

# FY 2020 PROPOSED BUDGET AND FY 2020 – 2025 CAPITAL IMPROVEMENTS PROGRAM

Briefing to The Prince George's County Council's  
Transportation, Infrastructure, Energy &  
Environment (TIEE) Committee

Deni Taveras, Committee Chair

March 28, 2019

# WSSC Strategic Plan

## MISSION

We are entrusted by our community to provide safe and reliable water, life's most precious resource, and return clean water to our environment, all in an ethical, sustainable, and financially responsible manner.

## VISION

To be THE world-class water utility, where excellent products and services are always on tap.

## STRATEGIC PRIORITIES



## CORE VALUES

Accountability

Transparency

Excellence

Environmental Stewardship

Cost Effectiveness

## GUIDING PRINCIPLES

Simplify

Focus

Connect



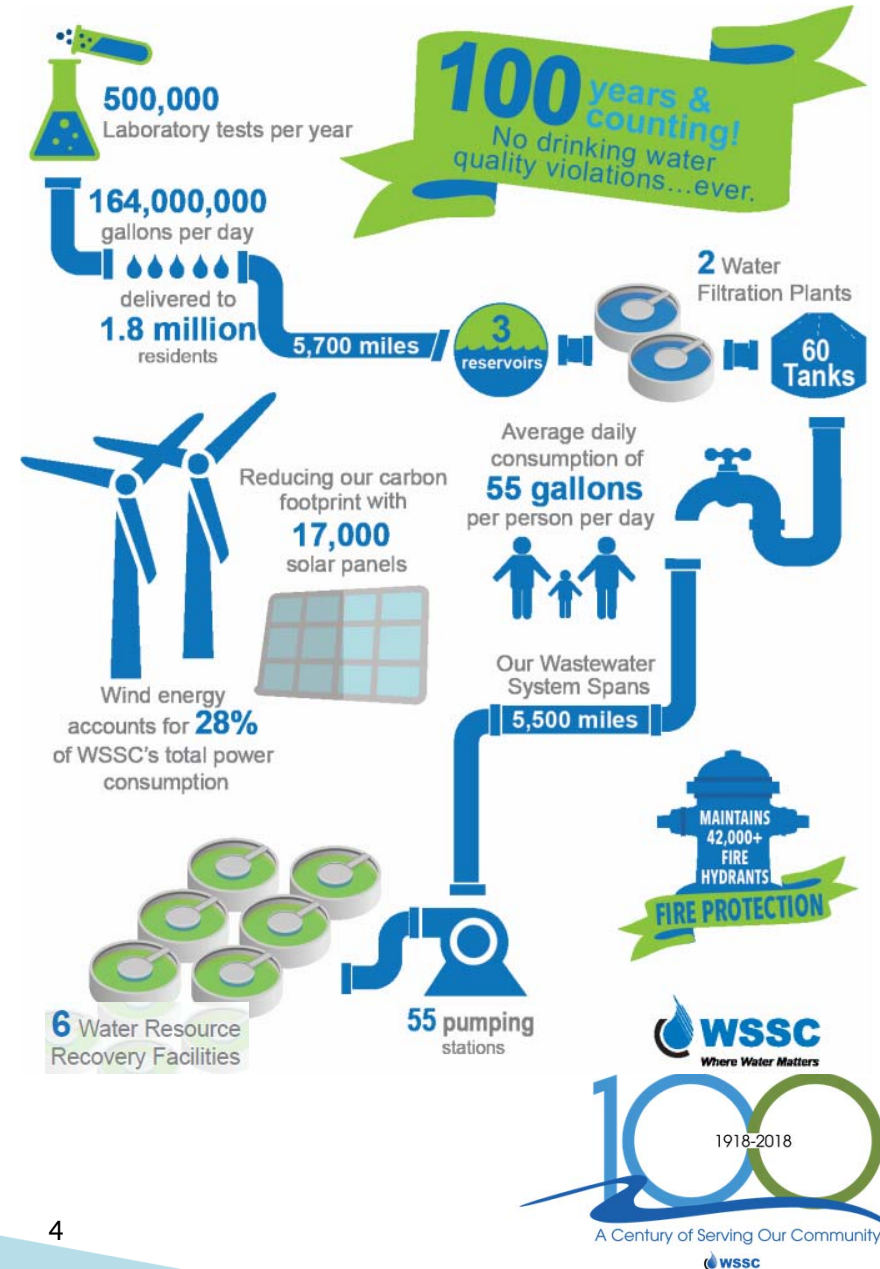
JOURNEY TO WORLD CLASS

# WSSC At A Glance

- Created by the Maryland General Assembly in 1918
- Governed by six Commissioners
- Provides Water & Sewer service for Montgomery and Prince George's counties
- Serves over 1.8 million people through over 450,000 accounts
- Maintains AAA Bond Rating since 2001 - all three bond rating agencies
- Budget is recommended by County Executives and approved by County Councils
- Rates established annually to recover costs – WSSC does not make a profit and does **not** receive any tax dollars
- Recognized leader in water and wastewater industry

# WSSC At A Glance

- 2 Water Filtration Plants
- 6 Water Resource Recovery Facilities (WRRF)
- 3 Water Storage Dam/Reservoirs
- 60 Water Storage Tanks
- 55 Wastewater Pumping Stations (WWPS)
- 42,000+ Fire Hydrants
- 17,000 Solar Panels
- 0 Water Quality Violations



# WSSC Facilities – Prince George’s County



**PATUXENT WFP**  
56 MGD  
Laurel, MD

**PISCATAWAY WRRF**  
30 MGD  
Accokeek, MD



# WSSC Facilities – Prince George’s County (cont.)



**WESTERN BRANCH WRRF**  
30 MGD  
Upper Marlboro, MD



**PARKWAY WRRF**  
7.5 MGD  
Laurel, MD



# Creating a Culture of Innovation

- ▶ Establishment of Innovation and Research Council
- ▶ Commissioner Engagement
  - Innovation and Research Committee
- ▶ Dedicated Staff Positions
- ▶ Leveraged Relationships
  - Universities
  - Water Environment Federation(WEF), Water Research Foundation(WRF)
  - Employee Workshops

# Creating a Culture of Innovation – Current Status

- ▶ Successful Implementation of Zinc Coated Ductile Iron Pipe Program
- ▶ On-Going Pilot Projects
  - Leak Detection
  - Carbon Diversion
  - Enhanced Biological Phosphorus Removal
  - Peracetic Acid
- ▶ Created Mid-Atlantic Innovation and Research Forum with Water Research Foundation
- ▶ Piscataway Bio-Energy Project

Zinc Coated Ductile Iron Pipe  
for Corrosion Control





# Calendar Year 2018 Accomplishments

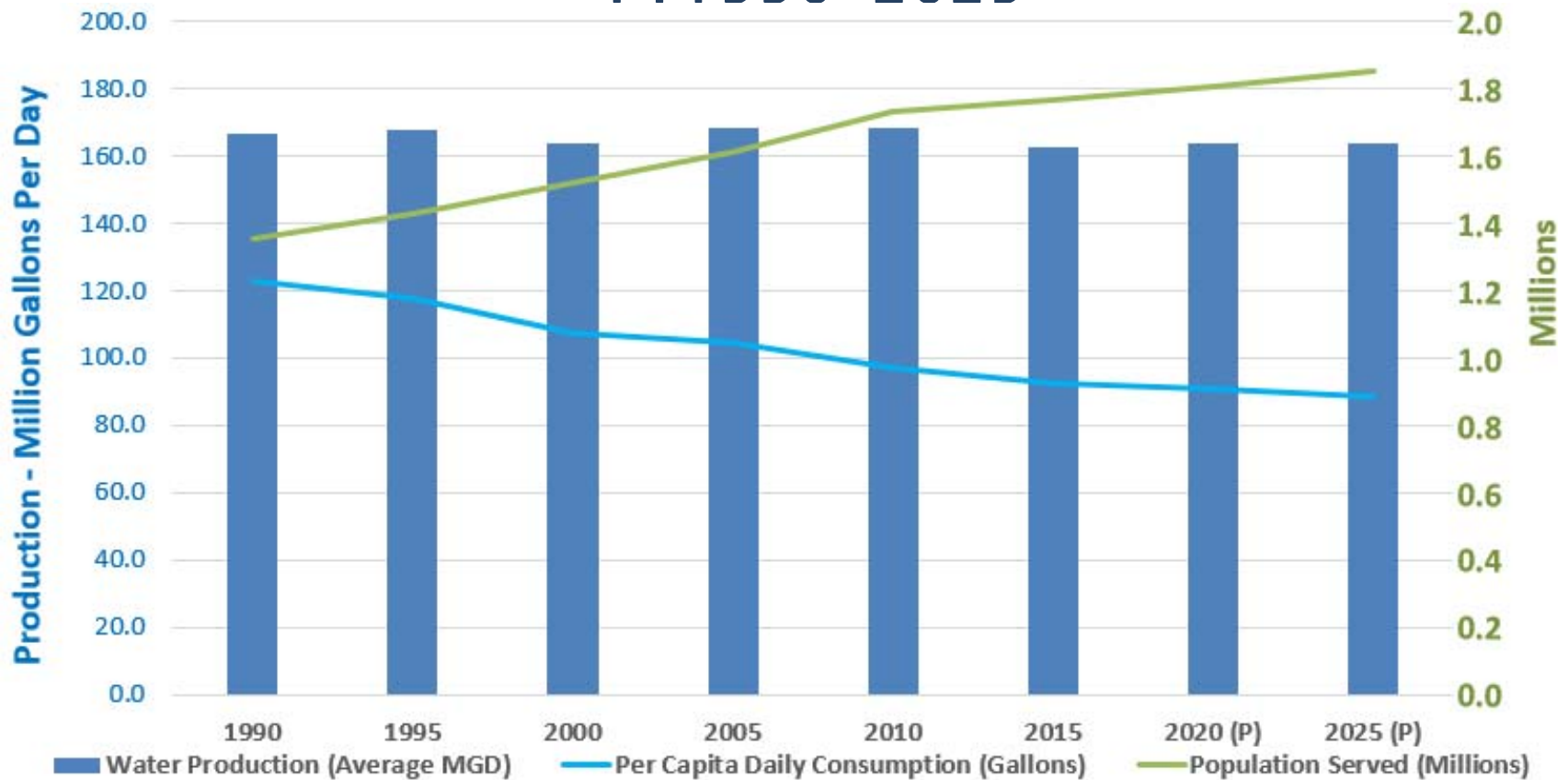
- New rate structure adopted
- Record contributions in WSSC Water Fund
- Continued improved street restoration and paving process and performance
- Recognized excellence in plant performance
- Completed Patuxent Water Filtration Plant expansion
- Longest Acoustic Fiber Optic pipe protection in the USA
- 100+ years without a water quality violation!

# Changing Business Environment

- WSSC, similar to other utilities nationwide, faces continued fiscal and operational challenges:
  - Significant capital investments in WSSC's aging infrastructure
  - Operating and capital costs continue to rise.
  - Declining water use means less revenue
    - The population has increased *23.5%* since 1997, yet total water demand is trending down

# Changing Business Environment

## WSSC Drinking Water Production vs Customer Accounts FY1990-2025



(P) = Projection



# Rates & Upcoming Major Capital Projects

- ▶ WSSC's budget & rates are driven by capital costs/debt service
- ▶ WSSC has several critical capital projects that will have ongoing rate impacts over the next six years
  - Water Reconstruction Program – \$1.1 billion
  - Sewer Reconstruction Program – \$730.7 million
  - Piscataway Bio-Energy Project – \$220.8 million
  - Potomac Consent Decree – \$118.1 million

# Cost Control & Efficiencies

- ▶ Supply Chain Management Transformation
  - Over \$80 million in cost savings since FY'13
    - Fleet, Chemicals, Ductile Pipe, IT Maintenance, PCCP
  
- ▶ Adjusted SAG process to emphasize long-term impacts of CIP/Debt costs on water & sewer rates
  - Reductions to bond funded projects of over \$160 million in FY'20–FY'25 CIP including:
    - Water Main Reconstruction reduced by \$24 million for FY'20
    - Water Storage Rehabilitation Program reduced by \$30 million, FY'20–FY'25
    - Potomac Submerged Channel Intake deferred \$81 million beyond FY'25
  - Debt service savings:
    - Bond refunding savings of \$3.0 million
    - Through debt reductions: \$49.9 million (FY'20–FY'25)

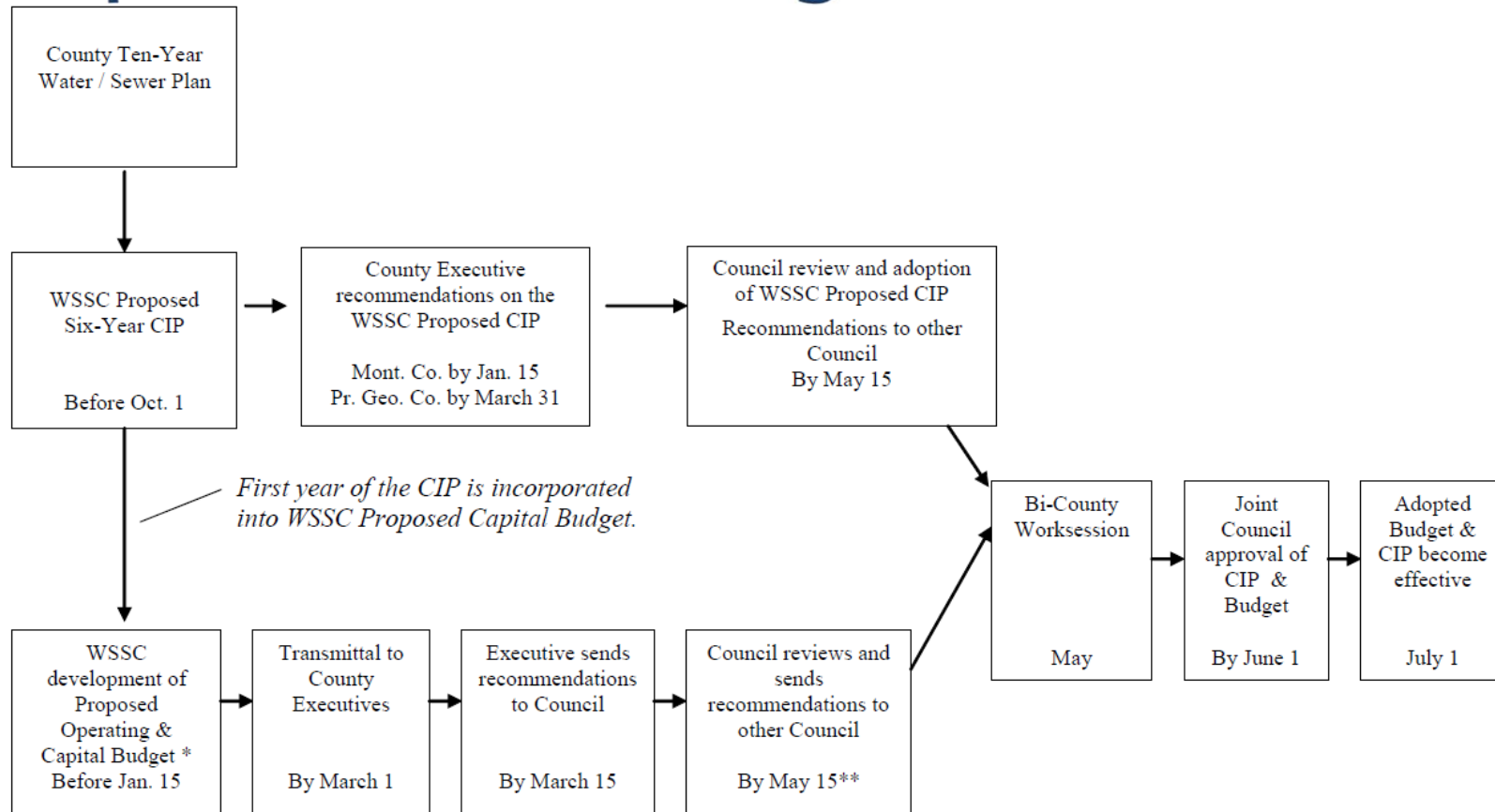
# Cost Control & Efficiencies

- ▶ Reducing Personnel Costs
  - 30 frozen positions in FY'18, FY'19 and FY'20
  - No increase in positions since FY'17
  - Overtime costs reduced \$2.0 million since FY'17
  
- ▶ Group Insurance Plan Design & other changes
  - \$1.5 MM annual prescription cost savings
  - Reduced stop loss insurance premium by ~\$400 K annually
  - Medical cost savings of \$1,230 per enrollee in 2017
  - No increase in medical plan premiums in 2017
  - Increased employee contribution to 24% for POS plan
  
- ▶ Energy Conservation Savings
  - \$17.5 million since FY'04
  
- ▶ Workers Compensation
  - 65% reduction in lost work days
  - 54% reduction in costs

# FY 2020 Proposed Budget Overview

Letitia Carolina-Powell  
Budget Division Manager

# WSSC Budget & Capital Improvements Program Processes



\* Includes first year of Proposed CIP plus Information Only Projects and General Construction Projects.

\*\*Incorporates changes to funding in budget year for CIP projects.

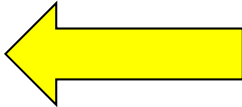




# FY 2020 Proposed Budget Overview

- ▶ In February, the Commissioners approved a proposed budget for transmittal to the two Counties. The proposed rate increase meets the Counties' Spending Affordability recommendations from November 2018.

<u>Category</u>	<u>Prince George's County</u>	<u>Montgomery County</u>	<u>WSSC Proposed Budget</u>
Water & Sewer Operating Expenditures	\$ 798,953,000	\$ 798,953,000	\$ 802,619,402
Water & Sewer Debt Service	\$ 306,350,000	\$ 306,350,000	\$ 306,306,700
New Debt	\$ 385,527,000	\$ 385,527,000	\$ 384,910,000
Water & Sewer Rate Revenue Increase	5.0%	5.0%	5.0%

- ▶ **County Executive & Council review (March & April)** 
- ▶ Bi-County Meeting (May 9)
- ▶ Commission adopts operating and capital budgets on or before June 30th (June)

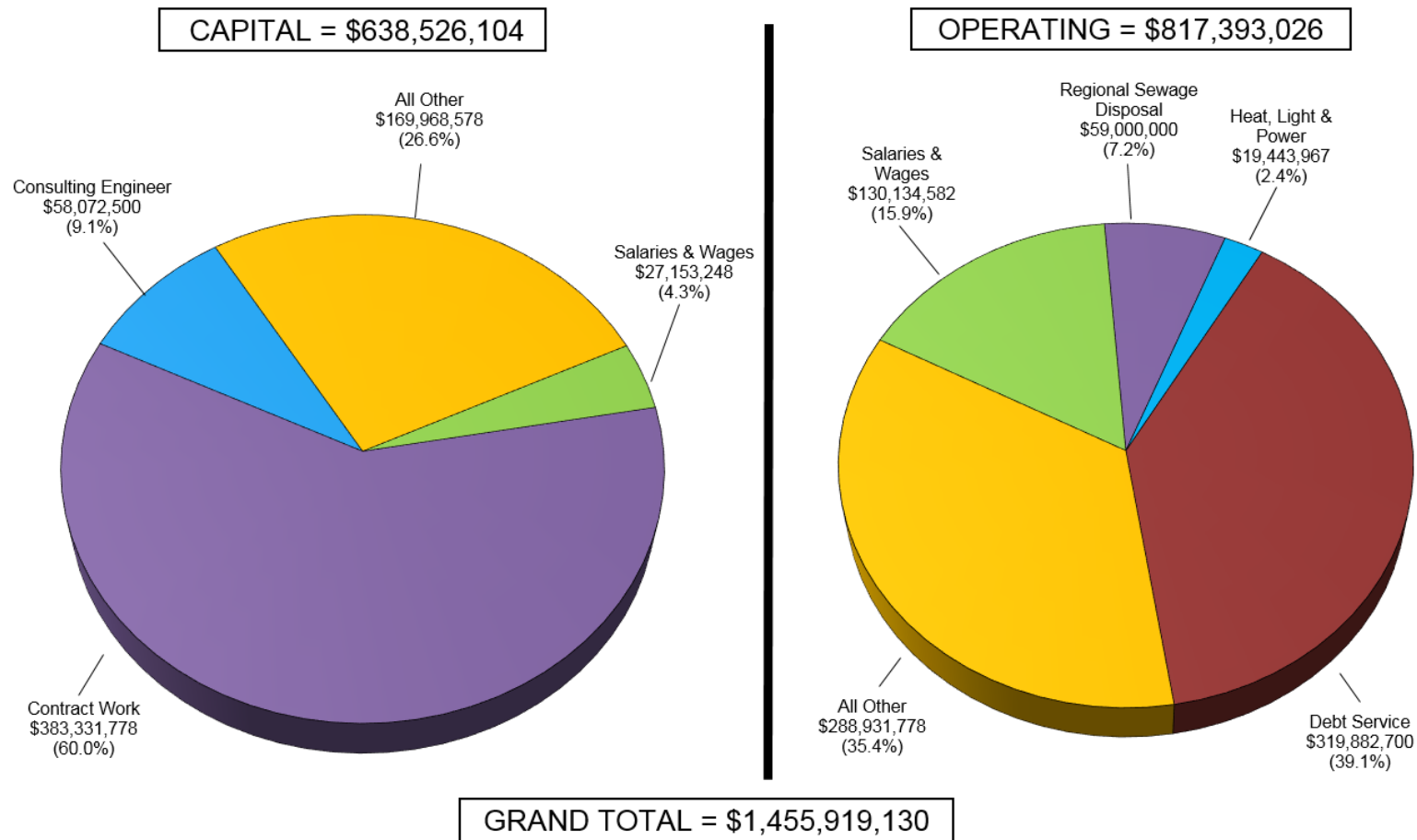
# FY 2020 Proposed Budget Overview

## LONG-RANGE FINANCIAL PLAN FOR WATER AND SEWER OPERATING FUNDS AT APPROVED SPENDING AFFORDABILITY LIMITS

(\$ In Thousands)	FY 2019 Approved	FY 2020 Proposed	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected
<b>Water and Sewer Combined Rate Increase (Ave)</b>	<b>4.5%</b>	<b>5.0%</b>	<b>6.0%</b>	<b>6.0%</b>	<b>6.0%</b>	<b>5.5%</b>	<b>5.0%</b>
<b>OPERATING REVENUES</b>	<b>\$735,249</b>	<b>\$771,726</b>	<b>\$811,634</b>	<b>\$854,302</b>	<b>\$899,500</b>	<b>\$943,453</b>	<b>\$985,653</b>
<b>OTHER CREDITS AND TRANSFERS</b>	<b>27,444</b>	<b>30,894</b>	<b>22,484</b>	<b>19,383</b>	<b>16,982</b>	<b>9,984</b>	<b>4,984</b>
<b>Total Funds Available</b>	<b>\$762,693</b>	<b>\$802,620</b>	<b>\$834,118</b>	<b>\$873,685</b>	<b>\$916,482</b>	<b>\$953,437</b>	<b>\$990,637</b>
<b>OPERATING EXPENSES</b>	<b>454,616</b>	<b>465,297</b>	<b>485,424</b>	<b>498,843</b>	<b>512,693</b>	<b>526,992</b>	<b>541,755</b>
<b>DEBT SERVICE</b>	<b>277,061</b>	<b>306,307</b>	<b>324,047</b>	<b>341,953</b>	<b>357,427</b>	<b>377,262</b>	<b>393,204</b>
<b>OTHER TRANSFERS AND ADJUSTMENTS</b>							
Unspecified Adjustments	-	-	(10,000)	(10,000)	-	-	-
PAYGO	31,016	31,016	31,016	31,016	31,016	31,016	31,016
<b>Total Expenses</b>	<b>\$762,693</b>	<b>\$802,620</b>	<b>\$830,487</b>	<b>\$861,812</b>	<b>\$901,136</b>	<b>\$935,270</b>	<b>\$965,975</b>
<b>BEGINNING FUND BALANCE - JULY 1</b>	<b>\$185,297</b>	<b>\$173,717</b>	<b>\$162,376</b>	<b>\$158,006</b>	<b>\$162,879</b>	<b>\$172,225</b>	<b>\$185,393</b>
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)	-
<b>ENDING FUND BALANCE - JUNE 30</b>	<b>\$173,717</b>	<b>\$162,376</b>	<b>\$158,006</b>	<b>\$162,879</b>	<b>\$172,225</b>	<b>\$185,393</b>	<b>\$210,055</b>
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
<b>Total Workyears (All Funds)</b>	<b>1,776.0</b>	<b>1,776.0</b>	<b>1,776.0</b>	<b>1,776.0</b>	<b>1,776.0</b>	<b>1,776.0</b>	<b>1,776.0</b>

# FY 2020 Proposed Budget Overview

## Major Expense Category



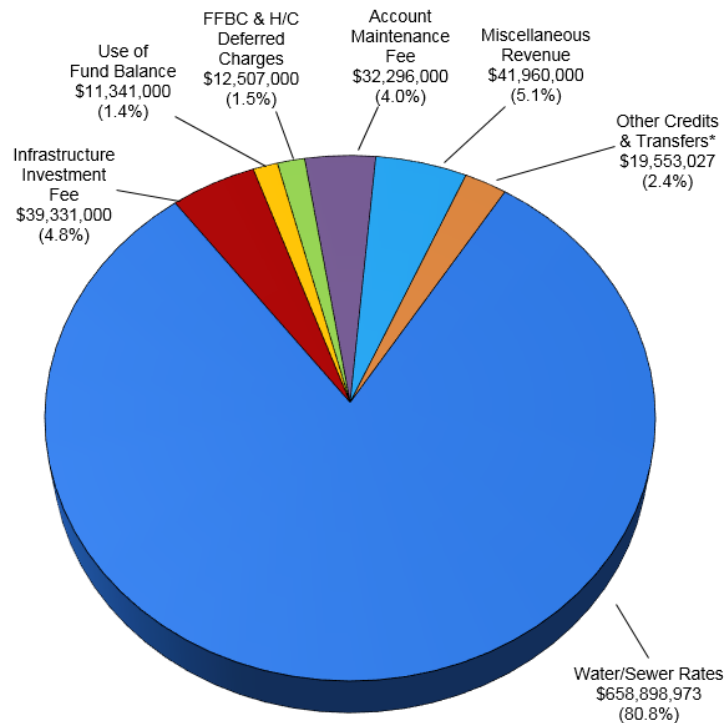
\*All Other (Capital) – Includes Blue Plains Construction, Professional Services, Materials, Street Repairs and Water Meters

†All Other (Operating) Includes Contract/Professional Services, Street Repairs, Materials, Chemicals and PAYGO

# FY 2020 Proposed Budget Overview

## Operating Budget

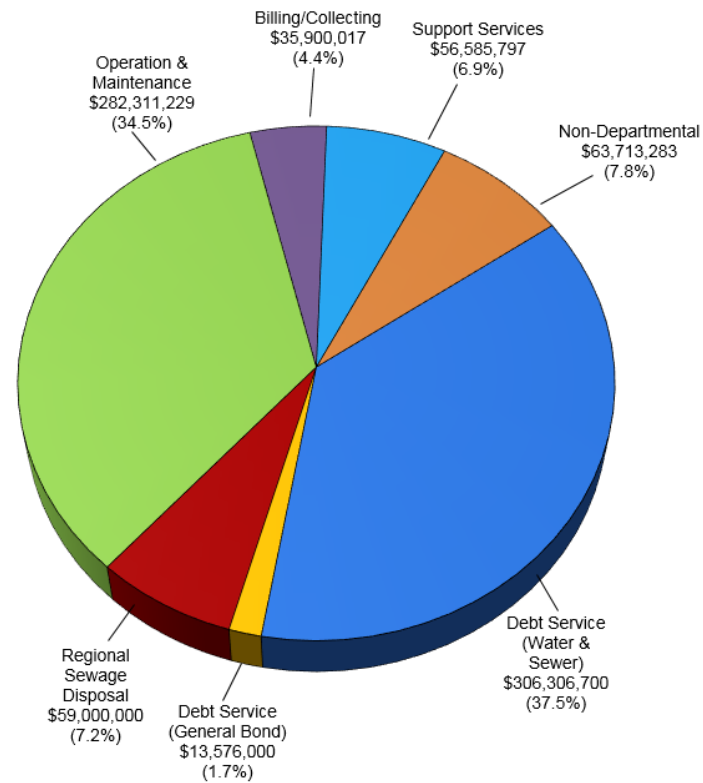
**FUNDING SOURCES**



\*Other includes Reconstruction Debt Service Offset (REDO) and SDC Debt Service Offset

**TOTAL SOURCES = \$815,887,000**

**FUNDING USES**



**TOTAL USES = \$817,393,026**

# FY 2020 Proposed Budget Overview

## Closing the \$30 Million Gap (\$ in millions)

- \$11.7 Operations & Maintenance
- \$6.0 IT Project Deferrals
- \$3.8 Facilities Maintenance & Renovations
- \$3.6 Other Post Employment Benefits
- \$4.9 Miscellaneous

# Deferred Improvements in FY 2018, FY 2019 & FY 2020

Deferred Improvement	Risks
System-Wide Flushing	Continued discolored water complaints, reduced hydraulic efficiencies, reduction in flow
Leak Detection Program Expansion	Less timely detection of leaks, additional costs to repair damages associated with leaks, increased risks to customers
Large Valve Inspection Acceleration	Valve inoperability, possibility of major outages, hinders ability to provide system redundancy during planned and emergency work

# FY 2020 Proposed Budget Overview

## Debt Service and Rate Impact

(\$ In Thousands)	FY 2019 Approved	FY 2020 Proposed	Dollar Change	W&S Rev Impact
<b>OPERATING REVENUES</b>				
Adopted Water and Sewer Charges	\$ 627,942	\$ 627,523	\$ (419)	-0.1%
<b>OPERATING EXPENSES</b>				
Salaries and Wages	\$ 127,902	\$ 129,675	\$ 1,773	0.3%
Heat, Light, and Power	20,577	19,436	(1,141)	-0.2%
Regional Sewage Disposal	53,617	59,000	5,383	0.9%
All Other	252,521	287,186	34,665	5.5%
<i>Reductions Taken</i>	-	<b>(30,000)</b>	<b>(30,000)</b>	-4.8%
<b>DEBT SERVICE</b>	277,061	306,307	29,246	<b>4.7%</b>
PAYGO (Contribution to bond fund)	31,016	31,016	0	0.0%
	\$ 762,693	\$ 802,620	39,927	6.4%
<b>REVENUES</b>				
Other Sources and Fees	(107,306)	(112,827)	(5,521)	-0.9%
<b>OTHER TRANSFERS AND CREDITS</b>	(27,444)	(30,894)	(3,450)	-0.5%
<b>FUND BALANCE</b>				
Net Decrease to Fund Balance	-	0	0	0.0%
<b>Total - Base Case Revenue Need</b>	<b>\$ 627,943</b>	<b>\$ 658,899</b>	<b>\$ (31,376)</b>	<b>-5.0%</b>

# FY 2020 Proposed Budget Overview

## Capital and Operating Budget totals \$1.5 Billion

- 5.0% Rate/Revenue Increase
- Funding the Customer Assistance Program (CAP) with a revenue offset of \$888,000 and an additional \$1 million in budget to enhance CAP.
- No increase in Ready to Serve Charges
- No new positions in FY 2020
- Deferred planned maintenance service improvements
- Operating Budget increase is 1.1% over the FY 2019 Approved Budget when excluding non-discretionary increases in debt service and regional sewage disposal costs.

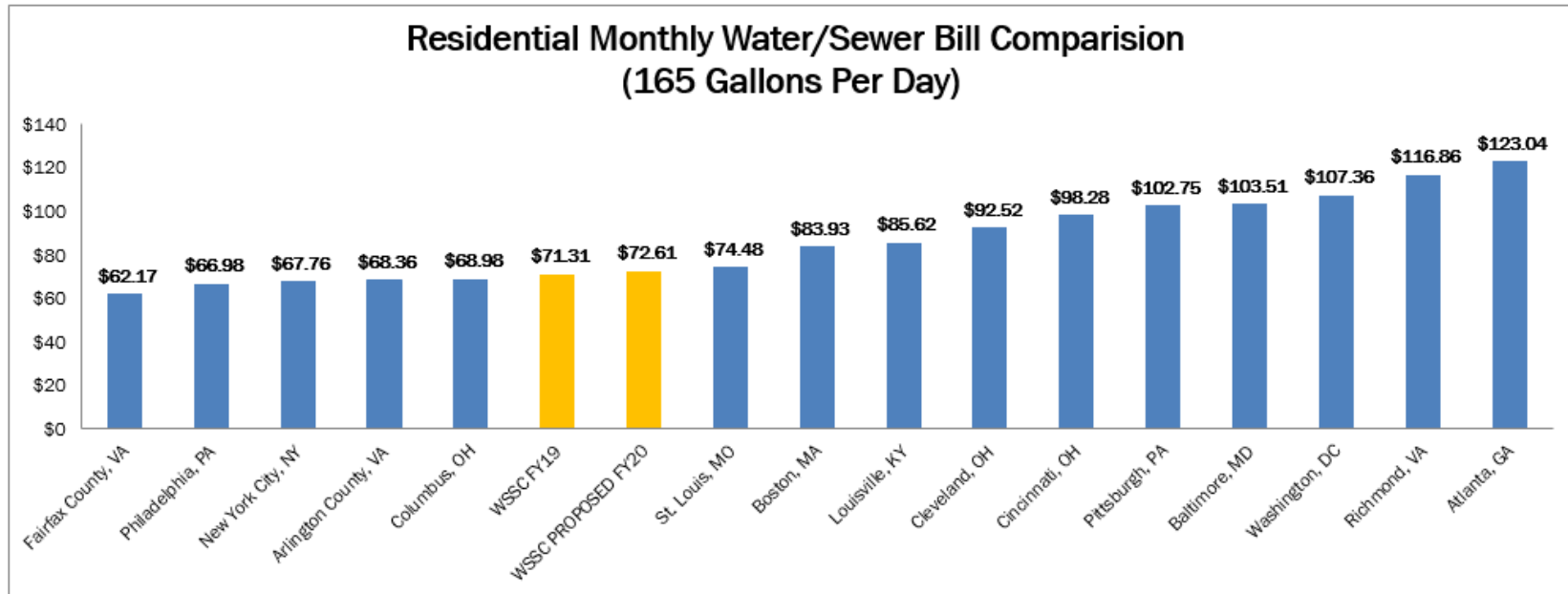


# FY 2020 Proposed Budget Overview

## Key Provisions

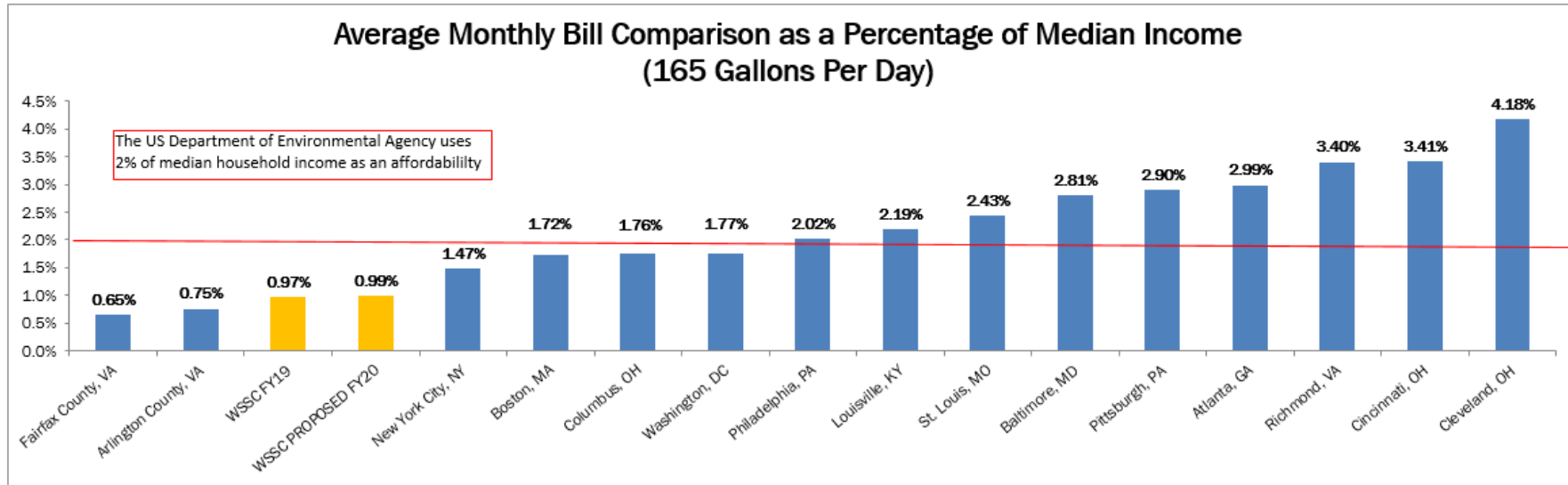
- Funding the replacement of 25 miles of water mains and 26 miles of sewer mains and lateral lines;
- Complying with the Sanitary Sewer Overflow and the Potomac Plant Consent Decrees;
- Funding of \$46.4 million for large diameter pipe rehabilitation;
- Issuing \$384.9 million in new water & sewer debt;
- Paying debt service of \$319.8 million – of which \$306.3 million is in the Water and Sewer Operating Funds; and
- Paying WSSC's \$59 million share of the operation of the Blue Plains Wastewater Treatment Plant.

# FY 2020 Proposed Budget Overview



Rates used in this comparison were in effect November 2018.

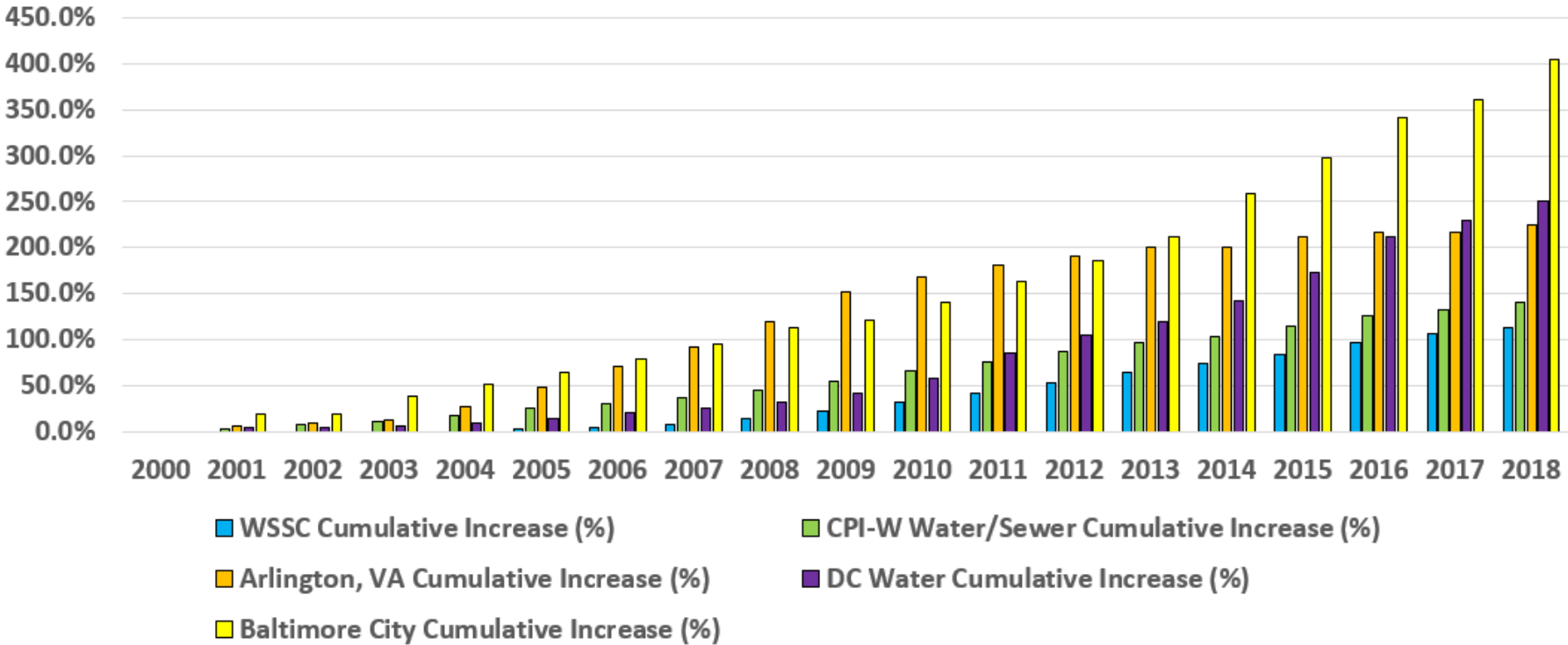
# FY 2020 Proposed Budget Overview



Median household income (in 2016 dollars) 2012-2016. Figures gathered from [www.census.gov](http://www.census.gov), 2012-2016 American Community Survey 5-year estimates.

# FY 2020 Proposed Budget Overview

## Cumulative Rate Increase Comparison



# FY 2020 Proposed Capital Budget & FY 2020–2025 Capital Improvements Program Overview

Mark Brackett  
Capital Budget Section Manager

# FY 2020 Proposed Budget Overview

The Capital Improvements Program (CIP) provides for the six-year program of planning, design, land acquisition, and construction activities on a yearly basis for major water and sewerage infrastructure projects and programs. The projects provide for system improvements for service to existing customers, to comply with federal and/or state environmental mandates, and to support growth and new development.

All CIP projects comply with County ten-year water and sewerage plans and are in direct support of approved land use plans and policies for orderly growth and development.

# FY 2020 Proposed Budget Overview

## PROPOSED FY's 2020–2025 CAPITAL IMPROVEMENTS PROGRAM

- ▶ Total program \$3.3 billion
  - Total program includes 65 projects
  - Four new projects
  - Ten projects closing out
- ▶ Six-year program period expenditures \$1.9 billion
- ▶ FY'20 budget year estimated at \$383.3 million



# FY 2020 Proposed Budget Overview

## INFORMATION ONLY PROJECTS

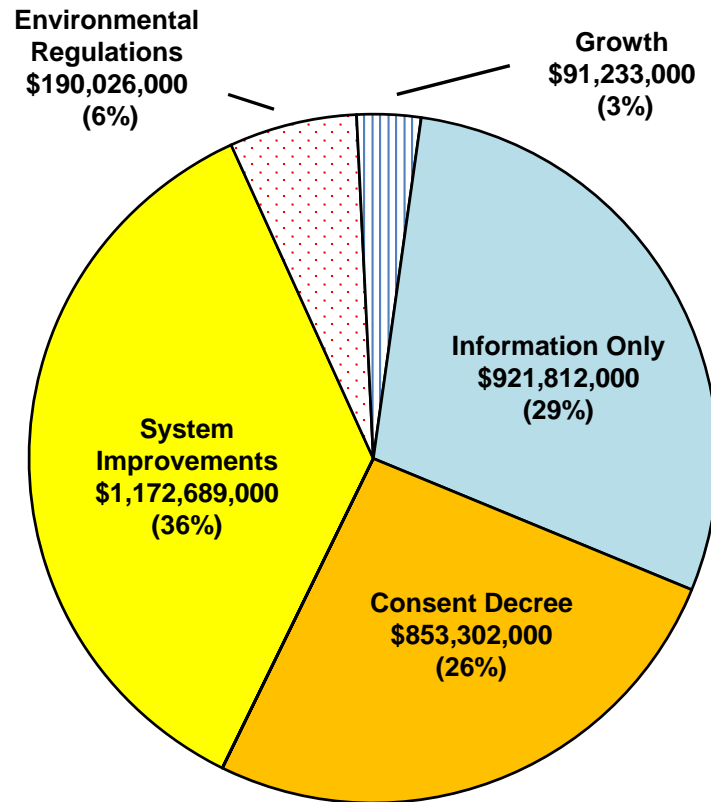
- ▶ Total program \$1.6 billion
  - Eight total projects
  - Projects are not required by State Law to be included in CIP but are presented to provide additional information to our customers
- ▶ Six-year program period estimated at \$1.4 billion
- ▶ FY'20 budget estimated at \$186.3 million



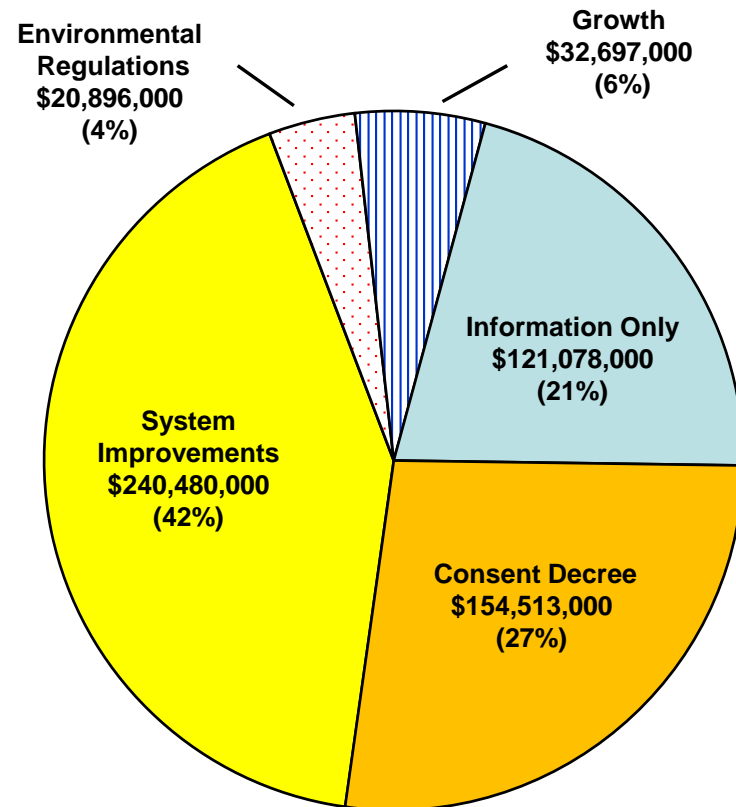


# FY 2020 Proposed Budget Overview

## COMBINED PROGRAM: MAJOR CATEGORIES



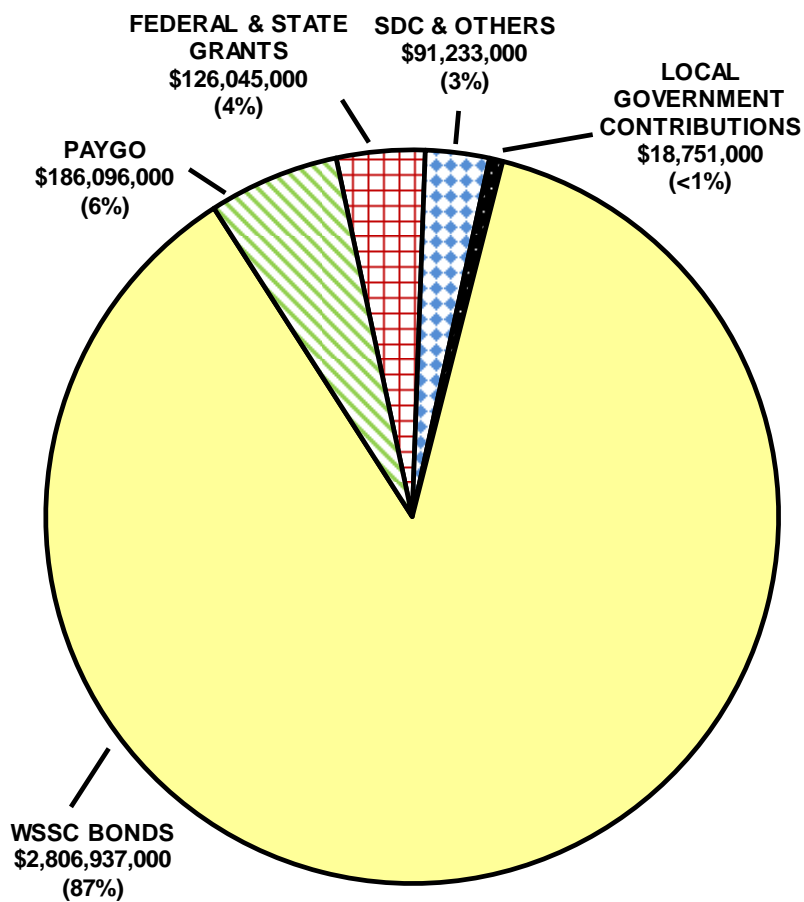
Six-Year Program Total \$3,229,062,000



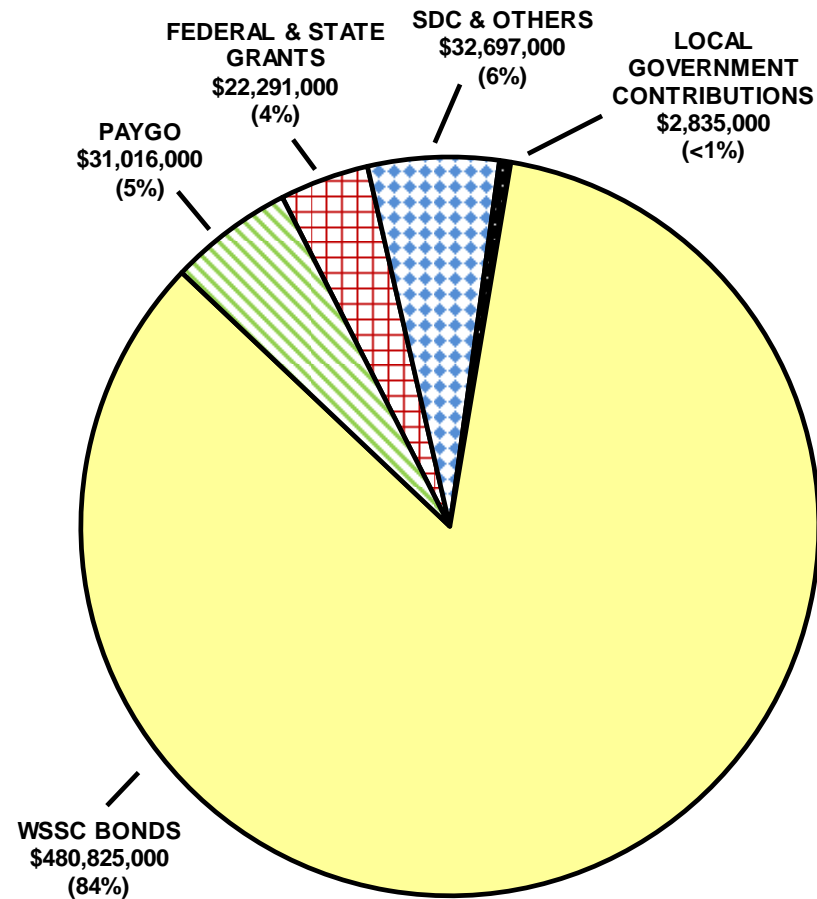
FY'20 Budget \$569,664,000

# FY 2020 Proposed Budget Overview

## COMBINED PROGRAM: FUNDING SOURCES



Six-Year Program Total \$3,229,062,000



FY'20 Budget \$569,664,000

# FY 2020 Proposed Budget Overview

## CAPITAL EXPENDITURE IMPACT

(\$ millions)

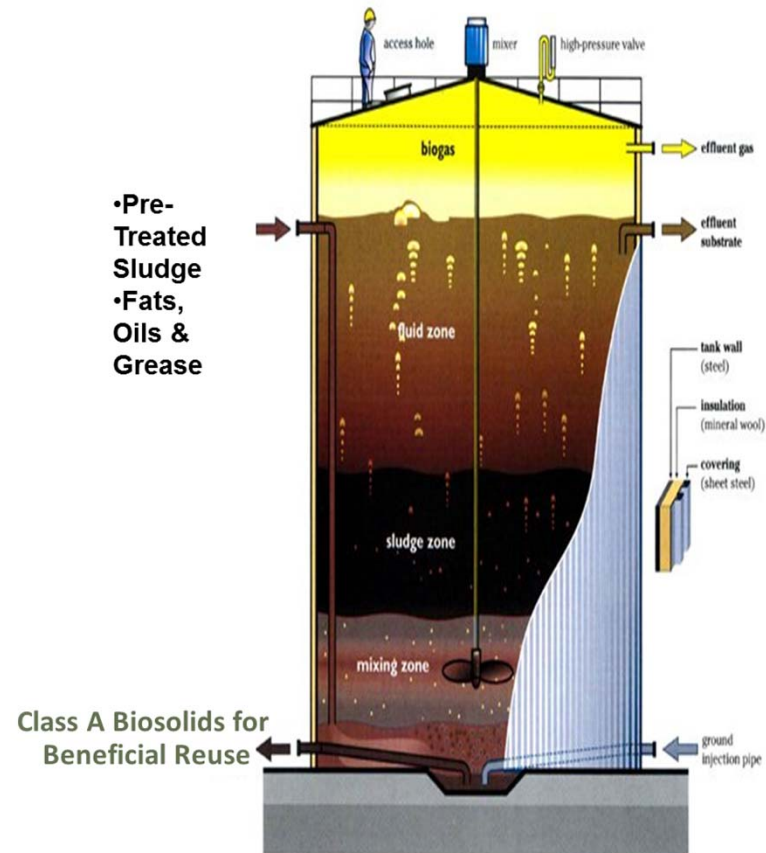
	FY'14	FY'15	FY'16	FY'17	FY'18	5- years
<b>New Debt Issued</b>	\$ 261.2	\$ 394.0	\$ 547.7	\$ 475.1	\$ 473.1	\$2,151.1
<b>New Debt Avoided:</b>						
<b>PAYGO</b>	-	20.0	18.8	21.5	31.0	91.3
<b>SDC PAYGO</b>	31.9	49.2	8.6	36.8	23.2	149.7
<b>Total Debt Outstanding</b>	1,952.5	2,171.4	2,470.4	2,813.4	3,202.4	

# FY 2020 Proposed Budget Overview

## HIGHLIGHTED PROJECTS

### Piscataway WRRF Bio-Energy Project (S-103.02; p.4-8)

- ▶ Innovative project that will transform sewage into renewable energy
- ▶ Recover 2-3 megawatts of renewable energy
- ▶ Treat biosolids from 5 Water Resource Recovery Facilities
- ▶ Reduce Greenhouse Gas Emissions by 15%
- ▶ Protect the Chesapeake Bay
- ▶ Projected economic benefit of \$3.7M per year
- ▶ Construction start May 2019
- ▶ FY'20 budget \$58.1 million



# FY 2020 Proposed Budget Overview

## HIGHLIGHTED PROJECTS (cont.)

### Broad Creek WWPS Augmentation

(S-43.02, page 6-5)

- ▶ Piscataway WRRF headworks and storage upgrade; northern end of force main and southern end of force main projects construction completed
- ▶ Pumping station modifications in construction with expected completion in spring 2020
- ▶ Project Update Newsletters sent out to citizens and stakeholders
- ▶ FY'20 budget \$3.8 million



# FY 2020 Proposed Budget Overview

## HIGHLIGHTED PROJECTS (cont.)

### Blue Plains WWTP

(S-22.series, page 4-2)

The Blue Plains WWTP is owned and operated by DC Water. WSSC's share of the capital costs of the plant is approximately 46%

- ▶ The Blue Plains WWTP treats approximately 65% of WSSC's wastewater
- ▶ The largest projects include the Long-Term Control Plan tunnels, and the Enhanced Nutrient Removal projects
- ▶ At \$368 million, Blue Plains projects represent 20% of the six-year CIP program
- ▶ The FY'20 budget, at \$62.1 million, represents 16% of the budget year



# FY 2020 Proposed Budget Overview

## HIGHLIGHTED PROJECTS (cont.)

### Patuxent Water Filtration Plant

The Patuxent plant in Laurel produced an average of 41 million gallons of water per day (mgd) in FY'18 and serves northern Prince George's County and a portion of eastern Montgomery County

- ▶ Phase II Expansion (W-172.05, page 26)  
Expansion to 72 MGD and new UV facilities;  
**Placed in service November 2018**
- ▶ Raw Water Pipeline (W-172.07, page 3-11)  
New raw water pipeline to plant; awaiting final permits; expect to go to construction late summer; FY'20 budget \$8.6 million
- ▶ Rocky Gorge Pump Station Upgrade  
(W-172.08, page 3-12)  
Upgrades to expand plant to pump up to 110 MGD of raw water up to plant; currently in construction with completion next winter; FY'20 budget \$1.0 million



# FY 2020 Proposed Budget Overview

## HIGHLIGHTED PROJECTS (cont.)

### Potomac Water Filtration Plant

The Potomac plant produced an average of 123 million gallons of water per day (mgd) in FY'18 and serves Montgomery County and all of southern Prince George's County

- ▶ Consent Decree Program (W-73.33, page 3-6)
  - Short-term Capital Projects currently in construction; must be completed by April 1, 2020; Cost \$11.5M
  - Long-term Upgrade Plan (10 years) not approved by MDE over design capacity issue; amended plan submitted to MDE September 2018
  - Completion due January 1, 2026; initial cost estimate of \$164M expected to increase
  - FY'20 budget \$10.0 million





# FY 2020 Proposed Budget Overview

## HIGHLIGHTED PROJECTS (cont.)

### Large Diameter Water Pipe & Valve Program

(W-161.01; page 3-8)

- ▶ Program scope: over 1,000 miles of water pipe and over 1400 large water valves
- ▶ Over 100 miles of PCCP pipe inspected and monitored 24/7; avoided 28 imminent pipe failures
- ▶ Over 7,700 pipe joints repaired; 500 pipe segments repaired/replaced
- ▶ Over 1,300 valves inspected and repaired as needed



▶ FY'20 budget \$40.4 million

# FY 2020 Proposed Budget Overview

## HIGHLIGHTED PROJECTS (cont.)

### Trunk Sewer Reconstruction Program

(S-170.09; page 4-11)

- ▶ Inspection and evaluation of all 24 sewer basins complete (over 1300 miles inspected)
- ▶ Comprehensive rehabilitation of sewer pipes in Environmentally Sensitive Areas currently underway to reduce infiltration and inflow
- ▶ Replacement of pipe; relining of pipe; pipeline protection; and, rehabilitation of manholes and force mains
- ▶ Over 154 of 156 miles released for construction; 114 miles completed
- ▶ Sanitary Sewer Overflow Consent Decree deadline extended to 2022

FY'20 budget \$75.3 million



# FY 2020 Proposed Budget Overview

## HIGHLIGHTED PROJECTS (cont.)

### Sewer Reconstruction Program

(S-1.01; page 7-3)

- ▶ Nearly 5,000 miles of sewer main and associated sewer house connections
- ▶ Rehabilitate 20 miles per year
- ▶ Consent Decree: all 131.4 miles released for construction; 131.0 completed
- ▶ Funding via MDE low-interest loan and Bay grants
- ▶ FY'20 program 20 miles sewer mains; 6 miles lateral lines and house connections



FY'20 budget \$ 64.7 million

# FY 2020 Proposed Budget Overview

## HIGHLIGHTED PROJECTS (cont.)

### Water Reconstruction Program

(W-1.00; page 7-2)

- ▶ Over 4,500 miles of water main and associated water house connections
- ▶ Rehabilitated on average more than 50 miles per year over past 10 years
- ▶ Investing in new technology and tools to develop a more efficient and effective program
- ▶ FY'20 program 25 miles
- ▶ FY'20 budget \$75.8 million



# FY 2020 Proposed Budget Overview

THANK YOU

Questions?