

UA01
Department of the Environment – Capital

Capital Budget Summary

Grant and Loan Capital Improvement Program
(\$ in Millions)

| Program | 2022 Approp. | 2023 Request | 2024 Est. | 2025 Est. | 2026 Est. | 2027 Est. |
|---|-------------------------|-------------------------|----------------------|----------------------|----------------------|----------------------|
| Maryland Water Quality Revolving Loan Fund | \$176.824 | \$153.033 | \$156.800 | \$156.800 | \$156.800 | \$156.800 |
| Maryland Drinking Water Revolving Loan Fund | 57.850 | 41.866 | 41.000 | 41.000 | 41.000 | 41.000 |
| Bay Restoration Fund – Wastewater Projects | 75.000 | 78.056 | 20.000 | 20.000 | 65.000 | 75.000 |
| Septic System Upgrade Program | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |
| Supplemental Assistance Program | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 |
| Water Supply Financial Assistance Program | 2.557 | 1.427 | 2.500 | 2.500 | 2.500 | 2.500 |
| Hazardous Substance Clean-up Program | 0.750 | 0.777 | 1.000 | 1.000 | 1.000 | 1.000 |
| Mining Remediation Program | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 |
| Comprehensive Flood Management Program | 23.754 | 7.292 | 3.000 | 10.000 | 10.000 | 10.000 |
| Conowingo Dam Watershed | 0.000 | 25.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total | \$355.235 | \$325.951 | \$242.800 | \$249.800 | \$294.800 | \$304.800 |

| Fund Source | 2022 Approp. | 2023 Request | 2024 Est. | 2025 Est. | 2026 Est. | 2027 Est. |
|--------------------|-------------------------|-------------------------|----------------------|----------------------|----------------------|----------------------|
| PAYGO GF | \$0.750 | \$12.531 | \$1.000 | \$1.000 | \$1.000 | \$1.000 |
| PAYGO SF | 259.793 | 217.434 | 162.000 | 162.000 | 162.000 | 162.000 |
| PAYGO FF | 53.160 | 58.767 | 59.000 | 59.000 | 59.000 | 59.000 |
| GO Bonds | 41.532 | 37.219 | 20.800 | 27.800 | 72.800 | 82.800 |
| Total | \$355.235 | \$325.951 | \$242.800 | \$249.800 | \$294.800 | \$304.800 |

FF: federal funds
GF: general funds
GO: general obligation

PAYGO: pay-as-you-go
SF: special funds

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PAYGO Recommended Actions

1. Concur with Governor’s allowance of \$7,686,000 in general funds, \$106,918,000 in special funds, and \$38,429,000 in federal funds for the Water Quality Revolving Loan Fund.
2. Concur with Governor’s allowance of \$777,000 in general funds for the Hazardous Substance Clean-Up Program.
3. Concur with Governor’s allowance of \$4,068,000 in general funds, \$17,460,000 in special funds, and \$20,338,000 in federal funds for the Drinking Water Revolving Loan Fund.
4. Concur with Governor’s allowance of \$78,056,000 in special funds for the Bay Restoration Fund – Wastewater.
5. Concur with Governor’s allowance of \$15,000,000 in special funds for the Bay Restoration Fund – Septic Systems.

GO Bond Recommended Actions

1. Approve the \$7,292,000 general obligation bond authorization for the Comprehensive Flood Management Program to provide funds to local governments for projects that reduce the risk of loss of life and property from flooding.
2. Modify the language for the Conowingo Dam Watershed project.

UA01B Conowingo Dam Watershed \$ 25,000,000

Strike the following language:

- (B) Conowingo Dam. Provide funds to ~~design and construct the enhanced dredging program and~~ implement the Conowingo Watershed Implementation Plan (Regional) 25,000,000

Explanation: This action strikes the authorization to use the Conowingo Dam Watershed project funding to design and construct the enhanced dredging program.

3. Approve the \$500,000 general obligation bond authorization for the Mining Remediation Program to design, construct, and equip active and passive measures to remediate damage to water quality related to abandoned mining operations.

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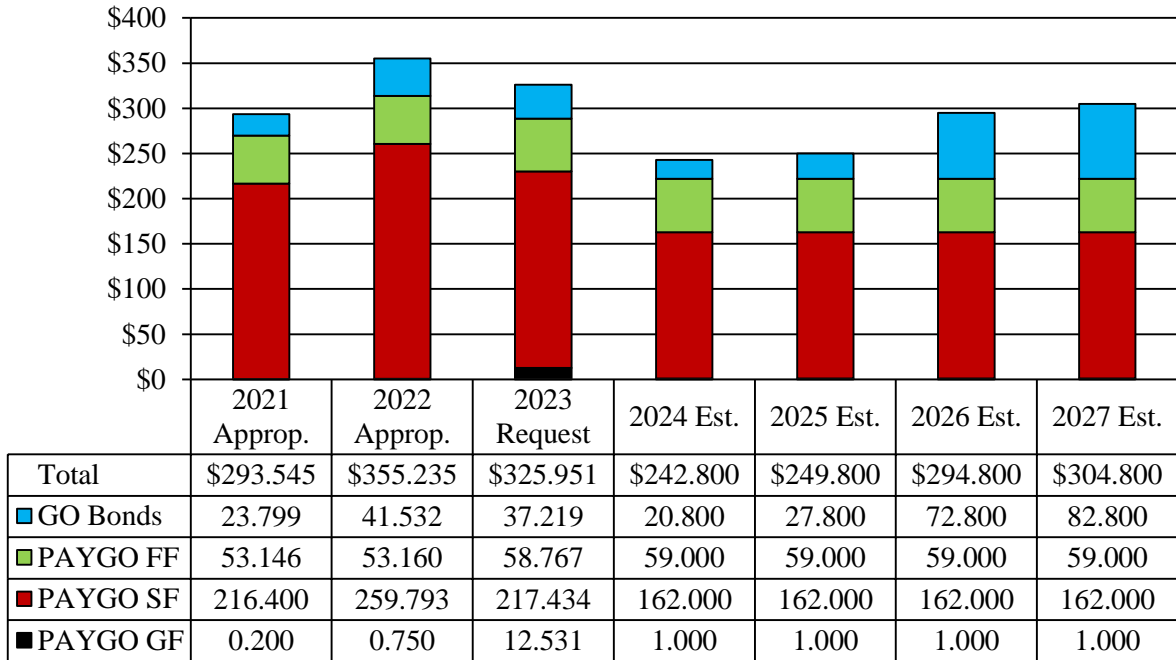
4. Approve the \$3,000,000 general obligation bond authorization for the Supplemental Assistance Program to provide grants to assist grant and loan recipients to meet the local share of construction costs for wastewater facility improvements.
5. Approve the \$1,427,000 general obligation bond authorization for the Water Supply Financial Assistance Program to provide funds for assistance to State and local government entities to acquire, design, construct, rehabilitate, equip, and improve water supply facilities.

Budget Overview of Grant and Loan Programs

Fiscal 2023 Budget

The Maryland Department of the Environment’s (MDE) fiscal 2023 capital program includes \$12.5 million in general funds, \$217.4 million in special funds, \$58.8 million in federal funds, and \$37.2 million in general obligation (GO) bonds for a total of \$325.95 million. The overall change between fiscal 2022 and 2023 is a \$29.3 million decrease, as shown in **Exhibit 1**. The decrease is primarily attributable to a \$45.4 million reduction in special funds for the Water Quality Revolving Loan Fund (WQRLF) and Drinking Water Revolving Loan Fund (DWRLF) and a \$16.5 million decrease in GO bonds for the Comprehensive Flood Management Program. These reductions are offset by an increase of \$25.0 million in GO bonds for the Conowingo Dam Watershed.

Exhibit 1
MDE Capital Programs Funding
Fiscal 2021-2027 Est.
(\$ in Millions)



FF: federal funds
 GF: general funds
 GO: general obligation
 MDE: Maryland Department of the Environment
 PAYGO: pay-as-you-go
 SF: special funds

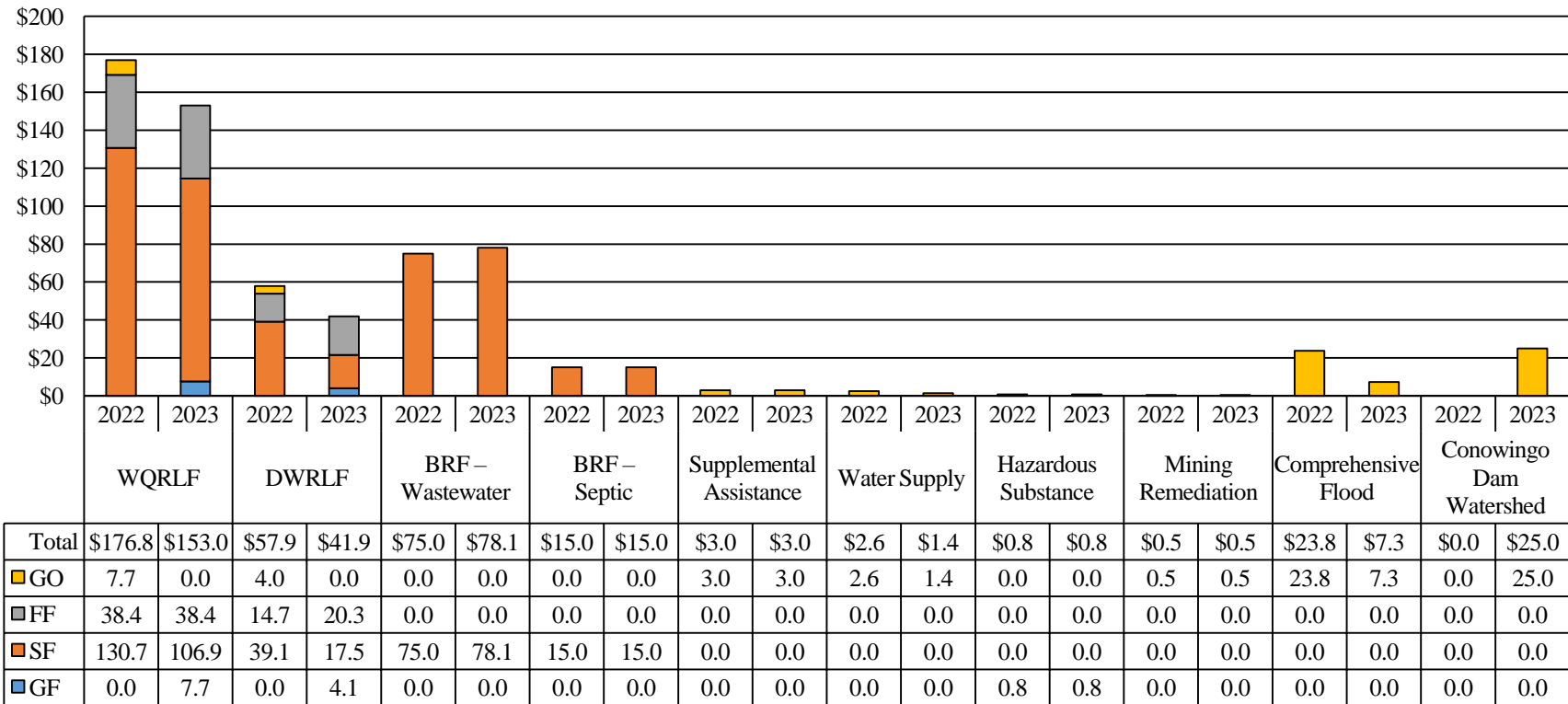
Source: Department of Budget and Management

For the out-years, MDE’s overall available capital funding increases between fiscal 2024 and 2027 due to GO bond increases for the Bay Restoration Fund (BRF) – Wastewater Projects and the Comprehensive Flood Management Program. This does not account for any revenue bonds that may be issued for the WQLRF, the DWRLF, or BRF – Wastewater Projects, although these bonds may not be issued due to the cash flow management approach that MDE has adopted for these programs and the expectation of federal Infrastructure Investment and Jobs Act (IIJA) funding.

Highlights

The changes in program funding between fiscal 2022 and 2023 are reflected in **Exhibit 2**.

Exhibit 2
MDE Capital Funding Changes
Fiscal 2022-2023
(\$ in Millions)



BRF: Bay Restoration Fund

DWRLF: Drinking Water Revolving Loan Fund

FF: federal funds

GF: general funds

GO: general obligation funds

MDE: Maryland Department of the Environment

SF: special funds

WQRLF: Water Quality Revolving Loan Fund

Source: Department of Budget and Management; Department of Legislative Services

The highlighted changes in funding for fiscal 2023 are as follows.

WQRLF

The WQRLF allowance for fiscal 2023 is \$153.0 million for 26 projects serving 11 jurisdictions and is comprised of \$7.7 million in general funds, as a required match to the \$38.4 million in federal funds and \$106.9 million in special funds. MDE initially anticipated issuing \$120.0 million in revenue bonds to meet fiscal 2021 and 2022 requests. However, with federal funds anticipated to be made available through the IJA, MDE no longer plans for this issuance. The 2022 *Capital Improvement Program* (CIP) does not reflect IJA funds pending further federal guidance as to how the funds shall be administered. MDE encumbered \$424.5 million in fiscal 2021, which is much higher than recent encumbrance levels, and demand for the program is well documented. In the most recent project solicitation period, MDE received funding requests for projects with a total cost in excess of \$1.3 billion, with \$1.0 billion requested specifically for loans through the WQRLF.

There are several large projects in the fiscal 2023 allowance as follows.

- ***Urban Stormwater Retrofit Public-private Partnership, Phase 5 (Prince George’s County):*** There is \$15.0 million budgeted for stormwater infrastructure retrofits, which range from structural treatment options, such as small rain gardens on private property as part of the Alternative Compliance Program, to large urban retrofit solutions involving suburban drain inlet modifications, pond retrofits, county right-of-way best management practices, and green streets and high-flow media treatment options. The total cost of this phase of the project is \$60.0 million, and the State’s share is 25%. Of note, this project involves a partnership between Prince George’s County and Corvias Solutions to implement stormwater restoration. The 2021 *Annual Report on Financial Assurance Plans and the Watershed Protection and Restoration Program* noted that Prince George’s County only restored 2,387 acres, or 39%, of the 6,105 acres that it was required to restore under its Municipal Separate Storm Sewer System permit, leading to the establishment of a consent decree.
- ***Piscataway Water Resource Recovery Facility Bio-Energy Project (Prince George’s County):*** There is \$15.0 million budgeted for construction. The total project cost is \$327.2 million of which \$129.0 million has been provided for planning and construction. The project is needed due to more restrictive guidelines for land application of Class B biosolids. The project would construct a Class A regional biosolids facility, including bioenergy facilities, which requires new/modified treatment processes.
- ***Southern Kent Island Sanitary Project – Phase 4 (Queen Anne’s County):*** There is \$12.0 million budgeted for planning and construction for the last phase of this project. The project addresses failing septic systems in communities along the Route 8 corridor by planning, designing, and constructing a 21,000-linear-foot main line and step units to connect 210 existing homes to the Kent Narrows/Stevensville/Grasonville wastewater treatment plant (WWTP).

- ***Oakland Trout Run Regional WWTP:*** There is \$11.5 million budgeted for construction. The total project cost is \$44.6 million. The project addresses two 0.9 million gallons per day WWTPs operating at secondary treatment that are emitting excessive nutrients to waters that are used for growth and propagation of trout and public water supply. The project designs and constructs a new 1.8 million gallons per day regional enhanced nutrient removal (ENR) WWTP at Oakland WWTP and connects the Trout Run WWTP.
- ***Edgewater Beach Septic-to-Sewer Conversion:*** There is \$10.7 million budgeted for planning and construction for the total project cost. There are septic systems operating in poor site conditions with insufficient area for replacement that appear to be causing high nitrate levels in private supply wells in the area. The project designs and constructs an 11,830 linear foot sanitary sewer line and pump station to connect 157 existing homes and 10 vacant lots to the Annapolis Waste Recovery Facility – an ENR WWTP.

MDE has been working on two energy projects in cooperation with the Department of Housing and Community Development (DHCD) that would provide \$15.0 million to implement energy efficiency and renewable energy capital improvements in single-family households, multifamily housing, and commercial buildings across the State. Referred to as the Maryland DHCD Energy Fund, the initiative remains stalled in negotiations with DHCD and is increasingly unlikely to be executed.

DWRLF

The DWRLF allowance for fiscal 2023 is \$41.9 million comprised of \$4.1 million in general funds, as a required match to the \$20.3 million of federal funds, and \$17.5 million in special funds. This will support 16 projects in 11 jurisdictions throughout the State. MDE had tentatively scheduled \$50.0 million in revenue bond issuance for fiscal 2022 but, as previously noted, because of the availability of federal funds through the IJA, the department no longer plans to make this issuance. Demand for the program is well documented. The National Drinking Water Needs Survey in March 2018 reflected that Maryland’s drinking water infrastructure needs over the next 20 years total \$9.3 billion. The most recent National Drinking Water Needs Survey was completed in late calendar 2021, and the final report is expected in late calendar 2022 or early calendar 2023.

The federal Safe Drinking Water Act Project allows for up to 31% of the federal DWRLF capitalization grant to be used for project set-asides in order to support water system capacity, operator certification, source water protection, training, and technical assistance to public water systems. For instance, MDE could use the project set-asides to hire staff or to contract with third-party technical experts. **Exhibit 3** shows the overall funding for DWRLF in MDE’s operating and pay-as-you-go budgets. MDE notes that it has chosen not to take project set-asides for federal fiscal 2021, due to the availability of set-aside funding from prior capitalization grants, but that it does have project set-aside reserve authority that it may utilize in the future. Of note, a workload analysis by the consulting group Cadmus, under contract from the U.S. Environmental Protection Agency (EPA), found that MDE’s Water Supply Program is understaffed and underfunded, and project set-aside funding could instead be used to support the administration of the Water Supply Program. MDE notes that the additional funding expected under the IJA will also help to support staff in the Water Supply Program. **The Department of Legislative Services (DLS) recommends that MDE comment on the implications of not using**

the project set-aside funding in fiscal 2023 to help fund its Water Supply Program, given the workload analysis report findings and recommendation.

Exhibit 3
Drinking Water Revolving Loan Fund – Operating and PAYGO
State Fiscal 2022-2023

| | <u>Federal Fiscal 2020</u> <u>State Fiscal 2022</u> | <u>Federal Fiscal 2021</u> <u>State Fiscal 2023</u> |
|--|--|--|
| Capital Projects | \$14,724,100 | \$20,338,000 |
| 2% Set-aside (Technical Assistance) | 403,400 | 0 |
| 4% Set-aside (DWRLF Administration) | 0 | 0 |
| 10% Set-aside (Drinking Water Program Support) | 2,017,000 | 0 |
| 15% Set-aside (Local Assistance) | 3,025,500 | 0 |
| Total | \$20,170,000 | \$20,338,000 |

DWRLF: Drinking Water Revolving Loan Fund

PAYGO: pay-as-you-go

Source: Maryland Department of the Environment

BRF – Wastewater Projects

Funding for BRF – Wastewater Projects is \$78.1 million in special funds that supports nine projects in seven jurisdictions. The funding level is greater than the \$75.0 million programmed for fiscal 2023 in the 2021 CIP due to higher than anticipated requests for minor WWTP upgrades to ENR technology.

The 2022 CIP reflects substantial modifications relative to the 2021 CIP. The CIP now reflects \$20.0 million in special fund appropriations through fiscal 2027, instead of \$75.0 million. In addition, \$45.0 million in GO bonds is reflected in fiscal 2026 and \$55.0 million in fiscal 2027. MDE notes that these changes reflect the lower BRF revenue availability projections in future years relative to new and increasing funding demands. MDE further notes that the GO bonds will allow it to continue to offer BRF grants at a level consistent with historical funding levels. Additional concerns about legislation redirecting BRF revenues to other purposes in fiscal 2023 and beyond, and recent revenue declines that may be attributable to the COVID-19 pandemic are explored later in this analysis.

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MDE is still considering whether to issue \$100.0 million in new revenue bonds in fiscal 2023, dependent upon project cash flow projections and schedules. However, any debt that would be issued would be for seven years or less, due to the BRF fee decreasing after 2030. MDE notes that additional revenue may be needed before the GO bonds are authorized in fiscal 2026 and 2027, depending on cash flows, project pace, current commitments, and potential future commitments. In addition, MDE notes that the revenue bonds could be issued in fiscal 2024, when the current 2014 and 2015 Series BRF bonds can be refunded and reissued.

For fiscal 2023, all nine projects are minor WWTP upgrades to ENR due to the requirement in Chapters 694 and 695 of 2021 to fund minor WWTP upgrades before transferring funding to the Clean Water Commerce Account. This reflects a change from prior years when funding was also available for combined sewer overflows (CSO) abatement, rehabilitation of existing sewers and upgrading conveyance systems, and stormwater alternative compliance plans.

MDE notes that there are more than 300 minor WWTPs that are eligible for funding if the upgrades are cost-effective, and 34 minor plants have signed the funding agreement and started the process. Of these 34 minor plants, 19 are in planning or design, 8 are under construction, and 7 have completed the upgrade. In addition, 2 more minor WWTPs were upgraded using other fund sources. MDE notes that it has received additional applications for funding minor WWTPs and it anticipates more applications in the future due to continued interest and treatment technology advances that are increasing the cost-effectiveness of these upgrades.

MDE anticipates encumbering \$207.6 million in fiscal 2022. This reflects an encumbrance backlog due to certain types of projects – stormwater, septic connections, and combined/sanitary sewer overflow abatements – taking longer to design, permit, and construct than typical WWTP upgrades to ENR. In addition, some minor WWTP upgrades being undertaken by smaller jurisdictions with limited resources are taking longer to complete. In contrast to MDE’s fiscal 2022 encumbrance plan, MDE only encumbered \$36.4 million in fiscal 2021, when it planned to encumber \$207.7 million but was unable due to the COVID-19 pandemic and the reasons noted previously.

Septic System Upgrade Program

The Septic System Upgrade Program is funded with \$15.0 million in special funds, and there is also \$1.5 million in MDE’s operating budget that is programmed by Chapter 379 of 2014. Chapter 379 requires that up to 10% of the funds in the BRF septic account be distributed to a local public entity delegated by MDE – local health departments – to cover reasonable costs associated with implementation of regulations pertaining to septic systems that use the best available technology (BAT) for nitrogen removal.

The program anticipates upgrading 1,100 systems in fiscal 2023. MDE notes that there are 393,904 septic systems in Maryland, of which 48,618 are located within the Critical Area based on data from 2017. In total, 13,635 septic systems have been upgraded to BAT of which 8,416 are in the Critical Area, which means that approximately 17% of the septic systems in the Critical Area have been upgraded.

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In terms of recent changes, Chapters 277 and 278 of 2021 authorize a county to borrow money and incur indebtedness through the issuance and sale of notes in anticipation of the receipt of the county's allocation of funds from the BRF Septic Account. A county may expend the net proceeds of the sale of notes to make grants and loans or to refund one or more issues of notes.

Supplemental Assistance Program

The fiscal 2023 allowance includes \$3.0 million in GO bonds to fund two projects in Allegany County to their maximum amount allowed under the program. This authorization is based on the plan to encumber \$7.2 million in fiscal 2022, which would be the highest amount encumbered in recent years. The 2022 CIP programs \$3.0 million in GO bond funds annually for fiscal 2024 through 2027. Of note, the most recent project solicitation reflected requests for approximately \$297.8 million for 43 projects in small, disadvantaged communities.

The fiscal 2023 projects are as follows.

- ***Flintstone WWTP:*** There is \$1.5 million budgeted for design and construction with a total project cost of \$3.3 million.
- ***Oldtown WWTP:*** There is \$1.5 million budgeted for design and construction with a total project cost of \$2.5 million.

Water Supply Financial Assistance Program

The Water Supply Financial Assistance Program receives \$1,427,000 in GO bonds to fund four projects in three jurisdictions to their maximum amount allowed under the program. The reduced authorization in fiscal 2023 relative to the \$2,500,000 programmed in the 2021 CIP is due to the cash flow needs of the recommended projects. Of note, the fiscal 2022 spending plan is to encumber \$6.6 million, which is the highest encumbrance level in recent years.

The fiscal 2023 projects are as follows.

- ***Town of Vienna Water Treatment Plant Replacement (Dorchester County):*** There is \$459,605 budgeted for design and construction with a total project cost of \$525,252.
- ***Town of Vienna Wells Replacement Project (Dorchester County):*** There is \$388,430 budgeted for construction with a total project cost of \$1,301,063.
- ***Oakland Water Plants Rehabilitation (Garrett County):*** There is \$182,500 budgeted for design and construction with a total project cost of \$365,000.
- ***Snow Hill Purnell Street Water Improvements (Worcester County):*** There is \$396,465 budgeted for design and construction with a total project cost of \$792,930.

Hazardous Substance Clean-Up Program

The fiscal 2023 allowance includes \$777,000 in general funds for the Hazardous Substance Clean-Up Program, which is \$223,000 less than the amount programmed in the 2021 CIP due to project schedules and planned site assessments. The 2022 CIP reflects \$1.0 million in general funds for fiscal 2024 through 2027. The fiscal 2023 funding provides for the following projects.

- **Former Generals Highway Landfill (Anne Arundel County):** There is \$150,000 for design with a future request of \$750,000, for a total project cost of \$900,000.
- **Ordnance Products, Inc. Site (Cecil County):** There is \$127,000 for construction for the whole project.
- **Linden Lane (Montgomery County):** There is \$50,000 for design with a future request of \$250,000, for a total project cost of \$300,000.
- **Former Linens of the Week (Wicomico County):** There is \$50,000 for design with a future request of \$250,000, for a total project cost of \$300,000.
- **Anacostia River – Northeast and Northwest Branches (Regional):** There is \$150,000 for design with a prior authorization of \$100,000 for design and a future request of \$250,000 for design, for a total project cost of \$500,000.
- **Site Assessments (Statewide):** There is \$250,000 for design.

Mining Remediation Program

The Mining Remediation Program receives \$500,000 in GO bonds, which is equal to both the fiscal 2022 authorization and the amount programmed for fiscal 2023 in the 2021 CIP. The funds will be used to eliminate stream loss zones in the Upper Georges Creek by remediating stream subsidence in Staub Run, a tributary to Upper Georges Creek. The overall Upper George Creek project is informed by the Stream Monitoring Report of the Upper Georges Creek and is intended to address known locations where streams are being lost to collapsing historic abandoned underground mine tunnels.

Prior year funding of \$1,377,563 for the Upper Georges Creek Shaft Stream Restoration Project in Allegany County – a collaborative effort between MDE, Allegany County, and the Department of Natural Resources (DNR) – was unencumbered by the Board of Public Works in June 2021. The project was bid by Allegany County in August 2020, but the lowest bid was 1.5 times greater than the estimate of \$2.4 million and the available project funding of \$2.3 million. Therefore, the decision was made to unencumber the funding. The unencumbering of the prior year funding contributes to MDE’s plan to encumber \$2,277,562 in fiscal 2022, which would be the highest encumbrance level in recent years.

The IJA will provide funding for abandoned mine land reclamation. The federal authority to collect the Abandoned Mine Land fee from coal production expired on September 30, 2021. If no federal

action was taken, then MDE would have had to slowly wind down its program as remaining available funding was spent. Instead, the IJA reauthorized the Abandoned Mine Land fee for 13 years at 80% of the current amount and deposited an additional \$11.3 billion of federal funds into the Abandoned Mine Land Trust Fund to be distributed to states over 15 years as annual grants. In combination with MDE’s current program, this federal funding will substantially increase the funding available for abandoned mine land reclamation projects and potentially increase the need for positions to administer the projects.

In total, MDE estimates that the IJA will provide an additional \$4.8 million of annual abandoned mine land funding from federal fiscal 2022 to 2035. The U.S. Department of the Interior is expected to issue funding guidance in the near future. MDE notes that the types of projects funded by the Mining Program with GO bonds may be eligible for the IJA funding.

Comprehensive Flood Management Program

The fiscal 2023 allowance includes \$7.3 million in GO bond funding for the Comprehensive Flood Management Program, which is \$4.3 million more than was programmed for fiscal 2023 in the 2021 CIP. This will provide resources to fund the eight high priority mitigation and resiliency projects requested in fiscal 2023. MDE used its new project ranking system to evaluate projects for fiscal 2023 funding.

Chapters 651 and 652 of 2019 require the Governor to appropriate at least \$3 million for the program in fiscal 2021 and 2022 and at least \$2 million in fiscal 2023. In addition to the \$7.3 million included in the fiscal 2023 budget, the 2022 CIP programs another \$33.0 million through fiscal 2027. MDE notes that there is an increased demand for funding to cost share with the Federal Emergency Management Agency Building Resilient Infrastructure and Communities projects. For instance, Chapter 644 of 2021 established the intent of the General Assembly that the Maryland Department of Emergency Management apply to the Federal Emergency Management Agency to capitalize the new Resilient Maryland Revolving Loan Fund to meet the federal matching requirements for federal resilience grants.

Fiscal 2023 funding is authorized to be used to acquire flood prone properties for demolition or relocation, install flood warning systems, and construct flood control projects in order to reduce the risk of loss of life and property from flooding. Projects may include, but are not limited to, flood control dams, levees and dikes, stormwater detention or retention structures, and flood proofing. The fiscal 2023 projects are as follows:

- ***Flintstone WWTP Floodproofing (Allegany County):*** \$375,000;
- ***Oldtown WWTP (Allegany County):*** \$375,000;

- *North Beach Flooding Pump and Equipment (Calvert County):* \$130,000;
- *Bay View Stream Restoration and Sewer Repair (Cecil County):* \$1,800,000;
- *Gilbert Run Watershed Dam Retrofit (Charles County):* \$1,484,000;
- *New Market Conveyance Phases 3 and 4 (Frederick County):* \$428,000;
- *New Cut Branch Streambank Stabilization (Howard County):* \$2,100,000; and
- *Betterton Shoreline Erosion Mitigation (Kent County):* \$600,000.

Conowingo Dam Watershed

There is \$25.0 million in GO bonds for the new Conowingo Dam Watershed program. The intent of the program is to support the Conowingo Watershed Implementation Plan (WIP). The Conowingo WIP includes a reduction target of 6.0 million pounds of nitrogen and 260,000 pounds of phosphorus. The final Conowingo WIP was submitted to EPA for review in September 2021 and reflects an over-the-target reduction of 6.75 million pounds of nitrogen per year. The total annualized cost of nitrogen reduction is still to be determined but ranges from \$53.3 million to \$253.0 million per year.

EPA has expressed concerns about distinguishing restoration activities under the Conowingo WIP from activities that are already pledged under the bay jurisdiction's Phase III WIPs and noted the need for dedicated funding mechanisms and public-sector financial commitments to fully implement the Conowingo WIP. In response, a letter of agreement template was completed in September 2021 and has been approved by the Chesapeake Bay partnership. This template provides jurisdictions a legal/contractual mechanism to contribute funding toward Conowingo WIP implementation, but it does not commit any jurisdiction to provide funding. The fiscal 2023 Conowingo Dam Watershed program funding appears to be Maryland's initial financial commitment, albeit one-time funding, since no funding is reflected beyond fiscal 2023 in the 2022 CIP.

Conowingo WIP implementation is informed by a financing strategy drafted by the University of Maryland Center for Global Sustainability. The center's recommendation is for the Susquehanna River Basin Commission to be the financing entity in charge of the Conowingo WIP and, per the WIP, that funding largely should be dedicated to cost-effective agricultural best management practices that are located in the Susquehanna River watershed. This suggests that the Conowingo Dam Watershed program funding potentially would be administered by the inter-state Susquehanna River Basin Commission for projects likely in Pennsylvania. However, supporting materials for the Conowingo Dam Watershed program reflect funding for natural filtration and watershed protection efforts in the Conowingo watershed, which could be the Conowingo Creek watershed, and would then include a small subset of the Susquehanna River watershed. In addition, the materials also appear to reflect a focus on mussel restoration efforts, which are a relatively new approach to nutrient and sediment reduction for Chesapeake Bay restoration relative to riparian buffers, wetland restoration, and other

best management practices approved by the Chesapeake Bay Program. Finally, the budget language authorizing the funding notes that, in addition to implementing the Conowingo WIP, the funding is also to be used to design and construct the enhanced dredging program at Conowingo Dam.

DLS recommends that MDE comment on:

- **its legal arrangement with the Susquehanna River Basin Commission to administer funds associated with the Conowingo WIP;**
- **where the natural filtration and protection efforts will be located;**
- **what best management practices will be funded;**
- **why mussel restoration is a focus of funding, and how the \$25.0 million funding amount was derived;**
- **whether an outcome-based approach will be taken toward funding best management practices, and why only fiscal 2023 funding is reflected in the 2022 CIP;**
- **the anticipated future annual funding need for the Conowingo WIP;**
- **how much nutrient and sediment load reductions are anticipated from the funding budgeted; and**
- **whether any other states have made funding commitments to the Conowingo WIP.**

DLS also recommends that the language be struck from the fiscal 2023 capital budget that authorizes the funding to be used to construct the enhanced dredging program at Conowingo Dam.

Issues

1. Federal IIJA Funding

The IIJA became law on November 15, 2021. According to the Federal Funds Information for States, the IIJA includes approximately \$732 billion in grants of interest to the states, of which allocations to states of \$445 billion have been identified or estimated. Final allocations of funding have yet to be made for a number of programs, but the assumption is that Maryland could receive a substantial amount of environment-related funding that will be budgeted in MDE.

The main sources of funding for which estimated allocations have been determined will come in through MDE's budget between federal fiscal 2022 and 2026 and are shown in **Exhibit 4**.

Exhibit 4
Infrastructure Investment and Jobs Act Funding for MDE
Federal Fiscal 2022-2026
(\$ in Thousands)

| <u>Program</u> | <u>2022</u> | <u>2023</u> | <u>2024</u> | <u>2025</u> | <u>2026</u> | <u>Total 2022-2026</u> | <u>Comment</u> |
|--|------------------|------------------|------------------|------------------|------------------|----------------------------|--|
| Clean Water State Revolving Funds: Existing Program | \$43,401 | \$50,779 | \$55,414 | \$60,026 | \$60,026 | \$269,646 | 10% match requirement. |
| Clean Water State Revolving Funds: Addressing Emerging Contaminants | 2,278 | 5,180 | 5,180 | 5,180 | 5,180 | 22,998 | New program. Addresses PFAS in the environment. No match requirement. |
| Drinking Water State Revolving Funds: Existing Program | 32,892 | 38,483 | 41,996 | 45,492 | 45,492 | 204,355 | 10% match requirement. |
| Drinking Water State Revolving Funds: Lead Service Line Replacement | 51,797 | 52,347 | 52,347 | 52,347 | 52,347 | 261,183 | New program. Replaces lead service lines in communities. It is not clear whether MDE has the data to allocate funding effectively. No match. |
| Drinking Water State Revolving Funds: Addressing Emerging Contaminants | 13,813 | 13,960 | 13,960 | 13,960 | 13,960 | 69,651 | New program. Addresses PFAS in drinking water. No match. |
| Assistance for Small and Disadvantaged Communities | 10,534 | 10,534 | 10,534 | 10,534 | 10,534 | 52,669 | |
| Total | \$154,715 | \$171,282 | \$179,430 | \$187,537 | \$187,537 | \$880,502 | |

MDE: Maryland Department of the Environment

PFAS: per- and polyfluoroalkyl substances

Source: Federal Funds Information for States; Maryland Department of the Environment

MDE notes that it is still awaiting guidance from EPA about the IIJA funding, which is expected to be issued in February or March 2022. After receiving guidance, MDE will be able to reach out to

local governments and other eligible entities to solicit applications for funding. Some of the additional funding has State match requirements, which will need to be addressed through the budget process before the federal funding can be expended. **DLS recommends that MDE comment on the amount of discretion that Maryland is expected to have in terms of how the federal IIJA funding may be used, how the funding may change MDE’s implementation of its current programs, and how MDE is preparing to use the funding effectively and equitably.**

2. BRF Balance

While BRF has carried a substantial balance in recent years, impacts on both the revenue side and the expenditure side have contributed to concerns about the fund balance and the ability for the BRF to fund projects going forward. On the revenue side are recent fluctuations considered to be related to the COVID-19 pandemic. On the expenditures side, there are two recent pieces of legislation that require transfers from the BRF and an aggressive encumbrance schedule that appears to draw down the BRF balance but are never fully met. In combination, there appears to be only enough funding in the near term for minor WWTP upgrades. The Administration’s position is to budget GO bond allocations in fiscal 2026 and 2027, although it is not clear that this will be necessary.

Revenues

MDE tracks BRF revenues on a cash basis. As shown in **Exhibit 5**, since the fee was increased to \$60 in 2012, annual collections have fluctuated from year to year. MDE has noted that the 6.7% decline in fiscal 2019 revenues was partially due to a ransomware attack in Baltimore City that interrupted collections. Therefore, some of the fiscal 2019 revenue collection was anticipated to be shifted to fiscal 2020. This is largely in fact what happened as fiscal 2020 revenues increased by 12.7%. The average of the fiscal 2019 and 2020 revenues is \$114.4 million, which is roughly on par with the \$115.3 million received in fiscal 2018.

Exhibit 5
Bay Restoration Fund Revenues
Fiscal 2013-2021
(\$ in Millions)

| <u>Fiscal Year</u> | <u>Revenues</u> | <u>Change</u> | <u>Percent Change</u> |
|--------------------|-----------------|---------------|-----------------------|
| 2013 | \$102.1 | | |
| 2014 | 110.7 | \$8.5 | 8.4% |
| 2015 | 109.8 | -0.9 | -0.8% |
| 2016 | 124.3 | 14.5 | 13.2% |
| 2017 | 116.0 | -8.3 | -6.7% |
| 2018 | 115.3 | -0.7 | -0.6% |
| 2019 | 107.5 | -7.8 | -6.7% |
| 2020 | 121.2 | 13.6 | 12.7% |
| 2021 | 98.1 | -23.1 | -19.1% |

Source: Maryland Department of the Environment

While revenue declines are not unprecedented, the decline in revenues from \$121.2 million in fiscal 2020 to \$98.1 million in fiscal 2021 is unusually large. The concern is that the decline could have long-term implications for BRF, depending on the underlying reason for the decline. Part of the challenge of reconciling the BRF revenue decline is that agencies track revenues differently. MDE tracks BRF revenues on a cash basis, while the Comptroller’s Office tracks revenues on an accrual basis. This cash basis may add to the variability of the collections from year to year since collections could be affected by additional external events, like the Baltimore City ransomware attack. There appears to be several possible reasons, all related to the COVID-19 pandemic, for the revenue decline in fiscal 2021.

- **Timing of Payments:** The Comptroller issued a January 6, 2021 Tax Alert extending the due date for bay restoration fees to April 15, 2021. This extension was for bay restoration fees due on January 20, 2021, for the fourth quarter of tax year 2020. It is possible that either the compliance entities or the counties have not yet remitted these payments to the Comptroller.
- **Telework and School Closure Impacts:** Commercial and educational institutions (schools and universities) were closed roughly from March 2020 to March 2021 – one-quarter of fiscal 2020 and three-quarters of fiscal 2021. This is important because, while residential BRF fee collection is a flat \$60 per household, rates for commercial and educational institutions are based on gallons of usage. Therefore, it is possible that there was a loss of up to three-quarters of the nonresidential BRF fee revenue in fiscal 2021.

- **Hardship Exemptions:** Statute authorizes billing authorities to establish financial hardship exemption programs for certain residential dwellings, subject to MDE approval. For instance, Baltimore City instituted a hardship exemption on April 22, 2020, which was to remain effective until either 90 days after the end of the state of emergency or on December 31, 2020, whichever occurred first. MDE has noted that it does not have data on the number and dollar amount of hardship exemptions but it has noted in the past that there were 128 billing authorities with hardship exemptions, and the level of use of these exemptions had been consistent over time and has not increased substantially during the COVID-19 pandemic. Although there is a potential indeterminate loss of BRF revenues from hardship exemptions, it is expected to be a relatively small loss.
- **Failure to Remit Payments:** MDE notes that the Comptroller’s Compliance Division recently identified an entity that had not remitted BRF fees for the fourth quarter of fiscal 2020 and the first, second, and fourth quarters of fiscal 2021. As a result of realizing these revenues, the BRF revenues for fiscal 2020 increased to \$124,240,730, and the fiscal 2021 revenue increased to \$108,435,976.

Assuming the failure to remit payments is the primary reason for the revenue decline in fiscal 2021, there may be no concern about the long-term implications of the fiscal 2021 decline. However, if the telework and school closure impacts explanation is the primary reason, this could be more of a long-term concern because recent teleworking changes may mean that people never fully return to their work locations and, thus, there could be a more permanent decrease in the BRF fee base.

Expenditures

Legislation passed during the 2021 session implemented two mandatory distributions from the BRF, which may only happen after funding any cost-effective minor WWTP upgrades. These distributions are as follows.

- **Clean Water Commerce Act:** Chapters 694 and 695, beginning in fiscal 2022, transfer \$20 million annually to the Clean Water Commerce Account to purchase environmental outcomes in support of the State’s efforts to achieve the Chesapeake Bay Total Maximum Daily Load (TMDL); and
- **Tree Solutions Now Act:** Chapter 645 of 2021, in fiscal 2023 only, transfers (1) \$10 million to the Chesapeake Bay Trust’s Urban Trees Program; (2) \$2.5 million to DNR’s Chesapeake and Atlantic Coastal Bays 2010 Trust Fund; and (3) \$2.5 million to MDA for tree plantings under the Conservation Reserve Enhancement Program and other tree-planting programs on agricultural land.

While the legislation increases expenditures from the BRF for other purposes, there is a potentially countervailing trend in aggressive encumbrance schedules that appear to draw down the BRF balance but are never fully met. For instance, MDE anticipated encumbering \$143.7 million in fiscal 2020 but actually only encumbered \$27.5 million. Similarly, for fiscal 2021, MDE anticipated

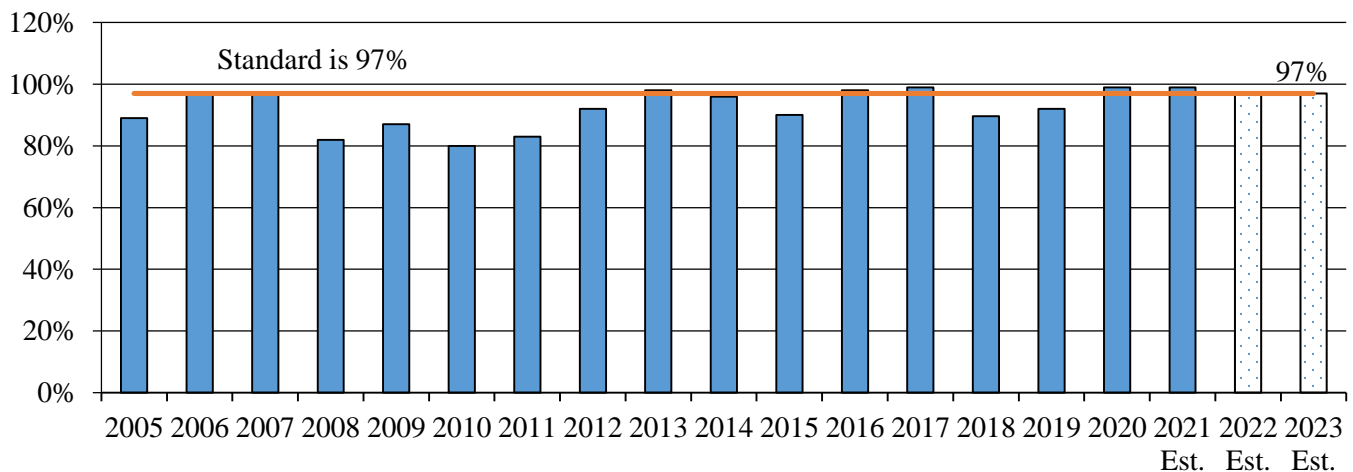
encumbering \$207.7 million but only encumbered \$36.4 million. In fiscal 2022, MDE anticipates encumbering \$207.6 million. It remains to be seen whether MDE will realize this encumbrance level. These assumed high encumbrance levels artificially reduce the BRF balance estimate presented in the department’s most recent fund analysis and decrease the amount that is available for future projects. While the encumbrances will eventually be realized, it may not necessarily be on a schedule that constrains projects to the degree assumed by MDE. **DLS recommends that MDE comment on the long-term sustainability of the BRF considering the impacts of partially explained revenue declines, recent legislation, and aggressive encumbrance schedules that are not realized.**

Performance Measures and Outputs

DWRLF

Exhibit 6 shows an overall trend toward a cleaner public water system in Maryland. However, between fiscal 2017 and 2018, there was a decrease in the percent of Marylanders served by systems that are in compliance with all drinking water regulations. Of note, a workload analysis by the consulting group Cadmus, under contract from EPA, recently found that 28% of Maryland’s public drinking water systems did not have a certified operator in 2020. However, MDE notes that operator certification is not a primary standard or treatment technique under the National Primary Drinking Water Regulations.

Exhibit 6
Marylanders Served by Public Water Systems in Significant Compliance
 Fiscal 2005-2023 Est.



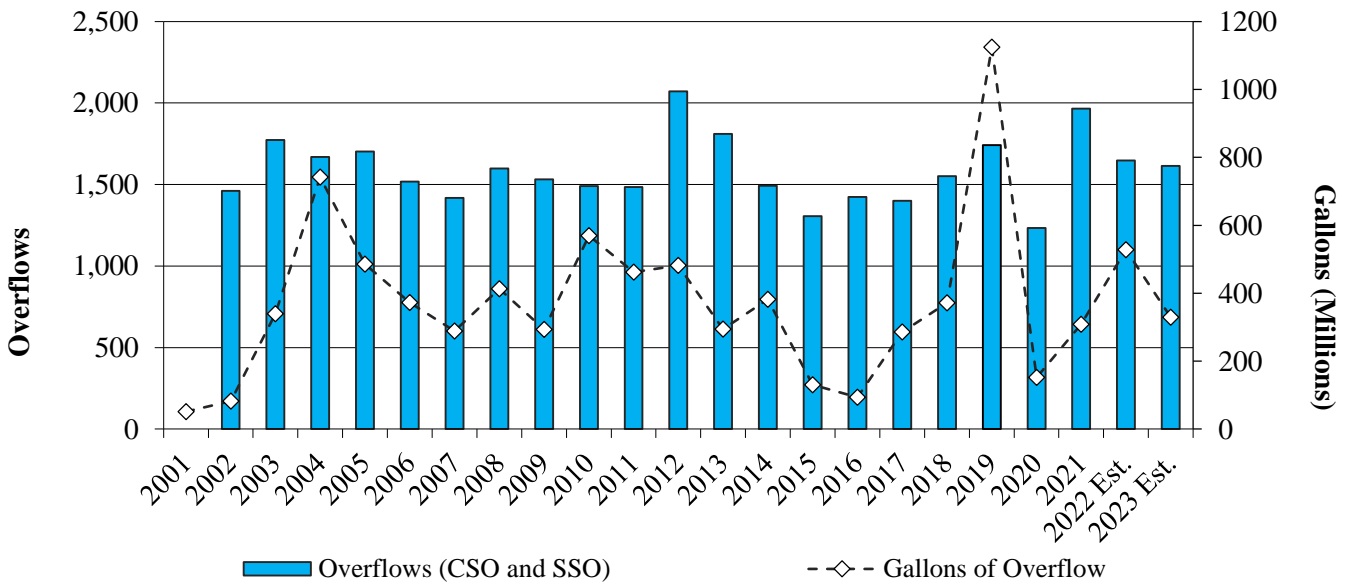
Source: Governor’s Fiscal 2008-2023 Budget Books; Department of Budget and Management

BRF – Wastewater Projects

A number of Maryland’s jurisdictions have signed consent decrees requiring the upgrade of their sewer systems due to the release of untreated sewage from facilities with National Pollutant Discharge Elimination System permits.

As illustrated in **Exhibit 7**, the number of gallons of overflow had been showing a decreasing trend between fiscal 2010 and 2018, but then there was a substantial increase in fiscal 2019. Over the fiscal 2001 through 2021 period, it appears that very little progress has been made to reduce the number of overflows due to periodic large overflows. Large overflows in a particular year may be attributable to a few extreme events, such as in Cumberland and La Vale in Allegany County in recent years, and particularly due to substantial storms in calendar 2019 that increased CSO. The fiscal 2021 data reflects an increase in both the number and gallons of CSO and sanitary sewer overflows (SSO). MDE has noted that funding for sewer rehabilitation, progress on improvements and repairs to collection systems, and the amount of rainfall will determine future sewer overflow reductions. MDE has very little control over either the number of overflows or the associated gallons.

Exhibit 7
CSO and SSO Overflows
Fiscal 2001-2023 Est.



CSO: combined sewer overflow
SSO: sanitary sewer overflow

Note: The number of gallons of overflow is calculated by the annual net change in number of gallons of overflows from the fiscal 2003 to 2005 average.

Source: Governor’s Fiscal 2008-2023 Budget Books; Department of Budget and Management

Program Description

Descriptions of MDE’s 10 current programs are as follows.

- ***WQRLF:*** The WQRLF was created to provide low-interest loans to counties and municipalities to finance water quality improvement projects. Projects eligible for funding include WWTPs; failing septic systems; and nonpoint source projects, such as urban stormwater control projects. The federal Act requires a 20% State match. For fiscal 2023 (federal fiscal 2021), at least 10% of the federal funding must be used for green reserve projects – water efficiency, energy efficiency, and stormwater projects – provided that sufficient applications are received. The federal appropriation act further requires a minimum of 10% of the capitalization be provided as additional subsidies and between 0% and 30% may be provided as additional subsidization above and beyond the 10% statutory minimum. WQRLF projects are prioritized based on an EPA-approved Integrated Project Priority System. The priority system for WQRLF projects consists of a system for evaluating, rating, and ranking of both point source and nonpoint source water quality projects. Through January 1, 2022, the program has executed \$3.2 billion in loans, loan forgiveness, and grants.
- ***DWRLF:*** The DWRLF was established in accordance with a federal capitalization grant approved by the U.S. Congress in 1996 in anticipation of future federal capitalization grants. This program was authorized by the General Assembly to provide loans to counties and municipalities to finance water supply improvements and upgrades. In accordance with the federal law, these funds may also be loaned to private parties. The federal Act requires that a minimum of 20% of State matching funds for each year’s federal capitalization grant be deposited into the fund. For fiscal 2023 (federal fiscal 2021), at least 14% of the federal funding must be used for loan forgiveness or grants, and additional subsidies are required for the use of at least 6% but no more than 35% of the capitalization grant for state-defined, disadvantaged communities. Similar to WQRLF projects, DWRLF projects are prioritized based on an EPA-approved Drinking Water Project Priority System that focuses on many criteria, the most important being the public health benefit. Through January 1, 2022, the program has executed \$591.8 million in loans, loan forgiveness, and grants.
- ***BRF – Wastewater Projects:*** The BRF (Chapter 428 of 2004) was created to address the significant decline in Chesapeake Bay water quality due to overenrichment of nutrients, such as phosphorus and nitrogen. This dedicated fund, financed in large part by WWTP users, initially was used to provide grants to local governments to upgrade Maryland’s 67 major WWTPs with ENR technology as part of reducing an additional 7.5 million pounds of nitrogen per year in order to reach Maryland’s commitment under TMDL as implemented by the Waterway Improvement Program. The current funding prioritization schedule is as follows: funding an upgrade of a wastewater facility with a design capacity of 0.5 million gallons or more per day from no upgrade all the way to ENR; and funding for the most cost-effective ENR upgrades at WWTP with a design capacity of less than 0.5 million gallons per day from no upgrade all the way to ENR. The prioritization schedule then includes the following uses, as determined by MDE and based on water quality and public health benefits: funding up to 100.0% for ENR

upgrades at WWTPs that discharge into the Atlantic Coastal Bays or other waters of the State; funding future upgrades of WWTPs to achieve additional nutrient removal or water quality improvement that is greater than ENR treatment levels; funding up to 87.5% of the cost for CSO abatement, rehabilitation of existing sewers, and upgrading conveyance systems including pumping stations; costs associated with upgrading septic systems and sewage holding tanks; funding up to 50% for grants for local government stormwater control measures – including projects relating to water quality, climate resiliency, or flood control per Chapter 44 of 2020 – for jurisdictions that have implemented a specified system of charges under current authority; and funding up to 100% for stormwater alternative compliance plans.

- ***BRF – Septic System Projects:*** The BRF includes a separate program to fund the replacement of failing septic systems. This program is funded as part of the BRF legislation by a fee on users of septic systems and sewage holding tanks, of which 60% of the revenue is allocated to MDE for the Septic System Upgrade Program and 40% to MDA for the Cover Crop Program. MDE provides grants to upgrade failing systems and holding tanks with BAT for nitrogen removal. Overall, the program gives priority to projects that involve failing systems in environmentally sensitive areas that are ready to proceed. The program is administered by county governments or other parties; contractors conducting the septic system upgrades are directly reimbursed for their work. Applications are prioritized as follows: (1) failing septic systems or holding tanks in the Critical Areas; (2) failing septic systems or holding tanks outside the Critical Areas; (3) nonconforming septic systems in the Critical Areas; (4) nonconforming septic systems outside of the Critical Areas; (5) other septic systems in the Critical Areas, including new construction; and (6) other septic systems outside the Critical Areas, including new construction.
- ***Supplemental Assistance Program:*** The Supplemental Assistance Program provides grant assistance to local governments for planning, designing, and constructing WWTP improvements; for connection of older communities with failing septic systems; for correction of CSO and SSO; and for correction of excessive infiltration and inflow throughout the State. Funds are targeted principally to two types of projects: (1) maintaining compliance at existing WWTPs; and (2) eliminating failing septic systems in older communities. Funds are directed principally to projects where local governments need a subsidy to undertake the needed water quality or public health project. This program is often used in conjunction with other sources of federal and State financial assistance to achieve project affordability. This program funds up to 87.5% of eligible costs for projects in small, lower-income jurisdictions, not to exceed \$1.5 million.
- ***Water Supply Financial Assistance Program:*** The General Assembly created the Water Supply Financial Assistance Program in 1982 to address the deteriorating condition of the State’s water supply infrastructure and the lack of adequate financing available to local governments to upgrade water supply systems. This program provides grants to assist small communities in the acquisition, construction, equipping, rehabilitation, and improvement of publicly owned water supply facilities. The State may provide up to 87.5% of total eligible project costs (not to exceed \$1.5 million per project) and a minimum 12.5% local match is

required. In recent years, all assistance has been in the form of grants rather than loans. This program is often used in conjunction with other sources of federal and State financial assistance (such as the DWRLF) to achieve project affordability.

- ***Hazardous Substance Clean-Up Program:*** The Hazardous Substance Clean-Up Program provides funds for cleaning up uncontrolled waste sites listed on the federal National Priorities List (Superfund) and other uncontrolled waste sites within the State that do not qualify for federal funding through the Superfund program. The State provides up to 100% of the costs of cleanup for the projects not included on the National Priorities List. At orphan sites, sites lacking a financially viable responsible party to pay for the cleanup, the State provides 100% of the cost of the preliminary site assessment. In all cases, the program seeks cost recovery, when possible, from the responsible parties. The program also provides the State's share (10%) of remediation costs for federal Superfund orphan sites with the remainder provided through the federal share (90%).
- ***Mining Remediation Program:*** Where there is no financially viable responsible party, the program provides funding for remediation of abandoned lands and waters impacted by inadequate coal mining reclamation practices prior to the passage of the federal Surface Mine Control and Reclamation Act of 1977. The program works through the Maryland Abandoned Mine Land Division. Projects include reclamation of surface mine high walls and pits, stabilization of landslides, restoration of stream banks to address flooding, extinguishing underground coal mine and coal refuse fires, stabilization of coal refuse piles, water supply replacement, stabilizing buildings and roads that are impacted by underground mine subsidence, and acid mine drainage treatment projects.
- ***Comprehensive Flood Management Program:*** The program provides grant funding to local governments for projects that reduce the risk of loss of life and property from flooding. Grant funds may be used to acquire flood-prone properties for demolition or relocation; install flood warning systems; and construct flood control projects, including engineering studies required to support the design of these projects. Capital projects that assist with flood management techniques may include but are not limited to flood control dams, levees and dikes, stormwater detention or retention structures, and flood proofing. Chapters 651 and 652 authorize MDE, under its existing Comprehensive Flood Management Grant Program, to award grants to subdivisions that have incurred at least \$1 million in infrastructure damage by a flood event that occurred on or after January 1, 2009. The grants may be for an amount up to 50% of the combined cost of infrastructure repairs, watershed restoration, and emergency work associated with a flood event that may be equal to a certain amount of the total money appropriated to the grant program in specified fiscal years. Chapters 651 and 652 require the Governor to appropriate at least \$3 million in the State budget in fiscal 2021 and 2022, and at least \$2 million in fiscal 2023.