positions
- Delay the system wide improvements as follows:
 - Implementing a system wide hydrant flushing system as a preventive maintenance practice
 - Testing all 43,000 fire hydrants on a ten-year cycle
 - Expanding the lead detection program to identify leak locations and provide proactive repairs
 - Accelerating large diameter water valve inspections from a four-year to a three-year cycle.

Additionally, approximately \$17 million in FY 2018 reductions were not reinstated and a \$2.5 million reduction was made for critical maintenance to facilities.

Major Assumptions and Workload Summary

Below is a summary of budget outcomes related to results from FY 2020 Spending Affordability:

- I. **Fund Balance** – At the end of 2019, accumulated net revenues for water and sewer operating funds may total \$173.7 million. For FY 2020, approximately \$77.2 million will be held in adherence to the Commission's reserve policy. Fund balance of \$11.0 million will also be used to finance the IT Strategic Plan which includes the Automated Metering Infrastructure (AMI) and Work and Asset Management (WAM) system. An additional \$0.3 million will be used to fund the strategic energy plan and climate vulnerability assessment. This leaves an unallocated reserve of approximately \$85.2 million.
- II. **Revenues** – The estimated FY 2020 revenues for water consumption and sewer use charges are \$281.0 million and \$377.9 million respectively. Water production is assumed to be 164.0 million gallons per day and water purchases are projected to remain the same.
- III. **Capital Improvement Program and the Capital Budget** – The Capital Budget includes expenditure estimates for all projects for which work is reasonably expected to be accomplished. This provides management the

greatest flexibility to proceed on the many and diverse projects approved each year in the budget. The FY 2020 Capital Budget is \$638.5 million.

- IV. **Debt Service** – The debt service estimates for FY 2020 assumes that \$155.2 million in water bonds and \$229.7 million in sewer bonds will be issued in FY 2020, in addition to repayment of existing debt. The WSSC water and sewer issues will be 30-year bonds with an estimated 3.75% net interest rate.
- V. **Reconstruction Debt Service Offset (REDO)** – For FY 2020, \$11.6 million will be transferred from the General Bond Debt Service to the Water and Sewer Operating Fund. The transfer is made to defray the debt service on funds borrowed to finance water and sewer systems reconstruction activities.
- VI. **Workforce and Compensation** – Funding for employee salary enhancements which are planned and coordinated with the Counties is included in the budget.

Section 4. Revenues

Water consumption and sewer usage rates are the primary sources of revenue for the Water and Sewer Operating Funds. Revenue for the General Bond Debt Service Fund is primarily derived from front foot benefit and house connection charges. The FY 2020 proposed total revenues for all operating funds are \$785.0 million. Other transfers and credits amount to \$30.9 million bringing total funds available to \$815.9 million. WSSC proposes to use \$271.1 million (33.2%) in the category of operations and maintenance and \$319.9 million (39.2%) for debt service in FY 2020.

Water and Sewer Operating Funds

The Water Operating Fund pays for water treatment and distribution, and the Sewer Operating Fund pays for sewage collection and treatment. The General Bond Debt Service Fund receives front foot benefit payments to underwrite the debt service on smaller lateral water and sewer lines.

Operating Fund	Major Purpose	Major Revenue Source
Water Operating	Operate and maintain water facilities and pay debt service on Water Supply Bonds.	Customer Water Bills
Sewage Operating	Operate and maintain sewerage facilities and pay debt service on Sewage Disposal Bonds.	Customer Sewer Bills
General Bond Debt Service	Pay debt service on General Construction Bonds.	Front Foot Benefit Charges and Customer Water and Sewer Bills

It is projected in the FY 2020 operating budget that \$627.9 million in revenues (excluding offsets and use of fund balance) shall come from water and sewer consumption charges. Revenues are assumed based on a water production level of 164 MGD, the same as was included in the FY 2019 Approved Budget. In FY 2017, 164 MGD was included in the approved budget; however, the actual water production was 163.1 MGD. Each year WSSC projects the amount of water it will produce the coming budget year. It does so in terms of millions of gallons of water produced per day (mgd) from its two water treatment plants. WSSC's current projection for FY 2019 is 164.0 MGD; the same as the approved level. The Commission has continued to be very conservative on its water production projections. WSSC has proposed a water production level of 164 mgd for FY 2020, the same as the approved level in FY 2017, FY 2018 and FY 2019.

Water operating revenues (customer payment for water bills) are used to pay for operating and maintaining water facilities and also pay the debt service on Water Supply Bonds.

Fund Balance

As shown below, WSSC projects to end FY 2020 with a combined fund balance of \$162.4 million in the Water and Sewer Operating Funds. This number includes the required reserve of \$77.2 million. The metrics in this table indicate that Debt Service Coverage is very tight and Debt Service as a Percentage of Total Expenditures is projected to rise above target in FY 2024, although within target, Days Operating Reserve-on-Hand. However, water utilities can have over one to two years cash on hand.

	FY 2019 (\$ In Thousands)	FY 2019 Approved	FY 2020 Proposed	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected
BEGINNING FUND BALANCE - JULY 1	\$ 185,297	\$ 173,717	\$ 162,376	\$ 158,006	\$ 162,879	\$ 172,225	\$ 185,393	\$ 185,393
Net Increase (Decrease) in Fund Balance				3,631	11,873	15,346	18,167	24,662
Use of Fund Balance/Other Adjustments	(11,580)	(11,341)	(8,000)	(7,000)	(6,000)	(5,000)		
ENDING FUND BALANCE - JUNE 30	\$ 173,717	\$ 162,376	\$ 158,006	\$ 162,879	\$ 172,225	\$ 185,393	\$ 210,055	
Debt Service Coverage (1.10 is target)		1.01	1.00	1.01	1.04	1.08	1.10	1.13
Debt Service as a Percentage of Total Expenditures (Below 40% is target)		36.3%	38.2%	39.0%	39.7%	39.7%	40.3%	40.7%
Operating Reserve Required 10% Level (\$)	\$73,525	\$77,173	\$81,163	\$85,430	\$89,950	\$94,345	\$98,565	
Days Operating Reserve-on-Hand (60 - 90 days is target)	84.4	74.4	69.9	69.4	70.2	72.8	79.8	

Population Served and Customer Accounts

WSSC's population projected to be served in FY 2020 is 9,000 higher than FY 2019 (0.5%). WSSC assumes that the population will grow annually at 0.5% in FY 2020 and beyond. As of June, FY 2018 WSSC had approximately 456,000 active customer accounts, an increase of almost 4,200 from June FY 2017. The majority of the accounts are residential at 94.4%, commercial and industry at 4.8%, and government at 0.8%.

System Development Charge

State law provides that the System Development Charge (SDC), a charge to new applicants for WSSC service which is intended to recover growth costs, may be adjusted annually by the change in CPI. Historically, WSSC has adjusted to the maximum allowable charge. WSSC intends to adjust these fees to the maximum allowed in the November CPI for the Washington, DC metropolitan area.

For the period July 1, 2017 to June 30, 2018 (FY 2018), a total of \$28.6 million in SDC revenue and interest was collected. The amount of \$2.6 million was transferred to the Water and Sewer Operating Funds for debt service payments due in FY 2018 for the debt incurred in FY 1998 and FY 2016 to fund growth costs. The amount of \$13.4 million was transferred to the Water Supply Bond Fund and \$9.8 million was transferred to the Sewage Disposal Bond Fund to fund SDC eligible projects on a pay-as-you-go (PAYGO) basis during the fiscal year. The amount of \$21.9 million was allocated for reimbursements and uncollected charges. The available account balance at the end of the period is \$342,000.

In FY 2019 the SDC account balance and revenue collections will be dedicated to repaying the annual debt service payments for debt issued to fund SDC eligible projects in FY 2016 and FY 2018 and fund growth projects during the fiscal years on a PAYGO basis.

Section 5: Expenditures

Comparative Expenditures by Major Expense Category

(\$ in thousands)

Expense Categories	FY 2018 Actual			FY 2019 Actual			FY 2020 Proposed			\$ Change	% Change
	Capital	Operating	Total	Capital	Operating	Total	Capital	Operating	Total		
Salaries and Wages	\$ 27,717	\$ 117,845	\$ 145,562	\$ 30,678	\$ 128,434	\$ 159,112	\$ 27,154	\$ 130,134	\$ 157,288	\$ (1,824)	-1.15%
Heat, Light & Power	-	20,044	20,044	-	20,577	20,577	-	19,444	19,444	(1,133)	-5.51%
Regional Sewage	-	58,331	58,331	-	53,617	53,617	-	59,000	59,000	5,383	10.04%
Contract Work	225,086	-	225,086	376,223	-	376,223	383,332	-	383,332	7,109	1.89%
Consulting Engineers	41,718	-	41,718	68,912	-	68,912	58,073	-	58,073	(10,839)	-15.73%
Debt Service	-	275,096	275,096	-	294,349	294,349	-	319,883	319,883	25,534	8.67%
All Other	180,695	253,407	434,102	180,513	284,604	465,117	169,967	288,932	458,899	(6,218)	-1.34%
Total	\$ 475,216	\$ 724,723	\$ 1,199,939	\$ 656,326	\$ 781,581	\$ 1,437,907	\$ 638,526	\$ 817,393	\$ 1,455,919	\$ 18,012	1.25%

Salaries and Wages

Salary and wages represent 15.9% of gross operating cost and show no significant increase from the Adopted Budget of FY 2019. WSSC has allocated \$5.2 million in salary enhancements for FY 2020; both Prince Georges and Montgomery Counties will determine how the salary enhancements should be applied. In the proposed budget, \$4.3 million of the total salary enhancement request is rate supported. The FY 2020 proposed WSSC budget for compensation includes funding for flexible worker increases, IT bonuses, merits and a 2% in COLA for its Union and Non-Union employees. No new positions have been created since the FY 2017 budget and any new positions in FY 2020 budget will come from existing vacancies.

During the FY 2018 Maryland General Assembly session, legislation was enacted requiring the WSSC to establish an Office of Inspector General. The FY 2020 budget includes \$500,000 to secure permanent office space and staffing for the Inspector General's Office. The additional staffing was transferred from another department within the Commission. It is anticipated that these additional costs will be offset by savings, reimbursements and other resources generated by this new office.

Section 6: Debt Service

The proposed debt service expense for FY 2020 is \$319.9 million, an increase of \$25.5 million or 8.7% more than the Approved FY 2019 Budget of \$294.4 million. The increase is primarily due to greater bonding requirements in support of small and large diameter pipe reconstruction programs.

Capital projects are financed primarily with long-term debt through the sale of bonds. Water supply bonds are issued to finance major water treatment, storage and transmission facilities. These bonds are repaid to bond holders over a 30-year period by annual principle and interest payments. The annual debt service on outstanding bonds are paid from the Commission's operating funds. The primary funding source for the repayment of debt is the revenue generated by water consumption and sewer use charges. Thus, the initial high cost of capital improvements is spread over time and paid for by future customers who will benefit from the facilities, as well as current customers. It is through this capital project financing process that the size of the CIP impacts the size of the water and sewer bond issues, which in turn impacts customers' water and sewer bills.

The WSSC's debt is repaid from water consumption and sewer use charges and front foot benefit charges.

Obtaining funding from other sources and through the use of PAYGO lowers WSSC's borrowing requirements, which in turn lowers the debt service requirements and ultimately the customer's bills. Other funding sources include:

- Payments from New Service Applications
- System Development Charges
- Payments from Jurisdictions
- State and Federal Grants

The amount of new debt is calculated by adjusting for other funding sources and incorporating an expected construction completion rate.

Per Fiscal guidelines, WSSC will allocate at least \$31.0 million in PAYGO each fiscal year to reduce the amount of planned debt issued for capital projects.

Section 7: Performance Metrics

Cost Saving Measures

The FY 2020 budget reflects the Commission's overall commitment to maintaining affordability through cost saving measures. The Commission has deployed several strategies to evoke the best cost-effective ways of providing clean water to customers, including the following:

- The Supply Chain Management Transformation Project has produced significant cost reductions in the operating and capital budgets. During FY 2018 alone, WSSC's efforts resulted in \$7.3 million in cost reductions and \$1.4 million in cost avoidance over the terms of awarded contracts.
- By continually monitoring and revising the Group Insurance Plan, an additional \$4.3 million in savings has been realized since FY 2017
- No net increase in the number of WSSC positions since FY 2017 and currently 32 positions are frozen to further produce personnel cost savings.
- Changes to Workers Compensation have resulted in the following:
 - 50% reduction in lost work day cases
 - 65% reduction in lost work days
 - 54% reduction in costs
- WSSC Innovations and Research programs have identified several promising methods for identifying and remediating water system leaks as well as new approaches to wastewater treatment
- Changes made to monitoring and supervision of overtime costs have reduced theses expensed by \$2.0 million since FY 2017

Water and Sewer Infrastructure Reliability

New technologies and tools are emerging to help WSSC better assess the condition of the existing water and sewer mains so as to improve the ability to target pipes in need of replacement. Because WSSC can now better identify pipes in poor condition, they are decreasing the Water Reconstruction Program (rehabilitation of smaller water mains less than 16 inches) over the next few years to 45 miles in FY 2019 to 25 miles in FY 2020. This strategic decrease will allow WSSC to develop a more efficient pipe reconstruction program and provide adequate time to pilot new rehabilitation techniques while minimizing disruptions to customers. The FY 2020 Capital Improvement Program includes \$3.0 million in funding for enhanced condition assessment and new leak detection system technologies.

WSSC Information Technology (IT) Strategic Plan

The FY 2020 budget calls for an investment in the organizational infrastructure. Strategic contributions of \$11.0 million from Fund Balance will be used to fund the IT Strategic Plan needed to modernize the Commissions IT structure, streamline business processes and support the implementation of Project Cornerstone. The project replaces the oldest computer systems at the Commission, including the billing system, Customer Connect/Field System, asset tracking, service order requests, work orders, inspections and road patch ticket systems. The new systems will provide real-time data in the field and help improve decision making or replacing, refurbishing or rehabilitating facilities.

Release of Phase I of Project Cornerstone delivers Customer to Meter (C2M) billing system in July 2019 and will be followed by Release II in FY 2020 consisting of the Work Asset Management and Mobile Work Order Management systems. These systems will lay the foundation for the Advanced Metering Infrastructure which is needed to deploy the new 4-tier rate structure.

Proposed Rate Structure Impact and Summary of Proposal

In September 2016, the Maryland Public Service Commission (PSC) issued an order concluding that WSSC's volumetric rate structure is "... unduly discriminate among classes of customers, and as such is unreasonable." An additional ruling by the PSC has reiterated that WSSC's rate structure is unreasonable. According to a 2014 report commissioned by WSSC, it was determined that the inclining block structure based on retroactively charging for all gallons used at the highest tier reached is unusual. With WSSC having 16 tiers, consumers can cross into a higher tier on the last billing day of the billing cycle and will be billed for all of the previous usage within that cycle at the higher rate. As a result of this rate structure strategy, WSSC has noted the following:

- WSSC consumers may experience large fluctuations in their water bills if their average daily consumption per quarter varies.
- The movement between tiers causes fluctuations and can cause revenue unpredictability from quarter to quarter.
- Water consumption has declined over the last 20 years, which has caused a decline in WSSC'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 the small commercial ratepayers and small households.

WSSC determined that the best alternative was the 4-tier, inclining block rate structure. This alternative addressed all of the WSSC business case factors including:

- Revenue Stability: The 4-tier structure provides a more predictable revenue stream that is needed to support the capital extensive infrastructure improvement program that exceeds \$3.3 billion.
- Water Conservation: The new structure best supports water conservation initiatives and the new graduated scale is more efficient because consumption levels will be consistent with customer usage.
- Customer Affordability: Implementation of a 4-tier system is more equitable across all level of customers based on consumption. WSSC will look to enhance its Customer Assistance Program (CAP) to provide support with bill payment for low income customers.
- Rate Stability: The new 4-tier structure improves the alignment of the cost of service with the revenues.

Proposed Rate Structure

(effective: July 1, 2019)

Customer Unit During Billing Cycle (Gallons per Day)	Average Daily Consumption		FY 2020 Proposed		Total	
			Rate		Combined	
			(per 1,000) Gallons		Rate	
	Water Rate	Sewer Rate				
0 - 80.9	\$ 5.09	\$ 6.80			\$ 11.89	
81 - 165.9	5.74	7.56			13.30	
166 - 275.9	6.62	9.47			16.09	
276 and Greater	7.76	12.50			20.26	
Proposed Flat Fee Sewer Charge - \$125.00 per						

Summary of Key Provisions of the FY 2020 Proposed Budget

- Treating and delivering 164.0 MGD of water to over 466,000 customer accounts in a manner that meets or exceeds the Safe Drinking Water Act standards;
- Treating 201.4 MGD of wastewater and responsibly managing up to 1,000 tons of bio-solids per day in a manner that meets or exceeds federal and state permit requirements and regulations;
- Operating and maintaining a system of 3 water reservoirs impounding 14 billion gallons of water, 2 water filtration plants, 6 water resource recovery facilities, 5,700 miles of water mains, and 5,500 miles of sewer mains, 24 hours a day, 7 days a week;
- Implementing the first year of the FYs 2020-2025 Capital Improvements Program;
- Complying with the Sanitary Sewer Overflow and the Potomac Plant Consent Orders;
- Funding the replacement of 25 miles of water mains and 26 miles of sewer mains and lateral lines;
- Issuing \$384.9 million in new water, sewer, and general construction debt;
- Paying debt service of \$319.9 million - of which \$306.3 million is in the Water and Sewer Operating Funds;
- Funding \$46.4 million for large diameter pipe rehabilitation. This includes \$25.6 million for PCCP inspection, repair, and acoustic fiber optic monitoring of the pipes' condition; \$17.9 million for large diameter repairs and cathodic protection; \$2.9 million for large valve inspections, replacement, and repairs;
- Paying WSSC's share of the cost of operating the District of Columbia Water and Sewer Authority's Blue Plains Wastewater Treatment Plant;
- Funding the Customer Assistance Program with a revenue offset of \$888,000;
- Maintaining an operating reserve of 10% of water and sewer revenues and 60-90 days of operating costs;
- Providing maintenance services at a level consistent with the objective of responding to the customer within 2 hours and restoring service within 24 hours;
- Answering 100 percent of all customer billing calls received; and
- Funding employee salary enhancements in a manner coordinated with the Counties and continuing other benefits.

Regulatory Compliance

For the past decade, the Environmental Protection Agency (EPA) has identified the elimination of Sanitary Sewer Overflows (SSOs) as a national priority initiative necessary to eliminate the adverse public health and environmental impacts associated with the discharge of raw sewage overflows. Enforcement actions against major municipalities across the country have resulted in consent decrees that dictate remedial action necessary to eliminate future SSOs.

Section 8: Capital Improvement Program (CIP)

CIP Overview

The approved Capital Budget for a given budget year consists largely of spending for the first fiscal year of the six-year Capital Improvement Program, including those projects in the Information Only Section which are not required to be in the CIP; however, are included to provide a more comprehensive review on important programs or projects. Budget year expenditures in connection with relocations, house connections, new water meters, and similar items constitute the remainder of the capital budget for a given year.

Capital needs, developed independently in planning for the six-year CIP, also shapes the operating budget by helping to determine debt service requirements and the operating impacts of projects expected to be completed during the budget year. The annual debt service on outstanding bonds is paid from the Commission's operating funds, primarily through water consumption and sewer use charges paid by customers. Thus, the size of the CIP affects the size of the water and sewer bond issues needed in the budget year, which in turn affects water and sewer bills.

The CIP is driven in part by the development planning and authorization processes of the Counties, especially as manifested in the Counties' ten-year water and sewer plans. In addition, since the WSSC must contribute to the capital and operating expenses of the Blue Plains Advanced Wastewater Treatment Plant this can have important impacts on planning for the WSSC's Capital and Operating Budgets.

The Capital Budget funding source is comprised of three separate funds:

- Water Supply Bond
- Sewage Disposal Bond
- General Construction Bond

Capital Fund	Major Purpose	Major Revenue Source
Water Supply Bond	Construct major water supply treatment and transmission facilities; Reconstruct water distribution system; including: dams, reservoirs, water filtration plants, water pumping stations, water storage facilities and water supply lines	Water Supply Bonds and System Development Charge (SDC)
Sewage Disposal Bond	Construct major sewage treatment and transmission facilities; Reconstruct sewerage collection systems	Sewage Disposal Bonds, SDC, and Grants
General Construction Bond	Construct minor water and sewer lines and support facilities	General Construction Bonds and House Connection Charges

The projects included in the CIP represent a multi-year plan to design and construct the capital facilities required to protect the health and safety of the residents of the County by protecting their water source, providing an adequate supply of safe drinking water, meeting fire-fighting requirements, and collecting and treating wastewater before it is returned to the waters of the State.

The Information Only projects are not required to be in the CIP but may be included for comprehensive fiscal planning and provide additional information to customers.

The Other Capital Projects includes miscellaneous capital projects and expenditures for routine operational activities that require capital investment.

The FY 2020 estimated total funding source and expenditures are as follows:

Capital Budget Funding Summary

(\$ in thousands)

	FY 2019 Approved	FY 2020 Proposed	\$ Change	% Change
Water and Sewer CIP				
WSSC Bonds	\$ 291,719	\$ 315,063	\$ 23,344	8.0%
PAYGO	31,016	31,016	-	0.0%
Federal Grants	-	-	-	0.0%
State Grants	6,122	2,291	(3,831)	-62.6%
Local Government Contribution	2,894	2,835	(59)	-2.0%
System Development Charges	53,647	21,716	(31,931)	-59.5%
Contribution Other	16,057	10,399	(5,658)	-35.2%
Total Water and Sewer CIP	\$ 401,455	\$ 383,320	\$ (18,135)	-5%
Information Only				
WSSC Bonds	\$ 225,347	\$ 165,762	\$ (59,585)	-26.4%
State Grants	-	20,000	20,000	N/A
Contribution Other	789	582	(207)	-26.2%
Total Information Only	\$ 226,136	\$ 186,344	\$ (39,792)	-17.6%
Other Capital Projects				
WSSC Bonds	\$ 27,855	\$ 67,982	\$ 40,127	144.1%
House Connection Revenue	880	880	-	0.0%
Total Other Capital Projects	\$ 28,735	\$ 68,862	\$ 40,127	139.6%
Total Capital Funding	\$ 656,326	\$ 638,526	\$ (17,800)	-2.7%

Capital Budget Expenditure Summary

(\$ in thousands)

	FY 2019 Approved	FY 2020 Proposed	\$ Change	% Change
Water and Sewer CIP				
Prince Georges County Water	\$ 49,408	\$ 27,636	\$ (21,772)	-44.1%
Montgomery County Water	13,869	7,295	(6,574)	-47.4%
Bi-County Water	72,690	76,983	4,293	0.0%
Prince Georges County Sewer	60,397	55,649	(4,748)	-7.9%
Montgomery County Sewer	12,537	7,881	(4,656)	-37.1%
Bi County sewer	192,554	207,876	15,322	8.0%
Total Water and Sewer CIP	\$ 401,455	\$ 383,320	\$(18,135)	-5%
Information Only				
Water Reconstruction Program	\$ 99,925	\$ 75,784	\$ (24,141)	-24.2%
Sewer Reconstruction Program	64,684	64,684	-	0.0%
Engineering Support Program	14,000	18,000	4,000	28.6%
Energy Performance Program	9,134	5,898	(3,236)	-35.4%
Water Storage Facility Rehab	8,000	3,000	(5,000)	-62.5%
Specialty Valve Vault Rehab	1,442	1,119	(323)	-22.4%
Advanced Metering Infrastructure	27,694	17,577	(10,117)	-36.5%
Brighton Dam Operations & Maint.	983	-	(983)	-100.0%
D'Arcy Park North Relief Sewer	274	282	8	2.9%
Total Information Only	\$ 226,136	\$ 186,344	\$(39,792)	-17.6%
Other Capital Projects				
New House Connections	\$ 3,100	4,900	1,800	58.1%
Relocations	5,000	6,500	1,500	30.0%
Purchase of Water Meters	2,824	2,824	-	0.0%
Local Lines	690	600	(90)	-13.0%
Paving	-	\$ 22,200	\$ 22,200	N/A
Allocated & Other Costs	17,121	31,838	14,717	86.0%
Total Other Capital Projects	\$ 28,735	\$ 68,862	\$ 40,127	139.6%
Total Capital Expenditures	\$ 656,326	\$ 638,526	\$(17,800)	-2.7%

The FY 2020 – 2025 Capital Improvement Plan includes 70 CIP and 8 Information Only projects, totaling \$5.1 billion dollars. The grand total is \$89 million less than the Adopted FY 2019 – 2024 combined program primarily due to the completion and close out of the Bi-County Water Tunnel project. Expenditure for the combined six-year program period are estimated at \$3.2 billion.

FY 2020 expenditures are estimated at \$569.7 million, which is \$57.9 million less than the funding level approved for FY 2019. This decrease is primarily due to the projected construction progress on the Clinton Zone water main projects and a planned decrease in the Water Reconstruction Program.

Of the \$569.7 million, WSSC plans accordingly:

- \$111.9 million for the Water Program
- \$271.4 million for the Sewerage Program
- \$186.3 million for Information Only projects

System Extension Process (SEP) growth projects are estimated at \$21 million in the six-year program with approximately \$10.4 million programmed in FY 2020.

There are four new projects this cycle. Only one new WSSC project planned for FY 2020 is located in Prince George's County, Maryland.

There are ten (10) projects closing out in FY 2020, including one Information Only project. The total cost of projects closed out is \$150.4 million.

The following FY 2020 Close Out Projects are located and/or supports Prince George's County:

- John Hanson Highway Water Main, Part 1
- Villages of Timothy Water Main, Part 2
- Old Marlboro Pike Water Main
- Oak Grove/Leeland Roads Water Main, Part 2
- Collington Elevated Water Storage Facility
- Potomac WFP Outdoor Substation No. 2 Replacement
- Potomac WFP Corrosion Mitigation
- Patuxent WFP Phase II Expansion
- Brighton Dam O & M Facility and Site Improvements

Funding Growth

The portion of CIP needed to accommodate growth is approximately \$91 million (approximately 3% of the expenditures under the six-year program). The major funding sources for this part of the program are System Development Charge (SDC) revenues and payments by Applicants. In FY 2019, the Councils of Prince George's and

Montgomery increased the maximum allowable charge by 1.6% but maintained the current rate of \$203 per fixture unit.

It is estimated that there will be an overall growth funding surplus of \$84.2 million over the six-year program period. The surplus between growth funding source and the estimated growth-related expenditures vary over the six-year period. If growth related expenditures were to exceed the available SDC account balance in any given fiscal year, it is anticipated that WSSC would issue new SDC supported debt to cover this temporary gap. The debt will be repaid through future SDC collections. Further, it is currently anticipated that no significant additional growth projects will evolve in the later years of the six-year period.

WSSC's planned SDC FY 2020 projects located in Prince George's County include:

- Old Branch Avenue Water Main
- Water Transmission Improvements 385B Pressure Zone
- Branch Avenue Water Transmission Improvements
- Clinton Zone Water Storage Facility Implementation
- St. Barnabas Elevated Tank Replacement
- Ritchie Marlboro Road Transmission Main
- Smith Home Farms Water Main
- Westphalia Town Center Water Main
- Konterra Town Center East Water Main
- Marlton Section 18 Water Main, Lake Marlton Avenue
- Hillmead Road Water Main
- South Potomac Supply Improvement, Phase 2
- Village of Timothy Water Main, Part 1

New Projects

The FY 2020 CIP budget includes one (1) new sewer project located in Prince George's County, Western Branch Water Resource Recovery Facility (WRRF) Process Train Improvements. The total estimated project cost of this new project is \$14.9 million of which \$3.5 million is expected to be spent in FY 2020.

Bi-County Projects

I. Water

There are nine (9) Bi-County Water Projects with a total cost of \$945.4million (including pending close out projects).

- i. **Potomac Water Filtration Plant (WFP) Projects.** These 4 projects are all operational improvements to the Potomac Water Filtration Plan (WFP) and are funded with WSSC bonds. The revised proposed total cost is

projected to be \$312 million cumulatively, which is an increase of \$9.8 million or 3.2% over the Adopted FY 2019 budget. The FY 2020 budget year decreased due to budgetary constraints. All expenditures for the Potomac WFP Submerged Channel Intake Projects have been deferred to beyond six years. Estimates and other long-term alternatives associated with the Potomac WFP Consent Decree Program are under review and revision by consultants to seek the most effective plan for the MDE approval.

Additionally, the following projects are system improvements and 100% funded with WSSC bonds:

- ii. **Ducket & Brighton Dam Upgrades.** This project was included per request of the Maryland Department of the Environment (MDE) to meet current dam safety standards, including the maximum probable flood criteria and maximum credible earthquake loading. The FY 2020 - 2025 total project cost is \$40.3 million with expenditures of \$6.8 million planned in FY 2020. Costs were increased due to changed conditions discovered during the Brighton Dam Upgrade construction project, including asbestos in the existing concrete joints and remedial concrete work.
- iii. **Large Diameter Water Pipe Rehabilitation Program.** This project will rehabilitate or replace large diameter water transmission mains and valves. The FY 2020 - 2025 total costs \$433 million with expenditures of \$40.4 million planned in FY 2020.
- iv. **Patuxent Water Filtration Plant Projects – Raw Water Pipeline.** This project provides for the construction of approximately 2.5 miles of 48-inch diameter raw water pipeline from the Rocky Gorge pumping station to the Patuxent Water Filtration Plant; cleaning of the existing water lines; and, the replacement of valves. These improvements will give the plant a firm capacity of 72 million gallons per day (MGD), with an emergency capacity of 110 MGD. The FY 2020 - 2025 total project costs is \$34.4 million with expenditures of \$8.6 million planned in FY 2020. Currently, the Rocky Gorge valve replacement and the cleaning of the existing raw water pipelines are 100% complete. The new raw water pipeline is expected to begin construction later this summer. The expenditure and scheduled estimates may change based on design constraints and permitting issues. The project has been delayed due to a lengthy permit and right-of-way acquisition process. Restoration includes paving impacted roads in accordance with PGC Policy and Specifications.
- v. **Rocky Gorge Pump Station.** This project provides the needed modifications and expansion to allow the pumping station to delivery up to 110 MGD of raw water to the Patuxent WFP. The FY 2020 - 2025 total

project costs is \$23.2 million with expenditures of \$1.03 million planned in FY 2020.

- vi. **Land & Rights of Way Acquisition.** This project is a consolidated estimate of land and right of way purchases for previously approved capital projects. The FY 2020 - 2025 total costs is \$3.6 million with expenditures of \$1.7 million planned in FY 2020.

II. **Sewer**

There are nine (9) Bi-County Sewer Projects with a total cost of \$1.62 billion.

- i. **Piscataway Water Resource Recovery Facility (WRRF) Bio-Energy Project.** A comprehensive, long-term bio-solids management project to construct a new centralized anaerobic digestion, biomass and combined heat & power generation system facilities to treat all bio-solids from Piscataway, Western Branch, Parkway, Seneca, and Damascus WRRFs. This project is funded by both WSSC Bonds at \$257.9 million and State & Federal Aid at \$4.1 million. The FY 2020 - 2025 total project costs is \$262 million with expenditures of \$58.1 million planned in FY 2020. The environmental benefits are estimated as follows:
 - Recover approx. 2 MW of renewable energy from wastewater biomass
 - Reduce greenhouse gas production by 11,800 tons per year
 - Reduce biosolids output by about 50% of current output
 - Reduce lime demand by 4,100 tons per year
 - Maintain permitted nutrient load limits to the Chesapeake Bay
 - Reduce 5 million gallons per year of grease discharge to sewers
 - Produce pathogen free Class A biosolids.

The economic benefits are estimated as follows:

- Recovery of more than \$1.5 million of renewable energy costs per year
- Reduce biosolids disposals costs by approximately \$1.7 million per year
- Reduce chemical costs by approximately \$500,000 per year
- Hedge against rising costs of power fuel and chemicals
- Provide back-up energy for plant operation
- Provides a net payback between 20 - 30 years.

- ii. **Blue Plains Wastewater Treatment Plant Projects.** This group of 5 projects represents one of the largest group of expenditures in the proposed CIP at 19% of the Six-Year Program. This project provides for WSSC's share of funding for the upgrade, expansion and enhancement of wastewater treatment and solids handling at the Regional Blue Plains WWTP located in Washington, DC. These projects are funded in FY 2020 by WSSC

Bonds at approximately \$58.5 million, City of Rockville at \$2.8 million and State Aid at \$791,000. The FY 2020 proposed total costs is approximately \$954 million or 6.4% over the Adopted FY 2019 Budget.

- iii. **Septage Discharge Facility Planning and Implementation.** This project is 100% WSSC bond funded and provides for the planning, design and construction of a new septage and fats, oil and grease (FOG) discharge facility at the abandoned Rock Creek WWTP as well as a new septage discharge facility at Anacostia and Piscataway WRRF. The estimated cost of construction of the three (3) facilities has increased slightly based upon a revised cost estimate for the Piscataway Septage Facility. The FY 2020 total costs increased is \$32.5 million with expenditures of \$12.3 million planned in FY 2020.
- iv. **Trunk Sewer Reconstruction Program.** This project is 100% WSSC bond funded and will rehabilitate large diameter sewer mains including the associated manholes in environmentally sensitive areas. All trunk sewer inspections, sewer system evaluation survey work and other related collection system evaluations are complete. Due to the delay in permits, right-of-way permissions, and the availability of subcontractors, the trunk sewer reconstruction work has been delayed. The Consent Decree deadline for this project has been extended to FY 2022. The FY 2020 - 2025 total costs is \$371 million with expenditures of \$75.3 million planned in FY 2020.
- v. **Land & Rights of Way Acquisition.** This project provides for a consolidated estimate of funding for the acquisition of land and rights-of-ways for sewer projects. This project is funded by WSSC Bonds at approximately \$315 thousand and SDC at \$60 thousand. The FY 2020 - 2025 total costs is \$375 thousand with expenditures of \$50 thousand planned in FY 2020.

Prince George's County Projects

I. Water

There are 16 Prince George's County water projects at a total cost of \$27.6 million in FY 2020.

- i. **Prince George's County HG415 Zone Water Main. This project is 100% WSSC bond funded and provides for 1,500 feet of 24-inch diameter water main construction and new isolation valves, pressure relief valves with flow control capability which will system reliability by improving the flexibility of the delivery system. The FY 2020 - 2025 total costs is \$3.7 million with expenditures of \$2.1 million planned in FY 2020.**

- ii. **Old Branch Avenue Water Main.** This project is 50% WSSC bond funded and 50% SDC funded. It provides for the planning, design and construction of approximately 16,000 feet of 30-inch diameter water main and a new flow control valve along Old Branch Ave. from Allentown Road to Piscataway Road. This project will provide the needed redundancy to a large area of Prince George's County. The FY 2020 - 2025 total costs is \$23.9 million with expenditures of \$6.8 million planned in FY 2020. Five properties have been acquired.
- iii. **Water Transmission Improvements 385 Pressure Zone.** This project is 100% SDC funded. This project provides for 24,000 feet of 24-inch diameter new water transmission main and a flow control valve along Accokeek Road that will improve system reliability through the HG385 and HG345 pressure zones. The existing transmission mains have been stressed by recent development in southern Prince George's County. In addition, pressure loss due to increased water use is preventing the Accokeek elevated tank from operating as designed. A new water main will improve transmission capacity to serve recent and future growth as well as improve overall reliability for southern Prince George's County customers. The FY 2020 - 2025 total costs is \$10.1 million with expenditures of \$1.1 million planned in FY 2020.
- iv. **Branch Avenue Water Transmission Improvements.** This project provides for the planning, design and construction of approximately 21,800 feet of 42-inch, and 5,400 feet of 30-inch diameter water transmission main along Branch Avenue and Surratt Road in the Clinton area. The new water main will serve as a primary feed for the new Brandywine tank. The total project cost decreased based on revised estimates for the new alignment for the final phase of the project. The FY 2020 - 2025 total costs is \$38.2 million with expenditures of \$10.7 million planned in FY 2020.
- v. **Marlboro Zone Reinforcement Main.** This project provides for the planning, design and construction of approximately 4,000 feet of 16-inch diameter transmission main and flow control valve along Old Marlboro Pike in the Clinton area. This new water main will provide system reliability and redundancy by connecting the 365 B and 280A pressure zones. The FY 2020 - 2025 total costs is \$4.3 million with expenditures of \$2.9 million planned in FY 2020.
- vi. **Clinton Zone Water Storage Facility Implementation.** This system is funded through 100% SDC. This project provides for the design and construction of approximately 4.0 million gallons (MG) of water storage to serve the Clinton Pressure Zone. The site selection phase of the project will include Community Outreach activities. WSSC plans to construct a 2.0 MG water tank in the Brandywine area by FY 2020. A future tank will be constructed in Rosaryville area by FY 2026 to meet the demands. The FY

2020 - 2025 total costs is \$17.1 million with expenditures of \$413 thousand planned in FY 2020.

- vii. **St. Barnabas Elevated Tank Replacement.** This project is 50% WSSC bond funded and 50% SDC funded. This project provides for the design and construction of approximately 2.5 million gallons (MG) of water storage to serve Prince George's High-Pressure Zone HG450A and also includes the demolition of the existing St. Barnabas elevated water storage tank. The FY 2020 - 2025 total costs is \$11.8 million with expenditures of \$12 thousand planned in FY 2020.
- viii. **Ritchie Marlboro Road Transmission Main & PRV.** This system is funded through 100% SDC. This project provides for the planning, design and construction of approximately 13,100 feet of 24-inch diameter water transmission main and pressure reducing valve (PRV) to serve the Westphalia area. The water main will be constructed along Ritchie Marlboro Road from south of Westphalia Road to the Beltway. The FY 2020 - 2025 total costs is \$6.9 million with expenditures of \$25 thousand planned in FY 2020.
- ix. **Smith Home Farms Water Main.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 7,600 feet of 16-inch diameter main to serve the Smith Home Farms Subdivision. The FY 2020 - 2025 total costs is \$2.7 million with expenditures of \$438 thousand planned in FY 2020.
- x. **Westphalia Town Center Water Main.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 4,700 feet of 16-inch diameter main to serve the Westphalia Town Center and vicinity. The FY 2020 - 2025 total costs is \$1.5 million with expenditures of \$327 thousand planned in FY 2020.
- xi. **Prince George's County 450A Zone Water Main.** This project is 100% WSSC bond funded and provides for the planning, design and construction of approximately 3.8 miles of new 48-inch redundant water transmission main for the 450A zone in Prince Georges County. WSSC anticipates that portions of the transmission main that currently serves these zones will be out of service almost every year to meet the goals of the PCCP inspection program. A redundant transmission main is required to continue to provide service to customers while the existing transmission main is out of service. The FY 2020 - 2025 total costs is \$79.6 million with expenditures of \$643 thousand planned in FY 2020.
- xii. **Konterra Town Center East Water Main.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 9,200 feet of 16-inch diameter water main to serve the

Konterra Town Center East. Cost increased based upon updated information provided by the developer. The FY 2020 - 2025 total costs is \$2.1 million with expenditures of \$714 thousand planned in FY 2020.

- xiii. **Marlton Section 18 Water Main, Lake Marlton Avenue.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 5,400 feet of 16-inch diameter water main to serve East Marlton along Heathermore Blvd. and Lake Marlton Ave. The FY 2020 - 2025 total costs is \$2.7 million with expenditures of \$417 thousand planned in FY 2020.
- xiv. **Hillmeade Road Water Main.** This project provides for the planning, design and construction of 7,300 feet of 24-inch water main in Hillmeade at Daisy Lane. The FY 2020 - 2025 total costs is \$5.4 million with expenditures of \$25 thousand planned in FY 2020. This system is funded through 100% SDC.
- xv. **Timothy Branch Water Main.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 5,050 feet of 16-inch diameter water main to serve the Timothy Branch project. The FY 2020 - 2025 total costs is \$2.0 million with expenditures of \$262 thousand planned in FY 2020.
- xvi. **South Potomac Supply Improvement, Phase 2.** This project is 67% WSSC bond funded and 33% SDC funded. This project provides for the planning, design and construction of 4.4 miles of 42-inch diameter ductile iron transmission water main and 6.0 miles of distribution mains, and a new flow control valve and vault. The project replaces the 3.5 mile of existing 42-inch diameter PCCP transmission main located within the Hanson Creek corridor and will replace parallel aged distribution infrastructure. The FY 2020 - 2025 total costs is \$66.8 million with expenditures of \$651 thousand planned in FY 2020. Cost estimates were increased based upon the preliminary design level estimate for the revised alignment and projected restoration requirements for Henson Creek.

II. **Sewer**

There are 15 Prince George's County sewer projects at a total cost of \$438.7 million.

- i. **Western Branch WRRF Process Train Improvements.** This project is 100% WSSC bond funded. This project provides for the planning, design and construction improvements at the Western Branch WRRF required to rehabilitate aging infrastructures within the process

treatment trains. The total estimated cost is \$14.9 million of which \$3.5 million is planned to be expensed in FY 2020.

- ii. **Parkway North Substation Replacement.** This project is 100% WSSC bond funded. This project provides for the planning, design and construction of electrical upgrade for the Parkway WRRF, including the full replacement of the North Substation. Temporary facilities must be provided to maintain operations of the WRRF during construction. The total estimated cost is \$6.1 million of which \$2.5 million is planned to be expensed in FY 2020.
- iii. **Westphalia Town Center Sewer Main.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 4,500 feet of 15, 18 and 21-inch diameter sanitary sewer main to serve the Westphalia Town Center and vicinity. The FY 2020 - 2025 total costs is \$876 thousand with expenditures of \$133 thousand planned in FY 2020.
- iv. **Konterra Town Center East Sewer.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 14,000 feet of 15 to 24-inch diameter sewer main; 240 feet of 24-inch diameter steel sleeve for a 16-inch water main; and, 240 feet of 48-inch diameter steel sleeve for a 24-inch diameter sewer. The FY 2020 - 2025 total costs is \$7.1 million with expenditures of \$0 planned in FY 2020.
- v. **Broad Creek Waste Water Pumping Station (WWPS) Augmentation.** This project is 17% WSSC bond funded and 83% SDC funded. This project provides for modifications to the Broad Creek Waste Water Pumping Station and Force Main system for moving Broad Creek sewerage basin flows to the Piscataway Water Resource Recovery Facility. At the Piscataway WRRF a concrete storage facility was constructed in the upper polishing pond allowing intermittent storage of excess sewage until flow levels at the plant allow treatment. Implementation of this alternative was approved by the Environmental Protection Agency (EPA) and Maryland Department of the Environment (MDE). Construction costs reflects emergency power generators that were installed in the event of power outages. The FY 2020 - 2025 total costs is \$182.0 million with expenditures of \$3.8 million planned in FY 2020.
- vi. **Western Branch Facility Upgrade.** This project provides for improvements required to rehabilitate aging systems at the Western Branch WRRF and to meet the terms of its NPDES discharge permit. The FY 2020 - 2025 total costs is \$53 million with expenditures of \$235 thousand planned in FY 2020.

- vii. **Landover Mall Redevelopment.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 2,500 feet of 27-inch diameter sewer main; 300 feet of 24-inch and a 16-inch water main; and 1,450 feet of 18-inch diameter sewer mains to provide service for the Landover Mall Redevelopment. The FY 2020 - 2025 total costs is \$1.3 million with expenditures of \$631 thousand planned in FY 2020.
- viii. **Brandywine Woods Wastewater Pumping Station.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of new wastewater pumping station to provide service to the Brandywine Woods Property. The FY 2020 - 2025 total costs is \$324 thousand with expenditures of \$70 thousand planned in FY 2020.
- ix. **Brandywine Woods WWPS Force Main.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 1,600 feet of 4-inch diameter force main from the Brandywine Woods Wastewater Pumping Station to provide service to the Brandywine Woods Property. The FY 2020 - 2025 total costs is \$127 thousand with expenditures of \$69 thousand planned in FY 2020.
- x. **Mattawoman WRRF Upgrades.** This project is 100% WSSC bond funded. This project provides for WSSC's share of the evaluation, design and construction of capital projects to upgrade and repair Charles County's Mattawoman interceptor and WRRF. The total estimated cost is \$17.2 million of which \$4.2 million is planned to be expensed in FY 2020.
- xi. **Karington Subdivision Sewer.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 970 feet of 15 and 20-inch diameter sewer main to serve the Karington Subdivision. The FY 2020 - 2025 total costs is \$692 thousand with expenditures of \$182 thousand planned in FY 2020.
- xii. **Piscataway WRRF Facility Upgrades.** This project is 100% WSSC bond funded. This project provides for the planning, design and construction of improvements at the Piscataway WRRF required to prevent plant overflows or permit violations which can occur during significant rainfall events. The work will remove bottlenecks within the plant process trains, address the physical capacity of the system and rehabilitate existing equipment that has reached its expected service life ensuring the ability of the plant to achieve its permit required level of

service. The total estimated cost is \$147.6 million of which \$38.2 million is planned to be expensed in FY 2020. Construction cost estimates have decreased for the electrical upgrades, effluent filter upgrades and secondary clarifiers; while it has increased for the Raw Wastewater Pumping Station.

- xiii. **Pleasant Valley Sewer Main, Part 2.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 2,750 feet of 21-inch diameter sewer main to serve the Estates of Pleasant Valley and the Ridges 3 Subdivision. The FY 2020 - 2025 total costs is \$902 thousand with expenditures of \$406 thousand planned in FY 2020.
- xiv. **Pleasant Valley Sewer Main, Part 1.** This project is funded through 100% Contributions. This project provides for the planning, design and construction of 10,000 feet of 15 and 18-inch diameter sewer main to serve the Estates of Pleasant Valley Subdivision. The FY 2020 - 2025 total costs is \$1.8 million with expenditures of \$999 thousand planned in FY 2020.
- xv. **Fort Washington Forest No.1 WWPS Augmentation.** This system upgrade is 100% WSSC bond funded. The project provides for planning, design and construction of the rehabilitation work required for the Fort Washington Forest No. 1 WWPS and to upsize a 900-foot segment of a failing 4-inch diameter force main to an 8-inch diameter force main. In addition, 2,700 feet of downstream 8-inch diameter gravity sewer will be upsized to 12-inch diameter to accommodate the additional flow. At the Fort Washington Estates WWPS facility, improvements will be planned, designed and constructed to improve its reliability and the existing force main and downstream gravity sewer will be upsized to accommodate the additional flow. The FY 2020 - 2025 total costs is \$4.6 million with expenditures of \$707 thousand planned in FY 2020.

Section 9: Staff Recommendation

- Concur with the WSSC Commission's proposal to increase combined water and sewer rates, not to exceed 5.0% for FY 2020.
- Concur with WSSC to maintain SDC fees at current levels but increase the maximum ceiling on this charge as is consistent with State Law.
- Concur with the addition of one new sewer project in Prince George's County.
- Concur with WSSC on all other FY 2020 – FY 2025 CIP projects as reflected in the Proposed CIP as provided on October 1, 2018.
- Concur with maintaining the operating budget for the WSSC's Inspector General office as stipulated in the FY 2018 proposal; thus saving \$348 to \$500 thousand in the Proposed FY 2020 Operating Budget for office space leasing and staffing.

Section 10: Attachments

1. County Executive Letter of Recommendation
2. Historical WSSC Rate Summary
3. Supplemental Briefing Response by WSSC



PRINCE GEORGE'S COUNTY GOVERNMENT

Office of the County Executive

Angela D. Alsobrooks
County Executive

March 26, 2019

The Honorable Todd M. Turner
and Members of the County Council
Prince George's County Council
14741 Governor Oden Bowie Drive
Upper Marlboro, Maryland 20772

Dear Chair Turner and Members of the County Council:

In accordance with Section 17-202 of the Public Utilities Article of the Annotated Code of Maryland (the former Article 29), I am hereby transmitting my recommendations on the Washington Suburban Sanitary Commission (WSSC) Proposed Budget for FY 2020, along with my comments on the Commission's FY 2020 – 2025 Proposed Capital Improvement Program.

Rate and Fee Overview

The FY 2020 Proposed Budget is based on revenues supported by a blended 5.0% rate increase for both water and sewer. This rate increase is aligned with the Spending Affordability Guidelines of 5.0% adopted for the WSSC via resolutions by the Prince George's as well as the 5.0% maximum rate increase recommended by Montgomery County Councils in October 2018.

The Commission also maintains an extensive portfolio of miscellaneous fees and charges for a variety of other services. In FY 2019, many of the fees and charges did experience a significant increase. After a review of the charges, many will increase by varying amounts. Charges associated with individual dwellings (water, sewer, septic installation and inspection) increase at a lower amount than those associated with larger developers, vendors, and building construction (sewer maintenance, industrial discharge and sediment control, septic haulers, sewer connectors, etc.).

We recognize the efforts of the Commission to properly vet various rate options while actively receiving input from rate payers and other stakeholders. As we move closer to the July 1st implementation of the new four tier rate structure, we are hopeful that the preparations that Commission is undertaking will allow for a smooth transition. These are significant changes to business operations and the Commission's groundwork is appreciated. Efforts to ease the burden of economically challenged ratepayers by providing an expanded customer assistance program and varied bill pay option is recognized. We also support the Automated Meter Infrastructure (AMI) project, but do believe there should be an opt-out provision for those who do not wish to participate in the program.

Budget Overview

The FY 2020 Proposed Budget is \$1.456 billion, an increase of 1.3% over the FY 2019 Approved Budget. The total budget is comprised of a \$817.4 million operating budget and \$638.5 million capital budget.

Operating Budget Overview

The FY 2020 Proposed Operating Budget for the WSSC is \$817.4 million, an increase of \$35.8 million (4.6%) over the FY 2019 Approved Budget. The cost drivers in the FY 2020 operating budget are the water operating fund and the sewer operating fund. The Commission's operating budget can be divided into three broad, programmatic divisions: water operating, sewer operating and general bond debt service. The water and sewer operating programs are separate, self-supporting programs dedicated to those enterprises. General bonds are issued to support the capital needs of the WSSC administration and smaller projects. The water operating program is \$352.5 million for FY 2020, an increase of \$12.4 million, or 3.6%. The sewer operating program is \$450.1 million, an increase of \$27.5 million or 6.5%. Debt service on the general bonds is \$14.8 million, a decrease of \$4.1 million or 21.8%.

The major expenditure components of the Commission's FY 2020 Proposed Operating Budget are:

- \$130.1 million for salaries and wages, an increase of \$1.7 million (1.3%)
- \$319.9 million for debt service, an increase of \$25.5 million (8.7%)
- \$367.4 million for other operating costs and program support, an increase of \$8.6 million (2.4%)

The Proposed Budget includes \$817.4 million in operating expenditures comprising 56.1% of the budget. Operating and support programs include expenses such as:

- Producing 164.0 million gallons per day of safe and reliable water to over 450,000 accounts in a manner that meets the requirements of the Safe Drinking Water Act.
- Treating 201.4 million gallons per day of wastewater in a manner that meets or exceeds federal and State requirements.
- Operating and maintaining a system of
 - Three reservoirs with 14 billion gallons of water
 - Two water filtration plants
 - Six wastewater treatment plants
 - 5,772 miles of water main and 5,582 miles of sewer main
- Offset \$12.4 million of debt service with REDO
- Increasing the Customer Affordability Program. The program is funded by revenue offsets for economically disadvantaged customers to provide financial assistance with water and sewer bills.

- Addressing infrastructure aging issues through rehab of 45 miles of small diameter and 6 miles of large diameter water mains; inspecting and repairing 18 miles of Prestressed Concrete Cylinder Pipe (PCCP) and installing acoustic fiber optics to monitor 3.5 miles of PCCP.
- The Commission is also implementing operational and fiscal efficiency measures that generate savings or provide for more productivity. This measure includes:
 - Revising procurement practices through the Supply Chain Management Transformation project. Since FY 2013, this program has saved \$40.0 million in direct costs and avoided another \$44.0 million in expenditures.

The FY 2020 Proposed Operating Budget includes \$319.9 million in debt service payments comprising 8.7% of the budget. The debt service payment schedule is based on interest and principal payments on current and outstanding debt, and the issuance of \$384.9 million in new debt in FY 2019. The new debt is comprised of \$306.3 million in water and sewer bond. The Commission continues to maintain the practice of issuing 30-year bonds on some of its debt, to lower debt servicing costs and use the savings to fund PAYGO capital projects.

Capital Budget Overview

The Commission's Proposed Six-Year Capital Improvement Program (CIP) is \$3.2 billion, an increase of \$110.1 million over the FY 2019 Approved CIP. Of this amount, approximately 91.3% is for system improvements; 2.8% for system growth; and 5.6% for mandate compliance. For the Six-year CIP, each year of expenditures projects to be lower than the previous year. This decrease is driven by the completion of the Clinton Zone water main projects and deferring the Potomac Submerged Channel Intake project.

The FY 2020 Proposed Capital Budget is \$638.5 million, a decrease of \$17.8 million (2.7%) under the FY 2019 Approved Capital Budget. Similar to the operating budget, the capital budget is divided into four parts: water (17.5%), sewer (42.5%), information (29.2%) and other capital projects (10.8%). The FY 2020 request includes water and sewer projects for Prince George's and Montgomery Counties, along with Bi-county projects and general construction for minor lines. The Commission proposes \$383.3 million in construction for water and sewer projects, a decrease of \$62.5 million below FY 2019.

The allocations for water and sewage capital expenditures in Prince George's County for FY 2020 are broken down accordingly:

- Water: \$27.6 million (compared to \$7.3 million for Montgomery County and \$77.0 million for Bi-county projects)
- Sewer: \$55.6 million (compared to \$7.9 million for Montgomery County and \$207.9 million for Bi-county projects)

Bi-county projects impacting Prince George's County include system wide rehabilitation of large pipes and valves, trunk sewer reconstruction, and the Piscataway Waste Water Treatment Plant Bio-Energy Project. Water and sewer projects affecting the County scheduled for funding in FY 2020 include:

- Potomac WFT Consent Decree Program (\$10.0 million)
- Broad Creek WWPS Augmentation (\$3.8 million)
- Piscataway Bio-Energy (\$58.1 million)
- Western Branch Facility Upgrade (\$0.2 million)
- Konterra Town Center East Water Main (\$0.7 million)
- Hillmeade Road Water Main (\$25 million)

The WSSC noted that in any given fiscal year, approximately 85% of capital funds appropriated are expended. This is due to factors such as supply of qualified contractors, supply of WSSC supervisors for projects and the timeliness of receiving funding commitments pledged from outside entities.

Conclusion

Over the last 100 years, the Commission has served the citizens, visitors and businesses of Prince George's County and the Bi-county region with distinction. Externally, the Commission continues to make important strides in upgrading and maintaining our water supply and water treatment facilities, water lines, dams, and reservoirs. Internally, the Commission continues to improve customer service explore innovative and cost saving technologies and ensure that all operations and costs are sustainable and in the best interest of the customers. They continue to be a partner in improving our environment, health, and business climate.

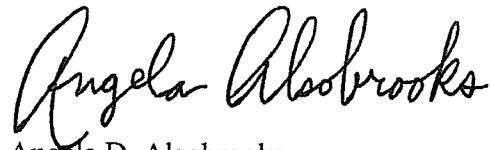
I support the Commission's Proposed Operating and Capital Budget requests and the 5.0% proposed rate increase that supports it. I am pleased that the Commission remains focused on creative solutions to fund water production, so that the burden is not solely on the rate-payer as water consumption continues to decline.

I acknowledge the proposed funding for salary enhancements in a manner coordinated with both Prince George's and Montgomery Counties, if funding is maintained for Prince George's County employees per the FY 2020 Proposed Budget that was submitted to the County Council on March 15, 2019. In the event that funding for County employees is not available, I will endorse the same increase in funding for WSSC employees that is allowed for in the budget approved by the County Council.

The Honorable Todd M. Turner
and Members of the County Council
March 26, 2019
Page 5

Finally, I am pleased with the WSSC's continued use of longer-term debt and improved procurement practices to keep costs and obligations down which is ultimately realized by our County rate-payers. With several major infrastructure projects on the horizon, I am certain the Commission will rise to the challenge of serving the County and the region. Our citizens – residents and businesses alike – appreciate any opportunity to save money and grow responsibly. I look forward to hearing more on how strategic planning and use of fund balance will impact the County.

Sincerely,



Angela D. Alsobrooks
County Executive

cc: Carla A. Reid, General Manager/CEO, Washington Suburban Sanitary Commission
T. Eloise Foster, Chair, Washington Suburban Sanitary Commission
Chris Lawson, Vice Chair, Washington Suburban Sanitary Commission
Fausto R. Bayonet, Commissioner, Washington Suburban Sanitary Commission
Omar M. Boulware, Commissioner, Washington Suburban Sanitary Commission
Howard A. Denis, Commissioner, Washington Suburban Sanitary Commission
Thomasina V. Rogers, Commissioner, Washington Suburban Sanitary Commission
Major F. Riddick, Jr., Acting Chief Administrative Officer
Joy Arnold Russell, Chief of Staff
Floyd E. Holt, Deputy Chief Administrative Officer

Attachment 2:

Historical Water and Sewer Adopted Rates

Historical Water and Sewer Rate			
Fiscal Year	Adopted Rate Increase	Prince George's County Rate SAG	Montgomery County SAG
2008	6.5+C8:H20%	5.30%	5.30%
2009	8.00%	8.00%	9.70%
2010	9.00%	6.00%	9.50%
2011	8.50%	8.00%	9.90%
2012	8.50%	8.00%	9.90%
2013	7.50%	8.50%	8.50%
2014	7.25%	7.50%	8.00%
2015	5.50%	6.00%	6.00%
2016	1.00%	2.10%	2.10%
2017	3.00%	3.50%	3.50%
2018	3.50%	3.50%	3.50%
2019	4.50%	4.50%	4.50%
FY 2020 Proposed		5.00%	5.00%

SAG: Spending Affordability Guidelines

