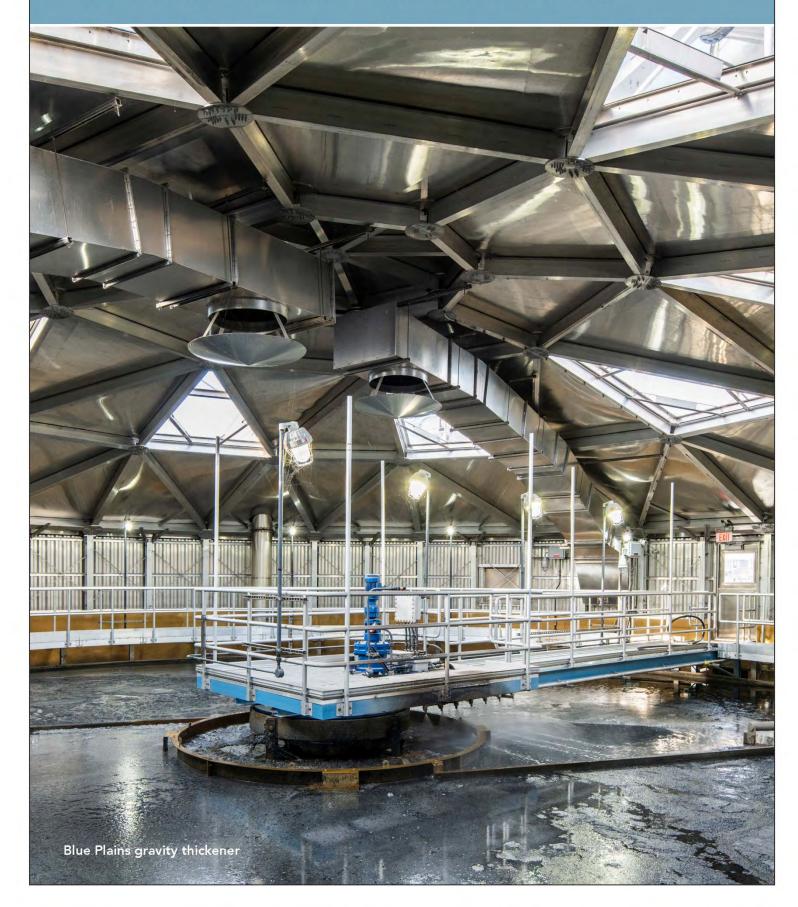


# Approved FY 2025 Budgets water is life® Section V: CAPITAL PROGRAMS





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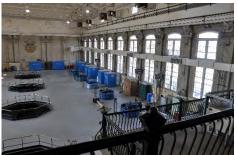
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(\$ in thousands)

Below are the annual total disbursements for the various projects within this service area.

FY 2023				FY	2024 - FY 2	033 CIP Dis	bursement	Plan				Lifetime
Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-yr Total	Budget
\$435,149	\$514,727	\$732,139	\$841,815	\$829,232	\$888,890	\$1,017,465	\$908,987	\$709,507	\$675,467	\$625,006	\$7,743,235	\$16,082,284







East Side Pumping Station, Green Roof

Bryant Street Pump Station

**Blue Plains** 

#### Overview

DC Water's Capital Improvement Program (CIP) supports the continuation of major capital asset investment in programs and projects that will upgrade the water distribution and sewer system as well as maintain compliance with federal mandates and improve the efficiency of operations. The CIP includes all mandated projects, rehabilitation of assets required to meet permit and other regulatory requirements, and projects to meet the immediate needs necessary to maintain existing service levels.

The CIP is presented on two different basis: the ten-year disbursement plan and lifetime budget.

- **Ten-Year Disbursement Plan** This category represents the actual cash disbursements "cash out of the door" for each project, excluding contingencies. It provides a more realistic approach and basis for forecasting the anticipated level of rate increases, as well as, timing for pursuing capital financing. In addition, the ten-year disbursement plan includes projected completion dates, program management, and in-house labor costs.
- Lifetime Budget The "lifetime" budget, reflects historical spending prior to, during, and beyond the current ten-year period, including in-house labor. Lifetime budgets represent projects active during the ten-year period and are the primary area of focus in budget development and day-to-day monitoring. In addition to "active" projects, the lifetime budget includes projects for which all activities have been completed during the previous fiscal year and are listed as "closed" in the CIP. Closed projects are dropped from the CIP in the next fiscal year, and new projects are continuously added, as needed, each fiscal year.

Detailed information on the individual projects can be found online at www.dcwater.com



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#### **CIP Development and Approval Process**

DC Water's capital budget review process begins each year in the spring and spans over several months. The Department of CIP Infrastructure Management, working with the Engineering Cluster, conducts a review of major accomplishments, priorities, status of major projects, and emerging regulatory and related issues impacting the capital program. The review process is a collaborative effort and involves departments with responsibility for managing the operations of DC Water services and capital projects; staff from the department of Finance; and members of the Senior Executive Team. The CIP is integrated into DC Water's ten-year financial plan; and is the primary driver of DC Water's projected rate increases over the ten-year planning period.

The formulation of the capital project budgets takes into consideration the imperatives of the Blueprint 2.0. All CIP project budget requests are prioritized to include regulatory requirements, mandates, health and safety, Board policy, potential failure, and good engineering practices. These criterions align with the five imperatives of the Blueprint 2.0 - to invest in high performing network of systems and assets to minimize service disruptions (Reliable), mitigate future impacts of climate change and flood hazards (Resilient), ensure inclusive and diverse representation (Equitable), embed a sustainably driven operating and delivery model (Sustainable) and improve water quality and ensure efficient use of economic resources (Healthy, Safe and Well). Starting with the FY 2024 budget process, DC Water incorporated the equity approach which entailed the use of risk and equity scores in prioritizing projects mainly for linear infrastructure such as the Lead Service Line Replacements, Small diameter Water Mains and Local Sewers. This approach would be considered for other CIP projects in the future as applicable.

DC Water's operating and capital budget proposals are delivered to the Board of Directors at the Budget Workshop in January. Management conducts two months of Committee review meetings with the Environmental Quality and Operations; Finance and Budget; and DC Retail Water and Sewer Rates Committees in January and February. The operating budgets, capital improvement program, and ten-year financial plan were adopted by the full Board on March 7, 2024.

After adoption by the Board of Directors, DC Water is required to submit its annual operating and ten-year capital budgets to the Mayor and the District of Columbia Council for review and comment. However, neither has the power to change DC Water's annual budgets. The District of Columbia includes DC Water's budgets in their submission to Congress.

## **Capital Authority Request**

Capital authority represents the amount of Congressionally-authorized funding that DC Water can use to administer its capital program. Sufficient authority is required to be in place prior to contracts being executed. Actual commitments within the service areas may vary up or down for a particular year. However, they are "not to exceed the total" FY 2025 – FY 2033 capital authority request in the amount of \$7.2 billion.

It should be noted that the execution of contracts requires the approval of the CEO and General Manager, as Contracting Officer, or his delegee. Major projects and contracts valued at \$1 million or more require DC Water Board approval.



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## **Capitalization Policy**

DC Water's capitalization policy determines how expenditures will be recognized and accounted. DC Water matches the financing of an asset to its projected useful life and the policy determines how projects will be financed.

#### **DEFINITION:**

- Capital Project an average life of 30 years and is financed with long-term debt
- Capital Equipment has a life of at least three years, is financed with short-term debt or cash, and an individual component cost of \$5,000 or more. The cost of capital equipment purchases that are part of a clearly identified capital program can be aggregated. In which case, all costs relating to the capital program are capitalized at the project level regardless of the individual component amount.

The following guidelines are used to categorize items as either capital equipment or an operating expense.

<b>Expenditure Type</b>	Financial Treatment	Definition
Rehabilitation		
Enhancement	Capitalize	Addition/replacement of a sub-component of an asset, to improve the "attributes" of the asset. This will include all such work as valve replacement or replacement of a section of a pipe.
Refurbishment	Capitalize	Expenditure on an asset that creates a material extension to the Estimated Operating Life (EOL) of the asset. This is distinct from maintenance work, which is carried out to ensure that an asset is able to perform its designated function for its normal EOL. An example of refurbishment would be pipe lining and pipe grouting.
Rebuild	Capitalize	Expenditures to reconstruct, renovate, remodel, remake or reassemble an asset or infrastructure after it has been damaged or destroyed. An example of a rebuild is a valve rehabilitation, reconstruction of the valve elements
Replacement	Capitalize	Expenditure to replace substantially all of an asset. An example is replacement and installation of a new pipe including the ensuing disinfection applications and all associated activities relating to the replacement
Repair	Expense	Expenditure on an asset that maintains or restores the design functionality or attributes of an asset, enabling the asset to perform its intended function during its EOL. Examples of these will include service line repairs such as clamp application on service pipes, bolt application/replacement/adjustment, small scale chemical applications such as use of dechlorinating tablets, meter shut off valve, curb stop, small service line repairs that does not involve replacement nor meter housing, high pressure jet vacuum or any other obstruction removal methodology
Maintenance	Expense	Scheduled and recurring costs for the continued performance of an asset



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	FY 2023	_	_	_	FY 2	024 - FY 2033 [	Dishursement l	Plan	_	_	_		Lifetime
	Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-yr Total	Budget
NON PROCESS FACILITIES	Accuai	11 2021	1 1 2023	1 1 2020	112021	11 2020	11202/	1 1 2050	1 1 2001	1 1 2002	1 1 2033	10 /1 100	Buaget
Facility Land Use	\$10,272	\$13,074	\$19.900	\$25,190	\$27.461	\$17,775	\$35,413	\$23,100	\$13,283	\$14,977	\$7,345	\$197.518	\$362,044
	\$10,272	\$13.074	\$19,900	\$25,190	\$27.461	\$17,775	\$35.413	\$23,100	\$13,283	\$14,977	\$7,345	\$197,518	\$362.044
WASTEWATER TREATMENT	, ,,	, ,,,,	, ,	, -, -	, ,,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,	, , , , ,	, ,, ,,	. ,	, ,, ,	, ,,,,	7 - 7 -
Liquid Processing	\$27,726	\$31,049	\$37,484	\$62,215	\$82,863	\$90,298	\$109,684	\$99,567	\$106,731	\$64,332	\$59,904	\$744,128	\$1,383,302
Plantwide	\$6,551	\$21,440	\$35,957	\$43,147	\$49,891	\$43,837	\$45,111	\$27,192	\$18,602	\$3,489	\$3,153	\$291,817	\$542,512
Solids Processing	\$14,297	\$11,166	\$28,652	\$27,041	\$10,790	\$29,142	\$31,598	\$34,275	\$38,154	\$23,317	\$11,609	\$245,744	\$985,128
Enhanced Nitrogen Removal Facilities	\$1,786	\$1,495	\$1,198	\$1,084	\$2,599	\$1,324	\$8,244	\$24,198	\$11,320	\$450	\$0	\$51,914	\$437,838
<u>_</u>	\$50,359	\$65,150	\$103,291	\$133,487	\$146,143	\$164,601	\$194,637	\$185,233	\$174,807	\$91,587	\$74,666	\$1,333,603	\$3,348,779
COMBINED SEWER OVERFLOW			·	<u> </u>			<u> </u>		<u> </u>				
DC Clean Rivers Program	\$92,366	\$118,913	\$204,033	\$220,390	\$212,583	\$189,057	\$147,147	\$77,719	\$0	\$0	\$0	\$1,169,843	\$3,266,222
Combined Sewer Overflow Program	\$1,392	\$4,880	\$9,375	\$10,933	\$4,032	\$4,693	\$7,653	\$14,644	\$4,041	\$0	\$0	\$60,249	\$164,527
	\$93,758	\$123,793	\$213,408	\$231,323	\$216,615	\$193,750	\$154,800	\$92,363	\$4,041	\$0	\$0	\$1,230,093	\$3,430,748
STORMWATER													
Storm Local Drainage Program	\$194	\$491	\$3,461	\$2,886	\$43 I	\$424	\$226	\$265	\$303	\$324	\$303	\$9,114	\$38,640
Storm On-Going Program	\$821	\$225	\$575	\$643	\$846	\$1,084	\$1,287	\$935	\$500	\$500	\$500	\$7,094	\$11,553
Storm Pumping Facilities	\$2,341	\$4,847	\$8,069	\$2,693	\$1,050	\$3,024	\$1,755	\$5,497	\$8,491	\$5,507	\$3,747	\$44,680	\$64,227
Stormwater Program Managemet	\$0	\$1,288	\$851	\$338	\$0	\$0	\$0	\$0	\$138	\$440	\$681	\$3,736	\$13,678
Stormwater Trunk/Force Sewers	\$168	\$442	\$609	\$1,399	\$1,477	\$0	\$0	\$0	\$0	\$0	\$0	\$3,926	\$28,977
	\$3,523	\$7,293	\$13,565	\$7,958	\$3,804	\$4,532	\$3,268	\$6,697	\$9,432	\$6,772	\$5,23 I	\$68,551	\$157,075
SANITARY SEWER													
Sanitary Collection System	\$4,661	\$6,087	\$26,323	\$36,510	\$26,783	\$35,728	\$108,247	\$82,942	\$61,529	\$113,099	\$95,612	\$592,860	\$774,096
Sanitary On-Going Projects	\$13,562	\$13,398	\$14,489	\$13,643	\$13,384	\$16,037	\$29,818	\$26,474	\$26,466	\$26,964	\$26,177	\$206,851	\$292,096
Sanitary Pumping Facilities	\$2,619	\$3,639	\$7,259	\$9,040	\$5,375	\$9,016	\$18,035	\$20,117	\$20,951	\$32,231	\$27,351	\$153,015	\$236,064
Sanitary Program Management	\$8,351	\$7,495	\$3,382	\$5,194	\$7,890	\$10,130	\$9,192	\$6,269	\$749	\$0	\$0	\$50,302	\$171,900
Interceptor/Trunk Force Sewers	\$28,502	\$49,980	\$40,780	\$59,467	\$65,207	\$98,125	\$122,523	\$113,669	\$118,076	\$97,019	\$87,706	\$852,553	\$1,423,347
	\$57,696	\$80,599	\$92,235	\$123,854	\$118,639	\$169,037	\$287,816	\$249,471	\$227,771	\$269,312	\$236,846	\$1,855,580	\$2,897,505
WATER													
Water Distribution Systems	\$52,980	\$59,596	\$99,260	\$117,420	\$96,830	\$106,485	\$113,946	\$130,215	\$133,781	\$141,444	\$152,827	\$1,151,805	\$2,152,849
Lead Free DC Program	\$42,094	\$62,339	\$83,333	\$93,925	\$98,921	\$99,443	\$101,674	\$104,867	\$42,753	\$22,166	\$22,166	\$731,587	\$1,827,132
Water On-Going Projects	\$11,131	\$14,107	\$15,339	\$15,041	\$16,158	\$15,132	\$20,691	\$21,601	\$20,879	\$22,623	\$20,404	\$181,974	\$280,813
Water Pumping Facilities	\$4,078	\$6,277	\$8,131	\$8,562	\$6,143	\$7,452	\$5,689	\$3,625	\$1,786	\$0	\$0	\$47,664	\$84,432
Water Storage Facilities	\$2,784	\$7,462	\$5,813	\$7,837	\$21,093	\$31,911	\$26,562	\$18,876	\$8,037	\$33,648	\$32,582	\$193,821	\$306,734
Water Service Program Management	\$5,314	\$8,956	\$10,619	\$9,609	\$11,133	\$5,833	\$29	\$0	\$0	\$0	\$0	\$46,178	\$86,144
	\$118,381	\$158,736	\$222,494	\$252,395	\$250,278	\$266,256	\$268,591	\$279,184	\$207,235	\$219,880	\$227,979	\$2,353,028	\$4,738,104
CAPITAL PROJECTS	\$333,990	\$448,646	\$664,893	\$774,206	\$762,940	\$815,951	\$944,526	\$836,048	\$636,568	\$602,528	\$552,067	\$7,038,373	\$14,934,255
CAPITAL EQUIPMENT	\$26,431	\$30,535	\$31,477	\$31,839	\$30,523	\$37,169	\$37,169	\$37,169	\$37,169	\$37,169	\$37,169	\$347,390	\$347,390
WASHINGTON AQUEDUCT	\$74,728	\$35,546	\$35,770	\$35,770	\$35,770	\$35,770	\$35,770	\$35,770	\$35,770	\$35,770	\$35,770	\$357,472	\$357,472
ADDITIONAL CAPITAL PROJECTS	\$101,159	\$66,081	\$67,246	\$67,609	\$66,293	\$72,939	\$72,939	\$72,939	\$72,939	\$72,939	\$72,939	\$704,863	\$704,863
LABOR													\$443,166
TOTAL CAPITAL BUDGETS	\$435,149	\$514,727	\$732,139	\$841,815	\$829,232	\$888,890	\$1,017,465	\$908,987	\$709,507	\$675,467	\$625,006	\$7,743,235	\$16,082,284



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(\$ in thousands)

## **Prioritization Schedule**

The Authority evaluates and prioritizes capital projects based on a specific criteria. These criteria are fundamental in developing a CIP based on demonstrated needs and are set forth in the following table and described below.

Approximately 16 percent of the current CIP ten-year disbursements are for large regulatory mandates which includes the Clean Rivers Project. As we progress closer to the completion of the mandated projects, DC Water is able to increase investments in upgrading its aging water and sewer infrastructure.

#### **MEASURE OF PRIORITY**

	1.4	A	2A	2B	2C	2D	3A		3B	
	Mand	lates	Health & Safety	Board Policy	Potential Failure	High Profile Good Neighbor	Good Engi High Pa	_	Good Engineering Lower Payback	
	Agreen Regulatory s Court order and Pe requirer Stipulated Ag	standards, rs, Issues ermits ments, greements,	Required to address Public Safety	Undertaken as a result of the Board's commitment to outside agencies	Related to Facilities in danger of failing, or critical to meeting permit requirements	Address Public concerns	Need to fulfi and upgrade		Lower priority Projects	
FY 2024	\$120,058	23%	\$12,459	\$111,587	\$47,443	\$1,532	\$152,003	30%	\$69,644	\$514,727
FY 2025	\$213,048	29%	\$29,558	\$152,417	\$43,254	\$681	\$158,313	22%	\$134,867	\$732,139
FY 2026	\$222,641	26%	\$58,599	\$170,665	\$29,537	\$674	\$191,862	23%	\$167,837	\$841,815
FY 2027	\$227,487	27%	\$12,338	\$180,177	\$32,980	\$1,792	\$191,723	23%	\$182,735	\$829,232
FY 2028	\$189,057	21%	\$6,679	\$187,840	\$48,222	\$6,195	\$230,815	26%	\$220,083	\$888,890
FY 2029	\$147,147	14%	\$860	\$198,183	\$68,145	\$3,123	\$353,180	35%	\$246,827	\$1,017,465
FY 2030	\$77,719	9%	\$2,081	\$216,909	\$65,608	\$0	\$287,281	32%	\$259,388	\$908,987
FY 2031	\$0	0%	\$1,197	\$145,298	\$43,075	\$0	\$255,140	36%	\$264,798	\$709,507
FY 2032	\$0	0%	\$969	\$123,631	\$34,039	\$1,490	\$294,518	44%	\$220,821	\$675,467
FY 2033	\$1,490	0%	\$0	\$125,191	\$28,147	\$0	\$276,140	44%	\$194,038	\$625,006
Total	\$1,198,649		\$124,740	\$1,611,897	\$440,449	\$15,486	\$2,390,976		\$1,961,038	\$7,743,235
% of Total	15.5%		1.6%	20.8%	5.7%	0.2%	30.9%		25.3%	



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(\$ in thousands)

Below are the annual total disbursements for the various projects within this service area.

FY 2023				FY 2	024 - FY 20	33 CIP Di	sbursemen	t Plan				Lifetime
Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-yr Total	Budget
\$10,272	\$13,074	\$19,900	\$25,190	\$27,461	\$17,775	\$35,413	\$23,100	\$13,283	\$14,977	\$7,345	\$197,518	\$362,044







Fleet Maintenance Facility

Fort Reno Renovation

Blue Plains SB-1 Warehouse Renovation

#### Overview

The Non Process Facilities Service Area accommodates projects approved under the Non Process Facilities Master Plan (NPFMP) and related improvements necessary to support DC Water activities and critical operations. The goals of this service area are the same as those in the NPFMP, which are designed to:

- Optimize equity and wellness for the DC Water non-process facilities working environment.
- Maximize efficient use of existing DC Water land and facilities.
- Introduce state-of-the-art material management technologies that will enhance inventory security, storage, distribution, and transportation.
- Implement green strategies, and sustainable design within DC Water infrastructure and facility planning.
- Maximize flexibility throughout DC Water facilities to support management of future treatment needs, distribution system operations, and innovative opportunities



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#### **PROGRAM AREAS**

Facility Land Use – The primary objective of this service area is to implement the Non-Process Facilities Master Plan (NPFMP) and to ensure that we are meeting the wellness and equity needs of our workforce while efficiently maintaining facilities to support our operations. The facility land use budget provides improvement projects to DC Water's regularly occupied facilities. These projects directly contribute to the sustainability of DC Water facilities assets as well as the health and well-being of our employees and visitors in DC Water's office and shop environments. Some of the projects included in this program are:

- Renovations to Bryant Street Campus This project will renovate and upgrade the building envelopes of the Bryant Street Pump Station, Meter Shop building and Distribution Shop building as well as provide upgrades to various interior spaces to support the efficient operation and wellness of the Water Operations, Department of Pumping and Sewer Operations, Meter Operations and Materials Management teams. The project will also perform selective demolition and reconstruction of the 200 Bryant Street Warehouse building that will modernize and improve material management operations at the Bryant Street campus. The parking areas around the Bryant Street campus will be updated to maximize parking availability given the growing needs but limited space.
- Fort Reno Pump Station-Field Ops Facility Concept design began in FY 2023 to renovate the historic envelope of the non-process facilities at the Fort Reno campus to include the office/water lab facility, upgrades to the historic watchman's tower and original pump station building. The project will also include needed improvements to interior spaces, the grounds and security fencing to provide a suitable working environment for DC Water employees and visitors as well as being a good neighbor in recognizing and maintaining the historic character of the campus buildings.
- Main & O Redevelopment Efforts This project relocated Sewer and Fleet Operations from the Main & O Campus in order to accommodate the redevelopment plans for the District of Columbia in and around the Navy Yard. The new Sewer Facility at Ames Place achieved occupancy in FY 2022, and the new Fleet Facility achieved occupancy in FY 2023. Remaining projects include the fencing and access point definition and hardscape improvements around the redefined campus beginning in FY 2024.
- Renovations to Blue Plains Central Operations Facility The 2013 NPFMP called for utilizing the Central Operations Facility as the operations center for Blue Plains as originally intended, consolidating all Engineering staff except Clean Rivers. In addition to efficiently organizing the space vacated by administrative personnel now located at the Headquarters Office, this project consists of identifying a range of potential tasks, such as structural/building envelope analysis, energy efficiency and resiliency upgrades, and improved space planning and document storage that will modernize and improve operations at the facility. The concept design for this project was completed in FY 2024. Procurement for the design is planned for FY 2024 with construction anticipated to start in FY 2026.
- CMF Renovations and Consolidation This project will provide for renovation of the existing Blue Plains Supply Building One (SB-1) to allow for consolidation of the Facilities Department in the SB-1 space. This will provide space for consolidation of Wastewater Operations within the Central Maintenance Facility. Design for the SB-1 renovation was completed in FY 2023. Abatement of hazardous materials and permits acquisition and procurement of construction for SB-1 renovation are planned for FY 2024 and FY 2025.



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- Floatable Debris Dock Replacement The existing docks are more than 25 years old and need to be replaced. The replacement slips (at least five) and associated new piles will allow flexibility and maneuverability of the boats, overcome the existing draft challenges of the river bottom, and most importantly, create safe conditions for the staff and their operations. Improvements include replacement of the docks, replacement of the onsite office facility, addition of solar to the site, updated fencing and lighting to further improve the working environment and efficiency of skimmer boat operations. Design Build procurement for the docks will begin in FY 2024 with design and permitting from FY 2024 through FY 2025 and the build activities are scheduled for FY 2026.
- Non-Process Heating, Ventilation, and Air Conditioning (HVAC) and Roofing Projects This project is meant to holistically address some of the HVAC and roofing/building envelope challenges that exist throughout DC Water facilities. This will include undertaking proper analysis of our needs given the characterization of the space (occupied versus non-occupied for example) and then developing remediation and renovation plans as identified by the assessment. Assessments started in FY 2022 and continue through FY 2024. As phases of assessments are completed, scoping for project design and construction will begin. The phasing of assessments by the Non-Process Program team prioritizes HVAC and roofing projects with immediate needs and beyond will implement an informed, proactive plan that considers the proper lifecycle costs of these assets to ensure that our facilities meet the needs of our operations and workforce.
- Anacostia Pump Station Field Ops Facility This project provides for planning, design and construction to renovate and repurpose the existing, historic Old Anacostia Pump Station. The existing Old Anacostia Pump Station was abandoned when the new Anacostia Pump Station was built on the same campus. Concept design was completed in FY 2023, design started in FY 2024, and construction is anticipated to start in FY 2026. The project will provide a suitable field operations location for DC Water Operations as well as doing our part as a good neighbor to surrounding Ward 8 neighborhood.
- Main & O Seawall Restoration This project provides for planning, design, and construction to rebuild the existing seawall to the south of the new headquarters building. Planning and evaluation of the condition of the existing seawall is planned for FY 2029 with design to start in FY 2030 and construction is anticipated to start in FY 2031. The project will provide continued protection by the seawall as well as doing our part as a good neighbor to support improvements to the Anacostia River waterfront area.
- Main Pump Station Building Modifications This project is in place to ensure the historic Main Pump Station will continue to last and humbly represent DC Water's lasting contributions to Washington DC's growth and success. This funding will support restoration to the building's exterior envelope and interior spaces to planning, design and for many years to come. The restoration requires planning, design and construction by historic building specialty companies. In addition to permitting with Department of Buildings (DOB) there will be extensive need for outreach and coordination with the State Historic Preservation Office (SHPO) and the U.S. Commission of Fine Arts (CFA). A Condition Assessment Report of the building was completed in FY 2024. Design services for this project will begin in FY 2025.
- Solar Projects This project provides planning, design, and construction for solar installations at multiple DC Water campuses. Planning includes solar projects at Bryant Street, Floatable Debris Dock, Fort Reno, Anacostia Pump Station, and Potomac Pump Station in FY 2024 through FY 2027. These projects will enhance the sustainability profile for DC Water and are intended to help support improvement of rates.



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- **Electric Vehicle Infrastructure** This project provides planning, design, and construction for Electric Vehicle (EV) charging stations at multiple DC Water campuses. The project aligns with DC Water's status as an environmental steward and with the District's Clean Energy DC's electric vehicle readiness and adoption approach. Planning for this project will start in FY 2024 with design projected to start in FY 2025 and construction to start in FY 2026.
- Sewer Services Office and Garage Expansion This is a fast-track project to expand the existing Sewer Services Facility at Ames Place by adding additional office and support spaces, as well as a garage enclosure for 25 fleet vehicles. Concept design with bridging documents is projected to begin in FY 2024 with construction planned to start in FY 2025. The project will provide a suitable field operations location for the Sewer Operations team.
- Operation Training Facility This project provides DC Water with a centrally located training facility for hands-on classroom training. This facility would cover the needs of operations and safety teams. It would also provide a space for DC Water's operations challenge teams to practice. Planning for this project will start in FY 2024, with design projected to start in FY 2025, and construction to start in FY 2026.
- Combined Water Quality & Wastewater Lab This project will provide DC Water with a world-class, state-of-the-art, National Environmental Laboratory Accreditation Program (NELAP) certified facility, equipped with highly conditioned/filtered air, an area for walk-through tours where guests and school students can see lab workers and instrumentation through glass. Planning for this project will start in FY 2024 with design projected to start in FY 2025 and construction starting in FY 2026.

#### **ACCOMPLISHMENTS**

- The new Non-Process Facilities Program Management (NPFPM) contract was executed in late FY 2021 by a woman-owned professional design and construction firm. There have been three supplemental agreements executed and a fourth one being processed.
- The new Fleet facility at Walker Mill has achieved occupancy and substantial completion in FY 2023. The Fleet Department vacated the old Fleet Building and moved into the new Fleet Facility in FY 2023. The new Fleet location is a professional office space that provides state-of-the-art shop space necessary to support the Fleet Departments mission.
- Forty-Seven (47) assessments have been completed under the roofing assessment project. The roofs
  are prioritized for replacement based on the condition rating with an initial list of three (3) roofs
  selected for replacement in FY 2024.
- A design Basic Ordering Agreement (BOA) was executed in FY 2024 to provide Engineering Design Services to support DC Water's portfolio of non-process facilities and assets including, but not limited to buildings, mechanical systems, electrical systems, solar systems, interior office spaces, seawall shoring systems, ground shoring systems, as well as hardscape and landscape. Having the design BOA in the program will reduce the average project duration since designs can be issued as task orders in lieu of going through the procurement process to solicit designers for various projects.



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DC Water is working with an approved vendor that is updating and developing the 10-year Land Use Master Plan to provide recommendations for new facilities as well as renovations and modifications of existing facilities to meet the ever-changing needs of our operations. This effort includes updating the goals of the Land Use Master Plan to align with Blueprint 2.0 and other initiatives and compliance requirements that have been developed in the past decade. The project is underway and slated to continue through FY 2025.

#### **OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS**

**Non-Process Facilities Program Management (NPFPM)** – This program impacts all DC Water workers and visitors by providing a safe, healthy, well and equitable environment for all DC Water support services and operational team home-base locations. The successful execution of the program supports a comfortable and engaged workforce. The comfortable and engaged workforce will be able to carry out the DC Water mission of providing safe, healthy drinking water to the DC area and properly treated wastewater for the District, and surrounding counties in a sustainable working environment. Through this working environment, the Program supports reliable operations and resiliency as emergencies occur.





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FACILITY LAND USE	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
DS New Headquarters Building	2008	Ongoing	\$161	\$1,306	\$6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,312	\$76,884	2025
HE Bryant Street Pump Station Building Mod.	2018	Ongoing	\$32	\$942	\$2,998	\$4,398	\$1,772	\$0	\$0	\$0	\$0	\$0	\$0	\$10,111	\$14,370	2027
HF Fort Reno Pump Station	2020	Ongoing	\$197	\$254	\$2,699	\$1,047	\$580	\$108	\$0	\$0	\$0	\$0	\$0	\$4,687	\$6,297	2028
HH Main & O Redevelopment Efforts	2015	Ongoing	\$6,993	\$2,103	\$114	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,218	\$56,130	2025
HJ Central Operations Facility Renovation	2019	Ongoing	\$11	\$380	\$496	\$933	\$813	\$153	\$0	\$0	\$0	\$0	\$0	\$2,775	\$7,214	2028
HK CMF Renovations And Consolidation	2020	Ongoing	\$31	\$222	\$1,197	\$3,401	\$2,428	\$810	\$480	\$314	\$0	\$0	\$0	\$8,853	\$11,261	2030
NZ Floatable Debris Dock Replacement	2020	Ongoing	\$417	\$201	\$2,142	\$979	\$2,095	\$2,516	\$2,272	\$560	\$0	\$0	\$0	\$10,765	\$12,603	2030
RV Non-Process Area - HVAC And Roofing Projects	2020	Ongoing	\$826	\$2,372	\$2,177	\$1,909	\$2,677	\$2,581	\$2,101	\$2,000	\$2,000	\$2,000	\$2,000	\$21,816	\$26,290	2033
SA Anacostia Pump Station - Field Ops East	2022	Ongoing	\$44	\$421	\$280	\$546	\$2,187	\$507	\$0	\$0	\$0	\$0	\$0	\$3,942	\$4,500	2028
SB Bryant Street Parking Modifications	2022	Ongoing	\$104	\$268	\$383	\$210	\$1,812	\$818	\$0	\$0	\$0	\$0	\$0	\$3,490	\$4,000	2028
SC Main & O Seawall Restoration (Phase 2 HQO)	2022	Ongoing	\$482	\$27	\$0	\$0	\$0	\$0	\$500	\$1,179	\$8,393	\$12,977	\$5,345	\$28,422	\$28,930	2033
SD Main PS Building Modifications - Historic Restoration	2022	Ongoing	\$364	\$491	\$128	\$621	\$314	\$4,819	\$6,773	\$1,054	\$0	\$0	\$0	\$14,199	\$15,005	2030
SE Non-Process Facilities Program Management	2022	Ongoing	\$546	\$2,406	\$712	\$462	\$264	\$0	\$0	\$0	\$0	\$0	\$0	\$3,844	\$5,334	2027
SF Solar Projects	2023	Ongoing	\$64	\$877	\$4,871	\$3,378	\$3,228	\$676	\$2,807	\$0	\$0	\$0	\$0	\$15,839	\$23,942	2029
SG Sewer Services Office and Garage Expansion	2024	New	\$0	\$48	\$270	\$3,195	\$1,802	\$0	\$0	\$0	\$0	\$0	\$0	\$5,314	\$6,800	2027
SH Operations Training Facility	2024	New	\$0	\$201	\$155	\$869	\$6,028	\$1,747	\$0	\$0	\$0	\$0	\$0	\$9,001	\$9,500	2028
SJ Electric Vehicle Infrastructure	2024	New	\$0	\$59	\$100	\$784	\$448	\$0	\$0	\$0	\$0	\$0	\$0	\$1,390	\$1,784	2027
SK Annex Building 8 at McMillan Reservoir Rehab	2024	New	\$0	\$54	\$166	\$630	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$850	\$1,200	2026
SL Water Quality Lab	2024	New	\$0	\$441	\$1,006	\$1,829	\$1,014	\$3,039	\$20,480	\$17,993	\$2,889	\$0	\$0	\$48,692	\$50,000	2031
TOTAL FACILITY LAND USE BUDGETS			\$10,272	\$13,074	\$19,900	\$25,190	\$27,461	\$17,775	\$35,413	\$23,100	\$13,283	\$14,977	\$7,345	\$197,518	\$362,044	
TOTAL NON PROCESS FACILITIES BUDGETS			\$10,272	\$13,074	\$19,900	\$25,190	\$27,461	\$17,775	\$35,413	\$23,100	\$13,283	\$14,977	\$7,345	\$197,518	\$362,044	



(\$ in thousands)

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Below are the annual total disbursements for the various projects within this service area.

FY 2023				FY 2	2024 - FY 20	33 CIP Di	sbursemen	t Plan				Lifetime
Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-yr Total	Budget
\$50,359	\$65,150	\$103,291	\$133,487	\$146,143	\$164,601	\$194,637	\$185,233	\$174,807	\$91,587	\$74,666	\$1,333,603	\$3,348,779







Blue Plains Gravity Thickener Phase 2

Reclaimed Effluent Pump Station Upgrade

Blue Plains Clarification at Wet Weather
Treatment Facility

#### Overview

Capital projects in the Wastewater Treatment Service Area are required to rehabilitate, upgrade, or provide new facilities at Blue Plains to ensure that it can reliably meet its National Pollutant Discharge Elimination System (NPDES) permit requirements and produce a consistent, high-quality dewatered biosolids product. DC Water's current NPDES permit requires wastewater treatment to a level that meets one of the most stringent NPDES discharge permits in the United States.

Blue Plains Advanced Wastewater Treatment Plant treats an annual average flow of 320 million gallons per day (MGD) and has a design capacity of 384 MGD, with a peak wet weather design capacity to treat more than one billion gallons per day. Wastewater flows in from the District of Columbia, Montgomery and Prince George's Counties in Maryland, and Fairfax and Loudoun counties in Virginia.

#### **PROGRAM AREAS**

**Liquids Processing** – Projects in this program area encompass upgrading and rehabilitating facilities involved in handling flows from the sanitary and combined sewer systems. These flows progress sequentially through the Plant processes and ultimately discharge the treated effluents into the Potomac River.

**Plantwide** – This program provides for upgrading, rehabilitating, or installing support systems and facilities that are required for both the liquid processing and solids processing programs.

**Solids Processing** — Biosolids processing involves reductions in volume along with treatment to meet applicable federal, state, and local requirements for beneficial reuse of biosolids. Treatment is provided by a system of processing facilities that include gravity thickening of primary sludge, floatation thickening of the biological waste sludge produced by the secondary and nitrogen removal processes, pre-dewatering of blended thickened solids by centrifuge, pretreatment of solids by thermal hydrolysis, anaerobic digestion, and final dewatering of Class A biosolids by belt filter press.



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**Enhanced Nitrogen Removal Facilities** – Provides facilities and upgrades to existing facilities needed at Blue Plains to meet the total nitrogen discharge limit assigned to DC Water. In addition to expansion of existing nitrification and denitrification processes, this program includes a new wet weather treatment facility that simultaneously treats combined stored sewage and reduces the peak flow through the biological treatment system. The necessary facilities to meet the current NPDES permit are in operation. An expansion will be required in the future to treat future increased influent loads to the Plant.

#### **ACCOMPLISHMENTS**

- Closeout of Raw Wastewater Pumping Station 2 (RWWPS2) The pump station delivers wastewater from the wastewater collection system to the east preliminary treatment processes at Blue Plains. This project updated aging electrical equipment, both replacing equipment that is beyond its useful life and relocating sensitive electronic equipment to a less corrosive environment to reduce the rate of deterioration of the equipment. All nine (9) pumps in this station have been rehabilitated and placed into service.
- Substantial Completion for Gravity Thickener Upgrades This project upgraded and placed into service ten (10) gravity thickeners as well as the primary sludge de-gritting systems and associated electrical and instrumentation and control systems. The primary sludge screening and de-gritting building is currently under operational demonstration.
- Substantial Completion for replacement of Filter Influent Pumps 1-10 These pumps deliver nitrified
  and denitrified effluent to the filtration process at Blue Plains, which removes solids and phosphorus
  to meet permit limits. All ten (10) pumps have been upgraded.
- Ongoing construction for the Reclaimed Final Effluent Pump Station Upgrade The Reclaimed Final Effluent (RFE) pump system is the source of water for the Process Service Water system (PSW) at Blue Plains. The project upgrades equipment for reliability as well as increasing capacity to meet the demand of facilities that have been added to the wastewater treatment plant in recent years.
- Ongoing construction under the Miscellaneous Facilities Upgrades Phase 7 project This project commenced critical rehabilitation to the filtration filter basins, concrete replacements throughout Blue Plains facility, and process pipeline replacement serving Operational facilities.
- Construction procurement and award for the Miscellaneous Facilities Upgrades Phase 8 project This
  project includes critical rehabilitation to the filtration filter basins, concrete rehabilitation, pipeline
  replacements throughout Blue Plains facility, pump station upgrades, addition of pre-dewatering
  centrifuges, and other critical rehabilitation throughout Blue Plains facility.
- Construction procurement and completion of final design for Headworks Influent and Effluent Structural Rehabilitation This project includes rehabilitation of the East Influent Sewer feeding Raw Wastewater Pump Station-1 is needed downstream due to the recent improvements done under the Blue Plains Influent Sewers Rehabilitation (BPISR) Contract. Rehabilitation within Blue Plains is needed for the East and West Outfall Relief Sewers feeding the East Process Screens Facility (EPSF) and Raw Wastewater Pump Station-2 (RWWPS-2) within Blue Plains.



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#### **ACCOMPLISHMENTS CONTINUED**

- Completion of final design for Central Office Facilities/Information Technology Electrical Switchgear Upgrades This project upgraded the electrical distribution systems and miscellaneous improvements in the Central Operations Facility and Information Technology facility as required. This project replaced the unit substation installed in 1976, equipment in Central Operations Facility and changed the AC power feeder point for the Information Technology (IT) building.
- Ongoing design for Headworks Electrical Upgrades The final design for this project is underway. The pre-final submittal has been completed. It includes HVAC improvements, miscellaneous concrete restorations, unit substations 2 and 4 relocation and replacement, lightning protection improvements, Process Control System (PCS) improvements, relocation of disconnect switches and actuator replacements, grit bridge rehabilitation and upgrades, replacement of electrical control panels, combustible gas monitoring and plantwide alarm additions, camera replacements, and PLC upgrades.
- Completion of final design for Pre-dewatering Centrifuges The equipment pre-selection for the centrifuges has been completed. This project restores to the biosolids program the last 2 of 12 planned pre-dewatering centrifuges (3 centrifuges each of the 4 Cambi trains) and connections to associated feed pumps, polymer pumps, solids chutes and odor control connections at the Main Process Train (MPT) pre-dewatering building.
- Completion of final design for Biosolids Curing Pad This project includes the design and construction of a Concrete Curing Facility located to the north of the biosolids blending facility for DC Water's exceptional quality Class A biosolids branded as Bloom™.
- Ongoing design for Filter underdrain and Backwash System upgrades The final design for this project is underway. The value engineering study, concept finalization report and intermediate design submittals have been completed. This project includes the following:
  - Concrete restoration for the filter and gullet walls and the flume channels and conduits
  - Filter underdrain system, which includes the underdrain, support gravel (if required), media, and air scour system, all of which are contained in the filter box.
  - Wash water system, including pumps, flow rate control meter and valves, and pressure reducing valves.
  - Air scour system, including blowers, discharge valves, and G&H valves which are shut-off valves for the north and south half of each filter, respectively.
  - Electrical system upgrades needed for the new mechanical equipment and to update the existing power distribution system, including the time synchronization system for all existing protective relays and Power Monitoring Transmitters (PMTs)
  - I&C system upgrades needed for the new mechanical equipment.
  - Demo and removal of obsolete, miscellaneous electrical and instrumentation.



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- Ongoing design for the PdNA Pilot Demonstration This project entails a large-scale demonstration of an ammonia-nitrogen removal process (Partial denitrification Anammox or PdNA) in one of the nitrification tanks of the full-scale system at Blue Plains AWTP. The PdNA process has potential to achieve significant savings in power and chemical usage compared to the present nitrification/denitrification processes used to meet current and future total nitrogen limits. The existing process requires the addition of methanol as a carbon source in the denitrification process, but the PdNA process would greatly reduce the methanol demand and therefore offer potentially significant operational cost savings.
- Ongoing planning for Blue Plains Floodwall Segments A, B, D The design-build Request for Quote (RFQ) and Request for Proposal (RFP) for this project are being finalized. Awaiting award of \$20M FEMA grant to partially fund this project. The project includes construction of walls to prevent flooding of the DC Water Blue Plains Advanced Wastewater Treatment Plant (AWTP) from the Potomac River. The floodwalls will be constructed to protect the AWTP from being inundated in a flood event up to a 500-year flood elevation with 3 feet of freeboard. This is the last of a series of flood mitigation projects for Blue Plains that includes the final three segments of walls and enhancements to existing flood protection features.
- Design procurement for Upgrades to the Primary Treatment Facility The planning for the 20-year replacement project was completed and design procurement is underway. It includes rehabilitation and upgrade of primary treatment facilities, specifically collector mechanisms and general facility upgrades.

#### **OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS**

**Liquid Processing Program** – Projects in this program enable DC Water to continue to produce excellent quality effluent into the Potomac River and meet NPDES permit requirements. Completion of RWWPS2 Upgrade improved system reliability and increased redundancy and has extended the useful life of assets in the station.

**Plantwide Projects Program** – Significant projects in this program upgrade the power distribution system at Blue Plains. These include investments in power monitoring and controls with a goal to establish a microgrid. This new equipment will be used to optimize the distributed energy system, which includes an on-site solar generation and a combined heat and power plant. The Microgrid Roadmap project was completed in June 2024.



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LIQUID PROCESSING	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
A2 Liquid Processing Program Management	2001	Ongoing	\$4,787	\$3,628	\$3,223	\$6,767	\$9,147	\$9,358	\$11,648	\$6,266	\$4,332	\$387	\$325	\$55,080	\$84,027	2033
B6 Primary Sedimentation Tank Covers	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$646	\$1,017	\$147	\$2,989	\$2,718	\$7,516	\$43,598	2035
B7 Primary Sedimentation Tank Odor Scrubblers	2031	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,433	\$906	\$3,189	\$5,528	\$45,870	2037
BC Headworks Influent Structures	2017	Ongoing	\$384	\$749	\$4,831	\$7,654	\$3,451	\$0	\$0	\$0	\$0	\$0	\$0	\$16,685	\$24,533	2027
BQ Grit and Screenings and Primary	2018	Ongoing	\$1,542	\$2,118	\$1,782	\$7,972	\$17,603	\$14,467	\$9,958	\$78	\$0	\$0	\$0	\$53,977	\$74,598	2030
BR Nitrification/Denitrification Facility	2006	Ongoing	\$0	\$520	\$851	\$209	\$92	\$0	\$0	\$0	\$0	\$0	\$0	\$1,673	\$54,803	2027
BT Filtration/Disinfection Facility Phase II	2008	Ongoing	\$0	\$11	\$0	\$1	\$794	\$1,175	\$107	\$0	\$0	\$0	\$0	\$2,088	\$24,018	2029
BV Raw Wastewater Pump Station No. 2 Upgrades	2013	Ongoing	\$59	\$263	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$263	\$46,898	2024
I4 Grit Removal Facilities - 20 Year Rebuild	2031	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,300	\$9,326	\$16,390	\$28,017	\$52,500	2033
I5 Raw Water Pump Stations I & 2 - 20 Year Rebuild	2026	New	\$0	\$0	\$0	\$186	\$836	\$941	\$10,659	\$10,530	\$72	\$0	\$0	\$23,224	\$29,000	2031
17 Primary Treatement - 20 Year Rebuild	2023	Ongoing	\$0	\$430	\$1,650	\$1,501	\$2,219	\$27,723	\$39,969	\$33,447	\$20,000	\$0	\$0	\$126,939	\$139,850	2031
IY Effluent Filter Upgrade	2017	Ongoing	\$10,581	\$11,651	\$9,397	\$15,260	\$30,071	\$26,952	\$18,986	\$4,547	\$0	\$0	\$0	\$116,864	\$169,842	2030
IZ Replace/Upgrade Influent Screens	2016	Ongoing	\$2,316	\$1,227	\$0	\$0	\$208	\$2,178	\$2,264	\$5,015	\$19,804	\$21,961	\$8,816	\$61,474	\$81,490	2033
J2 Replace/Upgrade Primary Treatment Mechanisms	2018	Ongoing	\$1,761	\$5,897	\$3,456	\$2,922	\$953	\$252	\$0	\$0	\$0	\$0	\$0	\$13,480	\$29,190	2028
J6 Deammonification Project	2013	Ongoing	\$0	\$1,283	\$3,108	\$206	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,597	\$5,948	2026
JC Secondary East and West - 20 Year Rebuild	2028	New	\$0	\$0	\$0	\$0	\$0	\$354	\$2,960	\$26,151	\$22,236	\$11,415	\$14,098	\$77,215	\$96,000	2034
LF Nitrification Reactor/Sedimentation - 20 year rebuild	2024	Ongoing	\$962	\$495	\$1,732	\$6,819	\$8,175	\$32	\$0	\$0	\$3,256	\$8,272	\$14,368	\$43,150	\$139,980	2039
OZ Grit Chambers I & 2 Upgrades	2017	Ongoing	\$25	\$0	\$1	\$376	\$474	\$3,337	\$4,766	\$30	\$0	\$0	\$0	\$8,985	\$15,130	2030
PD Secondary East & West Upgrades	2016	Ongoing	\$0	\$0	\$0	\$190	\$481	\$2,036	\$4,569	\$179	\$0	\$0	\$0	\$7,454	\$9,685	2030
PE Nitrification Reactor/Sedimentation Upgrades	2017	Ongoing	\$1,394	\$1,804	\$5,238	\$2,228	\$19	\$0	\$0	\$0	\$0	\$0	\$0	\$9,288	\$15,398	2027
RN Liquids Processing Rehabilitation	2020	Ongoing	\$0	\$104	\$1,909	\$8,472	\$6,536	\$441	\$0	\$0	\$0	\$0	\$0	\$17,462	\$23,321	2028
RW Long-term Concrete Rehabilitation Projects	2028	New	\$0	\$0	\$0	\$0	\$0	\$1,052	\$3,153	\$12,307	\$33,151	\$9,074	\$0	\$58,737	\$62,820	2032
UC Filtration/Disinfection Facility	2000	Ongoing	\$3,913	\$868	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$868	\$96,756	2024
UF Dual Purpose Sed Area Facilities 20yr Upgrade	2034	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,165	2034
UJ FIP Wall Pipe Replacement	2024	New	\$0	\$1	\$308	\$1,452	\$1,804	\$0	\$0	\$0	\$0	\$0	\$0	\$3,565	\$4,884	2027
TOTAL LIQUID PROCESSING BUDGETS			\$27,726	\$31,049	\$37,484	\$62,215	\$82,863	\$90,298	\$109,684	\$99,567	\$106,731	\$64,332	\$59,904	\$744,128	\$1,383,302	





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PLANTWIDE	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
AL Plantwide Project Program Management	2001	Ongoing	\$77	\$6,328	\$4,149	\$2,736	\$1,879	\$1,884	\$2,912	\$2,830	\$2,399	\$0	\$0	\$25,116	\$66,473	2031
BY Additional Chemical Systems Phase III	2025	New	\$0	\$0	\$17	\$170	\$223	\$1,572	\$959	\$0	\$0	\$0	\$0	\$2,940	\$3,822	2029
CV Laboratory Upgrades	2006	Ongoing	\$84	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,291	2023
CW Security at Blue Plains	2005	Ongoing	\$232	\$302	\$277	\$347	\$49	\$0	\$0	\$0	\$0	\$0	\$0	\$975	\$6,617	2027
El Plantwide Painting of Steel Pipes	2012	Ongoing	\$0	\$0	\$758	\$1,355	\$1,857	\$452	\$0	\$0	\$0	\$0	\$0	\$4,423	\$5,570	2028
GP Instrumentation & Control & Electric Program Management	2009	Ongoing	\$429	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2	\$6,373	2024
GW Control Systems Replacement	2022	Ongoing	\$0	\$372	\$201	\$852	\$964	\$3,534	\$11,398	\$9,940	\$5,367	\$169	\$0	\$32,796	\$37,000	2032
HL DWT - Process and Operations Jobs	2011	Ongoing	\$353	\$432	\$495	\$464	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$1,397	\$9,213	2027
IC Electrical Monitoring Systems	2015	Ongoing	\$314	\$607	\$530	\$2,005	\$11,089	\$4,798	\$0	\$0	\$0	\$0	\$0	\$19,029	\$26,130	2028
IT Hauled Waste Receiving Facility	2020	Ongoing	\$0	\$7	\$212	\$994	\$1,924	\$0	\$0	\$0	\$0	\$0	\$0	\$3,137	\$5,000	2027
IU Solar Photovoltaic System	2020	Ongoing	\$24	\$22	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22	\$960	2024
IV Blue Plains IT Backbone Fibre-Optic Cables Tubes	2016	Ongoing	\$847	\$238	\$668	\$771	\$9	\$0	\$0	\$0	\$0	\$0	\$0	\$1,687	\$5,899	2027
JF Construction of Flood Seawall	2019	Ongoing	\$0	\$590	\$9,809	\$9,888	\$6,015	\$0	\$0	\$0	\$0	\$0	\$0	\$26,302	\$40,564	2027
LS Miscellaneous Facility Projects FY 2013	2013	Ongoing	\$555	\$641	\$538	\$516	\$516	\$518	\$566	\$170	\$0	\$0	\$0	\$3,466	\$17,582	2030
LX Process Control System Upgrade	2021	Ongoing	\$258	\$2,302	\$129	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,430	\$4,000	2025
OD Plantwide Paving	2015	Ongoing	\$0	\$0	\$172	\$715	\$354	\$2,494	\$1,783	\$0	\$0	\$0	\$0	\$5,518	\$8,240	2029
OE Plantwide Drainage & Runoff	2016	Ongoing	\$516	\$2,696	\$2,822	\$1,175	\$2,356	\$555	\$0	\$0	\$0	\$0	\$0	\$9,604	\$19,112	2028
OG City Water & Sewer Upgrades at Wastewater Treatment Plant	2022	Ongoing	\$0	\$21	\$295	\$565	\$74	\$0	\$0	\$0	\$0	\$0	\$0	\$955	\$1,403	2027
OH Plantwide Demolition	2025	New	\$0	\$0	\$23	\$1,721	\$2,887	\$1,370	\$0	\$1,773	\$1,668	\$159	\$0	\$9,601	\$11,100	2032
OQ Plantwide Roofing Upgrades	2022	Ongoing	\$154	\$549	\$328	\$3,368	\$3,565	\$0	\$0	\$0	\$0	\$0	\$0	\$7,810	\$10,000	2027
OS Plantwide Lighting Upgrades	2017	Ongoing	\$0	\$439	\$497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$936	\$3,723	2025
PF Chemical System/Building Upgrades	2015	Ongoing	\$51	\$752	\$1,560	\$2,487	\$4,526	\$3,851	\$303	\$0	\$0	\$0	\$0	\$13,479	\$26,660	2029
TZ Electric Power System - Power Gear	2001	Ongoing	\$2,434	\$1,987	\$6,523	\$8,387	\$2,291	\$12,299	\$17,312	\$4,120	\$0	\$0	\$0	\$52,920	\$82,761	2030
U2 Wastewater Thermal Energy	2020	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$441	\$999	\$2,468	\$3,161	\$3,153	\$10,222	\$18,430	2033
US Main Substation Hardening	2025	New	\$0	\$0	\$391	\$232	\$2,332	\$3,319	\$485	\$0	\$0	\$0	\$0	\$6,759	\$9,279	2029
VI MFU8 - Rehabilitation and Emergency Response VIII	2023	Ongoing	\$0	\$2,911	\$3,493	\$1,286	\$277	\$165	\$0	\$0	\$0	\$0	\$0	\$8,133	\$10,280	2028
V2 MFU9 - Rehabilitation and Emergency Response IX	2023	Ongoing	\$0	\$8	\$1,888	\$1,954	\$1,950	\$1,943	\$417	\$0	\$0	\$0	\$0	\$8,160	\$10,280	2029
V3 MFUIO - Rehabilitation and Emergency Response - Plantwide X	2026	New	\$0	\$0	\$0	\$906	\$979	\$980	\$1,213	\$206	\$0	\$0	\$0	\$4,284	\$5,120	2030
WS Truck Scales Upgrade	2027	New	\$0	\$0	\$0	\$0	\$3,310	\$690	\$0	\$0	\$0	\$0	\$0	\$4,000	\$5,000	2028
XP Solar Project - Phase 2	2028	New	\$0	\$0	\$0	\$0	\$0	\$2,800	\$6,850	\$6,850	\$6,700	\$0	\$0	\$23,200	\$25,000	2031
YD Miscellaneous Projects	1999	Ongoing	\$223	\$234	\$182	\$252	\$458	\$612	\$471	\$304	\$0	\$0	\$0	\$2,515	\$51,630	2030
TOTAL PLANTWIDE BUDGETS			\$6,551	\$21,440	\$35,957	\$43,147	\$49,891	\$43,837	\$45,111	\$27,192	\$18,602	\$3,489	\$3,153	\$291,817	\$542,512	



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SOLIDS PROCESSING	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
AM Solids Processing Program Management	2001	Ongoing	\$0	\$470	\$1,234	\$1,547	\$1,493	\$1,355	\$1,888	\$2,451	\$1,853	\$345	\$328	\$12,965	\$26,630	2035
BX Gravity Thickener Upgrades Phase II	2010	Ongoing	\$12,966	\$3,090	\$1,624	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,713	\$85,593	2025
13 Biosolids Blending Development Center	2015	Ongoing	\$619	\$537	\$6,172	\$2,344	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,053	\$14,093	2026
LD Pre-Dewatering Additional Centrifuges	2020	Ongoing	\$319	\$107	\$2,201	\$3,915	\$770	\$0	\$0	\$0	\$0	\$0	\$0	\$6,993	\$10,051	2027
LE High Strength Waste Receiving Facility (Includes Fats, Oils & Grease)	2026	New	\$0	\$0	\$0	\$99	\$283	\$1,435	\$3,009	\$0	\$0	\$0	\$0	\$4,826	\$6,008	2029
RM Biosolids Rehabiiltation	2021	Ongoing	\$0	\$286	\$986	\$1,149	\$1,474	\$4,282	\$3,149	\$21,010	\$25,912	\$12,583	\$571	\$71,403	\$79,996	2033
SN GT Fermenter Conversion	2027	New	\$0	\$0	\$0	\$0	\$383	\$8,194	\$4,872	\$0	\$0	\$0	\$0	\$13,448	\$15,593	2029
TH THP/Digestion Facilities 20 yr Upgrade	2033	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$292	\$292	\$34,084	2036
TL RNG - Greener Bus Project	2024	New	\$0	\$5,948	\$15,017	\$14,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,364	\$44,000	2026
V4 MFU8 - Rehabilitation and Emergency Response - Biosolids X	2026	New	\$0	\$0	\$0	\$906	\$979	\$980	\$1,213	\$206	\$0	\$0	\$0	\$4,284	\$5,120	2030
XA New Digestion Facilities	1999	Ongoing	\$12	\$61	\$289	\$83	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$433	\$552,905	2026
XD Rehabilitation of Dewatered Sludge Loading Facility	2025	New	\$0	\$0	\$1,013	\$1,133	\$2,996	\$11,587	\$9,320	\$220	\$0	\$0	\$0	\$26,270	\$31,700	2030
XY Process Control & Computer Sys	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$7,799	\$10,389	\$10,389	\$10,389	\$10,417	\$49,382	\$54,000	2034
XZ Solids Processing Building / Dewatered Sludge Loading Facility	1999	Ongoing	\$381	\$669	\$117	\$1,464	\$2,412	\$1,309	\$348	\$0	\$0	\$0	\$0	\$6,319	\$25,357	2029
TOTAL SOLIDS PROCESSING BUDGETS			\$14,297	\$11,166	\$28,652	\$27,041	\$10,790	\$29,142	\$31,598	\$34,275	\$38,154	\$23,317	\$11,609	\$245,744	\$985,128	
ENHANCED NITROGEN REMOVAL	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
BI Enhanced Nitrogen Removal (ENR) North	2008	Ongoing		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$77,086	2022
E8 Enhanced Clarification Facilities	2009	Ongoing	\$834	\$874	\$1,198	\$1,084	\$658	\$67	\$0	\$0	\$0	\$0	\$0	\$3,882	\$180,327	2028
EE Filtrate Treatment Facilities	2009	Ongoing	\$389	\$284	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$284	\$108,294	2024
FG Secondary Treatment Upgrades for Total Nitrogen	2013	Ongoing	\$204	\$106	\$0	\$0	\$1,941	\$1,257	\$8,244	\$24,198	\$11,320	\$450	\$0	\$47,517	\$57,168	2032
FR Blue Plains Tunnel Dewatering Pumping Station	2010	Ongoing	\$0	\$176	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$176	\$35,657	2024
FS Bolling Overflow & Diversion	2010	Ongoing	\$359	\$55	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$55	\$56,391	2024
TOTAL ENHANCED NITROGEN REMOVAL BUDGETS			\$1,786	\$1,495	\$1,198	\$1,084	\$2,599	\$1,324	\$8,244	\$24,198	\$11,320	\$450	\$0	\$51,914	\$437,838	
TOTAL WASTEWATER TREATMENT BUDGETS			\$50,359	\$65,150	\$103,291	\$133,487	\$146,143	\$164,601	\$194,637	\$185,233	\$174,807	\$91,587	\$74,666	\$1,333,603	\$3,348,779	]



#### **Combined Sewer Overflow**

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(\$ in thousands)

Below are the annual total disbursements for the various projects within this service area.

FY 2023				FY	2024 - FY 2	033 CIP Di	sbursement	Plan				Lifetime
Actual	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10-yr Total	Budget
\$ 93,758	\$123,793	\$213,408	\$231,323	\$216,615	\$193,750	\$154,800	\$ 92,363	\$ 4,041	\$ -	\$ -	\$1,230,093	\$ 3,430,748







Rock Creek GI Facility

**Tiber Creek Sewer** 

**NEBT Mt Olivet Rd. Restoration** 

#### Overview

Similar to more than 700 older communities primarily in the Mid-Atlantic, Northeast, and Midwest portions of the country, a portion of the District of Columbia is served by a combined sewer system. Combined sewers convey both stormwater runoff and sanitary sewage from homes and businesses in a single pipe. In dry weather, the system delivers raw sewage to the Blue Plains Advanced Wastewater Treatment Plant. In wet weather, stormwater runoff also enters the system and, if the conveyance capacity of the system is exceeded, the excess flow spills into the waterways of the District of Columbia to prevent surface flooding and basement backups. This discharge is called Combined Sewer Overflow (CSO). Approximately one-third of the system is combined, mostly in the downtown and older parts of the city. There are 48 potentially active combined sewer overflows in the District.

DC Water has made substantial progress in the implementation of its CSO Long Term Control Plan (LTCP), called the DC Clean Rivers Project, to reduce CSOs that discharge to the Anacostia and Potomac Rivers, as well as Rock Creek. The first phase of the Anacostia River tunnel system was completed and all structures south of Robert F. Kennedy (RFK) stadium placed into operation as of March 20, 2018. The Northeast Boundary Tunnel which runs from RFK Stadium to 6th and R Streets, NW was commissioned on September 15, 2023, more than 1.5 years ahead of schedule, completing the Anacostia River Tunnel System. From March 20, 2018, through January 2024, the system has performed exceptionally well, capturing over 16.7 billion gallons of combined sewer and removing more than 10,137 tons of trash and debris, preventing it from being discharged to the Anacostia River.

DC Water continues to implement the Potomac River project (currently under construction) and Rock Creek projects (currently in design and planning). When fully implemented, combined sewer overflows will be reduced by a projected 96 percent city-wide during an average year (98 percent on the Anacostia River), resulting in improved water quality and significantly reducing debris in our nation's capital waterways.



#### **Combined Sewer Overflow**

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#### **PROGRAM AREAS**

*DC Clean Rivers* – The plan includes a variety of improvements throughout portions of the District served by combined sewers, including a series of massive tunnels and diversion facilities to control CSOs and mitigate surface flooding at known chronic flooding areas along the Rhode Island Avenue corridor and Mount Olivet Road/West Virginia NE, and a tunnel dewatering pumping station and wet weather treatment facility at Blue Plains. The commissioning of the NEBT on September 15, 2023, completed all the controls for the Anacostia River, ahead of the 2025 Consent Decree deadline. The Potomac River and Rock Creek controls are scheduled to be complete in 2030. The Potomac River controls include the CSO 025/026 sewer separation which was completed in March 2023 and Potomac Tunnel, whose Notice to Proceed (NTP) was issued in November 2023. The Rock Creek controls include a hybrid mix of green infrastructure (GI) and a storage tunnel optimizing the benefits provided by each technology. The hybrid approach comprises constructing GI to manage 92 impervious acres and a 4.2-million-gallon storage tunnel to control CSO 049 overflows in Piney Branch.

**Combined Sewer** – Projects within the Combined Sewer Program Area include rehabilitation and/or relocation of combined sewers and upgrades to pump stations. Most projects in this program area include planned upgrades to facilities based on our facilities plan.

#### **ACCOMPLISHMENTS**

- Commissioned the Northeast Boundary Tunnel (NEBT) on September 15, 2023. Continued working on the restoration, pavement, and demolition of temporary facilities.
- Issued the Notice to Proceed for the Potomac River Tunnel Contract B—Tunnel System Construction Project on November 9, 2023. The tunnel will be placed in operation by the Consent Decree deadline of February 8, 2030.
- Completed the Advance Utility Construction contract to provide electrical services and relocate utilities in advance of the Potomac River Tunnel construction on May 26, 2023.
- Completed the CSO 025/026 sewer separation project on March 17, 2023.
- Completed the second GI Rock Creek project (RC-B) on October 21, 2023.
- Continued the deployment of Clean Rivers' assets into DC Water's enterprise asset management system.
- Continued the coordination of preventive maintenance of Clean Rivers assets.
- Continued maintenance of the Green Infrastructure facilities.
- Working on National Environmental Policy Act (NEPA) Studies for Piney Branch Tunnel.
- Complied with regulatory requirements to implement project per specified schedule.



#### **Combined Sewer Overflow**

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#### **OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS**

**DC Clean Rivers** – This project aims to control combined sewer overflows to the Anacostia and Potomac Rivers and Rock Creek to meet the District's water quality standards, while improving the health of the Chesapeake Bay and addressing flooding in Northeast Boundary. This ongoing project includes green infrastructure initiatives that will divert stormwater runoff prior to entering the sewer system. All structures of the Anacostia River Tunnel System have been completed and are operational as of September 15, 2023. As of January 31, 2024, the Anacostia River Tunnel System had captured approximately 16.7 billion gallons of combined sewer overflows and 10,137 tons of trash, debris, and other solids. The system is achieving nearly 92% combined sewer capture rate, exceeding the projected 80% capture rate at this stage of implementation. The tunnel system will improve operational flexibility by providing alternate means of transferring flow to Blue Plains, by allowing temporary diversion of flows to the tunnel to facilitate operation, maintenance, and rehabilitation throughout the combined sewer system.

## **Combined Sewer System**



capital water is life financing overview financial plan rates&rev departmental summary glossary (\$ in thousands) FY 2023 Lifetime **DC CLEAN RIVERS** FY 2024 FY 2025 FY 2026 FY 2027 FY 2028 FY 2029 FY 2030 FY 2031 FY 2032 FY 2033 10-Yr Total Completion Status Start Actual Budget \$59,648 \$26,176 \$4,372 \$758 2030 CY Anacostia Long Term Control Plan Projects 2005 Ongoing \$706 \$704 \$434 \$442 \$0 \$0 \$0 \$1,927,896 \$19,013 \$82,922 \$184,345 \$201,529 \$200,440 \$165,093 \$94,214 \$62,538 \$0 \$1,134,591 2030 CZ Potomac Long Term Control Plan Projects 2010 Ongoing \$0 \$0 \$15,317 DZ Rock Creek CSS LTCP Project 2010 Ongoing \$13,705 \$9,815 \$18,104 \$11,437 \$23,259 \$52,499 \$14,740 \$0 \$0 \$0 \$203,734 2030 **TOTAL DC CLEAN RIVERS BUDGETS** \$92,366 \$118,913 \$204,033 \$220,390 \$212,583 \$189,057 \$147,147 \$77,719 \$0 \$0 \$0 \$1,169,843 \$3,266,222 FY 2023 Lifetime **COMBINED SEWER** FY 2024 FY 2025 FY 2026 FY 2027 FY 2028 FY 2029 FY 2030 FY 2031 FY 2032 FY 2033 10-Yr Total Start Status Completion Actual Budget BA DC Water Low Impact Development Projects 2002 Ongoing \$168 \$72 \$16 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$256 \$2,870 2026 \$0 EJ Potomac Pumping Station - Phase III Rehabilitation 2010 Ongoing \$5 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$36,098 2023 EK Long Term Rehabilitation - Main & O Pump Station 2021 Ongoing \$0 \$588 \$5,859 \$10,401 \$3,699 \$4,649 \$7,653 \$14,644 \$4,041 \$0 \$0 \$51,533 \$78,725 2031 EQ Potomac Pumping Station-Phase IV Rehabilitation 2020 \$0 \$79 \$44 \$0 \$0 \$0 \$2,616 2028 Ongoing \$168 \$355 \$333 \$0 \$0 FQ Main & O Street PS Intermediate Upgrade \$947 \$3,127 \$3,274 \$0 \$0 \$0 \$0 \$0 \$0 \$37,419 2026 2010 Ongoing \$161 \$0 \$0 2023 FX Rehabilitation Northeast Boundary Sewer - Phase I 2015 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$4,628 Ongoing \$0 \$0 FZ Tiber Creek Sewer Lining - Phase I \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 2024 2016 Ongoing \$605 \$1,000 G7 Combined Sewers Under Buildings 2009 \$422 \$163 \$2 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$921 2025 Ongoing OB FY 2024 - Inflatable Dams Replacement 2022 \$18 \$148 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$250 2024 Ongoing \$0 \$60,249 \$164,527 TOTAL COMBINED SEWER BUDGETS \$1,392 \$4,880 \$9,375 \$10,933 \$4,032 \$4,693 \$7,653 \$14,644 \$4,041 \$0 TOTAL COMBINED SEWER OVERFLOW BUDGETS \$93.758 \$213,408 \$231,323 \$216,615 \$193,750 \$154.800 \$92.363 \$4,041 \$0 \$0 | \$1,230,093 | \$3,430,748 \$123,793

#### Stormwater



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(\$ in thousands)

Below are the annual total disbursements for the various projects within this service area.

FY 2023				FY	2024 - FY 2	2033 CIP D	isbursemen	t Plan				Lifetime
Actual	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 203 I	FY 2032	10-yr Total	Budget
\$ 3,523	\$ 7,293	\$ 13,565	\$ 7,958	\$ 3,804	\$ 4,532	\$ 3,268	\$ 6,697	\$ 9,432	\$ 6,772	\$ 5,231	\$ 68,551	\$ 157,075







New Electrical & Control Panels at 14<sup>th</sup> St.
Bridge Pump Station



CSO Outfall

#### Overview

Stormwater runoff occurs when precipitation travels as surface water rather than evaporating back into the atmosphere or absorbing into the ground. The District is required to meet certain regulatory requirements in managing its separate stormwater system under the District's Municipal Separate Storm Sewer System (MS4) permit issued by the federal government.

The stormwater system has approximately 580 miles of storm sewer pipes, catch basins, inlets, special structures, and related facilities. Some components of the existing storm sewer system are over 100 years old. DC Water is responsible for the maintenance and replacement of the publicly owned collection and conveyance facilities that transport stormwater runoff to the Anacostia and Potomac Rivers, Rock Creek, and other receiving streams within the District of Columbia. DC Water owns, maintains, and operates 16 stormwater pump stations that serve underpasses through the District.

#### **PROGRAM AREAS**

**Local Drainage** – This category includes several projects for investigation, design, and rehabilitation of local sewers to relieve local flooding and to address short term needs for improvements to storm sewers located in the separate and combined sewer areas.

**On-Going** – These include storm sewer rehabilitation projects carried out by DC Water's Department of Pumping and Sewer Operations. These annual projects also provide funding to assist in immediate storm sewer construction to alleviate flooding.

#### Stormwater



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**Pumping Facilities** – DC Water's 16 stormwater pump stations serve critical areas of the District and are integral to maintaining the road network where roadway stormwater runoff that does not drain without the assistance of mechanical means. DC Water has projects to upgrade these stormwater pump stations by replacing aging equipment and improving reliability and safety and addressing code compliance issues. The SCADA upgrades have been completed on 12 stormwater pump stations.

**Program Management** – Provides engineering program management services for the stormwater service area capital projects and required technical assessments and hydraulic studies required to assess problems in the stormwater system. It also provides engineering services for condition assessment of the storm sewer system.

Interceptor Trunk/Force Sewers — Provides design and construction services for stormwater interceptors, trunk sewers and force mains that require upgrades. Sewers rehabilitated by this project are defined by the major planning and condition assessment program underway for the stormwater sewer system. As the assessment of the storm sewer system progresses and specific rehabilitation needs are identified, jobs will be created under this program area to remediate system problems.

#### **ACCOMPLISHMENTS**

- Construction contracts have started for several stormwater pump stations, including 1<sup>st</sup> and D
   Stormwater Pump Station, Kenilworth Stormwater Pump Station, 12<sup>th</sup> and Maine Street SW
   Stormwater Pump Station, and Portland Street Stormwater Pump Station.
- Inspected (117) MS4 outfalls.
- Completed inspections of 6.14 miles of small and large sewers (> 12-inches & < 60-inches in diameter) and 172 manholes under the Local Sewers Program.
- Completed inspections of 3.24 miles of very large storm sewers (>/= 60-inches in diameter) and 48 manholes.

#### **OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS**

**Stormwater Pump Stations Rehabilitation** – This project implements the highest priority of rehabilitation or upgrades, addresses issues related to health and safety, station reliability, and will reduce maintenance needs.

# Stormwater



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LOCAL DRAINAGE	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
GY Storm Sewer Rehabilitation at Various Location	2013	Ongoing	\$0	\$199	\$2,381	\$365	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,945	\$6,133	2026
IE Storm Sewer Rehabilitation 3	2020	Ongoing	\$35	\$101	\$522	\$1,465	\$166	\$129	\$0	\$0	\$0	\$0	\$0	\$2,383	\$6,271	2028
RR Local Storm Sewer Assessment 2	2025	Ongoing	\$159	\$191	\$559	\$1,057	\$264	\$265	\$176	\$176	\$176	\$177	\$176	\$3,217	\$17,645	2033
ZJ Local Storm Sewer Assessment I	2028	New	\$0	\$0	\$0	\$0	\$0	\$30	\$50	\$88	\$127	\$1 <del>4</del> 8	\$127	\$570	\$8,591	2033
TOTAL LOCAL DRAINAGE BUDGETS			\$194	\$491	\$3,461	\$2,886	\$431	\$424	\$226	\$265	\$303	\$324	\$303	\$9,114	\$38,640	
ON-GOING	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
JH FY2020 - DSS Stormwater Projects	2020	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$820	2022
LO FY2021 - DSS Stormwater Projects	2021	Ongoing	\$27	\$33	\$16	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49	\$923	2025
M8 FY2022 - DSS Stormwater Projects	2022	Ongoing	\$346	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$820	2023
MG FY2023 - DSS Stormwater Projects	2023	Ongoing	\$447	\$74	\$21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$95	\$845	2025
NV FY2024 - FY 2026 DSS Stormwater Projects	2024	New	\$0	\$118	\$538	\$643	\$574	\$0	\$0	\$0	\$0	\$0	\$0	\$1,872	\$2,689	2027
T7 FY2028 - DSS Stormwater Projects	2028	New	\$0	\$0	\$0	\$0	\$0	\$501	\$380	\$0	\$0	\$0	\$0	\$881	\$979	2029
T9 FY2027 - DSS Stormwater Projects	2027	New	\$0	\$0	\$0	\$0	\$272	\$583	\$0	\$0	\$0	\$0	\$0	\$855	\$950	2028
U6 FY2029 - DSS Stormwater Projects	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$907	\$0	\$0	\$0	\$0	\$907	\$1,008	2029
U8 FY2030 - DSS Stormwater Projects	2030	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$935	\$500	\$500	\$500	\$2,435	\$2,520	2033
TOTAL ON-GOING BUDGETS			\$821	\$225	\$575	\$643	\$846	\$1,084	\$1,287	\$935	\$500	\$500	\$500	\$7,094	\$11,553	
PUMPING FACILITIES	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
NG Stormwater Pumping Station Rehabilitation	2017	Ongoing	\$2,341	\$4,847	\$8,069	\$2,693	\$1,050	\$3,024	\$1,755	\$5,497	\$8,491	\$5,507	\$3,747	\$44,680	\$64,227	2034
TOTAL PUMPING FACILITIES BUDGETS			\$2,341	\$4,847	\$8,069	\$2,693	\$1,050	\$3,024	\$1,755	\$5,497	\$8,491	\$5,507	\$3,747	\$44,680	\$64,227	
PROGRAM MANAGEMENT	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
AT Stormwater Program Management	2001	Ongoing	\$0	\$1,288	\$851	\$338	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,477	\$11,678	2026
ZT Stormwater PM FY30	2031	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$138	\$440	\$681	\$1,259	\$2,000	2035
PROGRAM MANAGEMENT BUDGETS			\$0	\$1,288	\$85 I	\$338	\$0	\$0	\$0	\$0	\$138	\$440	\$681	\$3,736	\$13,678	
TRUNK/FORCE SEWERS	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
BO Future Stormwater Projects	2005	Ongoing	\$13	\$13	\$87	\$86	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$186	\$15,760	2026
WV MS4 Outfall Sewer Rehab I	2025	New	\$0	\$0	\$76	\$469	\$528	\$0	\$0	\$0	\$0	\$0	\$0	\$1,073	\$3,217	2027
XS Inspection of Stormwater Trunk Sewers	2023	Ongoing	\$154	\$429	\$446	\$843	\$949	\$0	\$0	\$0	\$0	\$0	\$0	\$2,667	\$10,000	2027
TOTAL TRUNK/FORCE SEWERS BUDGETS			\$168	\$442	\$609	\$1,399	\$1,477	\$0	\$0	\$0	\$0	\$0	\$0	\$3,926	\$28,977	
TOTAL STORMWATER BUDGETS																



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(\$ in thousands)

Below are the annual total disbursements for the various projects within this service area.

FY 2023				FY	2024 - FY 2	033 CIP D	sbursement	Plan				Lifetime
Actual	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10-yr Total	Budget
\$ 57,696	\$ 80,599	\$ 92,235	\$123,854	\$118,639	\$169,037	\$287,816	\$249,471	\$227,771	\$269,312	\$236,846	\$ 1,855,580	\$ 2,897,505



7<sup>th</sup> St. & Constitution Ave. 20" Ductile Iron Pipe Install



Rock Creek Stem Sewers (Condition Assessment)



Creek Bed Sewer Inspection

#### Overview

DC Water is responsible for wastewater collection in the District of Columbia, including operation and maintenance of the sanitary sewer system. The sewer system includes approximately 1,320 miles of small, large and very large gravity collection sewers and force mains. The total inventory of the collection and conveyance system includes approximately 1,900 miles of combined, separate and stormwater sewers, 50,000 manholes, 25,000 catch basins, 16 stormwater pump stations, and 9 wastewater pump stations. In addition, DC Water is responsible for the 50-mile-long Potomac Interceptor System, which provides conveyance of wastewater from Dulles International Airport and areas in Virginia and Maryland, to the Blue Plains Advanced Wastewater Treatment Plant.

#### **PROGRAM AREAS**

**Sanitary Collection System** – Projects to rehabilitate and clean sanitary sewer pipes based on the findings of inspection and assessment conducted on these assets.

**On-Going** – Urgent projects managed by the Department of Pumping and Sewer Operations including the replacement of sewer laterals, sewer mains, inspection and cleaning of sewer laterals and mains.

**Pumping Facilities** – Projects required for the upgrade of existing wastewater pump stations, as well as projects for the engineering and construction of new wastewater pumping facilities to enhance the reliability and integrity of DC Water's sanitary sewer system.

**Program Management** – Engineering program management services for the sewer system capital improvement program, including assessing system needs, developing facilities plans, producing concept design reports, preparing cost estimates, operations support, and reviewing design documents.

*Interceptor/Trunk Mains/Force Sewers* – The rehabilitation of large diameter sewers that have reached the end of their useful life or in need of major rebuild or refurbishment.



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#### **ACCOMPLISHMENTS**

- Progressive design-build contract for the rehabilitation of Potomac Interceptor between Manhole
   31 and Manhole 30. Phase 2 construction is ongoing 70% complete.
- Construction for Soapstone Sewer rehabilitation project is ongoing, 85% complete.
- Construction for Piney Branch Sewer Rehabilitation project is ongoing.
- Construction for Northeast Boundary Trunk Sewer Rehabilitation project is ongoing.
- Construction for Service Life Restoration Program Phase 2 scheduled to begin.
- Major Potomac Interceptor projects currently in design:
  - o Phase 1 Rehabilitation at Clara Barton Parkway
  - o Phase 2 Rehabilitation at Potomac River Crossing
  - o Phase 4 Rehabilitation at Fairfax and Loudoun Counties
  - o Phase 6 Rehabilitation at Clara Barton Parkway and I-495
  - Cabin John Rehabilitation
  - o Manhole Rehabilitation
- September 10, 2020 Flooding Response
  - o Reviewed 48 applications for backwater valve rebates
  - o Processed and reimbursed over 32 rebates
- Other major sewer projects currently in design include:
  - o Fenwick Branch Sewer Rehabilitation
  - o Normanstone Sewer Rehabilitation
  - o Spring Place Sewer Rehabilitation
  - Glover Archbold Park Sewer Rehabilitation
  - o Rock Creek Main Interceptor and Beach Drive Sewers Rehabilitation
  - o Oxon Run Sewer Rehabilitation
  - o Upper East Side Interceptor Rehabilitation Phase 1
  - Creekbed Sewer Rehabilitation Oregon Ave at St. Johns
  - o Creekbed Sewer Rehabilitation Rock Creek Sherill Drive & Beach Drive
  - o Mill Creek Sewer Rehabilitation
- Local sewer projects currently in design:
  - o Service Life Restoration Program Phase 4 and 5
  - o Local Sewer Rehab 5-2
  - o Local Sewer Rehab 5-3
  - o Local Sewer Rehab 5-4
- Completed the following large and very large sewer condition assessment projects:
  - o Upper Potomac Interceptor Relief Sewer in progress
  - Upper Potomac Interceptor completed
  - o Little Falls Trunk Sewer in progress
  - o Sewers Under Buildings in progress
  - Anacostia Main Interceptor completed 4.9 miles
  - o Easby Point Trunk Sewer completed 1.8 miles



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#### **ACCOMPLISHMENTS CONTINUED**

- o Northwest Boundary Trunk Sewer completed 1.7 miles
- o Potomac Interceptor (MH28 to MH29) completed 0.6 miles
- o East & West Outfall Sewers completed 6.3 miles
- o East & West Outfall Relief Sewers completed 3.9 miles
- o North & South Interconnecting Branch Sewers completed 1.9 miles
- o Southwest Interceptor completed 0.5 miles
- o Anacostia Force Main in progress
- Completed inspection of 46.1 miles of local sewers (>12-inch and <60-inch diameter) and 1,825 manholes under the Local Sewer Inspection Program.</li>
- Completed visual inspection of about 32 miles of pipe crossings under the Creek Bed Inspections. The Annual Creek Bed Inspection included 730 sewer pipes and 587 manholes, and the Post-Rainfall Creek Bed Inspection included 89 sewer pipes 3.3 miles and 60 manholes.
- Heavy cleaning projects currently in progress:
  - o Anacostia Main Interceptor (including siphons) ~4.9 miles
  - o Local Sewers (>12-inch and <60-inch diameter) ~4 miles
  - o North & South Interconnecting Branch Sewers ~0.7 miles
  - West Outfall Sewer ~0.25 miles
  - West Outfall Relief Sewer ~0.2 miles
- Extensive coordination with District of Department of Transportation (DDOT) Benning Road
   Reconstruction and Streetcar project:
  - Review of DDOT design drawings to identify possible conflicts with existing sewer assets
  - o Coordination with DDOT to ensure that DC Water facilities are adequately monitored and protected both during and after construction
- Extensive coordination with DDOT South Capitol Street Circulator Facility project:
  - o Review of DDOT design drawings to identify possible conflicts with existing sewer assets and technical information for proposed sliplining of West Outfall Sewer
- Reviewed eighty-seven (87) design reviews for DDOT Public Space projects varying in size, complexity, and design phase to identify and establish agreements to rehabilitate sewer mains through participation in a DDOT project.
- Completed the following:
  - o Linear Sewer Facilities Plan (first draft)
  - Current Business Process Maps for Buried Sewer Infrastructure Capital Selection and Prioritization
  - o Potomac Interceptor: Access Road Erosion Impact Assessment Phase 2
  - o DDOT Memo Proposing Abandonment of Existing 12" Sanitary Sewer in Benning Road
  - o Potomac Interceptor Renewal Report 2023 Update
  - o InfoAsset Planner™ Model Results for the Sewer System



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#### **ACCOMPLISHMENTS CONTINUED**

- Multi-Jurisdictional Use Facilities (MJUF) Conveyance System: Operation and Maintenance (O&M) Cost Allocation User Guidelines
- Potomac Interceptor Reinforced Concrete Pipe Condition Assessment Evaluation and Prioritization Opinion
- Proposed Waste Transfer Station at the Swirl Facility (Draft)
- o Multi-Jurisdictional Use Facilities (MJUF) Conveyance System: Operation and Maintenance (O&M) Cost Allocation Report
- Recommendations for Rehabilitation of Sewers in Benning Road Impacted by Streetcar Tracks
- o Recommendations for Method of Trenchless Replacement of Sewers in Benning Road
- o FY23 Annual Creek Bed & MS4 Outfall Program
- o Condition Assessment Report Little Falls Trunk Sewer
- o Condition Assessment Report Anacostia Main Interceptor
- o Condition Assessment Report Sewers Under Buildings
- o Condition Assessment Report Upper Potomac Interceptor Relief Sewer
- o Buried Sewer Infrastructure Capital Rehabilitation Project Selection and Prioritization
- o Department of Sewer Services (DSS) Hotlist: Root Cause Analysis
- o Multi-Jurisdictional Use Facilities (MJUF) Data Reporting Procedure: Alternative Evaluation
- o Sewer System Hydraulic Assessment
- o Buried Sewer Infrastructure Inspection Project Selection and Prioritization
- o Force Main Risk Framework Development
- o Equity Integration in Linear Sewer and Water Facilities Planning
- Provided operations support for East and West Outfall Relief Sewer emergency rehabilitation efforts.

#### **OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS**

**Pump Stations** – Continued improvements and other upgrades will ensure proper operations of the pump stations to improve reliability and maintain compliance with regulatory requirements and customer expectations.

**Ongoing and Local Sewer Rehabilitation** – Renewal of small diameter sewer infrastructure will reduce emergency rehabilitations and maintenance demands for these neighborhood sewers.

**Major Sewer Rehabilitation** – Renewal of major sewers will reduce emergency rehabilitation and maintenance demands for these sewers.



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SANITARY COLLECTION SYSTEM	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
G1 Small Local Sewer Rehabilitation 1	2010	Ongoing		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2022
J3 Sewer Upgrade - City Wide	2000	Ongoing	\$82	\$157	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$157	\$305	2024
JX Sanitary Sewer Rehabilitation 10	2016	Ongoing	\$58	\$342	\$3,674	\$3,479	\$377	\$0	\$0	\$0	\$0	\$0	\$0	\$7,872	\$13,607	2027
QS Local Sewer Rehabilitation 5	2020	Ongoing	\$124	\$2,422	\$9,721	\$8,018	\$809	\$417	\$7,999	\$2,438	\$0	\$0	\$0	\$31,824	\$45,954	2030
QT Local Sewer Rehabilitation 6	2024	New	\$0	\$29	\$8,370	\$14,472	\$15,477	\$19,173	\$0	\$0	\$0	\$0	\$0	\$57,521	\$82,346	2028
QU Local Sewer Rehabilitation 7	2025	New	\$0	\$0	\$852	\$4,261	\$3,672	\$6,182	\$14,800	\$12,292	\$12,563	\$12,824	\$2,954	\$70,400	\$82,355	2034
QW Local Sewer Rehabilitation 8	2024	New	\$0	\$591	\$989	\$1,294	\$2,536	\$3,216	\$67,998	\$45,945	\$36,616	\$39,527	\$65,419	\$264,130	\$355,705	2037
QX Local Sewer Assessment - Engineering and Tech Serv	2020	Ongoing	\$3,231	\$1,644	\$1,834	\$1,383	\$523	\$91	\$0	\$0	\$0	\$0	\$0	\$5,474	\$12,212	2028
QY Local Sewer Assessment - Linear Asset Mgmt Branch	2023	Ongoing	\$1,166	\$902	\$883	\$213	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,999	\$4,000	2026
QZ Local Sewer Assessment 3	2026	New	\$0	\$0	\$0	\$3,390	\$3,390	\$3,399	\$5,216	\$5,216	\$5,211	\$3,383	\$3,374	\$32,579	\$40,616	2034
T4 District Energy Buzzard Point	2028	New	\$0	\$0	\$0	\$0	\$0	\$3,250	\$11,500	\$13,500	\$0	\$0	\$0	\$28,250	\$30,000	2034
UR Local Sewer Rehab I I	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$735	\$3,551	\$2,677	\$49,136	\$16,568	\$72,666	\$76,918	2035
VQ Local Sewer Assessment 4	2031	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,462	\$8,229	\$7,297	\$19,989	\$30,078	2035
TOTAL SANITARY COLLECTION SYSTEM BUDGET	ΓS		\$4,661	\$6,087	\$26,323	\$36,510	\$26,783	\$35,728	\$108,247	\$82,942	\$61,529	\$113,099	\$95,612	\$592,860	\$774,096	
ON-GOING	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
JI FY2020 - DSS Sanitary Sewer Projects	2020	Ongoing	\$672	\$472	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$472	\$12,568	2024
LN FY2021 - DSS Sanitary Sewer Projects	2021	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,945	2022
M9 FY2022 - DSS Sanitary Sewer Projects	2021	Ongoing	\$5,476	\$2,471	\$249	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,719	\$13,335	2025
MF FY2023 - DSS Sanitary Sewer Projects	2023	Ongoing	\$7,414	\$5,064	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,064	\$14,247	2024
NW FY2024 - DSS Sanitary Sewer Projects	2024	New	\$0	\$5,391	\$14,241	\$13,634	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33,266	\$43,965	2026
T8 FY2027 - DSS Sanitary Sewer Projects	2026	New	\$0	\$0	\$0	\$9	\$13,384	\$16,037	\$18,633	\$0	\$0	\$0	\$0	\$48,063	\$48,071	2029
U9 FY2030 - DSS Stormwater Projects	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$8	\$15,289	\$0	\$0	\$0	\$15,297	\$16,997	2030
UH FY2031 - DSS Sewer Sanitary Projects	2030	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8	\$15,289	\$0	\$0	\$15,297	\$16,997	2031
V5 FY2032 DSS Sewer Sanitary Projects	2032	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,756	\$15,000	\$30,756	\$30,756	2033
Y2 Cleanout Installation	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$11,177	\$11,177	\$11,177	\$11,208	\$11,177	\$55,915	\$82,215	2035
TOTAL ON-GOING BUDGETS			\$13,562	\$13,398	\$14,489	\$13,643	\$13,384	\$16.037	\$29.818	\$26,474	\$26,466	\$26,964	\$26,177	\$206,851	\$292,096	



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PUMPING FACILITIES	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
CX Sewer Facilities Security Upgrades	2010	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,429	2022
GZ Sewer Instrumentation & Control	2012	Ongoing	\$779	\$627	\$573	\$470	\$705	\$746	\$237	\$0	\$0	\$0	\$0	\$3,357	\$12,518	2029
LY Sewer Facilities Security Upgrades	2020	Ongoing	\$201	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000	2023
MB 3rd Street & Constitution Ave NW - Pumping Station	2014	Ongoing	\$0	\$0	\$53	\$742	\$478	\$44	\$540	\$1,153	\$770	\$388	\$0	\$4,168	\$7,501	2032
MC Additional Sewer SCADA System Sites	2015	Ongoing	\$633	\$490	\$453	\$785	\$319	\$0	\$0	\$0	\$0	\$0	\$0	\$2,047	\$8,120	2027
PM East Side Pumping Station	2019	Ongoing	\$0	\$227	\$680	\$1,600	\$518	\$155	\$0	\$0	\$0	\$0	\$0	\$3,179	\$5,986	2028
PT Existing Sewer Facilities Building Optimization	2020	Ongoing	\$0	\$22	\$408	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$431	\$705	2025
RH Sewer Pump Stations Upgrades	2020	Ongoing	\$1,007	\$1,175	\$2,303	\$322	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,800	\$8,100	2026
RS Sewer Pump Station Upgrades 2	2025	New	\$0	\$0	\$191	\$476	\$1,144	\$5,923	\$11,784	\$9,954	\$11,946	\$23,389	\$20,282	\$85,089	\$120,265	2036
RT Sewer Pump Station Upgrades 3	2025	New	\$0	\$0	\$93	\$396	\$1,145	\$1,823	\$5,308	\$8,238	\$4,577	\$252	\$0	\$21,831	\$25,111	2032
RU Sewer Pump Station Upgrades - Pumps & VFDs	2022	Ongoing	\$0	\$1,098	\$2,506	\$4,249	\$1,066	\$57	\$87	\$444	\$2,417	\$5,092	\$5,078	\$22,093	\$35,950	2034
SS Sewer SCADA Replacement	2028	New	\$0	\$0	\$0	\$0	\$0	\$270	\$79	\$328	\$1,241	\$3,110	\$1,990	\$7,019	\$8,380	2034
TOTAL PUMPING FACILITIES BUDGETS			\$2,619	\$3,639	\$7,259	\$9,040	\$5,375	\$9,016	\$18,035	\$20,117	\$20,951	\$32,231	\$27,351	\$153,015	\$236,064	
PROGRAM MANAGEMENT	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
AU Sanitary Sewer Program Management	2001	Ongoing	\$6,035	\$3,114	\$1,688	\$1,022	\$740	\$1,134	\$1,317	\$855	\$66	\$0	\$0	\$9,936	\$65,441	2031
AV Combined Sewer Overflow Program Management	2001	Ongoing	\$105	\$1,792	\$1,695	\$1,162	\$2,546	\$3,382	\$3,420	\$2,192	\$162	\$0	\$0	\$16,351	\$57,756	2031
DN Sewer Inspection Program	2010	Ongoing	\$2,211	\$2,589	\$0	\$432	\$887	\$889	\$0	\$0	\$0	\$0	\$0	\$4,797	\$27,903	2028
QH Sanitary Sewer Program Management FY26-30	2026	New	\$0	\$0	\$0	\$2,578	\$3,717	\$4,725	\$4,455	\$3,222	\$521	\$0	\$0	\$19,218	\$20,800	2031
TOTAL PROGRAM MANAGEMENT BUDGETS			\$8,351	\$7,495	\$3,382	\$5,194	\$7,890	\$10,130	\$9,192	\$6,269	\$749	\$0	\$0	\$50,302	\$171,900	



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INTERCEPTOR/TRUNK FORCE	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
A4 Future Sewer System Upgrades	2004	Ongoing	\$1,121	\$1,832	\$1,268	\$4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,104	\$8,730	2026
DR Low Area Trunk Sewer Rehabilitation	2007	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,609	2024
FW Rehab Piney Branch Trunk Sewer	2011	Ongoing	\$300	\$4,735	\$8,011	\$2,499	\$24	\$0	\$0	\$0	\$0	\$0	\$0	\$15,269	\$30,596	2027
G2 Sewer Structure Rehabilitation I	2010	Ongoing	\$73	\$446	\$189	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$635	\$8,825	2025
G5 Sewer Rehab Near Creek Beds	2010	Ongoing	\$3,350	\$2,733	\$2,974	\$6,220	\$11,759	\$6,679	\$860	\$2,081	\$601	\$0	\$0	\$33,906	\$75,065	2031
GH Large Sewer Rehabilitation 3	2012	Ongoing	\$143	\$96	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$96	\$720	2024
HS Rehabilitation of Influent Sewers	2022	Ongoing	\$915	\$1,051	\$0	\$0	\$0	\$259	\$2,041	\$3,298	\$4,831	\$10,337	\$9,535	\$31,352	\$41,698	2034
HT Rehabilitation of Anacostia Force Main	2012	Ongoing	\$15	\$711	\$0	\$156	\$7,302	\$9,620	\$14,317	\$27,448	\$29,932	\$8,842	\$152	\$98,481	\$120,278	2033
IK Potomac Force Main Rehabilitation	2012	Ongoing	\$3	\$0	\$0	\$0	\$16	\$25	\$138	\$321	\$44	\$0	\$0	\$544	\$5,879	2031
IL Creekbed Sewer Rehabilitation 2	2013	Ongoing	\$2,495	\$417	\$187	\$229	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$833	\$26,721	2026
IM Creekbed Sewer Rehabilitation 3	2013	Ongoing	\$9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2031
IN Upper East Side Trunk Sewer Rehabilitation	2012	Ongoing	\$648	\$0	\$0	\$430	\$527	\$954	\$7,590	\$3,932	\$0	\$0	\$0	\$13,434	\$19,044	2030
J0 B Street New Jersey Avenue Trunk Sewer Rehab	2004	Ongoing	\$0	\$493	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$493	\$18,074	2024
LZ Potomac Interceptor Projects - Rehab. Phase 2	2015	Ongoing	\$16,452	\$11,728	\$7,315	\$20,086	\$21,354	\$44,327	\$39,037	\$7,393	\$4,284	\$0	\$0	\$155,523	\$276,497	2031
Re-Activation of Anacostia Force Main/Gravity Main as Relief to Anacostia Force Main	2018	Ongoing	\$368	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2023
RA Major Sewer Assessment and Heavy Cleaning I	2021	Ongoing	\$1,426	\$1,725	\$2,238	\$1,450	\$1,108	\$716	\$657	\$453	\$0	\$0	\$0	\$8,347	\$15.800	2030
RB Major Sewer Assessment and Heavy Cleaning 2	2024	New	\$0	\$1,221	\$1,462	\$1,644	\$1,149	\$2,618	\$138	\$0	\$0	\$0	\$0	\$8,232	\$14,100	2029
RC Major Sewer Rehabilitation I	2020	Ongoing	\$251	\$1,246	\$3,036	\$3,186	\$2,012	\$2,293	\$22,394	\$12,851	\$0	\$0	\$0	\$47,020	\$78,048	2030
RD Major Sewer Rehabilitation 2	2021	Ongoing	\$603	\$595	\$630	\$3,105	\$8,184	\$15,396	\$7,041	\$11,989	\$12,400	\$4,931	\$970	\$65,242	\$87,422	2033
RE Major Sewer Rehabilitation 3	2024	Ongoing	\$330	\$20,950	\$13,447	\$18,537	\$6,453	\$7,003	\$8,852	\$6,783	\$963	\$192	\$0	\$83,179	\$106,825	2032
RL Potomac Interceptor Projects - Rehab Phase 3	2025	New	\$0	\$0	\$24	\$221	\$1,081	\$2,611	\$5,824	\$7,358	\$18,639	\$25,847	\$26,093	\$87,698	\$129,916	2035
W1 Major Sewer Rehab 4	2026	New	\$0	\$0	\$0	\$30	\$627	\$544	\$2,337	\$9,430	\$20,474	\$15,290	\$14,073	\$62,805	\$126,700	2035
WP Major Sewer Assessment and Heavy Cleaning 3	2026	New	\$0	\$0	\$0	\$883	\$1,612	\$1,617	\$1,984	\$2,480	\$2,480	\$2,487	\$2,480	\$16,024	\$21,736	2034
WQ Major Sewer Assessment	2026	New	\$0	\$0	\$0	\$788	\$1,999	\$3,464	\$6,044	\$7,555	\$5,318	\$3,087	\$4,198	\$32,453	\$41,063	2034
X2 Major Sewers 5	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$3,267	\$10,297	\$18,111	\$26,007	\$30,204	\$87,885	\$168,000	2037
TOTAL INTERCEPTOR/TRUNK FORCE SEWER BUE	OGETS		\$28,502	\$49,980	\$40,780	\$59,467	\$65,207	\$98,125	\$122,523	\$113,669	\$118,076	\$97,019	\$87,706	\$852,553	\$1,423,347	
TOTAL SANITARY SEWER BUDGETS			\$57,696	\$80,599	\$92,235	\$123,854	\$118,639	\$169,037	\$287,816	\$249,471	\$227,771	\$269,312	\$236,846	\$1,855,580	\$2,897,505	1



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(\$ in thousands)

Below are the annual total disbursements for the various projects within this service area.

FY 2023				FY	2024 - FY 2	033 CIP D	isbursement	Plan				Lifetime
Actual	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	10-yr Total	Budget
\$118,381	\$158,736	\$222,494	\$252,395	\$250,278	\$266,256	\$268,591	\$279,184	\$207,235	\$219,880	\$227,979	\$ 2,353,028	\$ 4,738,104







Small Diameter Water Main Rehab

Small Diameter Water Main Rehab

Water Quality Testing Lab

#### Overview

Delivery of safe, clean, high-quality drinking water is one of DC Water's highest priorities. Drinking water in the District of Columbia comes from the Potomac River. The U.S. Army Corps of Engineers, Washington Aqueduct (Aqueduct), is a federally owned agency responsible for treating the drinking water. DC Water purchases water from the Aqueduct and is responsible for maintaining the distribution system that delivers drinking water to customers. DC Water distributes drinking water through roughly 1,300 miles of interconnected pipes to more than 700,000 residents and businesses in the District of Columbia.

The DC Water distribution system begins at the water treatment plant and ends at private service lines. Customer service lines connect to the mains in the streets and deliver water to residents and commercial buildings, eventually reaching taps. Water is continuously moving through our distribution system, typically at a flow rate that keeps the water fresh. However, once the water leaves the main and enters a customer's service line, the flow of water is dependent on individual water usage.

DC Water is committed to providing customers with the highest quality drinking water and continuously works to deliver water that goes beyond federal standards. We accomplish this goal by aiming to meet target levels that are stricter than water quality standards required by the EPA. We have a dedicated Drinking Water division that collects and analyzes water samples throughout the District of Columbia. These monitoring programs include sampling and analyses that are required by EPA and additional sampling programs conducted voluntarily by DC Water.

DC Water conducts compliance monitoring on a daily basis to ensure that water quality meets EPA standards. Water quality technicians collect and analyze samples for lead and copper, total coliform (bacteria) and disinfection byproduct levels. Compliance monitoring ensures that drinking water treatment effectively prevents pipe corrosion, removes bacteria and other contaminants, and minimizes potentially harmful treatment byproducts.



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DC Water operates voluntary sampling programs to support our commitment to providing high-quality drinking water to our customers. Water quality technicians collect and analyze hundreds of water samples throughout the District of Columbia. The Drinking Water division responds quickly to customer complaints and conducts water quality monitoring among the District's most vulnerable populations. DC Water operates two mobile laboratories that allow technicians to conduct on-site water quality tests and respond to emergencies. The Drinking Water division also distributes hundreds of lead test kits each year to residents and assists residents with identifying lead sources.

#### **PROGRAM AREAS**

**Distribution Systems** – Provides for the rehabilitation, replacement or extension of the water distribution system through several projects. The distribution system program area is the largest program for the water service area and includes three primary elements: small diameter water main renewal, large diameter water main rehabilitation, valve replacement and DDOT project relocation needs.

**Lead Free DC Program** – This program is for the removal of all lead service lines in public and private right of way in the District. The lead service line replacements are conducted throughout the water distribution system as part of the LSL specific block-by-block projects, water main renewal projects, emergency rehabilitation of water service lines, or through the customer-initiated programs Voluntary Full Replacement Program (VFRP) or the Lead Pipe Replacement Assistance Program (LPRAP) if the customer currently has a partial LSL.

**On-Going** – Includes small projects for urgent rehabilitation of water main breaks, valves and fire hydrants, water service connections, and other minor water main rehabilitation work.

**Pumping Facilities** – Rehabilitate or upgrade water-pumping stations in the system. All four water pump stations have completed major upgrades within the last fifteen years, and relatively minor projects including electrical, mechanical & instrumentation upgrades are anticipated for the near future.

**Storage Facilities** – Rehabilitation or upgrade of elevated tanks and reservoirs. Studies to the system have identified the need for upgrades and/or new storage facilities to support changing development patterns, for regulatory compliance, to provide additional water pressure to certain areas of the District, and to provide redundant service during unplanned outages. Many reservoirs have exceeded useful life (50-years). Therefore, planned projects are for regular inspections and needed upgrades.

**Program Management** – Provides engineering program management services for the drinking water system capital improvements program, including asset management, developing facilities plans, advancement of the smart infrastructure program, conceptual designs, technical support for planned inspection and condition assessment programs, cost estimates, design document review, and subject matter expertise in hydraulic modeling.



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#### **ACCOMPLISHMENTS**

- Continued installation of small diameter water mains to meet the DC Water Board goal of renewing one percent of the system annually. This renewal includes a combination of replacement with new water mains to reduce water quality degradation from tuberculation, reduce the likelihood of water main breaks and increase the service life of the water distribution system.
- Replaced approximately eleven 11 miles of small diameter water mains.
- Ongoing construction for the rehabilitation of the N Street 66/72-inch Prestressed Concrete Cylinder Pipe (PCCP).
- The following major projects are in design:
  - Critical Valve Replacement, Year 2, Batch 1
  - Critical Valve Replacement, Year 2, Batch 2
  - 16-inch Rock Creek Park Transmission Main
  - 16-inch Reservoir Road Transmission Main
  - Two WSSC Interconnections Projects
  - West Venturi Meter- Bryant St Pumping Station
  - East Venturi Meter- Bryant St Pumping Station
- The DDOT's South Capitol Street Bridge project was completed in FY 2023. Water mains and sewers were replaced, and existing assets inspected at post-construction. DDOT is submitting as-built drawings which DC Water is reviewing as they are being received.
- Conducted eighty-four (84) design reviews for forty-seven DDOT Public Space projects varying in size, complexity, and design phase to identify and establish agreements to replace water mains through participation in DDOT projects. The total amount of water main to be rehabilitated is approximately 4,785 linear feet.
- Published the 2023 Lead Free DC Plan, which details the construction plan to replace 42,000 lead service lines. The increase of 28,000 lines is due to a detailed review of service line records.
- LFDC completed 1,534 lead line replacements in FY 2023 and saved customers \$7 million by providing free and discounted replacement.
- Continued to focus on replacing lead service lines in vulnerable and historically underserved communities with our prioritization model that aligns with Biden-Harris Administration's Justice40 Initiative.
- Began Construction on 6 LSR Block-By-Block Projects: Construction Packages 5/6 (2 projects), 7, 8, 9,
   4 10, and continued work on construction packages 1-4 (2 projects)



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- Completed the following studies:
  - 16-inch Rock Creek Park Transmission Main Planning Report
  - 16-inch Reservoir Road Transmission Main Planning Report
  - Critical Valve Replacement Evaluation and Selection
  - Short Term Water Supply Resiliency Study
  - 4HR Booster Pumping Draft Siting Study & Initial Engineering Design Report
  - Fort Reno Pump Station Planning Report
  - Anacostia Pump Station Assessment Report
  - Ft Stanton Reservoir No. 1 Inspection
  - Water Linear Facilities Plan
  - Low Pressure Analysis by Pressure Zone
  - Bryant Street Pump Station Venturi Meter Replacements Planning Study
  - Anacostia 3rd High Pressure Zone Improvements Study
- Continue the restorations at Anacostia Storage Tank No. 02 under the Miscellaneous Facilities Upgrades
   Phase 7 Project.
- Construction for the Rehabilitation of the N Street 66/72-inch Prestressed Concrete Cylinder Pipe (PCCP) has begun

#### **OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS**

Water Mains – The capital improvement program for linear assets will help to:

- Reduce customer impacts due to pipe breaks.
- Decrease reactive maintenance due to breaks and other unscheduled rehabilitations thereby lowering maintenance costs over time.
- Improve water quality in the distribution system.
- Reduce lead service pipes inventory thereby reducing lead exposure.

Water Pumping and Storage – The Bryant Street Spill Header Improvement project is under construction and will provide major operational improvements for the pump station. The Fort Reno Pump Station is in the design phase and will improve the reliability of the major processing equipment at the station. Anacostia Storage Tank No. 1 is under construction and will be completed by Miscellaneous Facilities Upgrades Phase 7 Project. This project is the last project to be constructed under FA00, which was created to address EPA concerns identified at the storage facilities in 2008. Minor pump station and storage facilities upgrades and improvements are ongoing which will reduce maintenance costs and keep the facilities functioning optimally until the major upgrade projects are completed in the future.



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DISTRIBUTION SYSTEMS	Start	Status	Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Budget	Completion
C9 Large Diameter Water Mains I	2014	Ongoing	\$1,666	\$1,200	\$735	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,935	\$20,532	2025
CJ FY2012 - DDOT Water Projects	2012	Ongoing	\$3	\$12	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12	\$6,474	2024
CM FY2013 - DDOT Water Projects	2013	Ongoing	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,549	2023
DE Small Diameter Water Main Rehabilitation 12	2014	Ongoing	\$6,134	\$449	\$394	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$843	\$45,993	2025
FI Small Diameter Water Main Rehabilitation 13	2014	Ongoing	\$2,849	\$1,913	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,913	\$40,835	2024
F2 Small Diameter Water Main Rehabilitation 14	2017	Ongoing	\$14,792	\$7,268	\$2,948	\$714	\$668	\$403	\$228	\$0	\$0	\$0	\$0	\$12,229	\$59,466	2029
F6 Steel Water Main Rehabilitation - Rehabilitation I	2009	Ongoing	\$253	\$360	\$2,882	\$565	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,808	\$12,139	2026
FT Water Mains Rehabilitation Phase II	2014	Ongoing	\$549	\$2,097	\$767	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,865	\$6,773	2025
GQ Fire Hydrant Replacement Program - Phase II	2010	Ongoing	\$1,565	\$582	\$54	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$636	\$29,120	2025
GR Small Diameter Water Main Rehabilitation 15	2018	Ongoing	\$20,392	\$18,489	\$10,987	\$907	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,383	\$61,300	2026
HX Small Diameter Water Main Rehabilitation 16	2018	Ongoing	\$2,331	\$9,179	\$20,153	\$12,695	\$1,558	\$223	\$0	\$0	\$0	\$0	\$0	\$43,807	\$80,577	2028
18 Large Valve Replacement (Contract 11-13)	2012	Ongoing	\$0	\$203	\$14	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$218	\$19,701	2025
JZ Large Diameter Water Main Replacement 3 - 4 & 5	2021	Ongoing	\$174	\$10,650	\$13,053	\$10,394	\$9,707	\$3,726	\$1,995	\$389	\$0	\$0	\$0	\$49,912	\$81,445	2030
K7 Large Diameter Water Main Replacement 6 - 7 & 8	2024	New	\$0	\$74	\$785	\$891	\$2,709	\$12,123	\$9,441	\$11,964	\$20,763	\$8,763	\$2,049	\$69,562	\$89,140	2035
K8 Large Diameter Water Main Replacement 9 - 10 & 11	2028	New	\$0	\$0	\$0	\$0	\$0	\$49	\$989	\$1,813	\$6,870	\$17,040	\$20,249	\$47,009	\$76,400	2035
K9 Large Diameter Water Main Replacement 12 - 13 & 14	2030	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$544	\$2,183	\$9,829	\$20,394	\$32,950	\$83,480	2036
KD Large Valve Replacement Contracts 29 - 30 & 31	2030	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$87	\$475	\$3,399	\$6,518	\$10,478	\$22,970	2035
KE Small Diameter Water Main Rehabilitation 18	2020	Ongoing	\$820	\$2,580	\$8,228	\$16,368	\$8,550	\$2,948	\$15	\$0	\$0	\$0	\$0	\$38,689	\$68,675	2029
KF Small Diameter Water Main Rehabilitation 19	2022	Ongoing	\$892	\$1,334	\$16,468	\$34,631	\$14,444	\$13,275	\$9,018	\$0	\$0	\$0	\$0	\$89,170	\$108,940	2029
KG Small Diameter Water Main Rehabilitation 20	2022	Ongoing	\$132	\$260	\$1,236	\$2,433	\$2,644	\$4,930	\$12,792	\$15,971	\$11,732	\$7,496	\$374	\$59,867	\$68,050	2033
KH Small Diameter Water Main Rehabilitation 21	2022	Ongoing	\$109	\$1,928	\$4,043	\$9,781	\$15,461	\$17,605	\$8,179	\$0	\$0	\$0	\$0	\$56,997	\$81,423	2029
KI Small Diameter Water Main Rehabilitation 22	2023	Ongoing	\$3	\$0	\$0	\$433	\$2,460	\$5,598	\$21,915	\$33,324	\$23,262	\$0	\$0	\$86,992	\$94,788	2031
KJ Small Diameter Water Main Rehabilitation 23	2024	New	\$0	\$153	\$1,000	\$2,512	\$3,663	\$13,039	\$30,502	\$34,675	\$6,723	\$0	\$0	\$92,266	\$104,270	2031
KL Small Diameter Water Main Rehab 25	2027	New	\$0	\$0	\$0	\$0	\$818	\$2,939	\$5,444	\$15,576	\$32,223	\$33,803	\$19,525	\$110,328	\$117,475	2034
KM Small Diameter Water Main Rehab 26	2027	New	\$0	\$0	\$0	\$0	\$639	\$3,081	\$6,303	\$7,887	\$17,027	\$32,208	\$26,757	\$93,902	\$119,312	2034
KN Small Diameter Water Main Rehab 27	2028	New	\$0	\$0	\$0	\$0	\$0	\$356	\$1,943	\$3,240	\$6,216	\$15,765	\$31,421	\$58,941	\$121,667	2036
KP Small Diameter Water Main Rehab 28	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$170	\$890	\$3,516	\$8,605	\$18,779	\$31,959	\$120,435	2036
MV Small Diameter Water Main Rehabilitation 3	2006	Ongoing	\$66	\$34	\$11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$45	\$200	2025
ND Small Diameter Water Main Rehab 30	2030	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$479	\$1,845	\$3,588	\$6,168	\$12,080	\$146,444	2037
O2 Small Diameter Water Main Rehabilitation 10	2013	Ongoing	\$171	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,877	2023
O3 Small Diameter Water Main Rehabilitation 11	2014	Ongoing	\$1	\$85	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$42,399	2024
QF District Metering	2023	Ongoing	\$1	\$0	\$191	\$233	\$324	\$1,046	\$4,069	\$2,432	\$0	\$0	\$0	\$8,295	\$9,930	2030
S3 Large Valve Replacement (Contract 3-7)	1999	Ongoing	\$12	\$113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$113	\$23,207	2024
SU Small Diameter Water Main Repl A-H	2025	New	\$0	\$0	\$14,692	\$21,762	\$30,353	\$24,000	\$0	\$0	\$0	\$0	\$0	\$90,807	\$130,323	2028
U5 WSSC Interconnection Project	2022	Ongoing	\$66	\$632	\$619	\$3,101	\$2,834	\$1,144	\$945	\$945	\$945	\$948	\$593	\$12,706	\$18,541	2033
TOTAL DISTRIBUTION SYSTEMS BUDGETS			\$52,980	\$59,596	\$99,260	\$117,420	\$96,830	\$106,485	\$113,946	\$130,215	\$133,781	\$141,444	\$152,827	\$1,151,805	\$2,152,849	



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(\$ in thousands)			FY 2023												Lifetime	ı
LEAD PROGRAM	Start	Status	Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Budget	Completion
BW Lead Free DC Program	2003	Ongoing	\$10,004	\$7,194	\$5,348	\$5,725	\$5,651	\$12,023	\$13,803	\$7,099	\$2,458	\$1,627	\$0	\$60,930	\$302,940	2035
ST Lead Free DC Project	2022	Ongoing	\$32,091	\$55,145	\$77,984	\$88,201	\$93,269	\$87,420	\$87,871	\$97,767	\$40,295	\$20,539	\$22,166	\$670,658	\$1,524,192	2035
TOTAL LEAD PROGRAM BUDGETS			\$42,094	\$62,339	\$83,333	\$93,925	\$98,921	\$99,443	\$101,674	\$104,867	\$42,753	\$22,166	\$22,166	\$731,587	\$1,827,132	
ON-GOING	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
D5 FY 2014 - DWS Water Projects	2014	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,248	
HY FY 2019 - DWS Water Projects	2019	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,631	2023
JA FY 2020 - DWS Water Projects	2020	Ongoing	\$52	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,070	
KW FY 2021 - DWS Water Projects	2021	Ongoing	\$139	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,830	2023
KX FY 2022 - DWS Water Projects	2022	Ongoing	\$4,479	\$938	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$938	\$15,930	
KY FY 2023 - DWS Water Projects	2023	Ongoing	\$6,303	\$6,218	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,218	\$13,150	
KZ FY 2024 - DWS Water Projects	2024	New	\$0	\$5,685	\$12,907	\$12,358	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,950	\$45,122	
L2 FY 2026 - DWS Water Projects	2023	Ongoing	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
L6 FY 2027 - DWS Water Projects	2027	New	\$0	\$0	\$0	\$0	\$14,600	\$0	\$0	\$0	\$0	\$0	\$0	\$14,600	\$18,250	
L7 FY2028 - DWS Water Projects	2028	New	\$0	\$0	\$0	\$0	\$0	\$14,254	\$0	\$0	\$0	\$0	\$0	\$14,254	\$19,575	
L8 FY2029 - DWS Water Projects	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$19,500	\$0	\$0	\$0	\$0	\$19,500	\$21,000	
L9 FY2030 - DWS Water Projects	2030	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,500	\$0	\$0	\$0	\$20,500	\$22,000	
LA FY2031 - DWS Water Projects	2031	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,781	\$2,219	\$0	\$22,000	\$23,500	
LW FY2032 - DWS Water Project	2032	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,404	\$20,404	\$40,807	\$40,807	2033
QJ DPO Water Pumping and Storage, Capital Projects	2020	Ongoing	\$157	\$1,266	\$2,431	\$2,683	\$1,558	\$878	\$1,191	\$1,101	\$1,098	\$0	\$0	\$12,207	\$14,701	2031
TOTAL ON-GOING BUDGETS			\$11,131	\$14,107	\$15,339	\$15,041	\$16,158	\$15,132	\$20,691	\$21,601	\$20,879	\$22,623	\$20,404	\$181,974	\$280,813	
PUMPING FACILITIES	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
AY Upgrades to Fort Reno Pumping Station	2002	Ongoing	\$84	\$126	\$66	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$192	\$14,473	2025
HI Bryant Street Pump Station Phase III	2025	New	\$0	\$0	\$15	\$161	\$553	\$1,241	\$2,566	\$3,625	\$1,786	\$0	\$0	\$9,947	\$11,228	2031
HR Anacostia Pump Station Improvements Phase II	2025	Ongoing	\$0	\$140	\$578	\$588	\$1,792	\$6,195	\$3,123	\$0	\$0	\$0	\$0	\$12,416	\$14,953	2029
HV Bryant Street Pump Station - Spill Header Flow Control	2013	Ongoing	\$2,970	\$4,115	\$3,809	\$59	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,983	\$11,658	2026
JB Bryant Street PS Improvements - Phase II	2012	Ongoing	\$73	\$289	\$1,790	\$3,502	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,581	\$12,185	2026
LT Water System SCADA	2014	Ongoing	\$159	\$1,359	\$958	\$1,241	\$841	\$16	\$0	\$0	\$0	\$0	\$0	\$4,415	\$8,406	2028
LU Water Facilities Security System Upgrades 2	2016	Ongoing	\$509	\$21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21	\$2,000	2024
OR Fort Reno Pump Station Improvements Phase II	2023	Ongoing	\$150	\$143	\$244	\$2,252	\$1,895	\$0	\$0	\$0	\$0	\$0	\$0	\$4,533	\$6,430	2027
OW Water System Sensor Program (WaSSP)	2022	Ongoing	\$125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2023
PS Existing Water Facilities Building Optimization	2023	Ongoing	\$0	\$24	\$501	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$525	\$695	2025
S6 West Venturi Meter - Bryant Street Pumping Station	2023	Ongoing	\$9	\$61	\$169	\$760	\$1,062	\$0	\$0	\$0	\$0	\$0	\$0	\$2,051	\$2,404	2027
TOTAL PUMPING FACILITIES BUDGETS			\$4,078	\$6,277	\$8,131	\$8,562	\$6,143	\$7,452	\$5,689	\$3,625	\$1,786	\$0	\$0	\$47,664	\$84,432	



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STORAGE FACILITIES	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
FA Water Storage Facility Upgrades	2009	Ongoing	\$763	\$2,667	\$478	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,145	\$37,933	2025
HW Rehabilitation of Elevated Water Tanks	2023	Ongoing	\$1,283	\$829	\$228	\$616	\$1,331	\$792	\$273	\$0	\$0	\$0	\$0	\$4,068	\$7,320	2029
MA Saint Elizabeth Water Tank	2002	Ongoing	\$25	\$1,338	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,341	\$47,517	2025
MQ 2MG 4th High Storage Tank	2004	Ongoing	\$166	\$1,117	\$1,597	\$1,018	\$411	\$631	\$3,809	\$3,543	\$696	\$0	\$0	\$12,821	\$22,679	2031
QG Anacostia First and Second High Storage	2019	Ongoing	\$546	\$1,379	\$2,031	\$4,975	\$10,800	\$11,700	\$15,000	\$15,005	\$6,100	\$30,537	\$30,592	\$128,119	\$139,917	2036
SW Water SCADA Replacement	2028	New	\$0	\$0	\$0	\$0	\$0	\$270	\$79	\$328	\$1,241	\$3,110	\$1,990	\$7,019	\$8,380	2034
ZI Anacostia Third High Pressure Zone Improvements	2024	New	\$0	\$131	\$1, <del>4</del> 77	\$1,228	\$8,552	\$18,518	\$7,402	\$0	\$0	\$0	\$0	\$37,309	\$42,987	2029
TOTAL STORAGE FACILITIES BUDGETS			\$2,784	\$7,462	\$5,813	\$7,837	\$21,093	\$31,911	\$26,562	\$18,876	\$8,037	\$33,648	\$32,582	\$193,821	\$306,734	
PROGRAM MANAGEMENT	Start	Status	FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Total	Lifetime Budget	Completion
KV Water Program Management Services 2F	2020	Ongoing	\$5,085	\$8,361	\$6,067	\$426	\$411	\$296	\$29	\$0	\$0	\$0	\$0	\$15,589	\$31,060	2029
LB Water Program Management Services 2G	2025	New	\$0	\$0	\$4,552	\$9,183	\$10,722	\$5,537	\$0	\$0	\$0	\$0	\$0	\$29,994	\$35,230	2028
ME Water System Program Management Services	1999	Ongoing	\$229	\$595	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$595	\$19,854	2024
TOTAL PROGRAM MANAGEMENT BUDGETS			\$5,314	\$8,956	\$10,619	\$9,609	\$11,133	\$5,833	\$29	\$0	\$0	\$0	\$0	\$46,178	\$86,144	
TOTAL WATER BUDGETS			\$118,381	\$158,736	\$222,494	\$252,395	\$250,278	\$266,256	\$268,591	\$279,184	\$207,235	\$219,880	\$227,979	\$2,353,028	\$4,738,104	

# **Additional Capital Programs**



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(\$ in thousands)

Below are the annual total disbursements for the various projects within this service area.

	FY 2023				FY	2024 - FY 2	033 CIP Di	sbursement	t Plan				Lifetime
	Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-yr Total	Budget
CAPITAL EQUIPMENT	\$ 26,431	\$ 30,535	\$ 31,477	\$ 31,839	\$ 30,523	\$ 37,169	\$ 37,169	\$ 37,169	\$ 37,169	\$ 37,169	\$ 37,169	\$ 347,390	\$ 347,390
WASHINGTON AQUEDUCT	\$ 74,728	\$ 35,546	\$ 35,770	\$ 35,770	\$ 35,770	\$ 35,770	\$ 35,770	\$ 35,770	\$ 35,770	\$ 35,770	\$ 35,770	\$ 357,472	\$ 357,472
ADDITIONAL CAPITAL PROJECTS	\$101,159	\$ 66,081	\$ 67,246	\$ 67,609	\$ 66,293	\$ 72,939	\$ 72,939	\$ 72,939	\$ 72,939	\$ 72,939	\$ 72,939	\$ 704,863	\$ 704,863







Fleet Management Building

Fleet Water Truck

**Employees at the WAD Facility** 

#### Overview

Additional Capital Programs is a subset of DC Water's Capital Improvement Program (CIP) and is comprised of Capital Equipment and the Washington Aqueduct.

**Capital Equipment** – This category accounts for approximately 49% of the Additional Capital Programs budget and includes capital equipment purchases, refurbishment, replacement and enhancement of operational facilities, vehicle equipment, office renovations, mechanical equipment, and Information Technology (IT) software/hardware needs. The current capital equipment disbursement budget includes the following cluster groups:

- Wastewater Operations This cluster is comprised of Wastewater Operations, Wastewater Process Engineering, and Maintenance Services. The capital equipment activities/purchases support work attributable to rehabilitation, replacement, and continuous improvements or enhancements for pumps, screens, large motors, centrifuges, process control systems, and actuators.
- Water Operations The capital equipment activities/purchases for this department include water service replacements, backflow preventers, hydrant locks, and valve replacements.
- **Pumping and Sewer Operations** these purchases support Supervisory Control and Data Acquisition (SCADA) hardware, flow meters, major build rebuilds, and sewer equipment.
- **Engineering** purchases for this department support engineering and technical services miscellaneous equipment needs.
- **Finance and Procurement** This cluster includes the departments of Finance, and Procurement & Compliance. The activities/purchases are primarily for reserve funds to support additional capital equipment needs for new facilities, unplanned emergencies, and capital equipment requiring longlead times. This also funds the purchases of payroll time clocks and miscellaneous finance related equipment.

# **Additional Capital Programs**



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- Customer Care these activities/purchases support the enhancements, replacements, and upgrades
  of residential and commercial water meters.
- Information Technology This department is comprised of the following clusters: IT Infrastructure
  and IT Project Management. The IT activities are for equipment purchases for infrastructure and
  projects, which include laptops, cabling, radios, servers, telephones, and software applications.
- Shared Services Capital equipment within this cluster is primarily for the departments of Office of Emergency Management, Facilities Management, Fleet Management, Security, and Safety. The activities/purchases include, plumbing, elevators, photocopiers, appliances, furniture, vehicles, loaders, dump trucks, vacuum trucks, boats, backhoes, cranes, trailers, forklifts, fire suppression system equipment, renovations, cameras, utility carts, and sensors.

Washington Aqueduct – The Washington Aqueduct, managed by the U.S. Army Corps of Engineers (USACE), provides wholesale water treatment services to DC Water and wholesale customers in Northern Virginia, (Arlington County and Fairfax County Water Authority). DC Water purchases approximately 74.6 percent of the water produced by the Aqueduct's two treatment facilities, the Dalecarlia and McMillan Treatment Plants, and thus is responsible for approximately 74.6 percent of the Aqueduct's operating and capital costs. Under federal legislation and a memorandum of understanding enacted in 1997 and updated in 2013, when Fairfax Water replaced the City of Falls Church, DC Water and the Aqueduct's wholesale customers in Northern Virginia inherited a much greater role in oversight of the Aqueduct's operations and its Capital Improvement Program, than prior to 1997.

The USACE, in accordance with Federal procurement regulations, requires DC Water to remit cash in an amount equal to the total project cost in advance of advertising contracts, and these funds are transferred immediately to a USACE/U.S. Treasury account to be drawn down during the execution of the project, through completion, with no interest going to DC Water. Over the years, extensive discussions with the U.S. Office of Management and Budget (OMB) and the USACE resulted in a proposal in the President's FY 2006 and FY 2007 budgets that would allow Aqueduct customers to deposit funds for any projects required by their National Pollutant Discharge Elimination System (NPDES) permit (including the residuals project) to a separate escrow account, allowing the Aqueduct customers to retain interest on these funds. The proposal was submitted in May 2006 to the Senate and House. During FY 2006, the USACE briefed the Senate Environment and Public Works Committee staff and in conjunction with DC Water, briefed the Senate Homeland Security and Government Affairs committee staff. Additionally, DC Water and Washington Aqueduct staff provided DC Delegate Norton's office with the Administration's proposal. Neither committee acted on the proposal.

The Washington Aqueduct continues to pursue other options that would be more favorable to DC Water, including transferring dollars on a phased basis, utilizing taxable bonds, or taxable commercial paper. In the past, some of these options have not been viewed favorably by the U.S. Treasury, but we will continue our outreach efforts to Congressional staff, federal agencies, and the USACE on this critical issue.

DC Water's share of Washington Aqueduct's infrastructure improvements to achieve established service levels for FY 2024 – FY 2033 is \$357.5 million. The increased investments funds Washington Aqueduct's risk-based asset management CIP, except the following projects: Federally Owned Water Mains, Travilah Quarry Acquisition Outfitting, and Advanced Treatment.

# **Additional Capital Programs**



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			FY 2023 Actual	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	10-Yr Tota
WASTEWATER	OPERATIONS													
810600	Clean Water Quality & Technolog	у	\$27	\$50	\$80	\$80	\$60	-	-	-	-	-	-	\$270
810006	Wastewater Operations		\$0	-	20	20	20	-	-	-	-	-	-	\$60
812003	Wastewater Process Engineering		\$1,216	\$625	\$625	\$625	\$625	-	-	-	-	-	-	\$2,500
811003	Maintenance Services		\$1,224	\$4,000	\$4,200	\$4,200	\$4,200	-	-	-	-	-	-	\$16,600
		Subtotal	\$2,468	\$4,675	\$4,925	\$4,925	\$4,905	-	-	-	-	-	-	\$19,430
WATER OPERAT	TIONS													
813003	Water Operations		\$45	\$1,195	\$1,000	\$1,000	\$1,000	-	-	-	-	-	-	\$4,195
	·	Subtotal	\$45	\$1,195	\$1,000	\$1,000	\$1,000	-	-	-	-	-	-	\$4,195
PI IMPING AND S	SEWER OPERATIONS													
815000	Pumping Services		\$1,433	\$1,550	\$1,765	\$1,765	\$1,765	_	_	_	_	_	_	\$6,845
814000	Sewer Operations		\$307	\$280	\$522	\$522	\$522	_	_	_	_	_	_	\$1,846
	<u> </u>	Subtotal	\$1,740	\$1,830	\$2,287	\$2,287	\$2,287		_	_	_	_	_	\$8,69
ENCINEEDING				, ,		. ,	1,							
ENGINEERING 801000	Engineering & Technical Services		\$176	\$25	\$25	\$25	\$25							\$100
801000	Engineering & Technical Services	Subtotal	\$176	\$25	\$25	\$25	\$25					-		\$100
		Jubiotai	\$170	ΨZ3	Ψ23	ΨZ3	Ψ23						-	\$100
FINANCE & PRO														
300003	Finance, Accounting & Budget		\$0	\$0	10	10	10	-	-	-	-	-	-	\$30
300003	Reserve Fund		\$0	\$5,550	\$4,700	\$4,700	\$4,700	\$29,102	\$29,102	\$29,102	\$29,102	\$29,102	\$29,102	\$194,263
		Subtotal	\$0	\$5,550	\$4,710	\$4,710	\$4,710	\$29,102	\$29,102	\$29,102	\$29,102	\$29,102	\$29,102	\$194,293
<b>CUSTOMER CAR</b>	RE													
600018	On-Going Replacement		\$489	\$2,900	\$2,900	\$2,804	\$3,033	\$3,867	\$3,867	\$3,867	\$3,867	\$3,867	\$3,867	\$34,84
600018	SDWM Meter Program		\$0	\$698	\$4,044	\$4,025	\$2,200	\$200	\$200	\$200	\$200	\$200	\$200	\$12,167
		Subtotal	\$489	\$3,598	\$6,944	\$6,829	\$5,233	\$4,067	\$4,067	\$4,067	\$4,067	\$4,067	\$4,067	\$47,008
INFORMATION T	<b>TECHNOLOGY</b>													
601003	IT Infrastructure		\$3,266	\$2,142	\$1,962	\$2,440	\$2,740	-	-	-	-	-	-	\$9,284
601012	IT Project Management		\$6,062	\$3,145	\$3,145	\$3,145	\$3,145	-	-	-	-	-	-	\$12,580
		Subtotal	\$9,328	\$5,287	\$5,107	\$5,585	\$5,885	-	-	-	-	-	-	\$21,864
SHARED SERVIC	FS													
204000	Facilities Management		\$1,718	\$1,775	\$1,878	\$1,878	\$1,878	_	_	_	_	_	_	\$7,409
205003	Security		\$946	\$600	\$600	\$600	\$600	_	_	_	_	_	_	\$2,400
202006	Fleet Management		\$9,430	\$6,000	\$4,000	\$4,000	\$4,000	4,000	4,000	4,000	4,000	4,000	4,000	\$42,000
203000	Occupational Safety		\$91	-	-	-	-	-	-	-	-	-	-	\$(
201006	Office of Emergency Management		\$0	-	-	_	-	_	-	-	-	-	-	\$(
		Subtotal	\$12,185	\$8,375	\$6,478	\$6,478	\$6,478	4,000	4,000	4,000	4,000	4,000	4,000	\$51,809
TOTAL CAPITAL	FOUIPMENT		\$26,431	\$30,535	\$31,477	\$31,839	\$30,523	37,169	\$37,169	\$37,169	\$37,169	\$37,169	\$37,169	\$347,390
	•													
WASHINGTON	AQUEDUCT		\$74,728	\$35,546	\$35,770	\$35,770	\$35,770	\$35,770 ———	\$35,770	\$35,770 ————	\$35,770	\$35,770	\$35,770	\$357,472
TOTAL ADDITIO	NAL CAPITAL PROGRAMS		\$101,159	\$66,081	\$67,246	\$67,609	\$66,293	\$72,939	\$72,939	\$72,939	\$72,939	\$72,939	\$72,939	\$704,863



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