Proposed FY2022 – 2031 Capital Improvement Program
Presentation to Environmental Quality and Operations Committee • January 20, 2022
DC Water

• Our responsibilities include managing over $7.5 billion in assets, including the world’s largest Advance Wastewater Treatment and Resource Recovery Facility, Blue Plains.

• We make infrastructure investments that help protect $122 billion in the District’s GDP.

• For every $1 million we invest in capital, there is an economic impact of 15.5 jobs (direct, indirect and induced).

• DC Water’s economic impact, over 10 years, is an estimated 83,700 jobs.
To distribute drinking water, DC Water operates more than 1,350 miles of pipes, four pumping stations, five reservoirs, four elevated water storage tanks, 43,860 valves and 9,500 public hydrants.

To collect wastewater, DC Water operates 1,800 miles of sanitary and combined sewers, 22 flow-metering stations, and nine off-site wastewater pumping stations.

To treat wastewater, DC Water operates the Blue Plains Advanced Wastewater Treatment Plant, the largest advanced wastewater treatment facility in the world.
### Current (Approved FY21-30) DC Water CIP Highlights

| **$4.9B*** | **$11.2B** | **$390M**** |
| Current 10-Yr total | Current Lifetime Budget | Average annual expenditures |

| **39% Construction** | **34% A/E** | **267** |
| 34% A/E | Total participation*** (DBE,WBE,CBE) | Number of planned projects |

| **150** |
| Number of active projects |

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*Current Approved FY21-30 CIP
**Average of Last 5 years 2017-2021 spending
***Average Participation for FY18 to FY21
Active = Projects with spending forecast in FY22
Planned = Total # Projects in 10-year plan

Capital Projects only – excludes Capital Equipment and Washington Aqueduct spending forecast.
The Capital Improvement Program

- The **proposed ten-year CIP budget of $6.4 billion** includes previous amendments to the FY 2022 budget for the Lead Free DC initiative, carry-over of funds for the purchase of vehicles and projected increase in the Aqueduct’s capital projects.

- The **proposed lifetime budget is $13.38 billion** and covers total commitments, including labor, for active projects prior to, during, and beyond the ten-year window.

### FY 2022 - 2031 CIP Disbursement Plan

<table>
<thead>
<tr>
<th>$ in 000's</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
<th>FY 2027</th>
<th>FY 2028</th>
<th>FY 2029</th>
<th>FY 2030</th>
<th>FY 2031</th>
<th>10-yr Total</th>
<th>Last Years</th>
<th>(increase)/decrease</th>
<th>Lifetime Budget</th>
</tr>
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<tbody>
<tr>
<td>NON PROCESS FACILITIES</td>
<td>31,439</td>
<td>12,051</td>
<td>28,160</td>
<td>14,422</td>
<td>6,620</td>
<td>3,351</td>
<td>1,778</td>
<td>2,000</td>
<td>2,000</td>
<td>102,208</td>
<td>109,776</td>
<td>7,568</td>
<td>215,847</td>
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<tr>
<td>WASTEWATER TREATMENT</td>
<td>85,978</td>
<td>78,574</td>
<td>117,545</td>
<td>116,402</td>
<td>132,436</td>
<td>165,310</td>
<td>129,249</td>
<td>121,373</td>
<td>141,086</td>
<td>1,217,166</td>
<td>1,122,976</td>
<td>94,190</td>
<td>3,216,072</td>
<td></td>
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<tr>
<td>COMBINED SEWER OVERFLOW</td>
<td>152,267</td>
<td>117,704</td>
<td>77,304</td>
<td>105,185</td>
<td>161,941</td>
<td>171,760</td>
<td>220,123</td>
<td>153,173</td>
<td>51,403</td>
<td>1,217,166</td>
<td>1,122,976</td>
<td>94,190</td>
<td>3,216,072</td>
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<tr>
<td>STORMWATER</td>
<td>7,031</td>
<td>11,527</td>
<td>5,553</td>
<td>5,813</td>
<td>4,985</td>
<td>6,158</td>
<td>4,499</td>
<td>6,330</td>
<td>8,722</td>
<td>1,217,166</td>
<td>1,122,976</td>
<td>94,190</td>
<td>3,216,072</td>
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<td>SANITARY SEWER</td>
<td>68,084</td>
<td>103,383</td>
<td>150,828</td>
<td>150,967</td>
<td>160,400</td>
<td>193,824</td>
<td>129,368</td>
<td>121,373</td>
<td>126,710</td>
<td>1,217,166</td>
<td>1,122,976</td>
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<td>3,216,072</td>
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<td>WATER</td>
<td>165,313</td>
<td>227,116</td>
<td>218,339</td>
<td>194,652</td>
<td>202,046</td>
<td>191,451</td>
<td>192,665</td>
<td>124,683</td>
<td>120,842</td>
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<td>1,122,976</td>
<td>94,190</td>
<td>3,216,072</td>
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<td>CAPITAL PROJECTS</td>
<td>510,112</td>
<td>550,355</td>
<td>597,728</td>
<td>567,442</td>
<td>668,428</td>
<td>743,975</td>
<td>732,259</td>
<td>621,011</td>
<td>440,494</td>
<td>5,790,828</td>
<td>4,916,327</td>
<td>(874,501)</td>
<td>(1,244,343)</td>
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<td>CAPITAL EQUIPMENT</td>
<td>40,519</td>
<td>37,021</td>
<td>36,156</td>
<td>35,307</td>
<td>39,671</td>
<td>41,813</td>
<td>36,203</td>
<td>36,203</td>
<td>36,203</td>
<td>375,302</td>
<td>336,036</td>
<td>(39,266)</td>
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<td>WASHINGTON AQUEDUCT</td>
<td>16,875</td>
<td>59,628</td>
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<td>17,164</td>
<td>27,925</td>
<td>37,122</td>
<td>14,723</td>
<td>11,940</td>
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<td>ADDITIONAL CAPITAL PROJECTS</td>
<td>57,394</td>
<td>96,649</td>
<td>70,905</td>
<td>52,471</td>
<td>67,496</td>
<td>78,935</td>
<td>50,926</td>
<td>48,143</td>
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<td>429,070</td>
<td>416,097</td>
<td>(112,909)</td>
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<td>TOTAL CAPITAL BUDGETS</td>
<td>567,507</td>
<td>647,004</td>
<td>668,633</td>
<td>619,913</td>
<td>735,924</td>
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<td>783,185</td>
<td>669,154</td>
<td>496,528</td>
<td>409,140</td>
<td>6,419,899</td>
<td>5,432,489</td>
<td>(987,410)</td>
<td>13,377,458</td>
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</table>

### Prior Year Board Approved CIP

- Prior Year Board Approved CIP: 471,267

### Delta (inc)/dec

- Delta (inc)/dec: (91,367) (106,419) (168,206) (119,995) (64,440) (190,836) (215,119) (76,892) (6,060) (409,140) (987,410) (1,244,343)
**DC Water Budget Overview**  
**FY2022-2031 Proposed Capital Investments of $6.4 billion**

- **$1.2 billion**
  - Fully funds DC Clean Rivers and other CSO projects to meet Consent Decree requirements

- **$375.3**
  - Invests in process equipment, specialized vehicles, and information technology infrastructure; establishes funding for the innovation program

- **$253.8 million**
  - Invests in the Aqueduct's capital infrastructure

- **$102.2 million**
  - Constructs the new Fleet and Sewer Facilities, renovates the Historic Main Pump Station, and restores the Main & O campus seawall

- **$65 million**
  - Improves stormwater pump stations to relieve local flooding

- **$1.4 billion**
  - Ramps up to 1.0% rehabilitation for small sewer lines per year in FY 2024 and beyond

- **$1.2 billion**
  - Funds rehabilitation and upgrades at Blue Plains

- **$629.3M**
  - To remove all lead service lines by 2030

- **LEAD FREE DC**

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*Infographic elements with percentages and dollar amounts.*
Program Increases

- Wastewater – By $56M to $1.21B
- DCCR – By $89M to $1.12B ($232M Lifetime budget increase)
- CSO – By $5M to $100M
- Stormwater – By $1M to $65M
- Sewer – By $50M to $1.36B
- Water – By $682M to $1.83B (includes LFDC $629M)
- Capital Equipment – By $39M to $375 million
- Washington Aqueduct – By $74M to $254 million

Program Decrease

- Non-Process – By $8M to $102M ($6M Lifetime budget increase)
DC Water 10-Year CIP Projects Spending Projection

$ in thousands

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Process Facilities</th>
<th>Clean Rivers</th>
<th>Wastewater Treatment</th>
<th>Water &amp; Sewer Infrastructure*</th>
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<tr>
<td>FY22</td>
<td>$31,439</td>
<td>$147,347</td>
<td>$85,978</td>
<td>$245,348</td>
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<td>FY23</td>
<td>$12,051</td>
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<td>FY26</td>
<td>$6,620</td>
<td>$147,762</td>
<td>$132,436</td>
<td>$381,610</td>
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<td>FY27</td>
<td>$3,351</td>
<td>$165,368</td>
<td>$165,310</td>
<td>$409,950</td>
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<td>FY28</td>
<td>$1,778</td>
<td>$214,664</td>
<td>$129,249</td>
<td>$386,568</td>
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<td>FY29</td>
<td>$387</td>
<td>$143,867</td>
<td>$121,373</td>
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<td>FY30</td>
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<td>$39,054</td>
<td>$126,710</td>
<td>$272,730</td>
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<tr>
<td>FY31</td>
<td>$2,000</td>
<td>$-</td>
<td>$141,085</td>
<td>$215,939</td>
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*Includes the following Service Areas: Water, Sanitary Sewer, Stormwater, and non-Clean Rivers portion of Combined Sewer Overflow Capital Projects only – excludes Capital Equipment and Washington Aqueduct spending forecast.

- Cash disbursements basis
As large regulatory mandated projects are completed, increased investments can be made in our aging water and sewer infrastructure.

<table>
<thead>
<tr>
<th>Mandates</th>
<th>1A</th>
<th>2A</th>
<th>2B</th>
<th>2C</th>
<th>2D</th>
<th>3A</th>
<th>3B</th>
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<td>Agreements, Regulatory standards, Court orders, Issues and Permits requirements, Stipulated Agreements, Etc.</td>
<td>$154,484</td>
<td>$15,029</td>
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<td>$166,827</td>
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<td>$699</td>
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<td>32%</td>
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<tr>
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<td>$147,762</td>
<td>$134,922</td>
<td>$37,563</td>
<td>$1,189</td>
<td>$237,784</td>
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<td>$165,363</td>
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<td>$214,664</td>
<td>$130,675</td>
<td>$48,912</td>
<td>$2,712</td>
<td>$191,334</td>
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<td></td>
<td>$143,867</td>
<td>$140,653</td>
<td>$27,111</td>
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<tr>
<td></td>
<td>$39,054</td>
<td>$68,089</td>
<td>$40,732</td>
<td>$0</td>
<td>$176,511</td>
<td>36%</td>
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<tr>
<td></td>
<td>$50</td>
<td></td>
<td>$2,516</td>
<td>$19,560</td>
<td>$0</td>
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<tr>
<td>Total</td>
<td>$1,124,077</td>
<td>$158,715</td>
<td>$1,301,178</td>
<td>$411,536</td>
<td>$10,891</td>
<td>$1,877,185</td>
<td>$1,536,316</td>
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<tr>
<td>% of Total</td>
<td>17.5%</td>
<td>2.5%</td>
<td>20.3%</td>
<td>6.4%</td>
<td>0.2%</td>
<td>28.2%</td>
<td>23.9%</td>
</tr>
</tbody>
</table>

- Cash disbursements basis
CIP by Priority

10-Year Capital Projects - Total $5.79 billion, an increase of $870 million

Dominant Priority | Secondary Priority

**DC Clean Rivers**

- 1A Mandates

**Blue Plains**

- 3B Good Engineering
  - 1A Mandates
  - 2C Potential Failure

**Water**

- 2B Board Policy
  - 3A Good Engineering High Payback

**LFDC**

- 2B Board Policy

**Sewer**

- 3A Good Engineering High Payback

**Non-Process**

- 3B Good Engineering

**Stormwater**

- 3B Good Engineering

- Anacostia, Potomac and Rock Creek
- Blue Plains Switchgear, Biosolids Blending Development Center, Blue Plains Solids Processing Building
- Small Diameter Water Main Replacements, Fire Hydrant Replacements, Large Diameter Water Main Rehabs
- Lead Free DC
- Local Sewer Rehabs, Potomac Interceptor Rehabs, Major Sewer Rehabs
- Main and O redevelopment Efforts,
- Storm Water Pump Stations Rehab, Storm Sewer Rehabs
DC Water CIP
Program by Program Investments

Healthy, Safe and Well
Reliable
Resilient
Sustainable
Equitable
Wastewater Blue Plains ($1.22 billion)
Program Portfolio

Liquid Processing - $658 million
384 MGD Average; 780 MGD Peak

Solids Processing - $214 million

Plantwide - $282 million

Enhanced Nitrogen Removal Facilities - $60 million
>90% complete; Expansion of secondary treatment to meet nitrogen discharge permit limit with future load
68 Planned projects to address plant reliability
Blue Plains Major Projects – Investments for Sustainability and Resilience

Design-Build Project to install remaining portions of floodwall to protect Blue Plains from 500-year frequency event.

- Biosolids Curing Pad to produce cured product and diversify product market.
- Solar Panels to be installed on roof of Curing Pad
Sewer ($1.36 billion)
Program Portfolio

Sanitary interceptor/trunk sewers/force mains $639 million
• Program is for 170 miles of sewers
• Assessment of about 10 miles of Sanitary interceptor/trunk/force mains a year.
• Rehabilitation major sewers such as Anacostia Force Main and Gravity Sewer, Potomac Interceptor, and others.

Sewer Ongoing $144 million
• Inspection of 1,400 miles <12-inch diameter local sewers at 12 mi/month.
• Cleaning and root control
• Emergency repair of collapsed and broken sewers.

Sanitary Collection Sewers $326 million
• Inspection of about 40 miles of collection sewers (>12-in and <60-in dia.) a year.
• Rehabilitation of 1% of the collection sewers a year as of 2024.
Sewer ($1.36 billion) Program Portfolio

Sanitary Pumping Facilities $170 million
• Maintain compliance with consent decree for firm capacity
• Address reliability and resiliency for climate change and flood hazards
• SCADA, Electrical, Mechanical
• Code Compliance, Safety

Sewer Program Management $84 million
• September 10, 2020 Flooding Study and BWV Program

Limited SSES:
• Smoke testing
• Flow testing
• CCTV Inspection
Sewer System Age

Average Age and Service Life Expectancies by Sanitary Sewer Material Type

### Small SEWER
- **Average Age:** 86 Years
- **Service Life:** 541 miles with 16 years remaining
Combined Sewer Overflow without Clean Rivers ($100 million) and Stormwater ($65 million) Program Portfolios

- Maintain compliance with consent decree for firm capacity at CSO pump stations
- Address reliability and resiliency for climate change and flood hazards

**Combined Sewer Overflow $100 million**
- Main Pump Station
- Potomac Pump Station
- Inflatable Dams at CSO Outfalls

**16 Stormwater Pumping Facilities $43 million**
- Pumps, Electrical, and code compliance upgrades
- SCADA monitoring and control
- Safety and security
Water ($1.83 billion)  
Program Portfolio

Water Distribution $880 million

- Small Diameter Water Main Replacement:  
  - Currently 1% goal; additional budget needed to ramp up to 1.5% starting FY28.  
  - As of now, 60 miles replaced, 21 miles in construction, 49 miles in design, 17 miles in planning.

- Large Diameter Water Mains:  
  - Restart Large Valve Replacement (LVR) Program.  
  - Continue inspecting 5 miles/year.

Water Storage Facilities $51 million

- Water Storage Facilities  
  - 7 active storage facilities  
    - 5 storage facilities scheduled for upgrades  
    - 2 storage facilities will be mothballed  
    - Construct a new storage facility in 2nd High - feasibility

Water Pumping Stations $42 million

- Upgrade 4 pumping stations: Bryant Street, Ft Reno, and Anacostia and 16th St.
Water ($1.83 billion)
Program Portfolio

Water Ongoing $177 million

- Fire hydrant replacement
- Valve replacement
- Replacement of distribution mains with WQ issues
- Flushing of the water distribution system
- Repair pipe breaks

Third Street Tunnel Water Main Repair

Water Program Management $51 million

- Vulnerability assessment and emergency response support
- District Metering
- Asset Management of water mains
- Master Plan / Facilities Plan support
- Water assets feasibility studies
- Planning support, project development for CIP projects
- Water System Program strategy development support
Average Age and Service Life Expectancies by SDWM Cohort pipe material

**Average Age and Service Life Expectancies**
Small Dia. Water Mains Cohort Type - FY2022

**Average age 80 Years**

- **Ductile Iron**: 220 mi; 21%, 22 yrs
- **Lined Spun Cast Iron**: 210 mi; 20%, 68 yrs
- **Unlined Spun Cast Iron**: 334 mi; 31%, 89 yrs
- **Unlined Pit Cast Iron**: 293 mi; 27%, 120 yrs

**WATER**
1,063 miles
Average Age 80 Years
627 miles with less than 16 years life remaining
• The AWWA Partnership for Safe Water Distribution System Optimization Program goal for a fully optimized distribution system is 15 breaks/100 miles/year
• DC Water averages 35 breaks/100 miles/year
Water Quality (WQ) Complaints (2018 – 2021)

• ~60% of the SDWM budget allocated to WQ
• Flushing and other operations help to address WQ complaints

Number of Water Quality Complaints by Year

*2020 - missing data from October to December
Lead Free DC (LFDC) Program

• Lead Free DC Initiative will replace more than 28,000 service lines with lead or galvanized-iron pipe by 2030

• DC Water developed a model to use water quality and health equity data to prioritize lead service line replacement projects for vulnerable populations most impacted by lead exposure in historically underserved communities

• Ranks blocks according to the health benefit and social impact of lead service line replacement so that projects can be funded and executed equitably

• Estimated cost of $629 million for replacement work, plus additional and separate funds for small diameter water main replacement

Table: LFDC Proposed Budget

<table>
<thead>
<tr>
<th>Program</th>
<th>Public Side ($ in thousands)</th>
<th>Private Side ($ in thousands)</th>
<th>Total FY22-30 ($ in thousands)</th>
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</thead>
<tbody>
<tr>
<td>CIPERR</td>
<td>409,523</td>
<td>57,007</td>
<td>466,530</td>
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<tr>
<td>VFRP</td>
<td>84,307</td>
<td>7,951</td>
<td>92,258</td>
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<tr>
<td>LPRAP</td>
<td>70,163</td>
<td>70,163</td>
<td>70,163</td>
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<tr>
<td>Total</td>
<td>493,830</td>
<td>135,121</td>
<td>628,951</td>
</tr>
</tbody>
</table>

Capital Improvement Project and Emergency Repair Replacement ("CIPERR")

- Public Space: Lead
- Private Property: Lead
- DC Water pays 100% of public-side costs
- The District pays 100% of private-side replacement costs
- DC Water-initiated replacements during planned CIP work and emergency repairs

Lead Pipe Replacement Assistance Program ("LPRAP")

- Public Space: Non-Lead
- Private Property: Lead
- The District pays 50-100% of private-side replacement costs
- DC Water pays 100% of public-side costs
- Property owner pays 100% of private-side replacement costs
- Customer-initiated replacements

Voluntary Full Replacement Program ("VFRP")

- Public Space: Lead
- Private Property: Lead
- DC Water pays 100% of public-side costs
- Property owner pays 100% of private-side replacement costs
- Customer-initiated replacements

Lead Free DC Programs

- CIPERR
- VFRP
- LPRAP

74% 11% 15%
DC Clean Rivers ($1.12 Billion)
Program Portfolio

- Anacostia LTCP Projects ($188 million)
- Potomac LTCP Projects ($742 million)
- Rock Creek LTCP Projects ($187 million)
Clean Rivers – What Has Been Achieved?

- Approx. $1.88 billion has been invested
- Achieved:

<table>
<thead>
<tr>
<th>Receiving Water</th>
<th>CSO Volume Reduction (mg/avg yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>Anacostia</td>
<td>90%</td>
</tr>
<tr>
<td>- Anacostia Tunnel</td>
<td></td>
</tr>
<tr>
<td>- Sewer separation</td>
<td></td>
</tr>
<tr>
<td>- Rehab pump stations and inflatable dams</td>
<td></td>
</tr>
<tr>
<td>Potomac</td>
<td>40%</td>
</tr>
<tr>
<td>- Rehab pump stations and inflatable dams</td>
<td></td>
</tr>
<tr>
<td>Rock Creek</td>
<td>13%</td>
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<tr>
<td>- GI, sewer separation and diversion improvements</td>
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</tr>
<tr>
<td>Total System</td>
<td>67%</td>
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</tbody>
</table>

Anacostia Tunnel from Mar 2018 – Nov 2021:
- Over **12.4 billion gallons** and **7,854 tons of trash**, debris, and other solids captured
- 90% capture (80% planned)
## Clean Rivers – What Will Remaining Projects Achieve?

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Status as of Jan 2022</th>
<th>Construction Timeframe</th>
<th>Approx. Remaining Cost ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CY - Anacostia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast Boundary Tunnel</td>
<td>90 mg tunnel</td>
<td>Construction</td>
<td>2017-2023</td>
<td>$188</td>
</tr>
<tr>
<td><strong>CZ – Potomac</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSO 025/026 Separation</td>
<td>Separate 2 CSO areas</td>
<td>Construction</td>
<td>2021-2022</td>
<td></td>
</tr>
<tr>
<td>Potomac Tunnel – Advance Utility Construction</td>
<td>Electric services &amp; utility relocation</td>
<td>Construction</td>
<td>2021-2023</td>
<td>$742</td>
</tr>
<tr>
<td>Potomac Tunnel Construction</td>
<td>29,000’ of 18’ ID tunnel</td>
<td>Design</td>
<td>2023-2030</td>
<td></td>
</tr>
<tr>
<td><strong>DZ - Rock Creek</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock Creek GI Project B</td>
<td>22 ac of GI</td>
<td>Construction</td>
<td>2022-2024</td>
<td>$187</td>
</tr>
<tr>
<td>Rock Creek GI Project C</td>
<td>25 ac of GI</td>
<td>No activity</td>
<td>2025-2027</td>
<td></td>
</tr>
<tr>
<td>Rock Creek GI Project D</td>
<td>25 ac of GI</td>
<td>No activity</td>
<td>2028-2030</td>
<td></td>
</tr>
<tr>
<td>Piney Branch Storage</td>
<td>4.2 mg storage facility</td>
<td>NEPA</td>
<td>2026-2029</td>
<td></td>
</tr>
</tbody>
</table>

### Project Performance

- Increase CSO capture from 90% to 98%
- Flooding relief in Northeast Boundary
- Increase CSO capture from 40% to 93%
- Increase CSO capture from 13% to 90%
Clean Rivers – Project Benefits

• CSO reduction – meets District Water Quality Standards
• Flooding relief in Northeast Boundary
• Provides equalization enabling nutrient reduction at Blue Plains to meet Chesapeake Bay TMDL
• Resiliency:
  • Provides redundancy when Blue Plains is out of service
  • Provides redundancy for pumping stations in the system, in the event of outage or to perform planned work
Clean Rivers – Project Benefits

• Eliminates five (5) inflatable dams
  • Three (3) on Anacostia River (completed)
  • Two (2) on Potomac River (upcoming as part of Potomac Tunnel)

• Eliminates Swirl Facility near RFK Stadium (completed)

• Benefits
  • Reduces risk of flooding
  • Reduces system complexity and costs
  • Reduces O&M costs – estimated savings of $1 million/yr.
Non-Process Facilities ($102 million)

Program Portfolio

Main and O Redevelopment Efforts $22 million

Main & O Seawall Restoration $12 million
575 Linear Feet

Historic Building Restoration, Main Pump Station
$15 million
Built 1904

Floatable Debris Dock Replacement $5 million
Non-Process Facilities ($102 million)
Program Portfolio

COF/CMF Renovations $6 million

Bryant St Pump Station Building Modifications $12 million

Roof and HVAC Replacements $19 million
1.9 million sf total roof area and over 2,000 HVAC assets
The overall FY 2022 budget is $40.5 million and reflects the Board-approved carry-over of $4.5 million from FY 2021 for the purchase of vehicles (anticipated for delivery in FY 2022).

Ten-year disbursements of $375.3 million for capital equipment include:

- **Recurring Capital Equipment and Reserves** – This covers the purchase/replacement of pumps, motors, HVACs, roof, renovations, laptops, computers, servers, fire hydrants and includes the Authority-wide reserves for new facilities and unplanned equipment needs.
- **Information Technology (IT) Projects** – Funds new projects and upgrades to various Authority-wide technology systems.
- **Fleet Equipment** – Earmarks $18 million from FY 2023 through FY 2025 to reduce backlog and help ensure that crews have the required equipment such as backhoes, jet-vacs, small and large dump trucks to meet operational needs.

Preventive/Predictive/Proactive Maintenance extends the life of assets and reduces cost.
Infrastructure Bill Funding
Infrastructure Investment and Jobs Act

$1.2 Trillion over 10 years

$550 Billion
new spending for
the next 5 years

$284 Billion
for surface
transportation

$266 Billion
for all other
critical infrastructure needs

$55 Billion
for water

$6.4 Billion
DC Water
10-Year
Proposed CIP
- DC will receive $355M
  over 5 years through
  DWSRF and CWSRF
  (most will support
  DC Water’s CIP)
### Federal/Infrastructure Funding

**Safe Drinking and Clean Water**

<table>
<thead>
<tr>
<th>Source</th>
<th>Anticipated DC Water 2022 to 2026 Total</th>
<th>Prospective Eligible Projects</th>
<th>DC Match</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Water Baseline (Current Grants)</td>
<td>$15.0M</td>
<td>Wastewater Treatment, Sewer System</td>
<td>45%</td>
</tr>
<tr>
<td>Clean Water Supplemental</td>
<td>$57.9M</td>
<td>Wastewater Treatment, Sewer System, Green Infrastructure</td>
<td>10% years 1 and 2 20% years 3 to 5</td>
</tr>
<tr>
<td>Clean Water Emerging Contaminants</td>
<td>$4.8M*</td>
<td>Wastewater treatment research projects</td>
<td>0%</td>
</tr>
<tr>
<td>Drinking Water Baseline (Current Grants)</td>
<td>$54.1M</td>
<td>Small Diameter Water mains, Water Storage Facilities, Water pump stations</td>
<td>20%</td>
</tr>
<tr>
<td>Drinking Water Supplemental</td>
<td>$100.9M</td>
<td>Small Diameter Water mains, Water Storage Facilities, Water pump stations</td>
<td>10% years 1 and 2 20% years 3 to 5</td>
</tr>
<tr>
<td>Drinking Water Lead Service Lines</td>
<td>$86.9M**</td>
<td>Lead Free DC Program. Public and Private side eligible</td>
<td>0%</td>
</tr>
<tr>
<td>Drinking Water Emerging Contaminants</td>
<td>$38.2M*</td>
<td>Washington Aqueduct emerging contaminant projects</td>
<td>0%</td>
</tr>
</tbody>
</table>

* $’s are DC Total, DC Water anticipated undetermined.  
**Additional $47.8M anticipated for 2026 to 2030 for total of $134.8M

Based on competing projects, DC Dept. of Energy & Environment (DOEE) determines allocations to DC Water
## Infrastructure Investment and Jobs Act Funding Alignment

<table>
<thead>
<tr>
<th>President's Infrastructure Bill Priorities</th>
<th>Infrastructure Investment and Jobs Act (pre-Reconciliation)</th>
<th>Proposed Projects/Program Areas</th>
</tr>
</thead>
</table>
| $15 billion in the EPA’s DWSRF and Water Infrastructure Improvements for the Nation Act (WIIN) for lead service line replacement | • $15B Lead (DWSRF/WIIN)  
• CDBG Funding                                                                                     | • Lead Free DC  
(Unfunded costs for LSLs, restoration and program management; limited water main replacement)    |
| Upgrade and modernize America’s drinking water, wastewater, and stormwater systems, tackle new contaminants, and support clean water infrastructure | • $11.7B CWSRF  
• $11.7B DWSRF  
• $5B PFAS  
• $1.4B Sewer Overflow/Stormwater Reuse Grants  
• $900M Other water provisions  
• $665M (ACOE) water-related environmental infrastructure assistance; Continuing Authorities Program (CAP)  
• $110B Roads and Bridges (GI and Stormwater facilities)  
• $1B - BRIC Program  
• $3.5B FEMA  
• $1B Cybersecurity Grant Program | • Water Distribution System, Pumping and Storage  
• Wastewater Treatment  
• Sanitary Sewer  
• Stormwater  

• Washington Aqueduct CIP  
• Alternative Water Supply (Travilah) |
| Spur jobs modernizing power generation and delivering clean electricity | • $5B Electric Grid Reliability and Resilience  
• $250M Rural and Municipal Utility Advanced Cybersecurity Grant/Technical Assistance Program  
• $550M Energy Efficiency and Conservation Block Grant  
• $7.5B Electric Vehicles  
• $2.5B Charging and Refueling Grant Program  
• $5B EV Charging Formula Program | • Solar  
• Thermal Energy Recovery  
• Renewable Natural Gas |
Opportunities, Risks and Sensitivities
Opportunities - Optimization and Revenue

• Programmatic Access to capture Federal and Industry Funding Opportunities
• Implement Granulation (Increasing sludge density) Technologies to Reduce Cost of Future Capacity
• Full Plant Deammonification (nitrogen removal with Annamox) to reduce Cost and Dependence on Chemicals
• Enhance/Expand Class A Biosolids Processing Facilities to Increase Biogas Production
  • Receiving facilities for Fats, Oils, Grease / Food Waste
• Implement Resource Recovery Options
  • Renewable Natural Gas (RNG)
  • Expansion of Solar Power Generation
  • Heat Recovery Options at Blue Plains / Sewer Heat Recovery for District Heating
• Implement a Microgrid within Blue Plains - Optimal Renewable Energy Distribution
• Diversify Bloom Products and Marketing
• Stormwater System Repair and Maintenance
• Supply Chain Disruption and Inflation
• Regulatory
  • Total Maximum Daily Load (TMDL) – Trash, Bacteria, PCBs, PFAS, CEC
  • Watershed Implementation Plans (WIPs) – Nitrogen from behind Conowingo Dam
  • Permitting – New NPDES Permit Conditions
  • Biosolids Land Application – PFAS, CEC, Phosphorus
  • Consent Decrees – Sewer System Overflow
• Climate Change – Seawall, Facility Hardening, CSO Program, Stormwater Capacity
• Community Driven Odor Control Infrastructure – Blue Plains, Main & O pumps stations
• Washington Aqueduct Capital Program Uncertainties and Potential for Privatization
Washington Aqueduct CIP
FY2023 and FY2024 CIP Budgets

FY2023 $81.8M, FY2024 $47.7M

Budget Increase:
DC Water’s share (FY2023 ~$59.55M, FY2024 ~$34.73M)

- Budgets reflect costs of total project vs. costs of partial repairs to aging infrastructure
- Cost Drivers
  - Underfunded projects due to increased project costs
  - Partial repairs prolonged total project completion creating increased future costs for customers
  - Stalled/delayed projects now require additional funding
Asset Management Strategy

Path Forward:

Asset management driven capital planning

- FEM Database – assessing efficiency
- Assess aging infrastructure
- Revise 10-year CIP/CIP prioritization
- Acquisition strategy