# UB00 Maryland Environmental Service – Capital

# Capital Budget Summary

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

|                | 2019    | 2020     | 2021     | 2022            | 2023            | 2024     | 2025     |
|----------------|---------|----------|----------|-----------------|-----------------|----------|----------|
| Program        | Approp. | Approp.  | Request  | Estimate        | Estimate        | Estimate | Estimate |
|                |         |          |          |                 |                 |          |          |
| State Water    |         |          |          |                 |                 |          |          |
| and Sewer      |         |          |          |                 |                 |          |          |
| Infrastructure |         |          |          |                 |                 |          |          |
| Improvement    |         |          |          |                 |                 |          |          |
| Fund           | \$9.590 | \$15.342 | \$18.180 | \$20.938        | \$17.030        | \$15.996 | \$18.772 |
| Total          | \$9.590 | \$15.342 | \$18.180 | \$20.938        | \$17.030        | \$15.996 | \$18.772 |
|                |         |          |          |                 |                 |          |          |
|                | 2019    | 2020     | 2021     | 2022            | 2023            | 2024     | 2025     |
| Fund Source    | Approp. | Approp.  | Request  | <b>Estimate</b> | <b>Estimate</b> | Estimate | Estimate |
|                |         |          |          |                 |                 |          |          |
| GO Bonds       | \$9.590 | \$9.290  | \$11.576 | \$11.254        | \$6.800         | \$5.165  | \$11.694 |
| Nonbudgeted    | 0.000   | 6.052    | 6.604    | 9.684           | 10.230          | 10.831   | 7.078    |
| Total          | \$9.590 | \$15.342 | \$18.180 | \$20.938        | \$17.030        | \$15.996 | \$18.772 |

GO: general obligation

Note: The nonbudgeted funds reflect transfer tax special funds from the Department of Natural Resources' (DNR) Natural Resource Development Fund for DNR projects.

# **Key Observations**

National Pollutant Discharge Elimination System (NPDES) Violations Increase: Between fiscal 2018 and 2019, the number of corporate NPDES violations decreased from 232 to 90, while the number of State violations continued to rise, increasing from 77 to 145. The increase in the State violations is attributable once again to the Eastern Correctional Institution (ECI) wastewater treatment plant (WWTP). The Maryland Environmental Service (MES) notes that it is working with the Maryland Department of the Environment (MDE) on a draft consent decree but anticipates that planned upgrades to the facility will stop the violations.

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# Summary of Recommended Bond Actions

#### **Funds**

1. Infrastructure Improvement Fund

\$1,500,000 GO

Reduce the Maryland Environmental Service's general obligation bond authorization for the Infrastructure Improvement Fund by \$1,500,000.

2. SECTION 13 – Maryland Environmental Service Infrastructure Improvement Fund

Approve the preauthorization of \$12,606,000 in general obligation bonds for fiscal 2022 for the Maryland Environmental Service's Infrastructure Improvement Fund.

**Total General Obligation Bond Reductions** 

\$1,500,000

# **Program Description**

MES was created by statute (Chapter 240 of 1970) as an independent agency. Executive Order 01.01.1971.11 stipulated that MES has responsibility for the operation and maintenance of all State-owned sewage treatment and solid waste disposal facilities. MES was then incorporated into the Department of Natural Resources (DNR) in 1972. During the 1993 session, the General Assembly adopted legislation (Chapter 196) that created MES as an instrumentality of the State and a public corporation independent of DNR. MES provides technical services including engineering, design, financing, construction, and operation of water supply and wastewater treatment facilities, among other activities.

The State Water and Sewer Infrastructure Improvement Fund was established to provide for capital improvements of State-owned and operated water treatment plants (WTP), WWTPs, water distribution and sewer collection systems, and water towers. Since fiscal 1992, funding for capital maintenance projects relating to water and WWTPs has been budgeted under MES. Prior to this, the State budgeted capital maintenance funds for these projects in the Department of General Services Facilities Renewal Program. Facilities renewal funds pay for major rehabilitation activities at State-owned facilities. This change was made in order to more clearly display the capital cost of MES-operated State facilities. MES operates 274 water and wastewater facilities in Maryland of which 96 are State-owned. The remaining 178 are operated by MES under contract with a local government or corporate owner.

# Performance Measures and Outputs

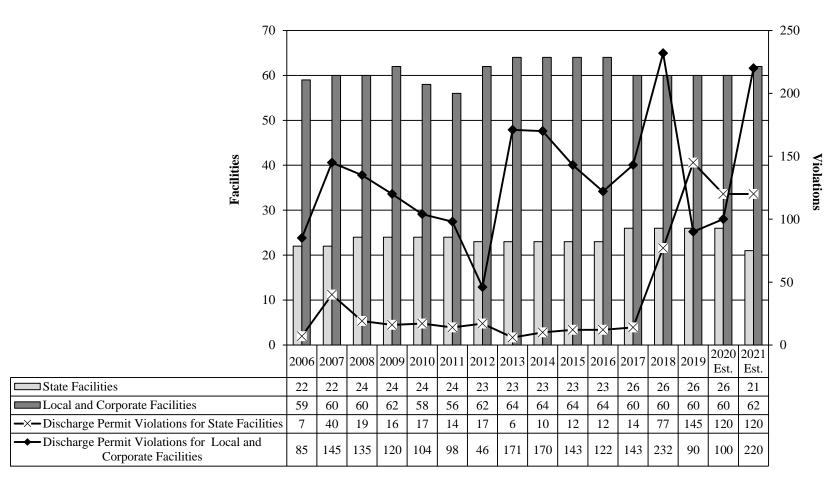
MES's first goal is to improve the environment through MES activities. Under this goal is the objective to manage and reduce nutrient discharge into the Chesapeake Bay. One of the measures for this objective is the number of corporate and State NPDES discharge permit violations. MES's annual capital budget planning process prioritizes projects that reduce the incidence of discharge violations at MES operated facilities.

#### **State National Pollutant Discharge Elimination System Violations**

**Exhibit 1** shows that MES has a greater number of local and corporate clients than State clients and that the incidence of local and corporate discharge permit violations is greater as a percentage of total overall violations. The number of local and corporate facility violations increased substantially from fiscal 2012 (46) to 2013 (171), after having declined in each of the previous five years. The increase in the number of local/corporate facility violations is attributable to two facilities that were issued multiple violations for several years. After operating essentially in continued violation for a couple of years, the client completed upgrades at one facility, and the other was closed. As a result, the incidence of discharge violations began to decline in fiscal 2015 (143) and again in fiscal 2016 (122). However, overall violations increased in fiscal 2017 (157) and increased again in fiscal 2018 (309). The increase in violations between fiscal 2017 and 2018 is attributable to the following:

- **State Violations** increased from 14 to 77 due to a new discharge permit requirement for ECI WWTP that took effect January 1, 2018, and violations that occurred during the construction of upgrades at the Freedom WWTP, which is now complete.
- *Corporate Violations* increased from 143 to 232 due to mechanical issues at a private facility operated by MES, which MES stopped operating at the beginning of fiscal 2019.

Exhibit 1 Local, Corporate, and State Discharge Permit Violations Fiscal 2006-2021 Est.



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Source: Department of Budget and Management; Maryland Environmental Service; Governor's Fiscal 2008-2021 Budget Books

Between fiscal 2018 and 2019, the number of corporate violations decreased from 232 to 90, while the number of State violations continued to rise, increasing from 77 to 145. The increase in the State violations is attributable once again to ECI WWTP. MES notes that it is working with MDE on a draft consent decree but anticipates that planned upgrades to the facility will stop the violations.

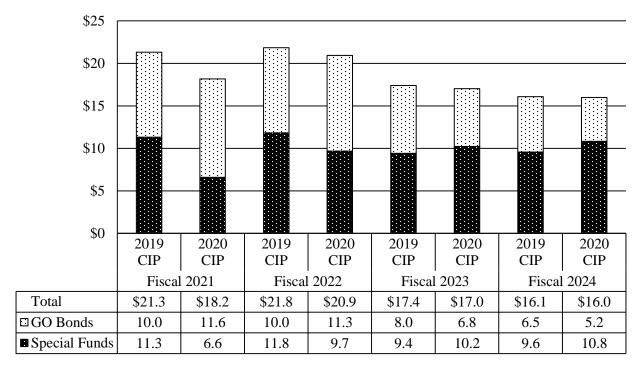
Of note, the compliance level is directly related to the large number of potential violations or permits and does not necessarily reflect the severity of any one violation.

Between fiscal 2006 and 2019, State facilities have averaged 16.3% of the total violations while accounting for 28.1% of the facilities handled by MES. MES has indicated in the past that the reason for this low percentage of violations at State facilities is MES' ability to use State funding to make improvements at State treatment facilities. In contrast, MES is dependent upon its corporate clients, including small municipalities, to fund improvements at other facilities, which the corporate clients may not always have the resources to do.

# **Budget Overview**

As shown in **Exhibit 2**, MES projects are funded through a combination of general obligation (GO) bond funds and special funds, shown as nonbudgeted funds, through an allocation of transfer tax revenue. The use of transfer tax revenues first started in fiscal 2020 and is determined by the number of wastewater and drinking water projects that MES annually undertakes at DNR facilities. An advantage of the revised funding plan is that it reduces MES' reliance on GO bond funds. Alternatively, while there is a clear nexus in MES' use of transfer tax funds for water and wastewater projects at State parks, it diverts resources from other DNR State Park facility needs that would otherwise be undertaken were the funds distributed through the Program Open Space (POS) formula. In addition, the diversion is somewhat inconsistent with the legislatively established POS repayment plan, as set forth in Chapter 10 of 2016, which mandates increased annual funding for DNR critical maintenance and natural resources development projects. Also illustrated in Exhibit 2 is the reduced level of funding in fiscal 2021 from what was programmed in the 2019 *Capital Improvement Program*, a \$3.1 million decrease.

Exhibit 2 2019 and 2020 CIP Comparison (\$ in Millions)



CIP: Capital Improvement Program

GO: general obligation

Source: 2019 and 2020 Capital Improvement Program

**Exhibit 3** outlines the difference in the amount of funding proposed for fiscal 2021 compared to what was programmed last session.

Exhibit 3
Fiscal 2021 Funding Comparison
2019 Session and 2020 Session

| Project Title  | 2019 Session | 2020 Session | <b>Difference</b> |
|--|--------------|--------------|-------------------|
| GO Bonds   |              |              |                   |
| Crownsville Hospital Center – Water Tower Front Tank     | \$400,000    | \$436,000    | \$36,000          |
| Woodstock – WWTP Upgrades                                | 2,000,000    | 2,222,000    | 222,000           |
| Central Correctional Facility – Sewer System Improvement | 451,000      | 492,000      | 41,000            |
| Victor Cullen - Upgrade WWTP and Collection System       |              |              |                   |
| Upgrade  | 2,564,000    | 2,564,000    | 0                 |

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| Project Title   | 2019 Session | 2020 Session | <b>Difference</b> |
|---|--------------|--------------|-------------------|
| New Germany State Park – WTP and WWTPs and Water Collection System Upgrades | 0            | 700,000      | 700,000           |
| Swallow Falls State Park – WTP and WWTP Infrastructure                      |              |              |                   |
| Improvements  | 0            | 800,000      | 800,000           |
| ECI – Co-Generation Plant Upgrades  | 273,000      | 273,000      | 0                 |
| ECI – WWTP and Reverse Osmosis Reject Treatment Systems Upgrade             | 500,000      | 500,000      | 0                 |
| ECI Co-Generation Plant – Fuel Conversion to Natural Gas                    | 3,293,000    | 3,589,000    | 296,000           |
| State Fuel Stations Consolidation Program                                   | 1,000,000    | 0            | -1,000,000        |
| Other   | -481,000     | 0            | 481,000           |
| Subtotal  | \$10,000,000 | \$11,576,000 | \$1,576,000       |
| Special Funds   |              |              |                   |
| State Water Towers – Elk Neck State Park                                    | \$320,000    | \$0          | -\$320,000        |
| Elk Neck State Park – WWTP ENR Upgrade                                      | 416,000      | 504,000      | 88,000            |
| $Swallow\ Falls\ State\ Park-WTP\ and\ WWTP\ Infrastructure$                |              |              |                   |
| Improvements  | 3,373,000    | 3,500,000    | 127,000           |
| Point Lookout State Park – WWTP ENR Upgrade                                 | 600,000      | 600,000      | 0                 |
| Point Lookout State Park – Water Distribution and Sewer                     |              |              |                   |
| Collection System Upgrade   | 3,498,000    | 2,000,000    | -1,498,000        |
| Point Lookout State Park – WTP, Water Storage Systems                       | 400,000      | 0            | -400,000          |
| New Germany State Park – WTP and WWTPs and Water                            | 2 250 000    | 0            | 2 2 5 0 0 0 0     |
| Collection System Upgrades  | 2,359,000    | 0            | -2,359,000        |
| Greenbrier State Park – WTP   | 200,000      | 0            | -200,000          |
| Rocky Gap – Reuse System  | 150,000      | 0            | -150,000          |
| Subtotal  | \$11,316,000 | \$6,604,000  | -\$4,712,000      |
| Total   | \$21,316,000 | \$18,180,000 | -\$3,136,000      |

ECI: Eastern Correctional Institution ENR: enhanced nutrient removal

GO: general obligation WTP: water treatment plant WWTP: wastewater treatment plant

Note: The increase in GO bonds of \$700,000 for the New Germany State Park – WTPs, WWTPs and Water Collection System Upgrades and \$800,000 for the Swallow Falls State Park – WTP and WWTP Infrastructure Improvements reflects the replacement of fiscal 2020 funding diverted to the Cunningham Falls State Park for an emergency project. The reduction of \$481,000 shown as other reflects an adjustment to meet the planned funding number.

Source: Maryland Environmental Service

#### Fiscal 2021 Funding and Projects

The fiscal 2021 capital budget provides \$11,576,000 in GO bonds and \$6,604,000 in nonbudgeted funds. The nonbudgeted funds reflect MES's use of transfer tax special funds budgeted under the DNR Natural Resources Development Fund, which will be used by MES for projects at DNR State parks and transferred to MES in one lump sum. In total, the funds support 12 projects in eight jurisdictions. The capital budget bill also includes language preauthorizing GO bond funds for fiscal 2022 for projects with construction that span beyond fiscal 2021. This provides the funding authority for the Board of Public Works (BPW) to approve construction contracts without the authorization of the full construction costs in fiscal 2021. The projects are shown in **Exhibit 4**.

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Exhibit 4
Fiscal 2021 Project Funding

|                                    | <u>Jurisdiction</u> | Project Title   | Est. Cost   | Prior Auth. | GO Bond<br><u>Request</u> | Transfer<br><u>Tax Amount</u> | <u>Type</u>               | Future<br><u>Request</u> |
|------------------------------------|---------------------|---|-------------|-------------|---------------------------|-------------------------------|---------------------------|--------------------------|
| Analysis of the                    | Anne Arundel        | Crownsville Hospital<br>Center – Water Tower<br>Front Tank                  | \$2,262,000 | \$0         | \$436,000                 | \$0                           | Planning and Construction | \$1,826,000              |
| s of the                           | Baltimore County    | Woodstock – WWTP<br>Upgrades  | 7,712,000   | 3,576,000   | 2,222,000                 | 0                             | Planning and Construction | 1,914,000                |
| FY 2021                            | Carroll             | Central Correctional<br>Facility – Sewer System<br>Improvement              | 557,000     | 65,000      | 492,000                   | 0                             | Planning and Construction | 0                        |
| Maryl                              | Cecil               | Elk Neck State Park – WWTP ENR Upgrade                                      | 6,328,000   | 80,000      | 0                         | 504,000                       | Planning                  | 5,744,000                |
| land Exe                           | Frederick           | Victor Cullen – Upgrade<br>WWTP and Collection<br>System Upgrade            | 5,908,000   | 373,000     | 2,564,000                 | 0                             | Construction              | 2,971,000                |
| FY 2021 Maryland Executive Budget, | Garrett             | New Germany State Park – WTP and WWTPs and Water Collection System Upgrades | 4,070,000   | 0           | 700,000                   | 000 Planning                  | Planning                  | 3,370,000                |
| 2020                               | Garrett             | Swallow Falls State Park  – WTP and WWTP  Infrastructure  Improvements      | 8,093,000   | 943,000     | 800,000                   | 3,500,000                     | Planning and Construction | 2,850,000                |
|                                    | Somerset            | ECI – Co-Generation<br>Plant Upgrades                                       | 5,144,000   | 4,871,000   | 273,000                   | 0                             | Construction              | 0                        |

| <u>Jurisdiction</u> | Project Title   | Est. Cost    | Prior Auth.  | GO Bond<br><u>Request</u> | Transfer Tax Amount | <b>Type</b>               | Future<br><u>Request</u> |
|---------------------|---|--------------|--------------|---------------------------|---------------------|---------------------------|--------------------------|
| Somerset            | ECI – WWTP and<br>Reverse Osmosis Reject<br>Treatment Systems<br>Upgrade          | 41,283,000   | 34,317,000   | 500,000                   | 0                   | Planning                  | 6,466,000                |
| Somerset            | ECI Co-Generation<br>Plant – Fuel Conversion<br>to Natural Gas                    | 4,647,000    | 0            | 3,589,000                 | 0                   | Planning and Construction | 1,058,000                |
| St. Mary's          | Point Lookout State<br>Park – WWTP ENR<br>Upgrade                                 | 6,600,000    | 0            | 0                         | 600,000             | Planning                  | 6,000,000                |
| St. Mary's          | Point Lookout State Park – Water Distribution and Sewer Collection System Upgrade | 6,181,000    | 368,000      | 0                         | 2,000,000           | Planning and Construction | 3,813,000                |
| Total               | - 1-91-man  | \$98,785,000 | \$44,593,000 | \$11,576,000              | \$6,604,000         |                           | \$36,012,000             |

ECI: Eastern Correctional Institution ENR: enhanced nutrient removal

GO: general obligation WTP: water treatment plant

WWTP: wastewater treatment plant

Note: The \$80,000 prior authorization for Elk Neck State Park – WWTP ENR Upgrade reflects the Maryland Department of the Environment's Preliminary Engineering Report funding. The \$943,000 prior authorization for the Swallow Falls State Park – WTP and WWTP Infrastructure Improvements project is adjusted to reflect the combined fiscal 2020 effect of transfer tax funding not being released from the Dedicated Purpose Account, and the remaining funding for the project being reallocated to an emergency project at Cunningham Falls State Park.

Source: Department of Budget and Management; Maryland Environmental Service

#### Fiscal 2021 Projects

#### **Crownsville Hospital Center – Water Tower Front Tank**

The Crownsville Hospital Center – Water Tower Front Tank project is budgeted \$436,000 in GO bonds in fiscal 2021 for construction. This project reconditions the front water tower; the back water tower was completed in fiscal 2019. Reconditioning includes the removal of exterior and interior paint and the application of a new coating. In addition, the ceiling to door access ladder will be refitted with an Occupational Safety and Health Administration compliant, stainless-steel cable safety climb system.

#### Woodstock - WWTP Upgrades

The Woodstock WWTP Upgrades project is budgeted \$2,222,000 in GO bonds for planning and construction. The plant serves the Woodstock Job Corps Training Center. The current plant is in need of replacement due to age. The steel tanks are corroding, and the sewage treatment process is outdated, occasionally causing discharge permit violations. The proposal replaces the existing plant with a new compact treatment facility that will fit within the limited available space. The new permit is anticipated to be issued after September 2020 and will not include nutrient limits, but MES chose to be proactive in addressing nutrients with this upgrade. Project components include a screening and grit removal system, an equalization basin, a biological treatment system with clarification, and sludge management facilities. Other components include improvements to the cascade aerator and the disinfection system and the installation of a security fence to prevent vandalism. MES submitted an application to MDE for enhanced nutrient removal (ENR) grant funding, but the request was not approved. The design completion date has slipped by two months from January to March 2020, but the expectation is that construction will still start within the August to September 2020 timeframe. MES estimates that construction should be 60% completed by the end of fiscal 2021. There is a preauthorization of \$1,914,000 for fiscal 2022 to complete construction.

#### **Central Correctional Facility – Sewer System Improvement**

The Central Correctional Facility – Sewer System Improvement project is budgeted \$492,000 in GO bonds for construction. The project entails the construction of upgrades to the sewer system at the Central Correctional Facility, formally the Central Laundry Facility, in Sykesville. Project components include a gravity sewer and metering vault that will eliminate a sewage pump station at the laundry that fails frequently and forces staff and inmates to handle trash and equipment contaminated with raw sewage. The sewer system ultimately will convey the wastewater to the Freedom WWTP. Project design was not completed in January 2020 as anticipated, due to schedule changes caused by a farmer's planting schedule. As a result, design will be completed in April with construction to commence in fall 2020 and completed in April 2021.

#### Elk Neck State Park – WWTP ENR Upgrade

The Elk Neck State Park – WWTP ENR Upgrade project is budgeted \$504,000 in transfer tax special funds to continue project design; \$80,000 in Preliminary Engineering Report funding was received previously from MDE through the Bay Restoration Fund (BRF). MES anticipates receiving

ENR funds from the BRF for the project. The project is described as an upgrade but will effectively build a new plant. The new permit requires a higher level of treatment, so additional tanks and equipment are needed. The existing tanks will be repurposed for emergency storage. Green technologies, including a wind turbine to provide electricity to certain WWTP electrical circuits and energy efficient motors and lighting, will be incorporated in the project at an estimated cost of \$200,000.

#### Victor Cullen - Upgrade of WWTP and Collection System Upgrade

The Victor Cullen – Upgrade of WWTP and Collection System Upgrade project is budgeted \$2,564,000 in GO bonds to begin construction. The project will construct upgrades to WWTP and wastewater collection system, including upgrades to the headworks, equalization tank, primary clarifiers, solids handling process, control building, reclamation of the original WWTP site, and rehabilitation of the wastewater collection system. The plan is to complete 70% of construction in fiscal 2021. A new permit was received in June 2019, which is in effect until June 2024. However, a planning letter from MDE indicates that the next permit cycle will require an upgrade to ENR technology that has been incorporated into the project scope. The design was anticipated to be completed in September 2019 but is currently 95% complete and has been sent to MDE for review. MES notes that the \$2,474,000 in ENR funds from MDE should be made available in early fiscal 2021. There is a preauthorization of \$2,971,000 for fiscal 2022 to complete construction.

#### New Germany State Park – WTP, WWTP, and Water Collection System Upgrades

The New Germany State Park – WTPs, WWTP, and Water Collection System Upgrades project is budgeted \$700,000 in GO bonds for planning and design. This project originally received State funding in fiscal 2020, but MES advised the committees of a reallocation of these funds in order to fund an emergency project at Cunningham Falls State Park. The fiscal 2021 funding will support the beginning of the preliminary engineering and data collection work that was expected to commence in fiscal 2020. The Department of Legislative Services (DLS) recommends that the \$700,000 GO bond authorization be deleted. Under the new funding paradigm, MES projects at State park facilities are supported with an allocation of transfer tax revenues and should be funded accordingly.

The project entails the complete replacement of the water and wastewater infrastructure by construction of improvements to the water supply, treatment, storage, and distribution systems and wastewater collection and treatment facilities. The current discharge permit expired at the end of calendar 2018, and planning limits were received in February 2019. The new permit may have more stringent effluent limitations due to the sensitivity of nearby surface water uses. MES indicates that the receipt of the planning limits allows the project to proceed to design. In addition, New Germany State Park is in the planning stages of an expansion of its visitor facilities, including a new kitchen and bathroom facilities for the Recreation Hall and upgrades to the pavilions and comfort station. As a result, septic tanks will be removed and sewage diverted to a new WWTP. As a result of these changes and the expectation of increased visitors, water demand is anticipated to increase.

#### **Swallow Falls State Park – WTP and WWTP Infrastructure Improvements**

The Swallow Falls State Park – WTP and WWTP Infrastructure Improvements project is budgeted \$800,000 in GO bonds and \$3,500,000 in transfer tax special funds to design and construct

improvements to the water distribution system and improvements to the WTP. This project originally received \$4,328,000 in fiscal 2020, but then was only allocated \$800,000 when the Governor did not release the transfer tax funding from the Dedicated Purpose Account. Ultimately, the \$800,000 was reallocated to the Cunningham Falls State Park project, so the project received no funding in fiscal 2020. There is a preauthorization of \$2,850,000 for fiscal 2022 to complete construction. **DLS recommends that the \$800,000 GO bond authorization be deleted. Under the new funding paradigm, MES projects at State park facilities are supported with an allocation of transfer tax revenues and should be funded accordingly.** 

The project entails improvements to the water distribution system and WTP last upgraded in the late 1980s and early 1990s. The project scope includes the following upgrades: replacement of distribution system water lines; upgrade of the water treatment filtration system, including controls and metering; upgrade of water treatment buildings; demolition of unsafe structures; installation of tankage for fire suppression; inspection and upgrades to the wastewater collection system; upgrade to the wastewater screening and influent flow monitoring; dredging and rehabilitation of the wastewater lagoon; and installation of a new wastewater treatment system, disinfection equipment, and other improvements. Fiscal 2021 work includes the bidding and constructing of the water distribution system upgrade; completing design and bidding the WTP upgrade; coordinating approval for the WWTP upgrade; constructing repairs to the collection system; and identifying the priority of drilling a new well.

#### **ECI – Co-Generation Plant Upgrades**

ECI – Co-Generation Plant Upgrades project is budgeted \$273,000 in GO bonds to construct upgrades to the plant. Project elements include upgrades of the boiler insulation, condensate tank, pressure-reducing valve control stations, combustion air control and air flow distribution, fire suppression and lifting systems, truck scale, stormwater control facilities, valve work, and retubing of the dump condenser. The plant is currently only able to generate 78% of ECI's electricity needs and experiences frequent power lapses due to the age and deteriorating condition of facility. The project's overall cost for the four tasks was reduced from \$21,345,000 to \$4,321,000 in the fiscal 2018 budget submission due to the elimination of a third boiler, three of the four planned boiler feed pump replacements, and other components. The overall cost increased to \$5,144,000 in the fiscal 2019 budget submission – where it still stands – that includes utility yard work and replacement of the substation to provide a more stable and redundant energy source for ECI. MES is taking the High Temp Hot Water Converter Retube project to BPW in March 2020 and anticipates re-advertising the Dump Condenser Retube in February 2020 after only one proposal was received in January 2020. In general, the fiscal 2021 funding will be used for tasks that will not be impacted by the planned fuel conversion project.

#### ECI – WWTP and Reverse Osmosis Reject Treatment Systems Upgrade

The ECI – WWTP and Reverse Osmosis Reject Treatment Systems Upgrade project is budgeted \$500,000 in GO bonds to begin design of phase four of the project – the biosolids handling facilities. The biosolids handling facilities work was included in the original project but then separated out when the costs came in higher than anticipated. The biosolds handling work involves the upgrade of the

sludge thickening and dewatering systems, installation of a lime silo and feed system for pathogen reduction, and construction of a storage building. A new consent decree for the facility is in draft form and under review by MES legal staff, but MES anticipates that planned upgrades to the facility will stop the violations.

#### ECI Co-Generation Plant – Fuel Conversion to Natural Gas

The ECI Co-Generation Plant – Fuel Conversion to Natural Gas project is budgeted \$3,589,000 in GO bonds for design and construction. The project will construct a natural gas delivery pipeline to the cogeneration plant and convert the plant from using woodchips as a fuel source to using natural gas and thus will modernize the plant and result in a safer and more reliable energy supply. Construction will commence in January 2021 and be completed by the end of calendar 2021. There is a preauthorization of \$1,058,000 for fiscal 2022 to complete construction.

#### Point Lookout State Park - WWTP ENR Upgrade

The Point Lookout State Park – WWTP ENR Upgrade project is budgeted \$600,000 in transfer tax special funds to begin design. The project will construct upgrades to the WWTP in order to be in compliance with ENR requirements. MES has submitted a request to MDE for Preliminary Engineering Report grant funding, which will help determine whether the project is eligible for ENR funding from the BRF.

#### Point Lookout State Park - Water Distribution and Sewer Collection System Upgrade

The Point Lookout State Park – Water Distribution and Sewer Collection System Upgrade project is budgeted \$2,000,000 in transfer tax special funds to complete design and begin construction. The project will construct improvements to the Point Lookout State Park water distribution and sewer collection system, both of which are deteriorating. The project is on schedule to complete design in December 2020 and commence construction in July 2021. There is a preauthorization of \$2,971,000 for fiscal 2022 to continue construction.

## **Preauthorizations**

As shown in **Exhibit 5**, the fiscal 2021 capital budget bill includes a preauthorization of \$12,606,000 in GO bonds for fiscal 2022 for the MES Infrastructure Improvement Fund to design, construct, and equip water and wastewater facility improvements for State institutions. The preauthorization funds the following projects:

- ECI Co-Generation Plant Fuel Conversion to Natural Gas (Somerset County) \$1,058,000;
- Point Lookout State Park Water Distribution and Sewer Collection System Upgrade (St. Mary's County) \$3,813,000;

- Swallow Falls State Park Water and WWTP and Infrastructure Improvements (Garrett County) \$2,850,000;
- Victor Cullen Upgrade of WWTP and Collection System Upgrade (Frederick County) \$2,971,000; and
- Woodstock WWTP Upgrades (Baltimore County) \$1,914,000.

DLS recommends that the preauthorization be approved.

# Exhibit 5 Preauthorizations Fiscal 2022-2025 (in millions)

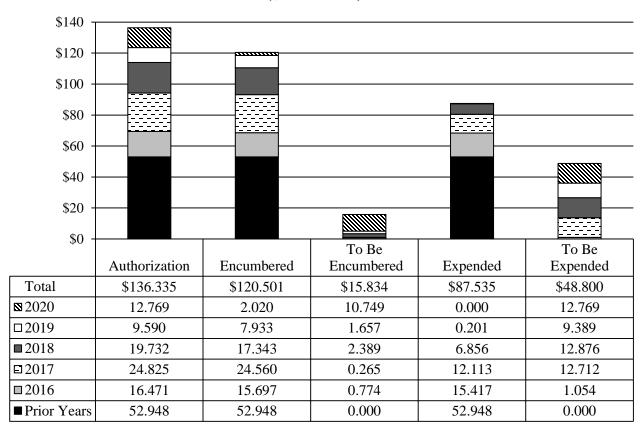
| <b>Project</b>   | <u>2022</u> | <u>2023</u> | <u>2024</u> | <u>2025</u> | Reason  |
|--|-------------|-------------|-------------|-------------|---|
| Infrastructure Improvement Fund Fiscal 2022 Preauthorization | \$12.606    | \$0.000     | \$0.000     | \$0.000     | The fiscal 2021 capital budget bill includes a preauthorization of \$12.606 million in general obligation bonds for fiscal 2022 for the Maryland Environmental Service's Infrastructure Improvement Fund to design, construct, and equip water and wastewater facility improvements for State institutions. |

Source: Department of Budget and Management

# Encumbrances and Expenditures

The MES encumbrance and expenditure history for the State Water and Sewer Infrastructure Improvement Fund is shown in **Exhibit 6**. Overall, \$136.3 million in GO bonds and special funds have been authorized. Of this amount, MES has encumbered \$120.5 million; \$15.8 million remains to be encumbered. The majority of the funding remaining to be encumbered was authorized in fiscal 2020.

Exhibit 6
Infrastructure Improvement Fund Encumbrances and Expenditures
Program Inception through February 2020
(\$ in Millions)



Note: The fiscal 2020 funding reflects GO bonds and special funds that were transferred to the Maryland Environmental Service on January 23, 2020.

Source: Maryland Environmental Service

### Fiscal 2020 Project Status

MES's plan is to encumber \$20,732,096 in fiscal 2020. This reflects \$17,253,096 in GO bonds and \$3,479,000 in special funds. The current encumbrance status of fiscal 2020 funding is shown in **Exhibit 7**. The ability to encumber this amount of funding is dependent upon the schedules for several large projects of which the largest is the Fair Hill Natural Resources Management Area – WTP and Distribution System Upgrade.

# Exhibit 7 Project Funding Encumbrance Status Fiscal 2020

| <b>Jurisdiction</b> | <b>Project Title</b>  | <b>Estimated Cost</b> | <b>2020 Amount</b> | <b>Current Activity</b>   | <u>Status</u>  |
|---------------------|---|-----------------------|--------------------|---------------------------|--|
| Allegany            | Rocky Gap State Park –<br>Collection System   | \$6,739,000           | \$1,525,000        | Construction              | Construction in procurement.                               |
| Anne<br>Arundel     | Jessup Correctional<br>Institution – Boiler Plant<br>Improvements                             | 900,000               | 900,000            | Planning and Construction | Implementation of improvements in progress.                |
| Baltimore<br>County | Woodstock – WWTP<br>Upgrades  | 5,533,000             | 2,961,000          | Construction              | Design and construction permitting in progress.            |
| Carroll             | Central Correctional<br>Facility – Sewer System<br>Improvement                                | 435,000               | 65,000             | Planning                  | Design in progress; bid ready documents expected in April. |
| Cecil               | Fair Hill Natural<br>Resources Management<br>Area – WTP and<br>Distribution System<br>Upgrade | 5,987,000             | 5,932,000          | Construction              | Construction in progress; 50% complete.                    |
| Cecil               | State Water Towers – Elk<br>Neck State Park   | 1,770,000             | 300,000            | Construction              | Construction in procurement.                               |
| Frederick           | Cunningham Falls WTP  | 1,500,000             | 1,500,000          | Planning and Construction | Emergency project; putting together construction plans.    |
| Garrett             | New Germany State Park – WTPs, WWTPs and Water Collection System Upgrades                     | 4,070,000             | 0                  | Planning                  | Funds deferred for Cunningham Falls State Park.            |

Analysis of the FY 2021 Maryland Executive Budget, 2020

| <u>Jurisdiction</u> | <b>Project Title</b>  | <b>Estimated Cost</b> | <b>2020 Amount</b> | <b>Current Activity</b> | <u>Status</u>  |
|---------------------|---|-----------------------|--------------------|-------------------------|--|
| Garrett             | State Wells Upgrade –<br>Meadow Mountain Youth<br>Center  | 415,000               | 415,000            | Construction            | Construction contract awarded. Contractor waiting for a well permit from Garrett County Health Department.   |
| Garrett             | Swallow Falls State Park  – WTP and WWTP  Improvements  | 7,701,000             | 0                  | Construction            | Design of the distribution system upgrade 100% complete. A portion of the fiscal 2020 funds are transferred to Cunningham Falls. Awaiting replenishment of funds for construction. |
| Prince<br>George's  | Cheltenham WTTP and Collection System Upgrade   | 2,105,000             | 1,598,000          | Construction            | Collection system in procurement.  |
| Prince<br>George's  | New Female Detention<br>Center – Design and<br>Construction of the Water<br>and Sewer Utilities | 1,013,320             | 613,320            | Planning                | Project moved from Carroll County to Prince George's County; in planning.  |
| Queen<br>Anne's     | Eastern Pre-Release<br>WWTP   | 6,367,314             | 41,000             | Construction            | Construction in progress and 65% complete.   |
| Somerset            | Eastern Correctional Institution – Co-Generation Plant Upgrades                                 | 5,144,000             | 1,525,000          | Construction            | Various improvements under construction.   |
| St. Mary's          | Charlotte Hall Veterans<br>Home – WWTP Upgrade  | 524,776               | 524,776            | Construction            | Construction completed; former plant demolition in procurement.  |
| St. Mary's          | St. Mary's College –<br>Water Distribution and<br>Treatment Facilities<br>Improvements          | 1,547,000             | 1,447,000          | Construction            | Construction contract awarded; preconstruction meeting was held February 18, 2020.   |

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| <u>Jurisdiction</u> | <b>Project Title</b>  | <b>Estimated Cost</b> | <b>2020 Amount</b> | <b>Current Activity</b>   |                          | Statu | <u>1S</u>    |    |
|---------------------|---|-----------------------|--------------------|---------------------------|--------------------------|-------|--------------|----|
| Washington          | Maryland Correctional<br>Institution – Boiler Plant<br>Improvements | 1,385,000             | 1,385,000          | Planning and Construction | Implementation progress. | of    | improvements | in |
| Total               | •   | \$53,136,410          | \$20,732,096       |                           |                          |       |              |    |

WTP: water treatment plant WWTP: wastewater treatment plant

Note: The Cheltenham WWTP and Collection System Upgrade and New Female Detention Center - Design and Construction of the Water and Sewer Utilities projects have been added since the 2019 session. The funding for the Fair Hill Natural Resources Management Area – WTP and Distribution System Upgrade project reflects \$154,000 in special funds and \$5,778,000 in general obligation bonds.

Source: Department of Budget and Management; Maryland Environmental Service

## GO Bond Recommended Actions

1. Reduce the Maryland Environmental Service's general obligation bond authorization for the Infrastructure Improvement Fund by \$1,500,000.

UB01A Infrastructure Improvement Fund ....... \$ 10,076,000

<u>Allowance</u> <u>Change</u> <u>Authorization</u> 11,576,000 -1,500,000 10,076,000

**Explanation:** This action reduces the Maryland Environmental Service's (MES) general obligation bond authorization for the Infrastructure Improvement Fund by \$1,500,000. This funding is attributable to \$700,000 for the New Germany State Park – Water and Wastewater Treatment Plants and Water Collection System Upgrades project and \$800,000 for the Swallow Falls State Park – Water and Wastewater Treatment Plant Infrastructure Improvements project. Under the new funding paradigm, MES projects at State park facilities are supported with an allocation of transfer tax revenues and should be funded accordingly.

2. Approve the preauthorization of \$12,606,000 in general obligation bonds for fiscal 2022 for the Maryland Environmental Service's Infrastructure Improvement Fund to design, construct, and equip water and wastewater facility improvements for State institutions.

**Total General Obligation Bond Reductions** 

\$1,500,000