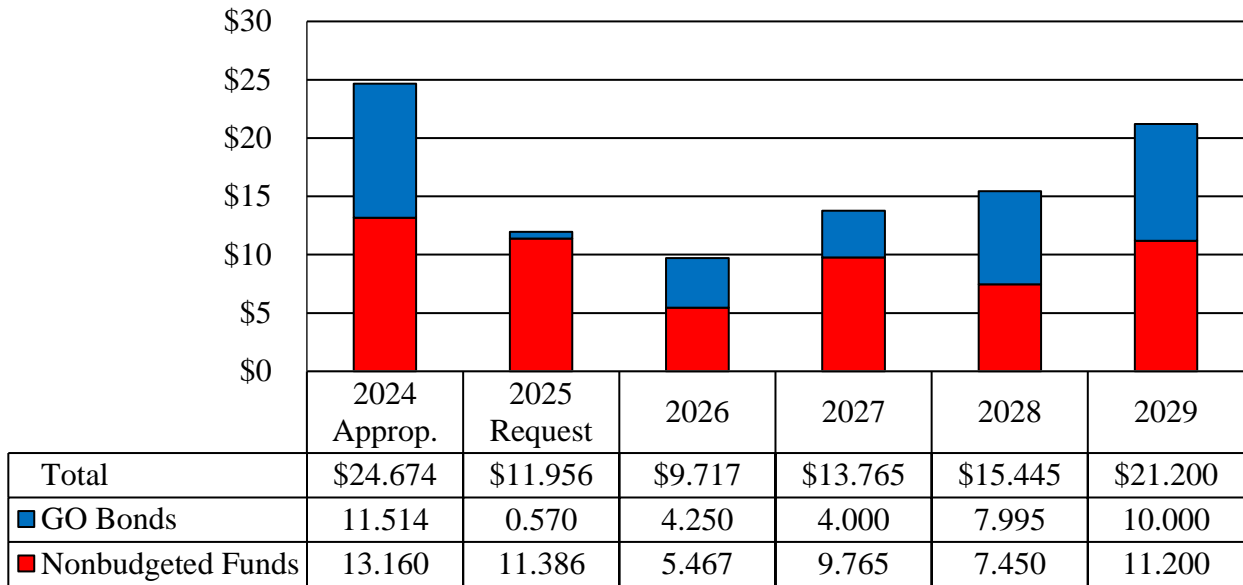


UB00
Maryland Environmental Service – Capital

Capital Budget Summary

Grant and Loan *Capital Improvement Program*
State Water and Sewer Infrastructure Improvement Fund
(\$ in Millions)



CIP: *Capital Improvement Program*
GO: general obligation

Note: Nonbudgeted funds are transferred from the Department of Natural Resources (DNR) to the Maryland Environmental Service to complete projects at DNR-owned facilities. The funds originate as special funds in DNR’s Natural Resources Development Fund, which is allocated to the agency from real estate transfer tax revenue as part of the Program Open Space formula.

Source: Department of Budget and Management

Key Observations

- ***Eastern Correctional Institute (ECI) Cogeneration Conversion Nears Completion:*** All project components are scheduled for completion in summer 2024.
- ***Funding for Large-scale Dredging at Conowingo Dam Will Revert as Expert Assessment Continues:*** Funding previously planned for this project is proposed to revert to the General Fund; however, science-based assessments and evaluations of dredging will continue.

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GO Bond Recommended Actions

1. Approve the \$570,000 in general obligation bond authorization for the State Water and Sewer Infrastructure Improvement Fund.

Budget Overview of Grant and Loan Program

The State Water and Sewer Infrastructure Improvement Fund was established to provide for capital improvements of State-owned and operated water treatment plants (WTP), wastewater treatment plants (WWTP), water distribution and sewer collection systems, and water towers. Since fiscal 1992, funding for capital maintenance projects relating to WTPs and WWTPs has been budgeted under the Maryland Environmental Service (MES). MES operates 267 water and wastewater facilities in Maryland, of which 96 are State-owned. The remaining facilities are operated by MES under contract with a local government or corporate owner.

The fiscal 2025 capital budget provides \$570,000 in general obligation (GO) bonds and \$11.4 million in nonbudgeted funds for the State Water and Sewer Infrastructure Improvement Fund. The nonbudgeted funds are provided for water and wastewater projects at Department of Natural Resources (DNR) facilities, while the GO bond funding supports projects at other State facilities. The DNR projects appear as nonbudgeted funds, as they have been budgeted with transfer tax special funds from the Natural Resources Development Fund and will be transferred to MES to cover project costs.

Recommended funds in fiscal 2025 support 6 projects in four jurisdictions, as shown in **Exhibit 1**. While the fiscal 2025 program includes just 6 projects, there are 29 projects in MES's fiscal 2025-2029 plan, including 14 statewide projects funded with GO bonds and 15 projects at DNR facilities that are supported by nonbudgeted funds.

Exhibit 1
Fiscal 2025 Water and Sewer Infrastructure Funded Projects
(\$ in Millions)

	Prior Authorized <u>Amount</u>	Fiscal 2025 <u>Amount</u>	Future Request <u>Amount</u>
<p>Point Lookout State Park – WWTP Upgrade (St. Mary’s County): This project will enhance the WWTP at the park, which has not been updated since calendar 1991, to achieve compliance with ENR discharge levels. MES and MDE feel that the plant should be upgraded to treat at the ENR level, given its discharge location into an ecologically sensitive area. The fiscal 2025 budget includes funding to begin construction on this project. MES anticipates that this project will be additionally supported by an ENR Bay Restoration Program grant of \$6.05 million via MDE, which will reduce the amount of nonbudgeted DNR funds needed to complete the project. Total Estimated Project Cost: \$11.0 million</p>	\$0.600	\$4.367	\$0.000
<p>Elk Neck State Park – WTTP Upgrade (Cecil County): The fiscal 2025 allowance includes funding to complete construction on this project, which will upgrade the WWTP with ENR, promoting greater safety for aquatic life, shellfish harvesting, and recreational activities in the area of the plant outfall. The project was additionally supported by an ENR Bay Restoration Program grant of \$8.22 million via MDE, which will reduce the amount of nonbudgeted DNR funds needed to complete the project. Total Estimated Project Cost: \$15.1 million</p>	3.380	3.473	0.000
<p>Sandy Point State Park – Water Tower and WTP Upgrade (Anne Arundel County): This project will leverage funds transferred from DNR to construct a new water tower, upgrade the water treatment system, and refurbish pump stations at Sandy Point State Park. The current system was constructed over 50 years ago. The system provides potable water for the park and nearby Natural Resources Police and Maryland Department of Transportation facilities. Fiscal 2025 includes funding to complete construction for this project. Total Estimated Project Cost: \$5.4 million.</p>	3.147	2.281	0.000

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	Prior Authorized <u>Amount</u>	Fiscal 2025 <u>Amount</u>	Future Request <u>Amount</u>
Greenbrier State Park – WTP, WWTP, Sewer Collection, and Electric Upgrades (Washington County): Funding is planned to continue design for this project, which will improve the water, sewer, and electric power supply systems at the park. Much of the current infrastructure is original to the calendar 1963 construction, which has created challenges in providing reliability utilities for park guests and DNR employees. Total Estimated Project Cost: \$23.4 million.	0.598	0.865	21.953
Dorsey Run WWTP – Sludge Processing Facility Upgrade (Anne Arundel County): The fiscal 2025 budget includes funding to complete design and construction for this project, which will conduct biosolids equipment upgrades and replacements at this plant, located in Anne Arundel County. MES used operating funds to complete design of the centrifuge upgrade portion of the project, which has been bid and awarded. Total Estimated Project Cost: \$3.8 million.	3.239	0.570	0.000
Albert Powell Fish Hatchery – WWTP Upgrade (Washington County): This project will improve the WWTP that treats wastewater from the DNR fish hatchery. The existing plant has not undergone any major improvements since its construction in calendar 1983. Additionally, improvements are necessary to support the operation of a new hatchery, which is currently under design by DNR. The fiscal 2025 budget includes funding to begin design for this project. Total Estimated Project Cost: \$4.1 million.	0	0.400	3.715
Total	\$10.964	\$11.956	\$25.668

DNR: Department of Natural Resources
 ENR: Enhanced Nutrient Removal
 MDE: Maryland Department of the Environment
 MES: Maryland Environmental Service
 WTP: water treatment plant
 WWTP: wastewater treatment plant

Source: Department of Budget and Management

Changes to Fiscal 2025 Planned Projects

- The Dorsey Run WWTP – Biosolids Facility Upgrade project has been reduced in scope at the request of MES.
- No additional funding is required in fiscal 2025 to complete the upgrades for the Camp Fretterd – Water Distribution and Septic Facility Upgrades.
- The Charlotte Hall Veterans Home (CHVH) – Water Treatment Plant Upgrade has been deferred to align the project with Maryland Department of Veterans Affairs’ plans to renovate CHVH and apply for funding through the U.S. Department of Veterans Affairs.

Maryland Environmental Service Anticipates Encumbering Nearly All Outstanding Funds in Fiscal 2024

The program has \$52.01 million in total previously allocated funding that has yet to be encumbered, which includes \$24.67 million allocated in fiscal 2024 and \$27.34 million allocated in fiscal 2023 or earlier. In fiscal 2024, MES has an ambitious plan to encumber nearly all of this outstanding funding: \$51.68 million, or 99%. As of December 2023, the agency has encumbered \$12.60 million. Encumbrance levels vary substantially from year to year based on the magnitude and number of projects in the agency’s five-year plan, bidding timelines, and other factors. In fiscal 2023, MES encumbered \$21.10 million of program funding.

Unallocated Funds and Contingencies

In fiscal 2024, the Department of Budget and Management (DBM) recommended \$1 million in contingency funds to cover cost increases both in transfer tax special funds for DNR projects and in GO bonds for statewide projects for a total of \$2 million in unallocated funds. These funds were intended to be used for project cost escalations at MES’s discretion, given the volatility in the construction market and the agency receiving bids that were abnormally above engineering cost estimates due to inflation, fuel costs, and supply chain issues. The anticipated uses for this funding are shown in **Exhibit 2**.

Exhibit 2
Use of Fiscal 2024 Unallocated Funds

<u>Project Name</u>	<u>Amount of Unallocated Funds</u>	<u>Additional Information</u>
Point Lookout State Park – Water Distribution and Sewer Collections Upgrade	\$702,000 (planned); \$269,000 (encumbered)	Unallocated funds from fiscal 2024 directed toward this project will allow for the completion of construction, which is anticipated for fall 2024.
Dorsey Run WWTP	\$542,000	An additional \$570,000 is programmed in fiscal 2025 to complete project design and construction.
Cheltenham WWTP	\$458,000 (planned)	Bids under review by MES Procurement. The agency is also seeking MDE review for Enhanced Nutrient Removal grant eligibility.
Tuckahoe State Park – Water Tower	\$29,000	Funds will be used to facilitate project completion, which was adjusted due to weather conditions. MES anticipates completing construction during fiscal 2024.

MDE: Maryland Department of the Environment
MES: Maryland Environmental Service
WWTP: Wastewater Treatment Plant

Note: Funds have been encumbered as of February 2024, unless otherwise noted.

Source: Maryland Environmental Service; Department of Budget and Management

While unallocated funds are not included in the fiscal 2025 program, elevated contingency percentages provide the flexibility needed to address unanticipated project delays or challenges. Generally, contingency funds are budgeted at 5% to 10% of the total for capital project costs; however, DBM and MES find that rate to be insufficient for this program due to the logistical complications associated with water and wastewater infrastructure. The agency notes that a 15% to 20% contingency is more appropriate, with 15% applied to projects with infrastructure that can be visually inspected, and 20% applied to water and wastewater treatment facilities that cannot be

visually inspected (*i.e.*, buried underground). Due to historic inflation and supply chain challenges, MES increased the contingency percentage for some water and wastewater projects to 30% in fiscal 2024. DBM and MES have worked to improve baseline cost estimating to reflect the current market conditions and bring contingency percentages back in line with the historic norms of 15% to 20%. Contingency percentages for fiscal 2025 range from 5% to 20%, except for Greenbrier State Park, which exceeds 20% based on the architectural and engineering cost estimate developed during preliminary planning. Contingency percentages are generally estimated high to ensure that sufficient resources are available and are further refined after preliminary engineering reports are complete.

Issues

1. Eastern Correctional Institution’s Cogeneration Plan Conversion Nears Completion

The fuel conversion project at the ECI Cogeneration Plant will convert the fuel source at ECI from wood chips to natural gas. The project has experienced numerous cost overruns and delays, but MES anticipates that all components will be complete in summer 2024.

Funding for this project, which totals \$21.9 million, has come from various sources, including the State Water and Sewer fund, a grant from the Maryland Energy Administration, an approved retainage from MES’s project reserve fund, and general funds budgeted in the Department of General Services. The initial estimated project cost was just \$4.2 million; however, the project costs increased multiple times due to labor and equipment increases associated with the COVID-19 pandemic, various technical issues, and market conditions.

The natural gas pipeline associated with this project was completed in fall 2021 and comes off a trunk line aligned along the Eastern Shore, which also supplies the University of Maryland Eastern Shore. The agency also received funding for a previous project, ECI Cogeneration Improvements, which included upgrades to various components of the plant prior to fuel conversion. Project tasks independent of the fuel type have been completed, and items impacted by the fuel conversion have been delayed until fuel conversion is completed.

At the main facility, demolition and construction began in July 2023 and was completed in December 2023; however, the commissioning of additional new boilers is ongoing. For the ancillary buildings, all equipment conversions and replacements are scheduled for completion by the end of summer 2024.

2. Administration Proposes to Revert Funds for Major Conowingo Dam Dredging Project

Background

In fiscal 2023, \$6 million in capital funding was authorized for preliminary work associated with a large-scale dredging and restoration project at the Conowingo Dam. The project would entail the dredging of sediment trapped behind the dam in an effort to prevent nitrogen, phosphorus, and sediment from entering the mainstem of the Chesapeake Bay, which is fed by the Susquehanna River.

A portion of that total was transferred to the Maryland Department of the Environment (MDE), to be transferred to MES upon approval of a project program. Once approval was secured, MES's role was to begin pre-engineering, design, permitting and regulatory coordination, and right of entry negotiations for a large-scale dredging project. However, very little project information was made available prior to the allocation of funding. Reports published by MDE and MES in calendar 2022 and 2023 provided additional context regarding the costs of benefits of dredging generally but did not include specific plans, cost estimates, or schedules for the proposed dredging project.

In October 2022, MES submitted a capital program for the project to DBM for review to secure the release of the \$3.3 million from MDE's budget.

Current Status

In the Budget Reconciliation and Financing Act of 2024, the \$6 million in capital pay-as-you-go funds, currently in the Dedicated Purpose Account, is proposed to be reverted to the General Fund. In contrast to previous plans, a consensus was reached that the various science-based assessments should occur prior to the State making a long-term commitment to large-scale dredging.

Initiatives to assess the feasibility and effectiveness of dredging with partners at MDE, the Army Corps of Engineers, and the Chesapeake Bay Program are ongoing. These include developing a modeling scope of work with oversight from a convened panel of experts. MES is not involved in these efforts, and its involvement will resume when or if a new project plan for dredging at the Conowingo Dam is developed.

Appendix 1
Executive’s Operating Budget Impact Statement – State-owned Projects
Fiscal 2025-2029
(\$ in Millions)

	2025	2026	2027	2028	2029
Dorsey Run Wastewater Treatment Plant – Sludge Processing Facility Upgrade					
Estimated Operating Cost	\$0.267	\$0.280	\$0.294	\$0.308	\$0.330
Estimated Staffing	1.0	1.0	1.0	1.0	1.0
Elk Neck State Park – Wastewater Treatment Plant Upgrade					
Estimated Operating Cost	\$0.003	\$0.003	\$0.003	\$0.007	\$0.007
Estimated Staffing	0.0	0.0	0.0	0.0	0.0
Greenbrier State Park – Water and Wastewater Treatment Plant, Sewer Collection, and Electric Upgrade					
Estimated Operating Cost	\$0.000	\$0.000	\$0.000	\$0.000	\$0.001
Estimated Staffing	0.0	0.0	0.0	0.0	0.0
Point Lookout State Park – Wastewater Treatment Plant Upgrade					
Estimated Operating Cost	\$0.000	\$0.001	\$0.005	\$0.006	\$0.007
Estimated Staffing	0.0	0.0	0.0	0.0	0.0