



# WSSC WATER

DELIVERING THE ESSENTIAL

Prince George's County Council Briefing

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March 25, 2021

# **FY 2022 Proposed Budget & FY 2022 – FY 2027 Capital Improvements Program**

Briefing to Prince George's County Council

Calvin Hawkins, Chair

March 25, 2021



# WSSC WATER STRATEGIC PLAN

## Journey to World Class



**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.

### STRATEGIC PRIORITIES



Enhance Customer Experience



Optimize Infrastructure



Spend Customer Dollars Wisely



Transform Employee Engagement



Protect Our Resources

### GUIDING PRINCIPLES



Simplify



Focus



Connect

### CORE VALUES



Accountability



Collaboration



Environmental Stewardship



Excellence



Innovation

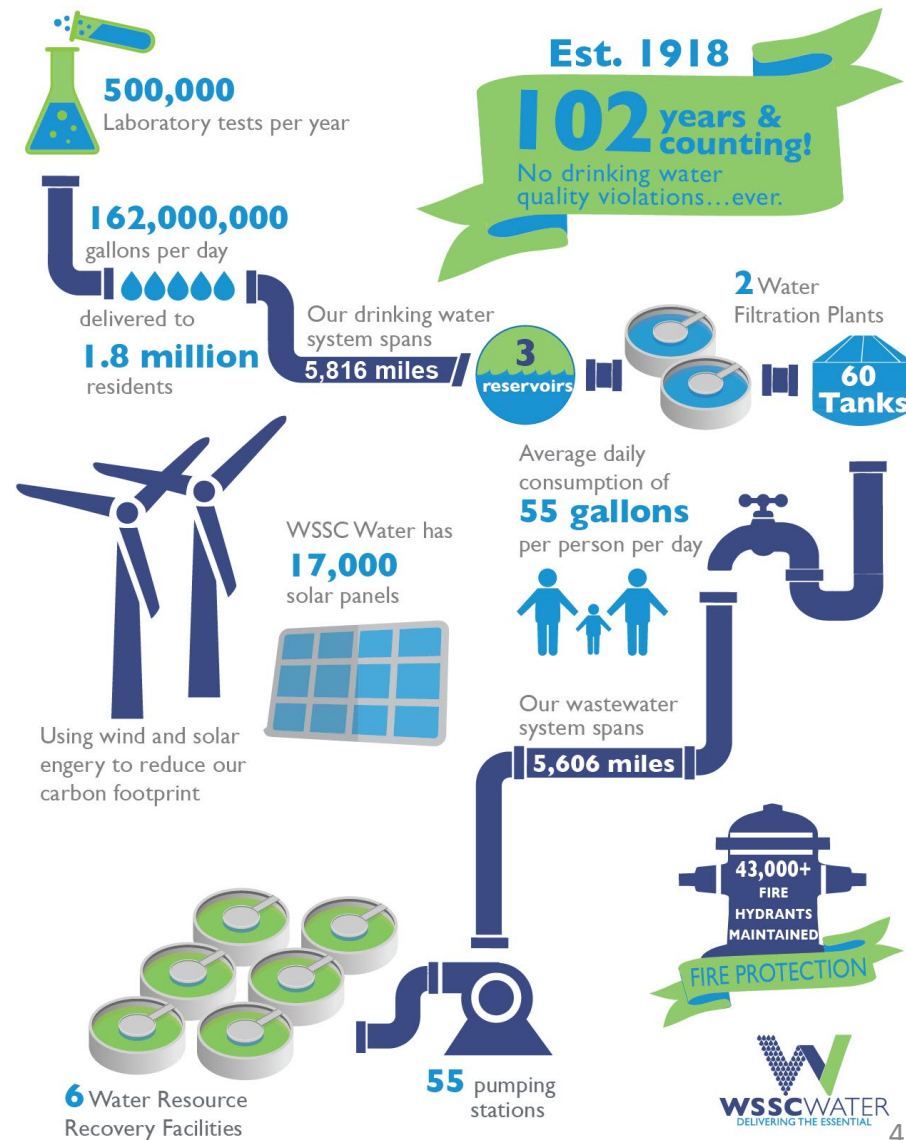
### VISION

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



# WSSC Water 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)
- 43,000+ Fire Hydrants
- 17,000 Solar Panels
- 0 Water Quality Violations



# WSSC Water Innovation Update

- Networks
  - Optimize Sewer Preventive Maintenance
  - Adopt a Fire Hydrant – Smart Phone App for customers
- Plants
  - Parkway Enhanced Biological Phosphorus Removal – average 40% alum reduction
  - Efficient Nitrogen and Phosphorus removal at Seneca – research to reduce aeration
- Product Development
  - Valve monitoring device – remote monitoring of critical valves in the water network
- Business Development
  - Contacting manufacturing and distribution companies to license Fire Hydrant Tool
- Program Management
  - Developing internal training classes for Innovation and Change Management

**Fostering an  
innovative culture**

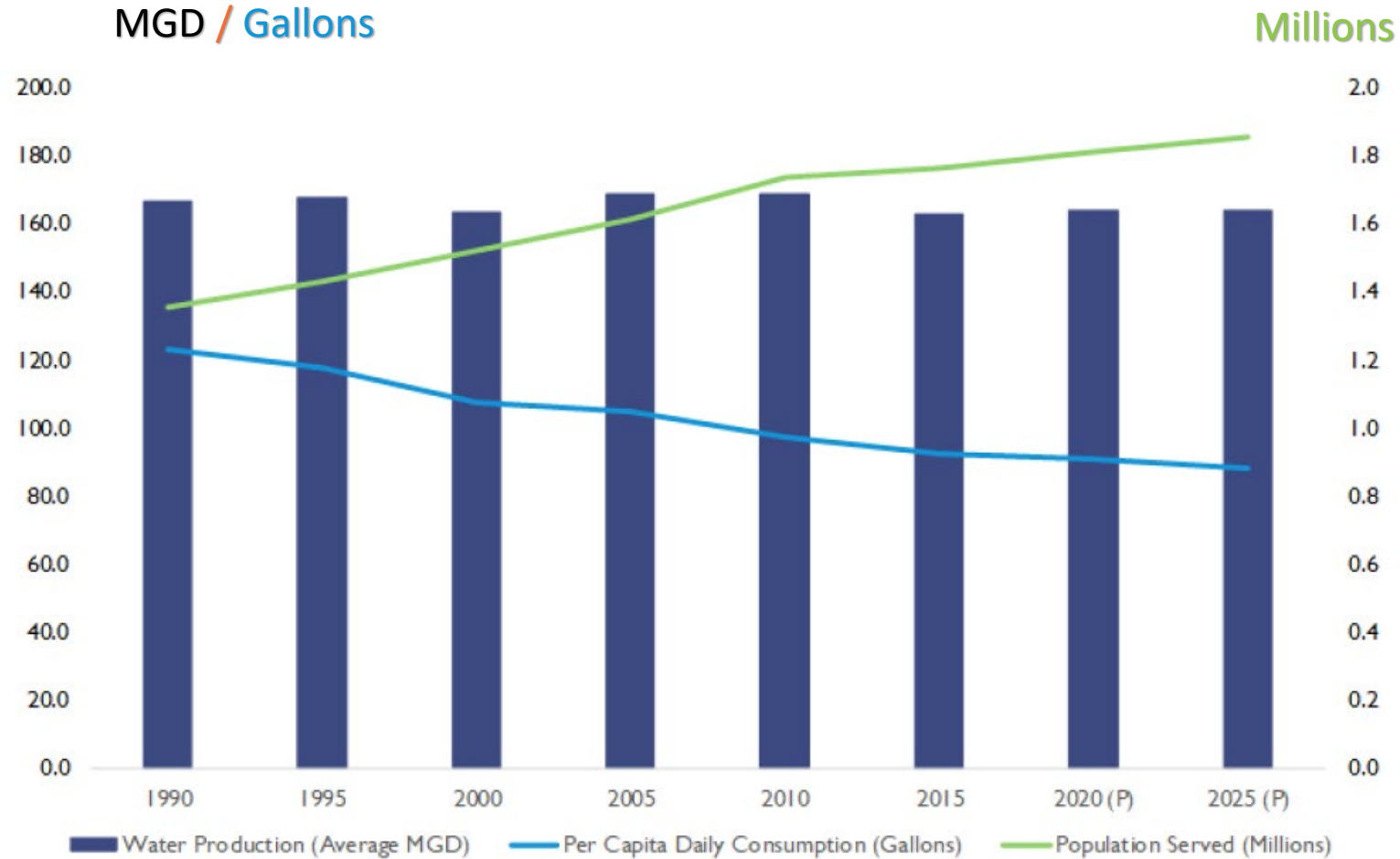
# Calendar Year 2020 Accomplishments

- Successfully implemented Covid-19 Saving Plans to offset revenue losses
- New Normal Task Force carried out operational continuity, successfully transitioned to telework, and automated forms and processes
- Here to Help Campaign launched to assist customers
- Broad Creek WWPS upgrades complete
- Piscataway Bioenergy project on target for August 2024 completion
- Piscataway Sewer Holistic Rehabilitation underway
- Earned AAA bond ratings from all three rating agencies
- Issued Green Bonds to Finance Improvements at the Potomac Water Filtration Plant and the Large Diameter Water Pipe & Large Valve Rehabilitation Program

**Successful financial, workplace, and capital projects transition in Covid-19 environment**

# Changing Business Environment

## Drinking Water Production vs Customer Accounts FY 1990 – 2025



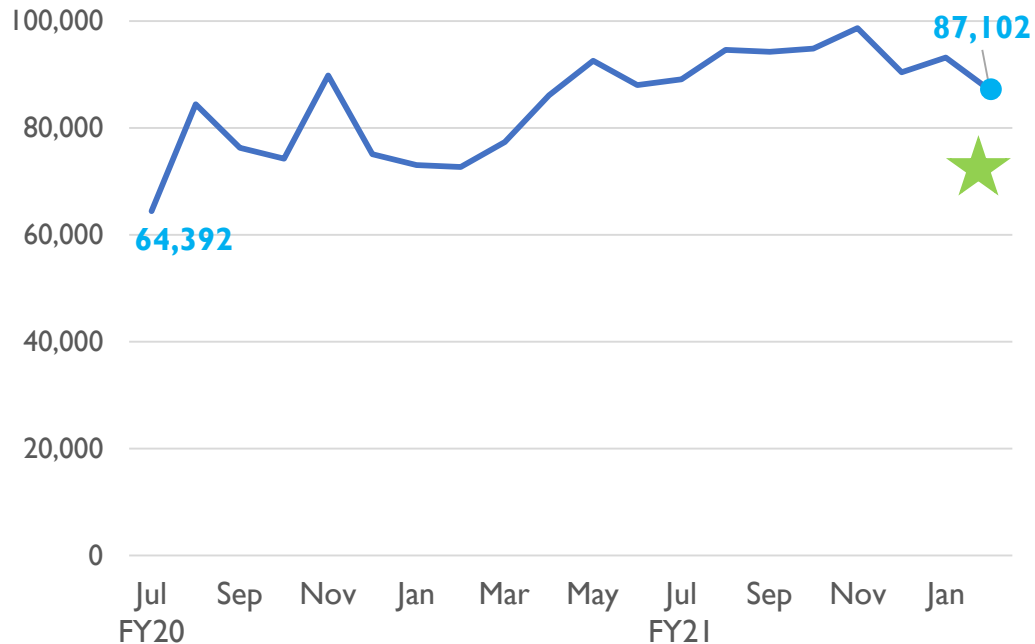
**Flat demand & growing customer base has created a fiscal strain**

# Past Due Accounts/Amounts (2/18/21) High-Level

Past due amounts have risen 135%

## Past Due Accounts\*

# of accounts 30 days past the bill date



★ FY21 Year-End Target: 77,000 accounts

## Past Due Amount\*

\$ of accounts (millions) 30 days past the bill date

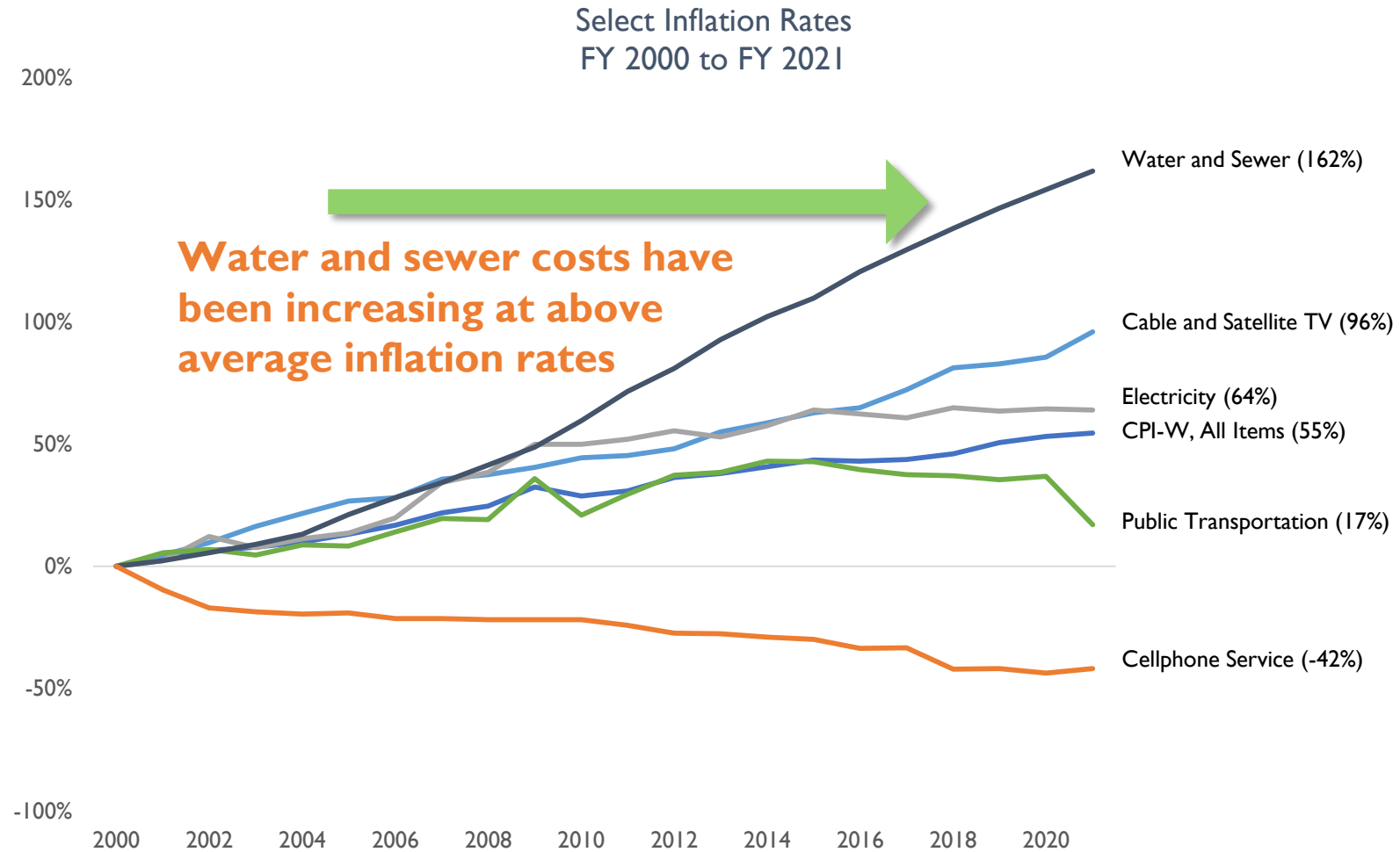


★ FY21 Year-End Target: \$37.7 Million



# Inflationary Rates of Various Sectors

Rising Costs Continue to Pressure **Affordability**



Source: U.S. Bureau of Labor & Statistics: CPI-W Index

# Rates & Upcoming Major Capital Projects

- WSSC Water's budget & rates are driven by capital costs/debt service
- Several critical capital projects that will have ongoing rate impacts over the next six years
  - Water Reconstruction Program - \$726.5 million
  - Sewer Reconstruction Program - \$405.4 million
  - Piscataway Bio-Energy Project - \$222.6 million
  - Potomac Consent Decree - \$174.8 million

**Rates are driven by  
required capital  
investments**

# Cost Saving Efforts

- Supply Management project savings since FY 2013
    - Cost reductions in excess of \$41.0 million
    - Cost avoidance savings of nearly \$37.0 million
  - Group insurance plan revision savings of \$5.1 million since CY 2017
  - 24 Frozen positions
  - Reduced overtime expenses of \$4.7 million since FY 2017
  - **WORLD CLASS PCCP Condition Assessment Program**
    - \$21.0 million invested to date in acoustic fiber optic monitoring (AFO)
    - \$88.0 million in savings from 44 averted failures
    - PCCP Failures: 46 – only 5 since 2010 (4 on non- AFO monitored pipes)
- Rates would have been higher without proactive cost saving efforts**

# FY 2022 Proposed Budget Overview

Letitia Carolina-Powell  
Budget Division Manager



# FY 2022 Proposed Budget

The FY 2022 Proposed Capital and Operating Budget totals \$1.556 billion

- 5.9% Water & Sewer Volumetric Average Rate Increase meets SAG limit
- No increase in Infrastructure Investment Fee or Account Maintenance Fee
- Four new positions added to support Production and Customer Service Departments
- Six project managers unfrozen to expedite capital projects
- Capital Budget increase of 16.2%
- Operating Budget increase of 0.3%

**The operating budget increasing only 0.3%**

# FY 2022 Proposed Budget Overview

Closing a \$14 Million Gap (\$ in millions)

- Salary Enhancements – \$3.7 M
- PAYGO - \$3.4 M
- Production – chemicals and miscellaneous services - \$2.4 M
- Information Technology – AMI Licenses & small projects - \$1.0 M
- Engineering & Construction - Paving - \$1.0 M
- Customer Service - temporary services - \$0.7 M
- General Services – various items \$0.5 M
- Other – miscellaneous organizational deductions - \$1.4 M

**Budget reductions  
required to meet 5.9%  
rate SAG limit**

# FY 2022 Proposed Budget - Key Provisions

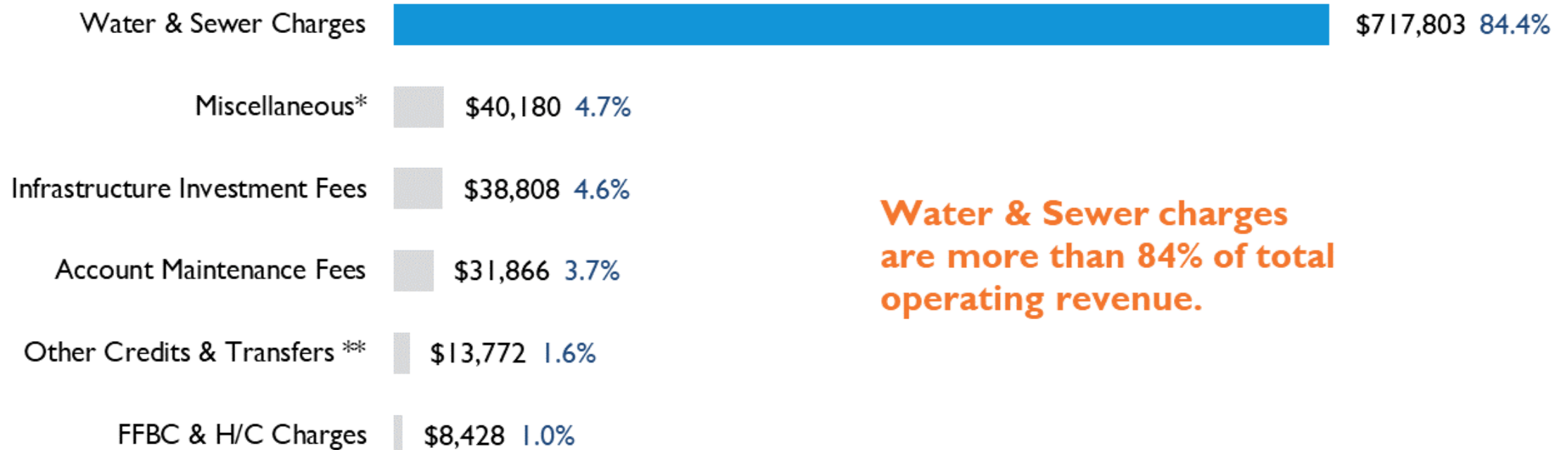
## Operating Budget

- Providing \$3.3 million for customers in the Customer Assistance Program
- Funding critical information technology projects including cybersecurity enhancements
- Funding for maintenance and repairs at critical facilities
- Funding \$1.2 million for hydraulic dredging at the Triadelphia reservoir
- Funding \$3 million for water tank rehabilitations
- Proposing limited compensation enhancements consistent with tentative agreement with AFSCME Local 2898
- Paying debt service of \$316.8 million

**Same service level budget  
with modest increases for  
essential improvements**

# FY 2022 Proposed Budget Overview

Operating Budget Funding Sources = \$850,857 (\$ in thousands)



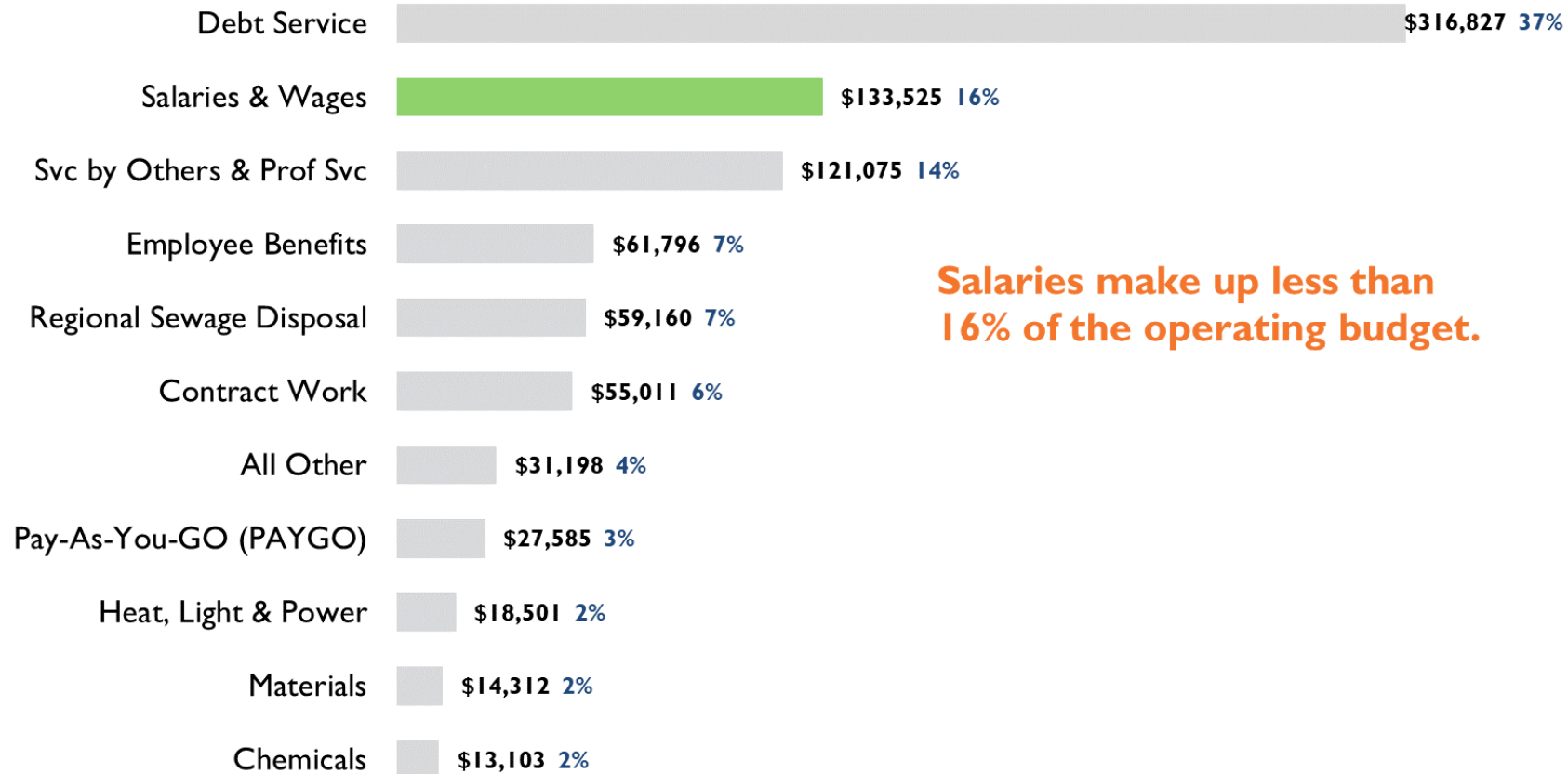
(\*) Plumbing and inspection fees, Rockville sewer use, interest income and other miscellaneous fees

(\*\*) Includes Reconstruction Debt Service Offset (REDO), SDC Debt Service Offset and Underwriter's Discount Transfer



# FY 2022 Proposed Operating Budget by Major Expense Category

Total Operating Uses = \$852,093 (\$ in thousands)



Salaries make up less than  
16% of the operating budget.

# Deferred Improvements FY 2018 to FY 2022

Deferred Improvement	Risks
Unidirectional Flushing Program	Continued discolored water complaints, reduced hydraulic efficiencies & reductions in flow
Large Valve Repair & Replacement Inspections	Backlog of repairs for 16 to 24-inch valves
Fire Hydrant Flow Testing Program	Ineffective firefighting capabilities & contamination of public water supplies by backflow
Plumbing & Gasfitting Inspectors	Public health, safety and welfare
Rights-of-Way Maintenance Program	Challenge to access WSSC Water assets during routine and emergency work

**Needed improvements have been deferred for multiple years**

# FY 2022 Proposed Budget - Key Provisions

## Capital Budget

- Funding replacement of 37.5 miles of water mains and 45.4 miles of sewer mains and lateral lines
- Funding \$71.1 million for large diameter water pipe rehabilitation
- Complying with Sanitary Sewer Overflow and Potomac Plant Consent Decrees
- Providing holistic rehabilitation of Piscataway sewer basin to address excess flows at Piscataway Water Resource Recovery Facility
- AMI removed from the CIP reducing FY 2022 capital budget by \$21 million and FY 2022-2027 CIP by \$98 million

**Focus on  
infrastructure  
investment**

# FY 2022 Proposed Capital Budget by Major Expense Category

Total Capital Uses = \$703,745 (\$ in thousands)



\* Includes Land, Professional Services, Water Meters, and Non-Departmental Accounts

# Proposed FY2022 Rate Increase Drivers

Driver	Amount	Percent
Reduced Revenue		
Sewer Revenue Rebaseline	\$ 12,000,000	1.8%
Interest Income	9,000,000	1.3%
Other Funding Sources*	12,714,000	1.9%
<b>Subtotal - Reduced Revenue</b>	<b>33,714,000</b>	<b>5.0%</b>
Operating Expense Growth	6,274,000	0.9%
<b>Total</b>	<b>\$ 39,988,000</b>	<b>5.9%</b>

Rate increase primarily addresses reduced revenue

\*Other Funding Sources includes use of fund balance and Reconstruction Debt Service Offset transfers

# Long Range Financial Plan

(\$ In thousands)	Approved	Proposed	Projected >>>				
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
New Water and Sewer Debt Issues	\$ 409,922	\$ 409,704	\$ 415,548	\$ 356,388	\$ 350,000	\$ 350,000	\$ 350,000
Water and Sewer Combined Rate Increase (Avg)	6.0%	5.9%	8.0%	8.0%	7.0%	6.5%	6.0%
Debt Service Coverage (1.10 - 1.25 is Target)	1.01	1.04	1.09	1.15	1.19	1.24	1.25
Debt Service as a % of Total Expenses (< 40% is Target)	37.5%	36.7%	37.4%	37.9%	38.0%	38.2%	38.2%
End Fund Balance as a % of Operating Revenue (min. 15%)	20.1%	19.6%	19.6%	20.4%	20.6%	21.7%	23.5%
Days Operating Reserve-on-Hand (75-105 Days is Target)	70.9	70.3	71.3	75.3	75.5	80.6	87.9
Total Workyears (All Funds)	1,776	1,786	1,786	1,786	1,786	1,786	1,786

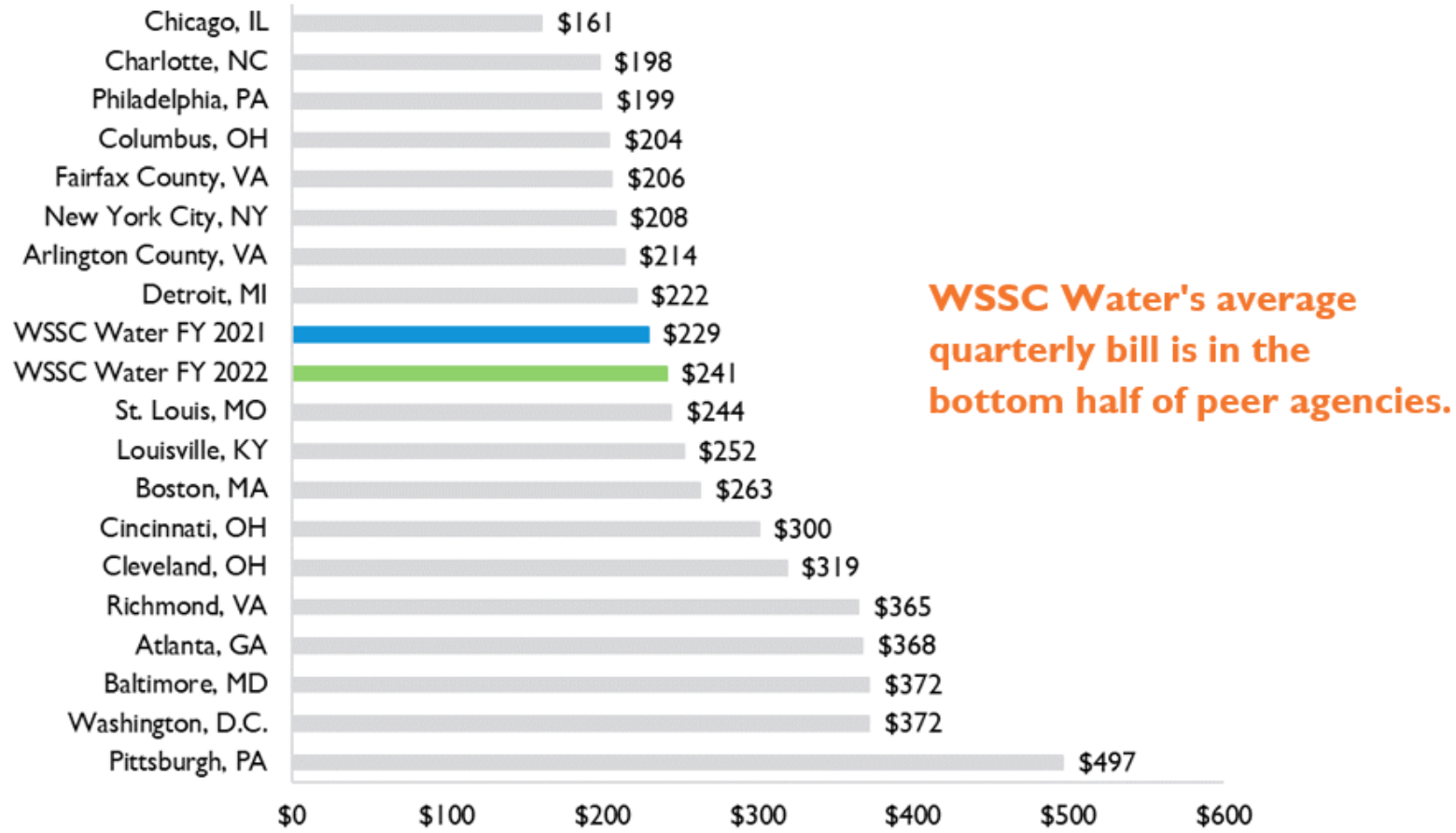
**WSSC Water's long range planning supports informed decisions and measures performance**

# Quarterly Customer Bills at Various

Meter Size	Average Daily Consumption (Gallons Per Quarter)	Approved FY 2018	Approved FY 2019	Approved FY 2020	Approved FY 2021	Proposed FY 2022	Percent Change
3/4" Residential Meter	100 (9,125 gal/qtr)	\$ 122.72	\$ 127.01	\$ 138.94	\$ 145.58	\$ 152.48	4.7%
3/4" Residential Meter	165 (15,056 gal/qtr)	206.12	213.95	217.83	229.21	241.04	5.2%
3/4" Residential Meter	500 (45,625 gal/qtr)	816.40	851.99	794.66	840.78	888.79	5.7%
2" Meter	1,000 (91,250 gal/qtr)	1,878.23	1,952.14	1,903.02	2,004.81	2,110.76	5.3%
3" Meter	5,000 (456,250 gal/qtr)	9,169.19	9,552.44	9,736.92	10,284.01	10,853.51	5.5%
6" Meter	10,000 (912,500 gal/qtr)	19,085.00	19,878.88	19,748.55	20,852.26	22,001.19	5.5%

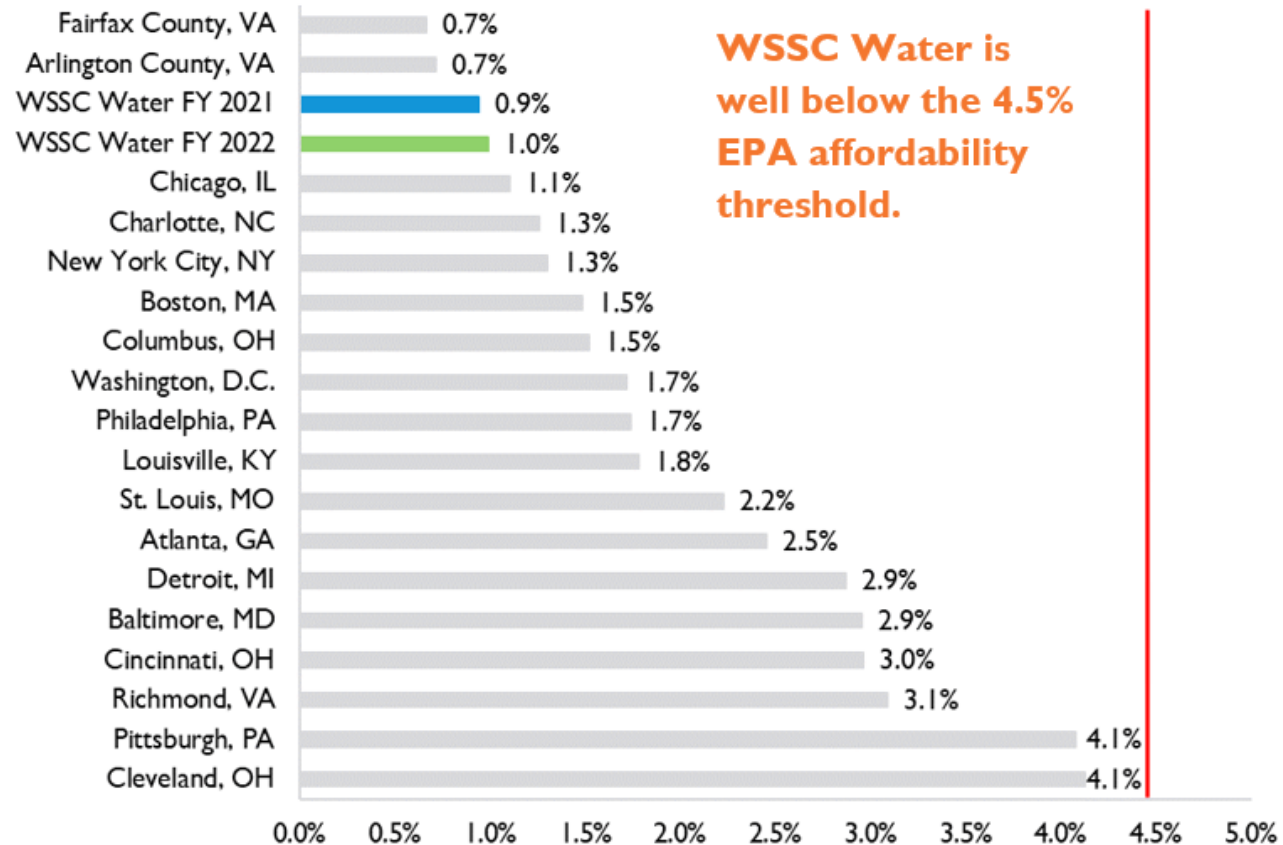
**Quarterly bill impact to average customer using 165mgd is 5.2%**

# Residential Quarterly Water/Sewer Bill Comparison (165 Gallons per Day)



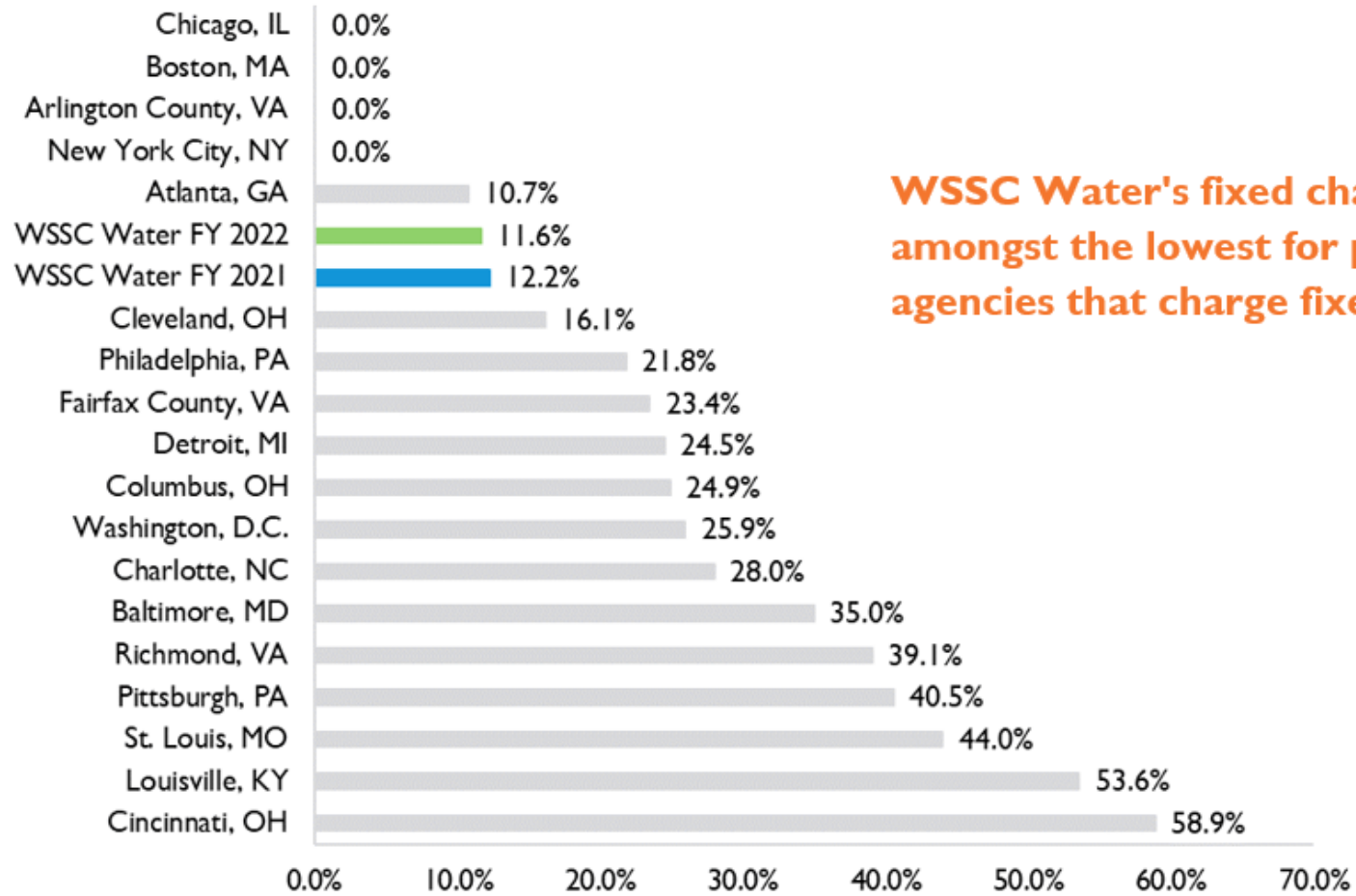


# Average Residential Bill as a Percentage of Median Income (165 Gallons per Day)



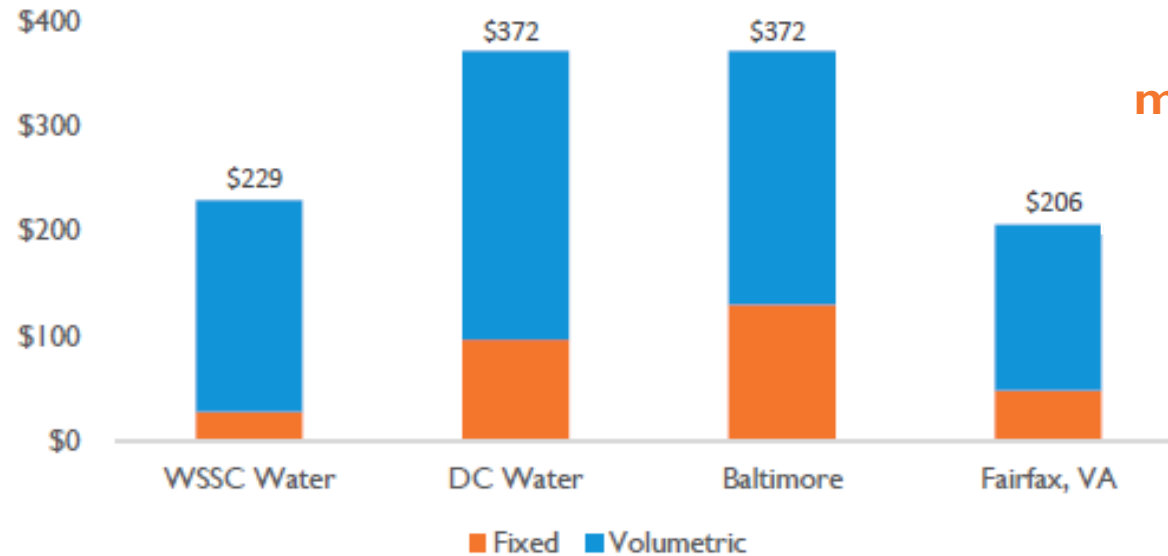
Median household income (in 2017 dollars) 2013-2017. Figures gathered from [www.census.gov](http://www.census.gov), 2013-2017 American Community Survey 5-Year Estimates.

# Percentage of Average Residential Bill from Fixed Charges (165 Gallons per Day)



**WSSC Water's fixed charges are amongst the lowest for peer agencies that charge fixed fees.**

# FY 2021 Quarterly Bill Comparison (165 Gallons per Day; 3/4" Meter)



**WSSC Water fixed fees make up a small percentage of quarterly bill**

	WSSC Water	DC Water	Baltimore	Fairfax, VA
Fixed	\$ 28	\$ 97	\$ 130	\$ 48
Volumetric	\$ 201	\$ 275	\$ 242	\$ 158
<b>Total</b>	<b>\$ 229</b>	<b>\$ 372</b>	<b>\$ 372</b>	<b>\$ 206</b>

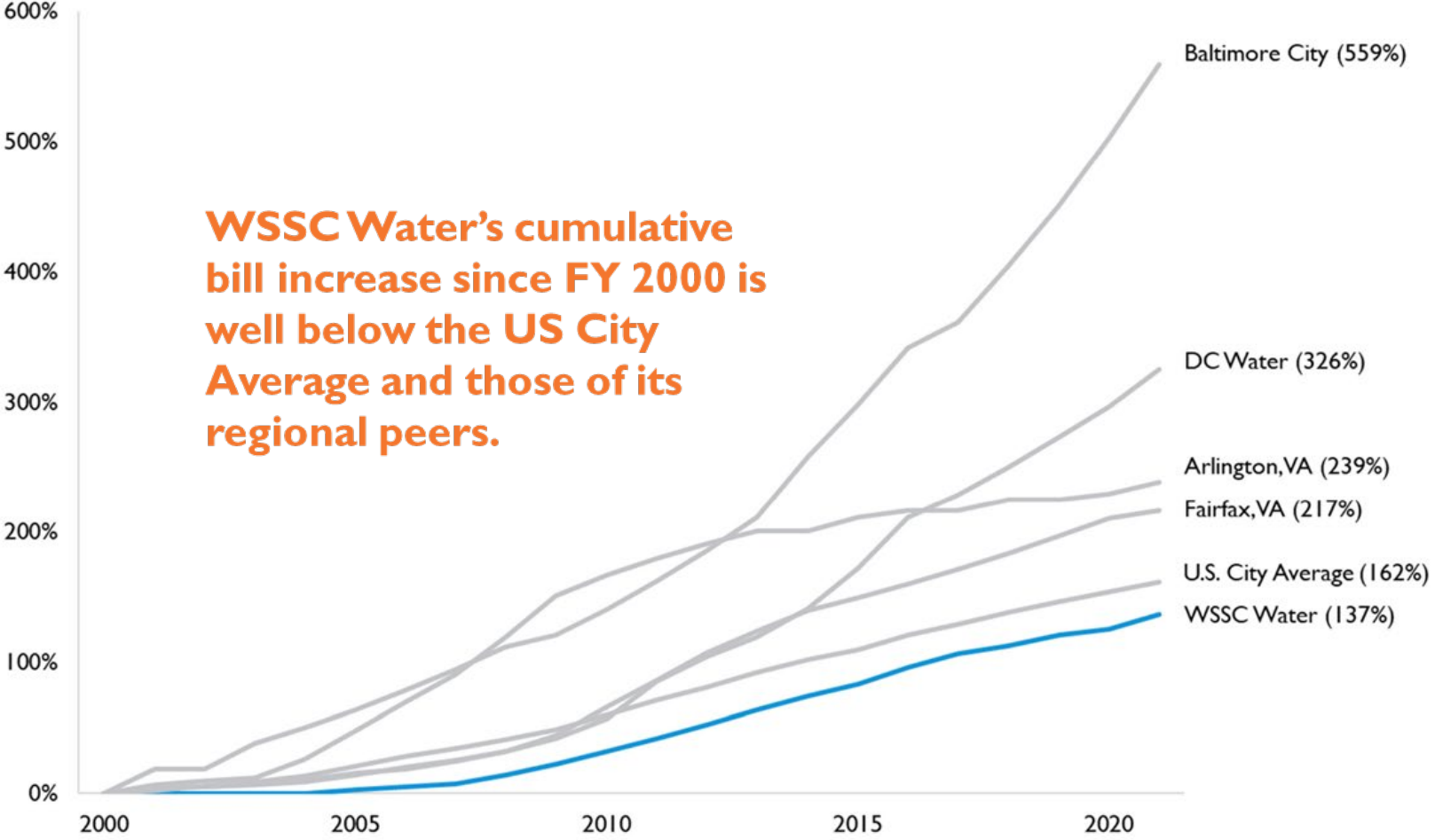
# Consumption Rate Increase Trend Comparison Local Water and Sewer Utilities

Consumption Charges	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
WSSC Water	5.00%	6.00%	5.90%	8.00%	8.00%	7.00%	6.50%	6.00%	6.00%	6.00%
DC Water	11.50%	9.90%	7.80%	8.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
City of Baltimore	9.90%	9.90%	9.90%	9.90%	9.90%	9.90%	6.00%	3.25%	3.25%	3.25%
Fairfax Water & Fairfax County Sewer	4.12%	1.26%	7.54%							

\* Actual and proposed increases for consumption charges per agency websites.

**WSSC Water rate trend is consistently lower or comparable to other area utilities**

# FYs 2000-2021 | Bill Increase Comparison (165 Gallons per Day)



# FY 2022 Proposed Budget & FY 2022-2027 Capital Improvements Program Overview

Mark Brackett

Capital Budget Section Manager



# Capital Budget Affordability

A fiscally responsible CIP results in:

- Maintaining our AAA credit rating
  - Adhering to financial metrics and guidelines
- An affordable CIP
  - Fits within rate increases as proposed
  - Aligns anticipated bond issuance limits over the six-year program
  - Keeps project funding in line with what is affordable
- Increased importance on prioritization of projects for inclusion, elimination, scale-down, or deferral
- Use of PAYGO to lower debt service expense and improve metric results - especially with rate risk

# FY 2022 CIP Overview & Highlights

## Mid-Cycle

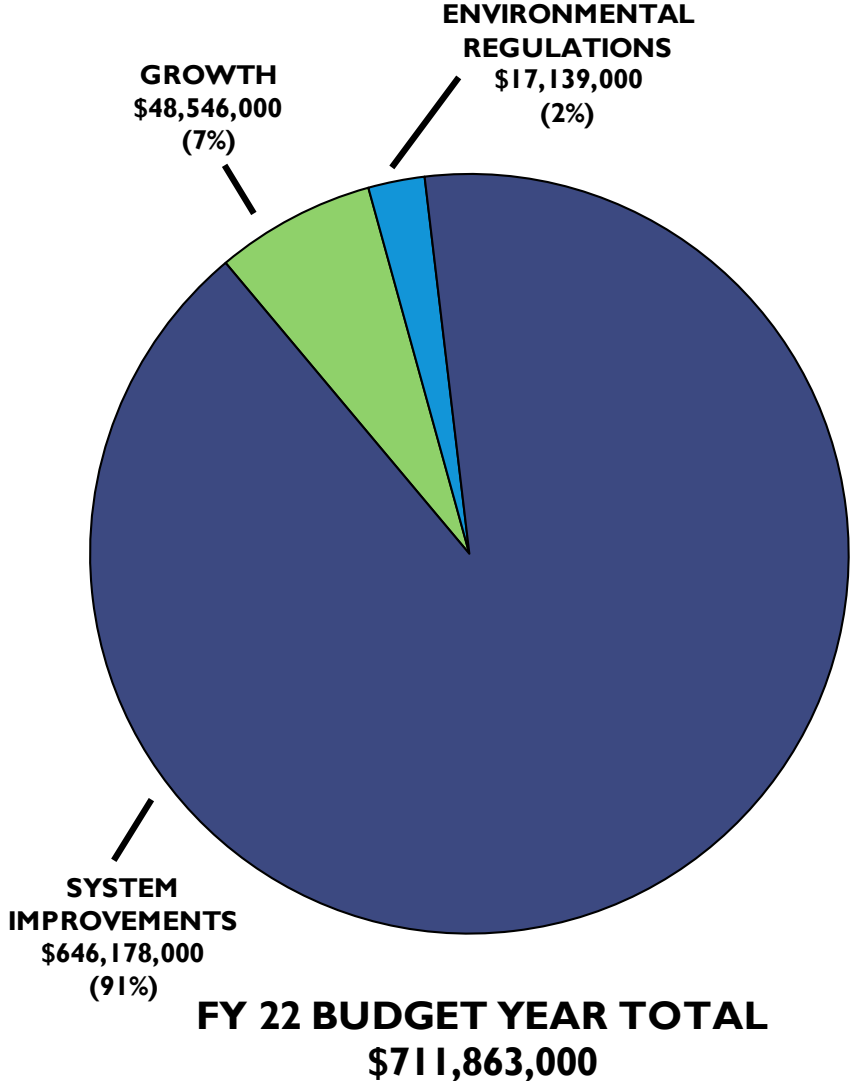
### FY 2022 – FY 2027 CIP

- Six-year program cost of \$3.8 billion
  - Bond funded \$3.2 billion (plus PAYGO of \$327.6 million)
  - Mandated projects \$1.3 billion (34%)
    - Blue Plains \$392.1 million
    - Consent Decree \$892.6 million
    - Other Regulatory & Agreement \$14.7 million
- FY 2022 budget year cost of \$711.9 million
  - Bond funded \$607.8 million (plus PAYGO of \$27.6 million)
  - Mandated projects \$198.8 million (28%)





# FY 2022 CIP Overview & Highlights

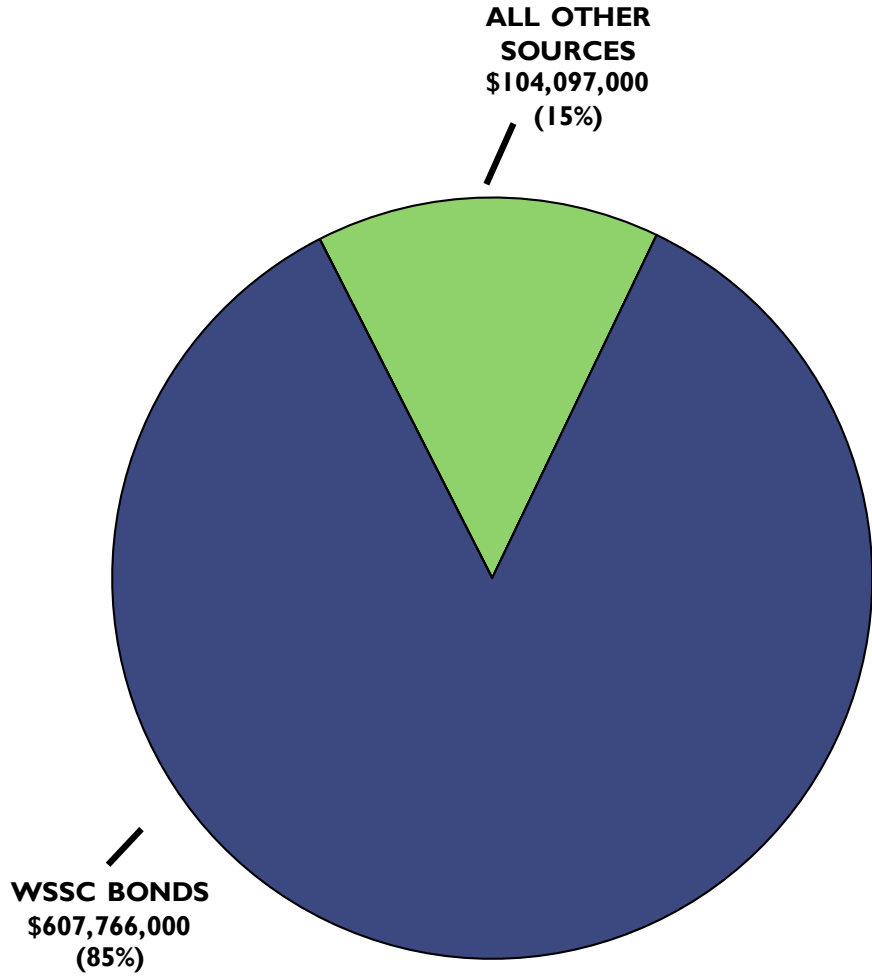


**91%**

of the FY 22 combined program is for reinvestment in our system infrastructure.

Major Category	FY 22 Amount
Growth	48,546,000
System Improvements	646,178,000
Environmental Regulations	17,139,000
<b>Total</b>	<b>711,863,000</b>

# FY 2022 CIP Overview & Highlights



**FY 22 BUDGET YEAR TOTAL**  
**\$711,863,000**

**85%**

of the FY 22 combined program is funded through long-term debt.

Funding Source	FY 22 Amount
Federal & State Grants	24,471,000
SDC & Others	48,698,000
Local Government Contributions	3,343,000
WSSC Bonds	607,766,000
PAYGO	27,585,000
<b>Total</b>	<b>711,863,000</b>



# FY 2022 CIP Overview and Highlights

## Water Reconstruction Program

(WV-1.00; p. 7-2)

- Program scope: over 4,500 miles of water main and associated water house connections
- Rehabilitated on average more than 50 miles per year over the past 10 years
- Investing in new technology and tools to develop a more efficient and effective program
- FY 2022 program: 31 miles
- FY 2022 budget: \$83.6 million



# FY 2022 CIP Overview and Highlights

## Large Diameter Water Pipe & Large Valve Rehabilitation Program

(W-161.01; p. 3-7)

- Program scope: over 1,000 miles of water pipe and over 1,400 large water valves
- Over 100 miles of Pre-stressed Concrete Cylinder Pipe (PCCP) inspected and monitored 24/7; avoided 44 imminent pipe failures
- Over 7,900 pipe joints repaired
- Over 550 pipe segments repaired/replaced
- Over 1,300 valves inspected and repaired
- FY 2022 budget: \$61.7 million



# FY 2022 CIP Overview and Highlights

## Sewer Reconstruction Program

(S-1.01; p. 7-3)

- Program scope: nearly 5,000 miles of sewer main and associated sewer house connections
- Rehabilitate 20 miles per year
- Consent Decree: all 131.4 miles awarded for construction; 131.3 miles completed as of October 2020
- Funding via Maryland Department of the Environment (MDE) low-interest loans and Bay grants
- FY 2022 program: 25 miles sewer mains; 6 miles lateral lines and house connections
- FY 2022 budget: \$71.1 million



# FY 2022 CIP Overview and Highlights

## Trunk Sewer Reconstruction Program

(S-170.09; p. 4-13)

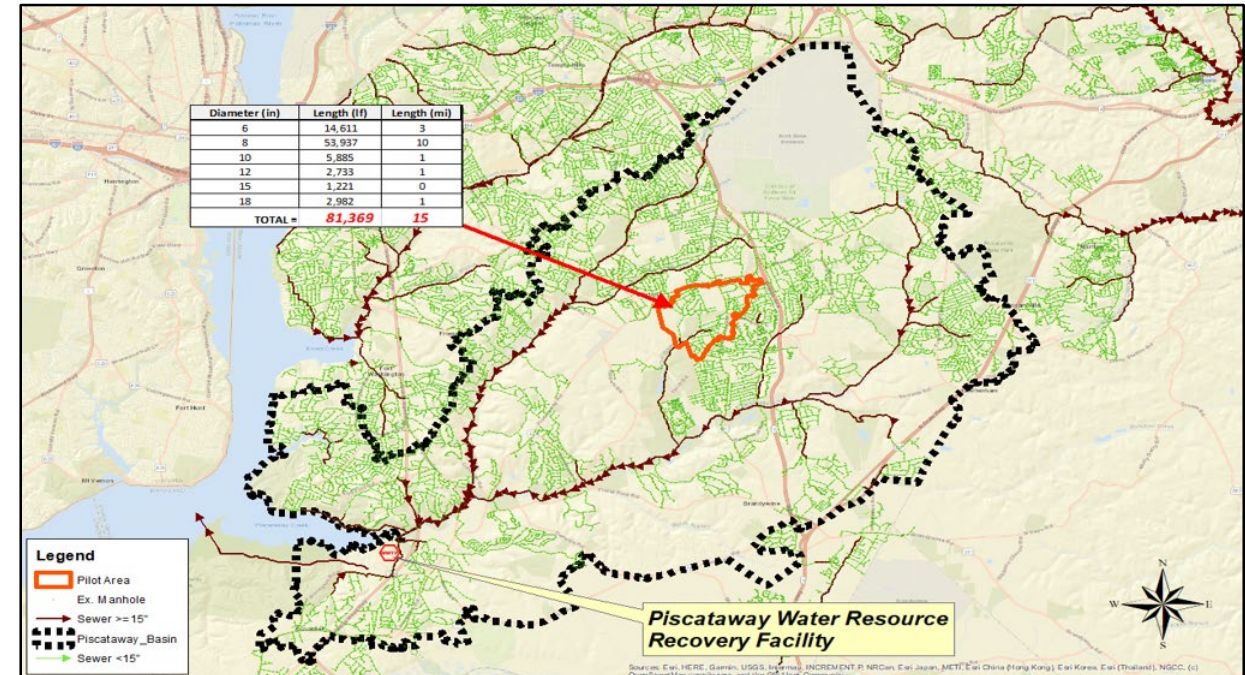
- Inspection and evaluation of all 24 sewer basins complete (over 1,300 miles inspected)
- Comprehensive rehabilitation of sewer pipes in Environmentally Sensitive Areas (ESAs) currently underway to reduce infiltration and inflow
- Replacement of pipe, relining of pipe, pipeline protection, and rehabilitation of manholes and force mains
- Consent Decree: 158.4 of 158.5 miles awarded for construction; 131.2 miles completed as of October 2020
- Sanitary Sewer Overflow (SSO) Consent Decree deadline extended to 2022
- FY 2022 budget: \$58.6 million



# FY 2022 CIP Overview and Highlights

## Piscataway Rehabilitation Program

- Rehabilitation work for the Piscataway Basin was added to the Sewer and Trunk Sewer reconstruction programs in FY 2022
- The work includes capital activities (pipe replacement and pipe lining) and operating activities (pipe grouting and manhole repairs)
- FY 2022 budget:
  - \$28.3 million in capital
  - \$5.1 million in operating
- Total budget estimate:
  - \$80.0 million in capital
  - \$23.9 million in operating



# FY 2022 CIP Overview and Highlights

## Potomac Water Filtration Plant (WFP)

- The Potomac WFP produced an average of 112.9 million gallons of water per day (MGD) in FY 2020

### Potomac WFP Consent Decree Program

(W-73.33, p. 3-6)

- Long-term Upgrade Plan approved by MDE currently in design
- Total cost estimate: \$203.0 million
- FY 2022 budget: \$10.5 million





# FY 2022 CIP Overview and Highlights

## Blue Plains Wastewater Treatment Plant (WWTP)

(S-22.series, p. 4-4 to 4-8)

- The Blue Plains WWTP is owned and operated by DC Water
- WSSC Water's share of the capital costs of the plant is approximately 46%
- Blue Plains treats approximately 65% of WSSC Water's wastewater
- The largest projects include the long-term control plan tunnels
- At \$392.1 million, Blue Plains projects represent 19% of the six-year CIP program
- The FY 2022 budget, at \$54.6 million, represents 12% of the CIP budget year



# FY 2022 CIP Overview and Highlights

## Piscataway Bioenergy

(S-103.02; p. 4-10)

- Innovative project that will transform sewage into renewable energy
- Recover 2-3 megawatts of renewable energy
- Treat biosolids from 5 Water Resource Recovery Facilities (WRRFs)
- Reduce greenhouse gas emissions
- Protect the Chesapeake Bay
- Projected economic benefit of \$3.7 million per year
- Construction started May 2019
- FY 2022 budget is \$97.9 million



# FY 2022 CIP Overview and Highlights

## Advanced Metering Infrastructure (AMI) (A-109.00; p. 7-9 / p.29)

- Implementation of a system-wide fully automated meter reading infrastructure system and new comprehensive customer billing and data analysis integration software
- AMI will improve both customer service and operational efficiency including:
  - Allows for monthly billing
  - Provides customers near real-time water usage information to help them save money
  - Reduces customer calls and reduced field investigation visits
  - Creates opportunities to employ more sophisticated rate structures
  - Provides data of customer consumption patterns to detect meters wearing out and perform meter sizing analysis
  - Monitors customer consumption to support targeted conservation efforts during droughts
  - Improves the monitoring and operation of the distribution system and reduce non-revenue water loss
  - Pays for itself within 11 years with estimated net savings in excess of \$286 million over 20 years
- Updated total cost of \$208.4 million due to need to replace all meters
- Mid-Cycle CIP – Propose to remove all funding based on Commission decision in November 2020 to indefinitely suspend the project due to the difficult economic conditions caused by the Pandemic.

# FY 2022 Budget Summary Highlights

- Proposed Operating Budget increasing only .3%
- 5.0% of the 5.9% rate increase addresses revenue declines
- Proposed Budget required \$14 million in reductions to meet SAG
- Past due amounts increased 135%
- Expanded affordability programs and budgeted amount is proposed at \$3.2 million
- Consent decree projects on time and on budget
- Capital Improvement Program provides for critical infrastructure investment

# Questions?

