

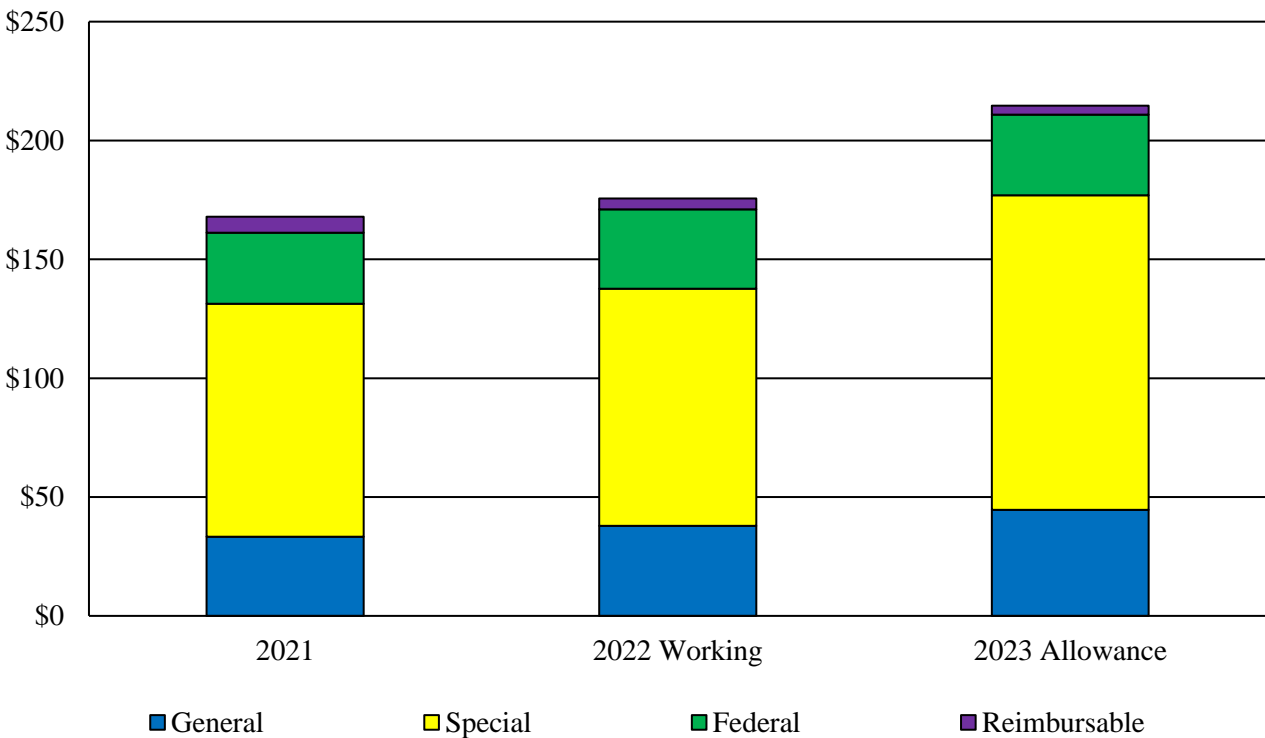
U00A
Department of the Environment

Executive Summary

The Maryland Department of the Environment (MDE) was created in 1987 to protect and restore the quality of the State’s land, air, and water resources and safeguard citizens from health risks associated with pollution. It is responsible for planning, monitoring, controlling, and regulating air, solid, and hazardous wastes; radiation, sewage sludge, sediment, and stormwater; toxicities, sewage treatment, and water supply facilities; and environmental disease control programs.

Operating Budget Summary

**Fiscal 2023 Budget Increases \$39.0 Million, or 22.2%, to \$214.7 Million
(\$ in Millions)**



Note: Numbers may not sum due to rounding. The fiscal 2022 working appropriation includes deficiencies. The fiscal 2022 working appropriation and fiscal 2023 allowance do not reflect funding for statewide personnel actions budgeted in the Department of Budget and Management, which include cost-of-living adjustments, increments, bonuses, and may include annual salary review adjustments.

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- Significant funding increases in fiscal 2023 provide \$20.0 million for the Clean Water Commerce Act of 2021 (Chapters 694 and 695) funding for the purchase of cost-effective nutrient and sediment reductions to align with fiscal 2022 funding not currently reflected in the working appropriation; \$15.0 million for the Tree Solutions Now Act of 2021 (Chapter 645) funding from the Bay Restoration Fund; and a net \$3.5 million for salaries due to special fund revenue shortfalls.

Key Observations

- ***Ozone Eight-hour Standard Is the Only National Ambient Air Quality Standard (NAAQS) Not Met by Maryland:*** MDE’s second goal is to manage air quality and emissions for maximum protection of human health and the environment. Of six air pollutant and time period combinations, Maryland has met each standard except for the Ozone Eight-hour Standard. Maryland continues to press for air quality improvements both within the State and in the larger airshed – a part of the atmosphere that behaves in a coherent way with respect to the dispersion of emissions – of which Maryland is a part and that impacts Maryland’s air quality.
- ***Child Blood Lead Testing Decreased in Calendar 2020, Due Partially to the COVID-19 Pandemic, and Child Blood Lead Levels Continue to Decline:*** MDE’s third goal is to reduce Maryland citizens’ exposure to hazards. Under this goal is the objective to reduce the number of blood lead levels over 10 micrograms per deciliter found and the number of blood lead levels between 5 and 10 micrograms per deciliter by 10% annually. The number of children between the age of 0 and 72 months tested for elevated blood lead generally has risen over the years, but there was a substantial decrease from 132,224 tested in calendar 2019 to 110,158 tested in calendar 2020, at least partially due to the COVID-19 pandemic. The reported exceedances of the elevated blood lead standard of between 5 and 10 micrograms per deciliter – the most stringent standard for child blood lead levels – continues to fall.
- ***Public Information Act (PIA) Responses Increased in Fiscal 2021, While Permit Processing Decreased:*** MDE’s first goal is to provide excellent customer service and community outreach. Under this goal are two objectives: respond to 80% of PIA requests within 30 days of receipt; and meet permit turnaround times for 90% of the permits processed. The percentage of PIA responses issued within 30 days increased from 76% in fiscal 2020 to 96% in fiscal 2021, due to executive management focus. The percentage of permits processed within the applicable standard time decreased from 94% in fiscal 2020 to 89% in fiscal 2021, and MDE is investigating why this occurred.
- ***Prior Year Actual Personnel Expenditures Not Budgeted as Requested:*** The 2021 *Joint Chairmen’s Report* (JCR) included committee narrative requesting that MDE properly budget prior year actual personnel expenditures, since MDE’s fiscal 2020 actual budget data incorrectly reflected the allocation of funding personnel expenditures. The fiscal 2023 budget submission again does not properly budget the personnel expenditures.

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- ***Special Fund Shortfalls:*** General funds are budgeted in two of MDE’s administrations as fiscal 2022 deficiency appropriations and for three administrations in fiscal 2023. It is not clear that these additional general funds are the appropriate support for the three administrations – Water and Science Administration, Land and Materials Administration, and Air and Radiation Administration. Instead of addressing revenue shortfalls by revising outdated fee structures supporting the relevant special funds, the fiscal 2023 budget has provided general funds – in contradiction to the polluter pays principle.
- ***Drinking Water Program Understaffing:*** On December 1, 2021, the Attorney General issued a press release announcing that understaffing at MDE’s Water Supply Program has put Maryland’s drinking water at risk and called for the Administration to release a resource investment plan that was due to the U.S. Environmental Protection Agency (EPA) for review and approval by October 2021. There are three main reasons why MDE is no longer able to do more than meet the minimum requirements for delegation of authority by the EPA to implement the Safe Drinking Water Act provisions and why MDE is in danger of losing this authority: increased workload; decreases in personnel; and general program underfunding. To date, the Administration has not made the resource investment plan public.
- ***Groundwater Protection Program Update Report:*** The fiscal 2022 Budget Bill restricted \$100,000 of the MDE general fund appropriation pending the submission of a report on the quality of groundwater that sources residential wells. Maryland’s groundwater resources are impacted by excessive drawdown and contamination. A major conclusion of the report is that detailed monitoring and analysis of the State’s groundwater resources are needed to determine the sustainability of the State’s aquifers in light of increasing demands for water and changing rainfall patterns. The submitted report reflects recommendations regarding water withdrawal measurement, establishing water quality reporting requirements at the time of property transfer, sustainable funding, coordination improvements, source water protection, groundwater report updating, and administrative penalties.
- ***Federal Infrastructure Investment and Jobs Act (IIJA) Funding:*** The IIJA became law on November 15, 2021. While final allocations of funding have yet to be made for a number of programs, the assumption is that Maryland could receive a substantial amount of environment-related funding that will be budgeted in MDE. In addition to Maryland’s Water Revolving Loan Fund and Drinking Water Revolving Loan Fund, there is funding anticipated from the Abandoned Mine Land Reclamation Fund; funding for recycling outreach grants, the Save Our Seas law to reduce marine debris, battery recycling and labeling, brownfields grants, Superfund site cleanups, and orphaned gas well plugging; and an allocation of the additional \$238.0 million (\$47.6 million per year) in Chesapeake Bay Program funding.

Operating Budget Recommended Actions

1. Add language restricting funding pending the submission of accurate fiscal 2022 actual personnel expenditures.

Updates

- ***Maryland Used Tire Cleanup and Recycling Fund Annual Report Submitted:*** The fiscal 2022 Budget Bill restricted \$200,000 in general fund appropriation for MDE pending the submission of the annual Maryland Scrap Tire report. The submitted report notes that relative to fiscal 2020, fiscal 2021 revenues increased, and expenditures decreased, which increased the Scrap Tire Fund’s closing balance by \$677,845. This reflects a reversal of the recent trend toward a lower closing fund balance.
- ***Per- and Polyfluoroalkyl Substances (PFAS) Chemicals Report:*** The fiscal 2022 Budget Bill restricted \$100,000 in general fund appropriation for MDE pending the submission of a report on PFAS. The submitted report notes that groundwater sources from confined aquifers – separated from the ground surface by impervious layers – do not appear to be impacted by PFAS; surface water concentrations of PFAS appear to be a reliable indicator of the concentration in local fish populations; and newer PFAS have not been detected in drinking water samples, suggesting a legacy and not an ongoing contamination issue.
- ***Enforcement and Inspection Position Strength Assessment and Vacant Position Filling:*** Budget bill language in the fiscal 2022 operating budget restricted funding pending the submission of quarterly reports from MDE and the Maryland Department of Agriculture (MDA) on compliance and enforcement inspections and positions. The language then further restricted the funding for filling vacant compliance and enforcement positions. MDE conducted more than 120,000 inspections, audits, and spot checks across major programmatic areas in fiscal 2021, which is down from 127,000 in fiscal 2020 and 171,000 in fiscal 2019. MDE notes that the COVID-19 pandemic limited its activities but that it has brought online two Major Information Technology Development Projects (MITDP) that will help streamline operations.

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Operating Budget Analysis

Program Description

MDE was created to protect and restore the quality of the State's land, air, and water resources and safeguard citizens from health risks associated with pollution. It is responsible for planning, monitoring, controlling, and regulating air, solid, and hazardous wastes; radiation, sewage sludge, sediment, and stormwater; toxicities, sewage treatment, and water supply facilities; and environmental disease control programs. The department is structured into six major administrative units.

- ***Office of the Secretary:*** This office provides direction and establishes State environmental policies to be implemented by the operating units.
- ***Operational Services Administration:*** This administration provides general administrative and fiscal services to the department.
- ***Water and Science Administration:*** This administration administers the State's water pollution control and drinking water protection activities, implements Total Maximum Daily Loads (TMDL) for pollutants in impaired waterways, regulates industrial/municipal wastewater and stormwater discharge, develops and promulgates water quality standards, provides technical support and analysis for TMDLs, monitors shellfish, develops environmental and public health risk assessments, implements nonpoint source pollution programs, and develops and issues fish advisories.
- ***Land and Materials Administration:*** This administration ensures that all types of hazardous and nonhazardous solid wastes are managed in a manner that protects public health and the environment. It regulates solid waste management facilities, scrap tire recycling facilities, above- and below-ground petroleum storage facilities, petroleum distribution, hazardous waste transportation, mining, and both concentrated animal feeding operations and Maryland animal feeding operations. In addition, this administration coordinates lead poisoning prevention efforts.
- ***Air and Radiation Administration:*** This administration ensures that air quality and radiation levels in Maryland sustain public health, safety, and the environment. It operates an air-monitoring network, licenses asbestos removal contractors, provides oversight of the Vehicle Emissions Inspection Program, and monitors radiation use. Climate change initiatives are a relatively new component of its operations.
- ***Coordinating Offices:*** This office manages budget matters, the Water Quality and Drinking Water Revolving Loan funds and other water pollution control program capital projects, and Board of Public Works activities; coordinates public information and outreach; provides hazardous chemical and oil spill emergency response services; provides legal advice; and information technology (IT) services.

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MDE’s mission is to protect and restore the environment for the health and wellbeing of all Marylanders. MDE’s vision is for healthy, vibrant, and sustainable communities and ecosystems in Maryland. MDE has five goals that are consistent with efforts to protect and preserve Maryland’s natural resources. The goals are as follows.

- **Goal 1:** Provide excellent customer service and community outreach.
- **Goal 2:** Manage air quality and emissions for maximum protection of human health and the environment.
- **Goal 3:** Reduce Maryland citizens’ exposure to hazards.
- **Goal 4:** Protect water resources and ensure safe and sustainable supplies of drinking water.
- **Goal 5:** Reduce waste and promote sustainable materials management.

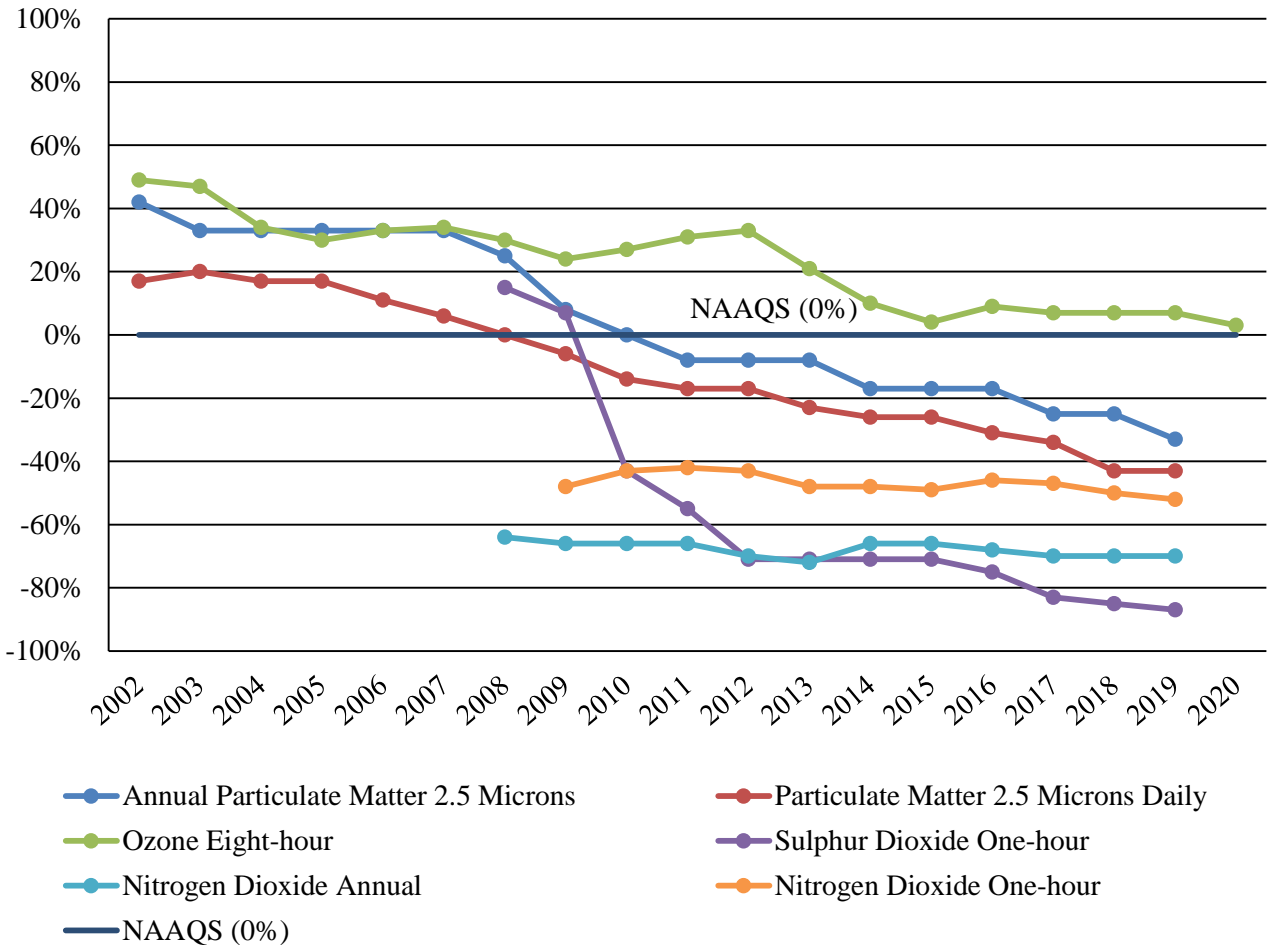
Performance Analysis: Managing for Results

The MDE Managing for Results measures show that (1) the ozone eight-hour standard is the only NAAQS not met by Maryland; (2) child blood lead testing decreased between calendar 2019 and 2020 due partially to the COVID-19 pandemic, and child blood levels continue to decline; and (3) the PIA responses increased between fiscal 2020 and 2021, while permit processing decreased.

1. Ozone Eight-hour Standard Is the Only National Ambient Air Quality Standard Not Met by Maryland

MDE’s second goal is to manage air quality and emissions for maximum protection of human health and the environment. MDE’s 2021 Clean Air Progress Report reflects the progress that Maryland has made in managing six air pollutant and time period combinations relative to NAAQS for each pollutant. As seen in **Exhibit 1**, the lines reflect how far above (not meeting the relevant NAAQS) and below (meeting the relevant NAAQS) each of the six pollutants is in percentages. Maryland has met all but the NAAQS for Ozone Eight-hour Standard. Substantial improvements are reflected over the period shown for Ozone Eight-hour, Daily Particulate Matter 2.5 Microns, Annual Particulate Matter 2.5 Microns, and Sulfur Dioxide One-hour standards. While meeting their respective NAAQS, there has been less progress on Nitrogen Dioxide One-hour and Nitrogen Dioxide Annual. Maryland continues to press for air quality improvements both within the State and in the larger airshed – a part of the atmosphere that behaves in a coherent way with respect to the dispersion of emissions – of which Maryland is a part and that impacts Maryland’s air quality.

Exhibit 1
Maryland Air Pollutant Trends Relative to Air Quality Standards
Calendar 2002-2020



NAAQS: National Ambient Air Quality Standards

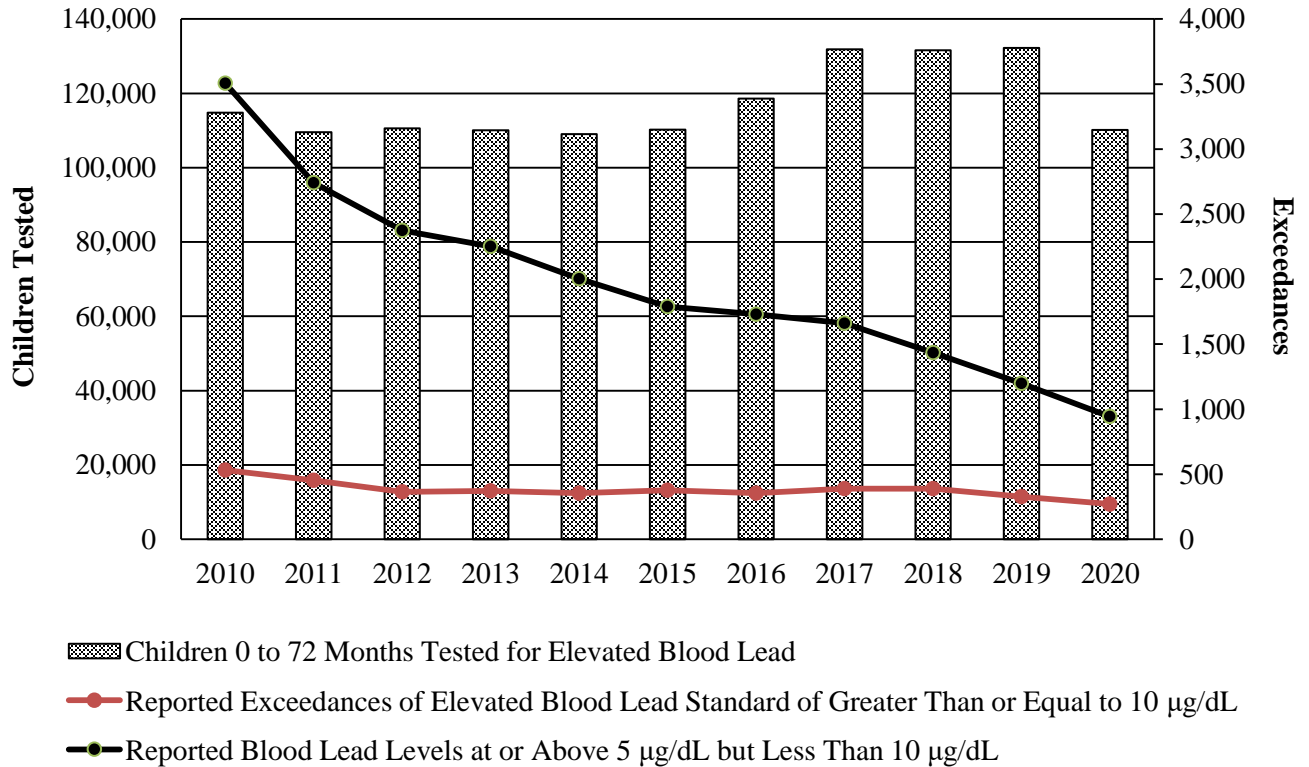
Source: Maryland Department of the Environment

2. Child Blood Lead Testing Decreased in Calendar 2020, Due Partially to the COVID-19 Pandemic, and Child Blood Lead Levels Continue to Decline

MDE’s third goal is to reduce Maryland citizens’ exposure to hazards. Under this goal is the objective to reduce the number of blood lead levels over 10 micrograms per deciliter found and the number of blood lead levels between 5 and 10 micrograms per deciliter by 10% annually. **Exhibit 2**

shows that the number of children between the age of 0 and 72 months tested for elevated blood lead generally has risen over the time period shown, but there was a substantial decrease from 132,224 tested in calendar 2019 to 110,158 tested in calendar 2020. MDE’s *Childhood Blood Lead Surveillance In Maryland 2020* annual report notes it is likely that this is at least partially a result of the impact of COVID-19, which reduced the use of routine health services. The reported exceedances of the elevated blood lead standard of between 5 and 10 micrograms per deciliter – the most stringent standard for child blood lead levels – continues to fall. The calendar 2021 numbers will be released with the annual report in October 2022.

Exhibit 2
Child Blood Lead Status
Calendar 2010-2020



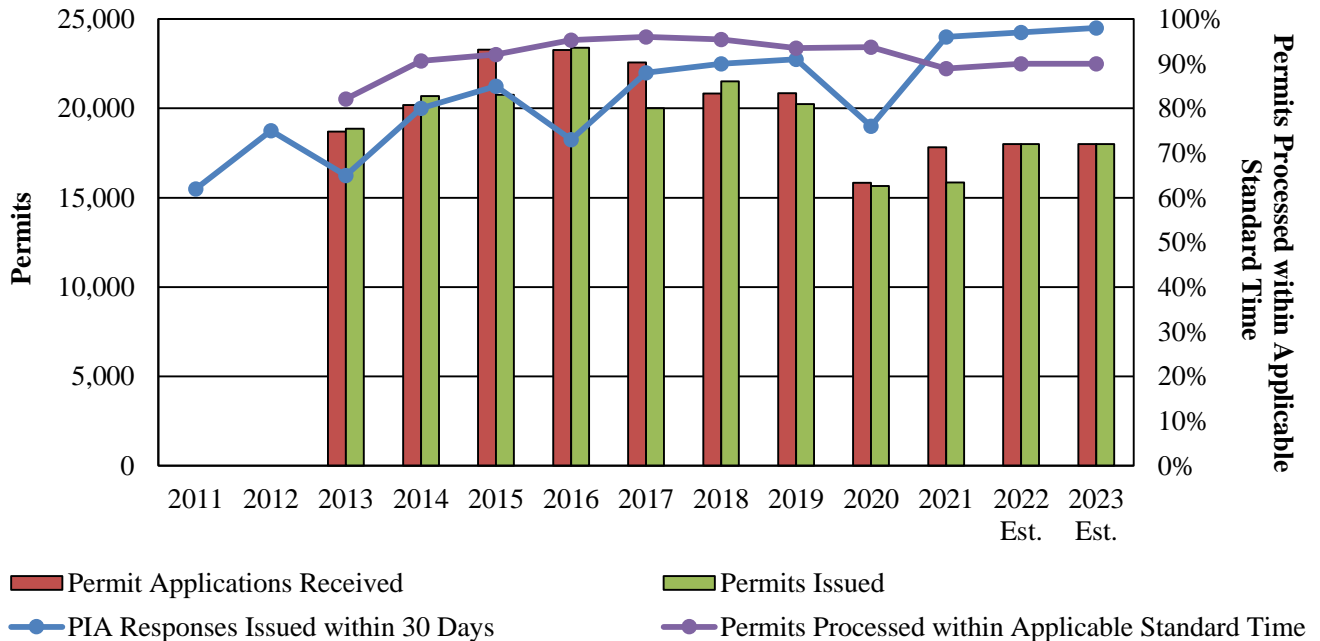
µg/dL: micrograms of lead per deciliter of blood

Source: Governor’s Fiscal 2023 Budget Books; Maryland Department of the Environment

3. PIA Responses Increased in Fiscal 2021, While Permit Processing Decreased

MDE’s first goal is to provide excellent customer service and community outreach. Under this goal are two objectives: respond to 80% of PIA requests within 30 days of receipt; and meet permit turnaround times for 90% of the permits processed. As shown in **Exhibit 3**, the percentage of PIA responses issued within 30 days increased from 76% in fiscal 2020 to 96% in fiscal 2021. This reversed the decline from 91% in fiscal 2019, which reflected the difficulty that MDE’s employees experienced transitioning from in-office access to records and databases to a teleworking environment during the COVID-19 pandemic. MDE notes that the substantial improvement between fiscal 2020 and 2021 is due to MDE making the PIA Act responses issued within 30 days a key focus area for executive management. In contrast, the percentage of permits processed within the applicable standard time decreased from 94% in fiscal 2020 to 89% in fiscal 2021. This may be partially due to the increase in the number of permits received between fiscal 2020 and 2021. MDE notes that it is investigating why the percentage of permits processed decreased below the 90% target and is identifying steps to address the issue.

Exhibit 3
Public Information Act and Permit Data
 Fiscal 2011-2023 Est.



PIA: Public Information Act

Source: Department of Budget and Management

Fiscal 2022

Proposed Deficiency

The Governor has submitted deficiency appropriations for the fiscal 2022 operating budget that would increase MDE’s appropriation overall by \$1,539,764 in general funds. This is primarily due to increases of \$750,000 in both the Water and Science Administration and the Air and Radiation Administration to counter declining special fund revenue.

Federal Stimulus Funds

The Sewer Sentinel Initiative was budgeted \$1,000,000 in one-time reimbursable funds in fiscal 2021. This funding came from the Maryland Department of Health as part of the Coronavirus Aid, Relief, and Economic Security Act funding and was used to take periodic samples of wastewater at up to 50 congregate housing facilities – such as nursing homes, subsidized housing, and correctional facilities. This sampling is being conducted in order to determine whether the COVID-19 virus is present – before the onset of symptoms and from any asymptomatic carriers present – and to arrive at a quantitative estimate of the virus present in wastewater. The intent is to identify increased concentrations that may indicate an outbreak before other benchmarks like clinical testing and hospitalization rates. The Office of Legislative Audits’ December 2021 *Review of Certain Emergency Procurements Related to the State of Maryland’s COVID-19 Response* reflects two emergency procurements totaling \$1.9 million related to the Sewer Sentinel Initiative and wastewater sampling and analysis.

Maryland is anticipated to receive significant funding enhancements through the federal IJA, a portion of which is likely to flow through MDE. Discussion of these funds is provided in the Issues section of this analysis.

Fiscal 2023 Overview of Agency Spending

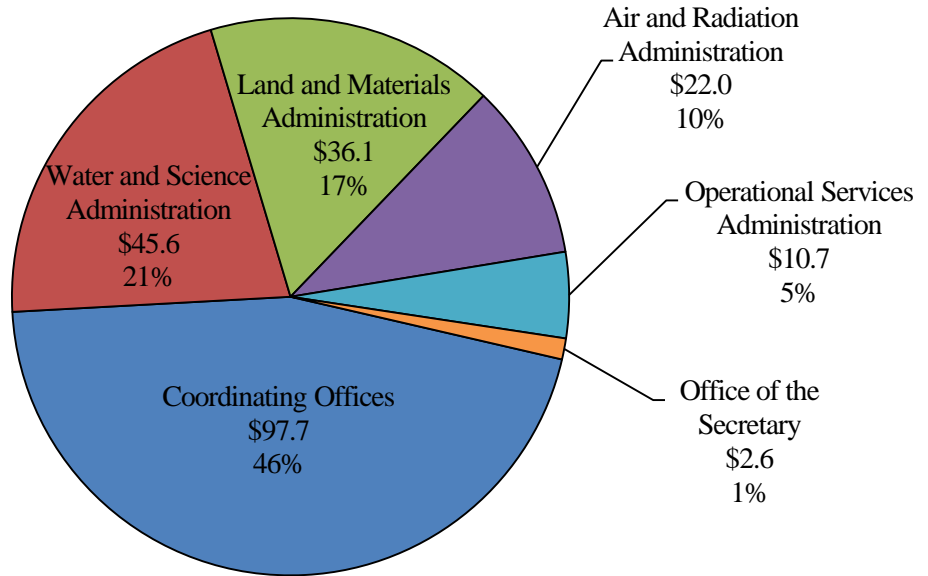
MDE is organized into six administrative units and is staffed by 880.0 regular positions and 85.50 contractual full-time equivalents (FTE) in the fiscal 2023 allowance. **Exhibit 4** reflects the \$214.7 million spending breakdown for the six units as follows.

- **Coordinating Offices (\$97.7 Million, 46%):** The primary funding is \$33.0 million for debt service on Bay Restoration Fund revenue bonds; \$20.0 million for Chapters 694 and 695; \$15.0 million for Chapter 645; \$11.0 million for operations and maintenance grants for wastewater treatment plants upgraded to enhanced nutrient removal technology; \$10.9 million for regular positions; \$3.9 million for the Department of Information Technology (DoIT) services allocation; and \$1.5 million for agreements with local jurisdictions to administer septic system upgrade grants and regulations.

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- ***Water and Science Administration (\$45.6 Million, 21%):*** The primary funding is \$35.7 million for regular positions; \$4.6 million for grants comprised of \$1.1 million in federal funding for local government nonpoint source pollution controls and implementation of the Chesapeake Bay Watershed Implementation Plan, \$1.1 million for a memorandum of understanding with the Chesapeake Bay Trust for nontidal wetland projects, \$0.8 million for federal Water Infrastructure Improvements for the Nation Act funding to address lead in drinking water in schools and child care centers, \$0.5 million for annual dues to the Interstate Commission on the Potomac River Basin and the Susquehanna River Basin Commission, and \$0.4 million for Safe Drinking Water Act funding for transient noncommunity water supplies; \$2.5 million for contracts, including \$0.9 million for digital floodplain mapping by the Maryland Environmental Service (MES), \$0.3 million for stream gages and groundwater monitoring by the Maryland Geological Survey, and \$0.2 million for laboratory certification and analysis as part of the federal Safe Drinking Water Act reauthorization; and \$1.7 million for contractual FTEs.
- ***Land and Materials Administration (\$36.1 Million, 17%):*** The primary funding is \$25.5 million for regular positions; \$7.7 million for contracts, of which \$2.4 million is for Mining Program projects, including abandoned mine land reclamation projects, \$2.6 million is for Waste Diversion projects, including \$2.2 million for MES scrap tire project development and stockpile cleanups, and \$1.4 million for Oil Control projects, including \$1.0 million for oil spill investigation and remediation activities; and \$1.0 million for grants, of which \$0.5 million is for reimbursement of site rehabilitation costs of underground storage tanks and \$0.3 million is for lead poisoning prevention case management.
- ***Air and Radiation Administration (\$22.0 Million, 10%):*** The primary funding is \$18.5 million for regular positions and \$1.8 million for contracts, of which \$0.3 million is for dues to participate in the multistate Regional Greenhouse Gas Initiative (RGGI) and \$0.3 million is for modeling to ensure compliance with federal ambient air quality standards.
- ***Operational Services Administration (\$10.7 Million, 5%):*** The primary funding is \$5.5 million for rent and \$4.3 million for regular positions.
- ***Office of the Secretary (\$2.6 Million, 1%):*** The primary funding is \$1.9 million for regular positions and \$0.5 million for contractual services, of which \$0.3 million is for administrative hearings.

Exhibit 4
Overview of Agency Spending
Fiscal 2023 Allowance
(\$ in Millions)



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

Proposed Budget Change

The MDE fiscal 2023 allowance increases by \$39.0 million, or 22.2%, relative to the fiscal 2022 working appropriation, as shown in **Exhibit 5**. The general fund increase primarily reflects regular position expenditures (\$4.7 million), the DoIT services allocation (\$0.9 million), and rent (\$0.7 million). The special fund increase primarily reflects the \$20.0 million for Chapters 694 and 695, which is budgeted at the same level in fiscal 2022 via a budget amendment that was not reflected in the budget data, and \$15.0 million for Chapter 645 funding. The federal fund increase reflects increases for regular positions (\$0.7 million) and grants (\$0.2 million), which are offset partially by a reduction for contractual FTEs (\$0.2 million). The reimbursable fund decrease is due to the timing of funding from DoIT for MDE’s two recent MITDPs: Lead Rental Certification and Accreditation (\$0.7 million); and Environment Permit Tracking System Modernization (\$0.2 million).

**Exhibit 5
Proposed Budget
Department of the Environment
(\$ in Thousands)**

How Much It Grows:	General Fund	Special Fund	Federal Fund	Reimb. Fund	Total
Fiscal 2021 Actual	\$33,277	\$98,027	\$29,939	\$6,697	\$167,940
Fiscal 2022 Working Appropriation	37,849	99,855	33,357	4,557	175,618
Fiscal 2023 Allowance	<u>44,670</u>	<u>132,290</u>	<u>33,945</u>	<u>3,758</u>	<u>214,663</u>
Fiscal 2022-2023 Amount Change	\$6,821	\$32,435	\$588	-\$799	\$39,045
Fiscal 2022-2023 Percent Change	18.0%	32.5%	1.8%	-17.5%	22.2%
Where It Goes:					<u>Change</u>
Personnel Expenses					
Net salaries increase for revenue shortfalls after accounting for deficiencies					\$3,500
Employee and retiree health insurance					1,202
Turnover adjustments					765
Regular earnings					-169
One-time budget adjustments					-2,500
Other fringe benefit adjustments.....					127
Other Changes					
<i>Environmental Policy</i>					
Clean Water Commerce Act funding does not account for budget amendment.....					20,000
Tree Solutions Now Act funding					15,000
Contractual FTE increase, primarily in Water Supply Program due to understaffing.....					602
Abandoned mine land engineering consultant and projects increase.....					508
Chesapeake Bay Trust wetlands projects.....					450
Lead risk reduction work grant funding.....					194
Support for local jurisdictions based on federal infrastructure funding.....					125
Water and Science Administration’s Integrated Water Planning Program grants					-167
Environmental Permit Tracking System Modernization IT project funding ending					-224
Regional Greenhouse Gas Initiative dues					-275
Water and Science Administration miscellaneous contracts					-465
Lead Rental Certification and Accreditation IT project funding timing.....					-476
<i>Routine Operations</i>					
Department of Information Technology services allocation.....					1,258
Rent increase in Operational Services Administration					230
Communication.....					-15

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Where It Goes:	<u>Change</u>
Travel	-22
Fuel and utilities.....	-26
Computer funding	-36
One-time fiscal 2022 deficiency for real estate space study	-40
Capital lease payments.....	-47
Motor vehicles	-48
One-time grant funding for laboratory equipment.....	-100
Supplies and materials decreased due to teleworking.....	-126
Other	-179
Total	\$39,045

FTE: full-time equivalent
IT: information technology

Note: Numbers may not sum to total due to rounding. The fiscal 2022 working appropriation includes deficiencies. The fiscal 2022 working appropriation and fiscal 2023 allowance do not reflect funding for statewide personnel actions budgeted in the Department of Budget and Management, which include cost-of-living adjustments, increments, bonuses, and may include annual salary review adjustments.

Personnel

Overall, there is an increase of \$2,923,819 in MDE’s personnel expenses for fiscal 2023, accounting for the fiscal 2022 deficiencies. The largest change is a net increase of \$3,500,000 to address revenue shortfalls. This reflects an increase of \$1,500,000 for the Land and Materials Administration, a net increase of \$1,250,000 for the Water and Science Administration, and a net increase of \$750,000 for the Air and Radiation Administration. There are fiscal 2022 deficiencies of \$750,000 in general funds for the Water and Science Administration and the Air and Radiation Administration. The revenue shortfalls are discussed more in Issue 2 in this analysis.

Other personnel expense changes include increases of \$1,201,932 for employee and retiree health insurance and \$764,762 for turnover adjustments. The increase due to turnover adjustments reflects a decrease in the turnover rate from 7.00% to 6.05% in order for MDE to be able to fill positions faster and in acknowledgement of its reduction of vacancies. In terms of decreases, there is a \$2,500,000 reduction for one-time funding that was budgeted for adjustments and a \$169,472 decrease in regular earnings.

Other Changes

Overall, the nonpersonnel portion of the MDE fiscal 2023 allowance increases by \$36,120,823. The areas of change may be broadly categorized as environmental policy and routine operations.

Environmental Policy

There are several large changes in the category of general environmental policy.

- ***Clean Water Commerce Act of 2021:*** There is an increase of \$20.0 million in special funds from the Bay Restoration Fund for Chapters 694 and 695 because the same amount of fiscal 2022 funding brought in by budget amendment is not reflected in the fiscal 2022 working appropriation. The Clean Water Commerce Act was originally enacted in 2017 to expand the authorized uses of the Bay Restoration Fund’s Wastewater Account to include the purchase of cost-effective nitrogen, phosphorus, or sediment load reductions in support of the State’s efforts to restore the health of the Chesapeake Bay. It was scheduled to terminate on June 30, 2021. Chapters 694 and 695 then reauthorized and modified the Act through June 30, 2030, and required MDE to transfer \$20.0 million annually from the Bay Restoration Fund Wastewater Account to the Clean Water Commerce Account, a new account within the Bay Restoration Fund. The Clean Water Commerce Account is then required to purchase environmental outcomes – nitrogen load reductions that can be directly measured or modeled using the Chesapeake Bay Program models – to help the State achieve the Chesapeake Bay TMDL.
- ***Tree Solutions Now Act of 2021:*** There is an increase of \$15.0 million in special funds from the Bay Restoration Fund for Chapter 645. This law establishes a new policy of the State to support and encourage public and private tree-planting efforts, with the goal of planting and helping to maintain 5,000,000 sustainable native trees in the State by the end of calendar 2031. The Act requires MDE, after paying for eligible costs associated with upgrading wastewater treatment plants, to transfer the following amounts from the Bay Restoration Fund’s Wastewater Account in fiscal 2023 only.
 - ***Plantings in Underserved Urban Areas:*** \$10.0 million to the Chesapeake Bay Trust for the new Urban Trees Program for the purpose of making grants to qualified organizations for native tree-planting projects in underserved urban areas.
 - ***Plantings on Public and Private Land:*** \$2.5 million to the Department of Natural Resources’ Chesapeake and Atlantic Coastal Bays 2010 Trust Fund for tree plantings on public and private land.
 - ***Plantings on Agricultural Land:*** \$2.5 million to MDA for tree plantings under the Conservation Reserve Enhancement Program and other tree-planting programs on agricultural land.

There are also a number of smaller increases. The largest is an increase of \$601,882 for a net increase of 10.0 contractual FTEs. This primarily reflects a net increase of 9.0 contractual FTEs in the Water and Science Administration – Water Supply Program. This appears to be in response to the workload analysis contracted for by EPA that found understaffing and underfunding of the Water Supply Program. This is discussed more in Issue 3 in this analysis.

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There is also an increase of \$507,500 in federal funds in the Land and Materials Administration's Mining Program due to increases of \$400,000 for an engineering consultant to advise on abandoned mine land permit reviews and \$120,000 for abandoned mine land projects, which are offset partially by a decrease of \$12,500 for water quality testing related to abandoned mine lands. There is a net increase of \$450,000 in the Water and Science Administration's Wetlands and Waters program, comprised of increases of \$550,000 in special funds and decreases of \$75,000 in federal funds and \$25,000 in general funds, due to wetland projects funded with special funds through the Chesapeake Bay Trust and other projects funded with general funds and federal funds that are not ongoing. The Water and Science Administration's Water Supply program receives an increase of \$194,000 in federal grant funding to small and disadvantaged communities for two types of lead risk reduction work: lead in drinking water in schools; and child care centers and for State lead testing work. The Coordinating Offices' Engineering and Capital Projects Program receives an increase of \$125,000 in special funds to support smaller jurisdictions with the anticipated need generated by additional federal infrastructure funding.

In terms of decreases, there is a reduction of \$475,890, comprised of a decrease of \$660,000 in reimbursable funds and an increase of \$184,110 in special funds, for the Lead Rental Certification and Accreditation IT project, which receives final funding in fiscal 2022. This project is discussed more in **Appendix 3**. There is a \$456,038 decrease in miscellaneous Water and Science Administration contracts. The RGGI association dues are reduced by \$275,000 in special funds in the Air and Radiation Administration's Climate Change program based on a revised estimate. There is a decrease of \$223,565 in reimbursable funds for the Environmental Permit Tracking System Modernization IT project due to the project receiving final funding in fiscal 2022. There is also a decrease of \$166,635 comprised of \$25,000 in general funds, \$51,000 in special funds, and \$90,635 in federal funds in the Water and Science Administration's Integrated Water Planning Program for various grants.

Routine Operations

There are a number of budget changes between the fiscal 2022 working appropriation and the fiscal 2023 allowance that can be broadly categorized as routine operations. The largest increase is \$1,257,558 for the DoIT services allocation comprised of \$883,533 in general funds, \$363,356 in special funds, and \$10,669 in federal funds. There is also a net increase of \$229,958 for rent in the Operational Services Administration comprised of increases of \$736,741 in general funds and \$7,810 in reimbursable funds, which are offset partially by a decrease of \$514,593 in special funds. These increases are partially offset by a number of smaller decreases.

Personnel Data

	<u>FY 21</u> <u>Actual</u>	<u>FY 22</u> <u>Working</u>	<u>FY 23</u> <u>Allowance</u>	<u>FY 22-23</u> <u>Change</u>
Regular Positions	883.00	880.00	880.00	0.00
Contractual FTEs	<u>55.68</u>	<u>75.00</u>	<u>85.50</u>	<u>10.50</u>
Total Personnel	938.68	955.00	965.50	10.50

Vacancy Data: Regular Positions

Turnover and Necessary Vacancies, Excluding New Positions	53.24	6.05%
Positions and Percentage Vacant as of 12/31/21	84.50	9.60%
Vacancies Above Turnover	31.26	

- MDE’s position count remains unchanged between the fiscal 2022 working appropriation and the fiscal 2023 allowance. There were 2 positions transferred from the Water and Science Administration to the Coordinating Offices to fill older vacancies as part of vacancy management.
- As of December 31, 2021, MDE had 84.5 vacant positions, of which 19 positions have been vacant for more than a year. This is a reduction from the 119 vacant positions, of which 52 positions were vacant for more than a year, as of December 31, 2020. MDE notes that, where possible, it has focused recruitment on longer-term vacancies and filled multiple vacancies with one recruitment. MDE notes the following status for the 19 positions that have been vacant for more than a year: 4 are filled; 12 are in various stages of recruitment; 2 positions are being studied; and 1 position is being reclassified.
- MDE contractual FTEs increase by a net of 10.5 in the fiscal 2023 allowance. This primarily reflects a net increase of 9.0 FTEs in the Water and Science Administration – Water Supply Program.
- The MDE turnover rate decreased from 7.00% in the fiscal 2022 working appropriation to 6.05% in the fiscal 2023 allowance. Therefore, MDE must hold open 53.24 positions throughout fiscal 2023. MDE had 84.5 positions vacant, or 9.6%, as of December 31, 2021. MDE notes that the reduced turnover is intended to help fill positions faster.

Issues

1. Prior Year Actual Personnel Expenditures Not Budgeted as Requested

The 2021 JCR included committee narrative requesting that MDE properly budget prior year actual personnel expenditures. MDE’s fiscal 2020 actual budget data incorrectly reflected the allocation of funding for personnel expenditures. The fringe benefit expenditures – health insurance, pension contributions, and turnover adjustments, among others – were almost entirely reflected as Social Security contributions, which makes it difficult to do historical data comparisons. Therefore, the budget committees requested that MDE reflect prior year actual personnel expenditures up to and including fiscal 2021 in the correct statewide subobjects with the fiscal 2023 budget submission. The fiscal 2023 budget submission does not properly budget the personnel expenditures again. **The Department of Legislative Services (DLS) recommends that budget bill language be added to restrict funding pending the proper budgeting of personnel expenditures up to and including fiscal 2022 in the correct statewide subobjects with the fiscal 2024 budget submission.**

2. Special Fund Shortfalls

General funds are budgeted in two of MDE’s administrations as fiscal 2022 deficiency appropriations and for three administrations in fiscal 2023. This follows on general fund support provided for the Air and Radiation Administration in fiscal 2020 (\$750,000), fiscal 2021 (\$1,750,000), and fiscal 2022 (\$1,750,000). While the additional support is needed, it is not clear that general funds are the way this support should be provided for the three administrations – Water and Science Administration, Land and Materials Administration, and Air and Radiation Administration. **Exhibit 6** reflects the special fund appropriation changes and balances for the main special funds that account for the differences between the two fiscal years for the three administrations. In general, there are relatively low balances for the special funds in all three administrations. While the Maryland Clean Water Fund appears to have a fiscal 2023 closing balance of \$3.9 million, this is inflated by approximately \$4.5 million in Conowingo Dam settlement funding that MDE received starting in fiscal 2021 and that cannot be used for routine operating expenses.

According to the polluter pays principle, a core tenant of environmental law and environmental economics, social welfare is maximized when all costs – environmental, social, and actual – are reflected in prices. The revenue shortfalls in the Water and Science Administration, Land and Materials Administration, and the Air and Radiation Administration are at least partially due to outdated fee structures supporting the relevant special funds. In other words, the relevant nongovernmental entities that pay fees for the right to pollute are not paying enough to support the work of the administrations, which is in contradiction to the polluter pays principle. Instead of addressing these outdated fee structures, the Governor’s fiscal 2023 budget supports the Water and Science Administration, Land and Materials Administration, and Air and Radiation Administration through general fund appropriations. **DLS recommends that MDE comment on why in fiscal 2022 and 2023 it is using general fund revenue to support the Water and Science Administration, Land and Materials Administration, and Air and Radiation Administration instead of revising the outdated fee structures.**

Exhibit 6
Special Fund Appropriation Changes and Balances for Administrations
Fiscal 2022-2023

<u>Administration</u>	<u>2022-2023 Overall Special Fund Appropriation Change</u>	<u>Main Special Funds Changing</u>	<u>2022 Special Fund Appropriation</u>	<u>2023 Special Fund Appropriation</u>	<u>2022-2023 Difference</u>	<u>2023 Closing Balance for Fund</u>
Water and Science	-\$385,286	Maryland Clean Water Fund	\$2,732,035	\$2,067,702	-\$664,333	\$3,936,535
		Wetlands and Waterways Program Fund	2,382,347	2,674,995	292,648	181,715
		Total	\$5,114,382	\$4,742,697	-\$371,685	
Land and Materials	-1,427,929	Lead Poisoning Prevention Fund	\$5,169,590	\$4,464,180	-\$705,410	\$0
		Used Tire Cleanup and Recycling Fund	3,883,468	3,359,231	-524,237	847,208
		Oil Disaster Containment, Clean-Up and Contingency Fund	5,382,712	5,042,595	-340,117	322,395
		Maryland Clean Water Fund	394,262	558,673	164,411	See above.
		Total	\$14,830,032	\$13,424,679	-\$1,405,353	
Air and Radiation	-1,040,012	Maryland Clean Air Fund	\$4,194,068	\$3,243,314	-\$950,754	\$156,686
		Strategic Energy Investment Fund – RGGI	2,950,000	2,850,000	-100,000	0
		Total	\$7,144,068	\$6,093,314	-\$1,050,754	

RGGI: Regional Greenhouse Gas Initiative

Source: Department of Budget and Management

3. Drinking Water Program Understaffing

On December 1, 2021, the Attorney General issued a press release announcing that understaffing at MDE’s Water Supply Program has put Maryland’s drinking water at risk and called for the Administration to release a resource investment plan that was due to EPA for review and approval by October 2021. This announcement followed from a report by the strategic and technical consultancy group Cadmus in May 2021 and a report from EPA in July 2021.

There are three main reasons why MDE is no longer able to do more than meet the minimum requirements for delegation of authority by EPA to implement the Safe Drinking Water Act provisions in Maryland and why MDE is in danger of losing this authority. These reasons are as follows.

- **Increased Workload:** Examples of increased workload include the addition of lead testing schools by regulation, which while laudable, is beyond the original scope of the federal Safe Drinking Water Act and increasing water quality standards. In addition, there are approximately 350 hospitals and health care centers that will become public water systems overseen by MDE once required Legionella treatment is installed.
- **Regular Position and Contractual FTE Decreases:** The regular position and contractual FTE decreases were due to abolishment of vacancies after retirements, ongoing vacancies, and hiring freezes. The model used by Cadmus indicates that MDE needed 126 regular positions and contractual FTEs in fiscal 2021, which increases to 148 in fiscal 2029. In contrast, MDE only had 71 regular positions and contractual FTEs in fiscal 2021. Therefore, there is a gap of 55 regular positions and contractual FTEs in fiscal 2021, which increases to 75 regular positions and contractual FTEs in fiscal 2029.
- **General Program Underfunding:** The general program underfunding is reflected by the Water Supply Program’s reliance on federal funding for 88% of program costs with limited general fund support and without any dedicated fees charged to public water system users. The model used by Cadmus indicates that MDE needed \$15.7 million in fiscal 2021, which increased to \$18.3 million in fiscal 2029. In contrast, MDE only had \$8.1 million in fiscal 2021. Therefore, there is a gap of \$7.6 million in fiscal 2021, which increased to \$10.2 million in fiscal 2029.

The Cadmus report’s recommendations are as follows:

- **Filling Existing Vacancies:** Fill the 27 vacancies immediately to raise staffing to the authorized 71 regular positions and contractual FTEs.
- **Develop a Resource Investment Plan with EPA Region 3:** Negotiate a resource investment plan with EPA Region 3 that would result in hiring additional personnel.
- **Utilize the 4% Drinking Water State Revolving Fund Set-aside:** Consider using the Drinking Water State Revolving Fund administration and technical set-aside to cover costs associated

with administering the Drinking Water State Revolving Fund program and to provide technical assistance to public water systems.

- ***Increase State Investment in MDE’s Water Supply Program via the General Fund:*** Consider increasing the State investment in implementing the drinking water program by increasing the State general fund contribution.
- ***Create a Fee System:*** Consider creating a fee system similar to Pennsylvania or Virginia by charging a fee of less than \$1.50 per public water system user for work done to support public water systems.

Following the release of the Cadmus report, EPA’s report noted that MDE has been implementing an action plan to address previously identified programmatic challenges. EPA recommended that MDE continue to implement its action plan and that it should provide EPA a resource investment plan addressing identified resource gaps by October 2021. To date, it does not appear that this report has been made public. **DLS recommends that MDE provide the budget committees the resource investment plan that was required to be submitted to EPA with MDE’s fiscal 2023 written testimony and describe how the fiscal 2023 budget addresses the resource investment plan and general Water Supply Program shortcomings.**

4. Groundwater Protection Program Update Report

In response to legislative concerns about outdated information, the fiscal 2022 Budget Bill restricted \$100,000 in general fund appropriation for MDE pending the submission of a report on the quality of groundwater that sources residential wells.

The submitted report notes that Maryland is defined by two types of geology: coastal plain (southern Maryland and the Eastern Shore); and fractured rock (western Maryland). This geology then defines the types of aquifers from which people obtain drinking water: Southern Maryland and the Eastern Shore have confined aquifers – separated from the ground surface by impervious layers such that contamination is less of a concern but water recharge is a concern; and western Maryland has unconfined aquifers – directly below the ground surface such that contamination is a concern but water recharge is less of a concern.

Groundwater resources are impacted by both excessive drawdown – in terms of quantity – and by contamination – in terms of quality. Contamination, in turn, occurs from both natural sources and human-induced sources. Natural sources of contamination include saltwater intrusion, which is exacerbated by excessive drawdown. Human-induced sources of contamination include point sources – landfills, underground storage tanks, spills, improper discharges of solvents, and improper storage of salt, fertilizer, and other products – and nonpoint sources – livestock waste, septic systems, fertilizer and pesticide application, urban runoff infiltration, and road salt application.

The report notes that the uncertainty about the degree of groundwater movement between aquifers in southern Maryland and the Eastern Shore challenges reliable predictions of sustained aquifer

yields. A major conclusion of the report is that detailed monitoring and analysis of the State’s groundwater resources is needed to determine the sustainability of the State’s aquifers in light of increasing demands for water and changing rainfall patterns.

The report included seven recommendations regarding water withdrawal measurement, establishing water quality reporting requirements at the time of property transfer, sustainable funding, coordination improvements, source water protection, groundwater report updating, and administrative penalties.

DLS recommends that the Maryland General Assembly consider the creation of a sustainable funding source for studying and managing groundwater and the requirement of an updated groundwater report every three years. In addition, DLS recommends that MDE comment on the extent to which groundwater protection program recommendations can be implemented administratively within existing resources.

5. Federal Infrastructure Investment and Jobs Act 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 sources of funding for which estimated allocations have been determined will come in through MDE’s pay-as-you-go (PAYGO) capital programs between federal fiscal 2022 and 2026 and are shown in **Exhibit 7**.

Exhibit 7
Infrastructure 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	
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.
Drinking Water State Revolving Funds: Existing Program	32,892	38,483	41,996	45,492	45,492	204,355	
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.
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.
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

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In addition to the funds noted above, there is also funding anticipated from the Abandoned Mine Land Reclamation Fund; funding for recycling outreach grants, the Save Our Seas law to reduce marine debris, battery recycling and labeling, brownfields grants, Superfund site cleanups, and orphaned gas well plugging; and an allocation of the additional \$238.0 million (\$47.6 million per year) in Chesapeake Bay Program funding. According to the Appalachian Citizens' Law Center, the Abandoned Mine Reclamation Fund funding could be on the order of \$74.7 million, or \$5.0 million per year over 15 years, based on the center's estimate that Maryland's current unfunded abandoned mine land inventory is \$69.7 million.

The funding listed above is not complete and is likely to be expanded as more information becomes available about State eligibility for funding under the IIJA. **DLS recommends that MDE comment on the sources of federal IIJA funding that it anticipates receiving, the timing of the receipt of this funding, whether the funding will be budgeted as operating or PAYGO capital funding, and whether it has sufficient information to allocate the funding where it is needed, particularly for the Drinking Water Revolving Loan Fund – Lead Service Line Replacement funding.**

Operating Budget Recommended Actions

1. Add the following language to the general fund appropriation:

, provided that \$100,000 of this appropriation made for the purpose of general administrative expenses may not be expended until the Maryland Department of the Environment (MDE), in cooperation with the Department of Budget and Management, submits a confirmatory letter to the budget committees indicating that MDE’s prior year actual personnel expenditures up to and including fiscal 2022 are budgeted in the correct statewide subobjects. The confirmatory letter shall be submitted with the fiscal 2024 budget submission, and the budget committees shall have 45 days from the date of the receipt of the confirmatory letter to review and comment. Funds restricted pending the receipt of a confirmatory letter may not be transferred by budget amendment or otherwise to any other purpose and shall revert to the General Fund if the confirmatory letter is not submitted to the budget committees.

Explanation: MDE’s fiscal 2021 actual budget data incorrectly reflects the allocation of funding for personnel expenditures despite 2021 Joint Chairmen’s Report committee narrative requesting that the budget data be correctly reflected with the fiscal 2023 budget submission. The fringe benefit expenditures – health insurance, pension contributions, and turnover adjustments, among others – are almost entirely reflected as Social Security contributions, which makes it difficult to do historical data comparisons. Therefore, funding is restricted until MDE and the Department of Budget and Management (DBM) submit a confirmatory letter with the fiscal 2024 budget submission indicating that prior year actual personnel expenditures up to and including fiscal 2022 are budgeted in the correct statewide subobjects.

Information Request	Author	Due Date
Budgeting of prior year actual personnel expenditures	MDE DBM	Fiscal 2024 budget submission

Updates

1. Maryland Used Tire Cleanup and Recycling Fund Annual Report Submitted

The fiscal 2022 Budget Bill restricted \$200,000 in general fund appropriation for MDE pending the submission of the annual Maryland Scrap Tire report. Section 9-275(c) of the Environment Article specifies that an annual status report is due on or before November 1 of each year. This required annual report has not been consistently submitted by MDE. The fiscal 2021 annual report was submitted on October 26, 2021.

Financial Summary

The submitted report notes that relative to fiscal 2020, fiscal 2021 revenues increased, and fiscal 2021 expenditures decreased, which increased the Scrap Tire Fund's closing balance by \$677,845. This reflects a reversal of the recent trend toward a lower closing fund balance. The largest driver of the increase in the fund balance, the decrease in expenditures, was primarily due to savings for Scrap Tire Program expenses, Land and Materials Administration expenses, MDE indirect costs, and MES projects and administration. The only expenditure increase was for stockpile cleanups, which increased by \$42,608. This primarily reflects one-time credits in fiscal 2020, which are partially offset by a decrease in the Garner/Brandywine project cost from \$629,927 to \$609,133. Revenue and expenditure trends from fiscal 2015 through 2021 are presented in **Appendix 2**.

Illegal Scrap Tire Stockpile Cleanups

In general, MDE appears to be in a position where responsible parties are completing illegal scrap tire stockpile cleanups in response to administrative efforts and enforcement actions without the use of the fund. For instance, 4 illegal scrap tire stockpile sites were cleaned up in fiscal 2021, and approximately 12,755 scrap tires were removed by the responsible parties – a substantial increase from the 1,564 initial scrap tires removed by responsible parties from 11 sites in fiscal 2020. The fiscal 2021 clean-ups occurred as follows:

- **Cecil County:** Elkton Used Tires site in Elkton (10,000 initial scrap tires);
- **Charles County:** Irene Glenwood Place site in Nanjemoy (2,000 initial scrap tires);
- **Carroll County:** Ridgely site in Mount Airy (690 initial scrap tires); and
- **Dorchester County:** Robinson site in Hurlock (65 initial scrap tires).

The report notes that there are 34 illegal scrap tire stockpile cleanups pending or ongoing in fiscal 2022. These 34 sites are spread across Maryland and include 104,416 initial scrap tires; the report actually notes a total of 117,171 initial scrap tires, but this appears to reflect the fiscal 2020 number not being updated for the 12,755 tires removed in fiscal 2021. While still a large number, the cleanup of

the largest site – Howard County’s Snap Holdings, LLC (formerly Tyler Towing) in Clarksville with 61,376 initial scrap tires – is expected to be completed by the responsible party – the cleanup preparations began using the fund before the property was sold and, thus, the project is no longer eligible to receive State funding. MDE has not initiated any new scrap tire projects since fiscal 2018.

Licensing

In terms of licensing, the report notes that the total number of valid licenses decreased from 2,803 in fiscal 2020 to 2,697 in fiscal 2021. The total issued licenses decreased from 322 in fiscal 2020 to 144 in fiscal 2021. This reflects the following changes between fiscal 2020 and 2021: new licenses decreased from 104 to 34 (primarily in general collection, secondary collection, and haulers licenses); and renewed licenses decreased from 218 to 110 (primarily in secondary collection and haulers licenses).

Scrap Tire Markets

Overall, the number of scrap tires managed by the State’s scrap tire processing facilities increased slightly from approximately 7,384,080 scrap tires in fiscal 2020 to 7,389,915 scrap tires in fiscal 2021, an increase of 5,835 scrap tires. While the overall number of scrap tires processed changed very little, there was an increase in the number of imported scrap tires from out-of-state processed as follows between fiscal 2020 and 2021: Maryland-generated tires decreased from 4,503,598 (61%) to 4,162,547 (56%), while the imported scrap tires increased from 2,880,482 (39%) to 3,227,368 (44%). There were only minor changes between fiscal 2020 and 2021 in the percentage of tires recycled – 97% to 98% – and used as fuel – 3% to 2%.

Of note, Supplemental Budget No. 5 of the fiscal 2022 operating budget included \$1,516,000 in general funds to provide scrap tire drop off days for farmers and citizens. This funding was not available for either fiscal 2020 or 2021 but was noted to be an in-demand program in fiscal 2019 in the fiscal 2020 annual report.

2. PFAS Chemicals Report

The fiscal 2022 Budget Bill restricted \$100,000 in general fund appropriation for MDE pending the submission of a report on PFAS. The report was required to include the following:

- the location and results of any testing for PFAS chemicals, as defined in § 6-1601 of the Environment Article, that the department has conducted on waters of the State;
- any plan the department has for further testing for PFAS chemicals in waters of the State; and
- any plan the department has for remediation and public education in areas where the water has been found to be contaminated by PFAS chemicals.

The submitted report notes that there are no federal primary drinking water standards, known as Maximum Containment Levels, for any of the chemicals in the PFAS family, but there is a Health Advisory Level for the combination of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). This Health Advisory Level was issued in 2016 by EPA and is 70 parts per trillion in drinking water.

As of November 17, 2021, a three-phase sampling program has collected more than 500 drinking water samples from 217 of Maryland’s 463 federally regulated community systems. These 217 community water systems provide drinking water to more than 70% of Maryland’s population. Of these 217 community water systems sampled so far, the elevated levels of the combination of the concentrations of PFOA and PFOS have been as follows: 5 community water systems had at least one sample measure above the Health Advisory level of 70 parts per trillion; 7 additional community water systems had at least one sample measure between 35 and 70 parts per trillion; and 5 additional community water systems had at least one sample measure between 28 and 35 parts per trillion. The samples above the Health Advisory Level came from community water systems serving the City of Westminster and the Town of Hampstead, which have been notified and are planning on devising and implementing treatment to reduce the combined concentrations of PFOA and PFOS.

The report further notes that groundwater sources from confined aquifers – separated from the ground surface by impervious layers – do not appear to be impacted by PFAS; surface water concentrations of PFAS appear to be a reliable indicator of the concentration in local fish populations; and newer PFAS have not been detected in drinking water samples. In terms of fish populations, there was a detection of elevated levels of PFAS in fish populations in Piscataway Creek, which may be due to the use of fire-fighting foam that contains PFAS at the Joint Base Andrews and Prince George’s County Multi Agency Training Center. Of note, Chapter 277 of 2020 generally prohibited, beginning October 1, 2021, the use of “Class B fire-fighting foam” that contains intentionally added “PFAS chemicals,” but this is applied only to testing and training purposes and does not cover emergency operation or any activities at the Baltimore/Washington International Thurgood Marshall Airport. The implications from newer PFAS not being found is that PFAS contamination in Maryland may be a legacy and not ongoing contamination issue.

In the future, MDE plans to complete sampling by fall 2022. Also in fall 2022, EPA expected to release an update to the PFAS Health Advisory Level, and possibly Maximum Containment Levels as well, which may make the standard stricter. If this occurs, then MDE anticipates that it may need to consider further action at several drinking water and fish tissue monitoring locations to ensure human health and that a larger portion of Maryland’s waters, both tidal and nontidal, will likely be subject to advisories and listings.

3. Enforcement and Inspection Position Strength Assessment and Vacant Position Filling

Budget bill language in the fiscal 2022 operating budget restricted funding pending the submission of quarterly reports from MDE and MDA on compliance and enforcement inspections and

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positions. The language then further restricted the funding for filling vacant compliance and enforcement positions.

The submitted reports note that the number of MDA inspectors decreased from 8 to 7 as it lost an inspector to MDE in May 2021, but this does not appear to have dramatically changed the number of inspections it conducts. In addition, MDA has returned to nutrient management plan consultant reviews due to MDA reviewing nutrient management plans that are not using the most up-to-date planning software or otherwise lack the most recent recommendations. Certified nutrient management plan consultants are held accountable for nutrient management plans that are inadequate and not the farmer. The 0.5 reviewer, which splits its time with the Turfgrass Nutrient Management Program, has conducted an average of seven reviews per month between December 2020 and November 2021.

MDE conducted more than 120,000 inspections, audits, and spot checks across major programmatic areas in fiscal 2021, which is down from the 127,000 in fiscal 2020 and the 171,000 in fiscal 2019. MDE notes that the COVID-19 pandemic limited its activities but that it has brought online two MITDPs that will help streamline operations. The Environmental Permit Tracking System went live on November 30, 2020, and will improve the process of inspections, compliance monitoring, and enforcement workflows. In addition, the Lead Rental Certification and Accreditation application, an integrated system in replacement of the Lead Poisoning Prevention Program’s legacy databases, went live on December 6, 2021, and is discussed in Appendix 3. Between fiscal 2011 and 2021, the number of inspectors for the three administrations has changed as follows: 2 additional positions for the Land and Materials Administration (from 66 to 68 positions); 8 additional positions for the Water and Science Administration (from 48 to 56 positions); and 12 fewer positions for the Air and Radiation Management Administration (from 48 to 36 positions). The number of vacancies has continued to remain high in recent years for the Land and Materials Administration and is increasing for both the Water and Science Administration and the Air and Radiation Administration.

Appendix 1
2021 Joint Chairmen’s Report Responses from Agency

The 2021 JCR requested that MDE prepare five reports. Electronic copies of the full JCR responses can be found on the DLS Library website.

- ***Groundwater Protection Program Update Report:*** The fiscal 2022 Budget Bill restricted \$100,000 in general fund appropriation for MDE pending the submission of a report on the quality of groundwater that sources residential wells. The submitted report reflects seven recommendations regarding water withdrawal measurement, establishing water quality reporting requirements at the time of property transfer, sustainable funding, coordination improvements, source water protection, groundwater report updating, and administrative penalties. Further discussion of this data can be found in Issue 4 of this analysis.
- ***PFAS Chemicals Report:*** The fiscal 2022 Budget Bill restricted \$100,000 in general fund appropriation for MDE pending the submission of a report on PFAS. The submitted report notes that groundwater sources from confined aquifers – separated from the ground surface by impervious layers – do not appear to be impacted by PFAS; surface water concentrations of PFAS appear to be a reliable indicator of the concentration in local fish populations; and newer PFAS have not been detected in drinking water samples suggesting a legacy and not ongoing contamination issue. Further discussion of this data can be found in Update 2 of this analysis.
- ***Maryland Used Tire Cleanup and Recycling Fund Annual Report:*** The fiscal 2022 Budget Bill restricted \$200,000 in general fund appropriation for MDE pending the submission of the annual Maryland Scrap Tire report. The submitted report notes that relative to fiscal 2020, fiscal 2021 revenues increased and fiscal 2021 expenditures decreased, which increased the Scrap Tire Fund’s closing balance by \$677,845. This reflects a reversal of the recent trend toward a lower closing fund balance. Further discussion of this data can be found in Update 1 of this analysis.
- ***Budgeting of Prior Year Actual Personnel Expenditures:*** The 2021 JCR included committee narrative requesting that MDE properly budget prior year actual personnel expenditures. The fiscal 2023 budget submission does not properly budget the personnel expenditures again. Further discussion of this data can be found in Issue 1 of this analysis.
- ***Enforcement and Inspection Position Strength Assessment and Vacant Position Filling:*** Budget bill language in the fiscal 2022 operating budget restricted funding pending the submission of quarterly reports from MDE and MDA on compliance and enforcement inspections and positions. MDE conducted more than 120,000 inspections, audits, and spot checks across major programmatic areas in fiscal 2021, which is down from the 127,000 in fiscal 2020 and the 171,000 in fiscal 2019. MDE notes that the COVID-19 pandemic limited its activities but that it has brought online two MITDPs that will help streamline operations: the Environmental Permit Tracking System went live on November 30, 2020; and the Lead Rental Certification and Accreditation application went live on December 6, 2021. Further discussion of this data can be found in Update 3 of this analysis.

Appendix 2
Maryland Used Tire Cleanup and Recycling Fund
Fiscal 2015-2021

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>Difference</u> <u>2015-2021</u>	<u>Average</u> <u>2015-2021</u>
Opening Fund Balance	\$4,934,999	\$6,345,979	\$4,265,842	\$3,737,235	\$3,208,690	\$903,128	\$949,117	-\$3,985,883	\$3,477,855
Add Open Prior Year									
Encumbrances	1,866,537	556,082	2,077,364	343,441	83,069	87,193	44,585	-1,821,952	722,610
Adjusted Opening Fund Balance	\$6,801,537	\$6,902,060	\$6,343,206	\$4,080,676	\$3,291,759	\$990,321	\$993,702	-\$5,807,835	\$4,200,466
Revenues									
Gross Used Tire Fees Revenues									
After Comptroller									
Adjustment	\$3,725,910	\$3,904,971	\$3,574,454	\$3,679,670	\$3,996,950	\$3,295,881	\$3,393,676	-\$332,234	\$3,653,073
Cost Recovery	0	0	176,410	0	0	128	0	0	25,220
Total Revenue	\$3,725,910	\$3,904,971	\$3,750,863	\$3,679,670	\$3,996,950	\$3,296,009	\$3,393,676	-\$332,234	\$3,678,293
Expenditures									
Scrap Tire Program Expenses	\$509,682	\$717,163	\$2,264,529	\$2,571,129	\$2,517,398	\$1,245,089	\$1,011,892	\$502,210	\$1,548,126
Land and Materials									
Administration Expenses	1,675,123	1,167,374	692,055	996,788	1,676,576	999,009	692,626	-982,496	1,128,507
Department Indirect Costs	477,530	610,052	845,028	627,945	780,263	439,398	356,120	-121,410	590,905
Stockpile Cleanups	110,419	1,896,877	2,108,309	223,144	1,229,550	566,525	609,133	498,714	963,422
MES Projects and									
Administration	-300,000	72,359	103,471	49,581	94,602	42,608	27,700	327,700	12,903
Prior Year Encumbrance									
Payments	1,152,632	0	0	0	0	0	0	-1,152,632	164,662
Total Expenditures	\$3,625,386	\$4,463,826	\$6,013,393	\$4,468,587	\$6,298,388	\$3,292,628	\$2,697,471	-\$927,915	\$4,408,526
Total Open Encumbrances	\$556,082	\$2,077,364	\$343,441	\$83,069	\$87,193	\$44,585	\$18,360	-\$537,722	\$458,585
Closing Fund Balance	\$6,345,979	\$4,265,842	\$3,737,235	\$3,208,690	\$903,128	\$949,117	\$1,671,547	-\$4,674,431	\$3,011,648

Note: The fiscal 2015 \$300,000 negative expenditure for MES Projects and Administration reflects the return of project funds advanced to MES but not fully expended. Scrap tire penalties are deposited into the Maryland Clean Water Fund. The penalty revenues were \$7,250 in fiscal 2017, \$30,253 in fiscal 2018, \$1,715 in fiscal 2019, \$30,038 in fiscal 2020, and \$10,750 in fiscal 2021.

Source: Maryland Department of the Environment; Department of Legislative Services

Appendix 3
Lead Rental Certification and Accreditation
Major Information Technology Project
Maryland Department of the Environment

This project is briefly discussed in the proposed budget discussion and in Issue 3.

New/Ongoing: Ongoing								
Start Date: October 16, 2019					Est. Completion Date: December 31, 2021			
Implementation Strategy: Agile								
(\$ in Millions)	Prior Year	2022	2023	2024	2025	2026	Remainder	Total
GF	\$1.416	\$0.025	\$0.134	\$0.000	\$0.000	\$0.000	\$0.000	\$1.575
SF	1.391	0.000	0.184	0.000	0.000	0.000	0.000	1.576
Total	\$2.808	\$0.025	\$0.318	\$0.000	\$0.000	\$0.000	\$0.000	\$3.151

- **Project Summary:** The project replaces current legacy applications (Accreditation, Enforcement, Lead Fees, and Oversight) and databases in order to improve the operations of the Lead Poisoning Prevention Program. The new system uses modern .NET application development technologies in combination with a Structured Query Language Server backend database.
- **Need:** The project addresses an audit finding regarding the tracking of accreditation and certification of lead rental units. In addition, it will provide more transparency for rental property customers and improve staff efficiency by minimizing data entry activities.
- **Observations and Milestones:** The project went live on December 31, 2021. Plans in option year one include operations and maintenance and added and modified functionality.
- **Changes:** The project cost appears to have decreased from \$4.0 million to \$3.2 million between the fiscal 2022 and 2023 versions of the Governor’s Budget Highlights.
- **Concerns:** The project cost decrease suggests that additional modifications and thus funding may be needed in the future to realize the project’s full scope.

**Appendix 4
Object/Fund Difference Report
Department of the Environment**

<u>Object/Fund</u>	<u>FY 21 Actual</u>	<u>FY 22 Working Appropriation</u>	<u>FY 23 Allowance</u>	<u>FY 22 - FY 23 Amount Change</u>	<u>Percent Change</u>
Positions					
01 Regular	883.00	880.00	880.00	0.00	0%
02 Contractual	55.68	75.00	85.50	10.50	14.0%
Total Positions	938.68	955.00	965.50	10.50	1.1%
Objects					
01 Salaries and Wages	\$ 86,931,584	\$ 92,318,956	\$ 96,742,775	\$ 4,423,819	4.8%
02 Technical and Special Fees	2,793,702	3,616,511	4,218,393	601,882	16.6%
03 Communication	717,831	623,299	608,033	-15,266	-2.4%
04 Travel	40,168	73,336	51,758	-21,578	-29.4%
06 Fuel and Utilities	354,607	364,587	338,139	-26,448	-7.3%
07 Motor Vehicles	632,561	789,989	742,156	-47,833	-6.1%
08 Contractual Services	14,984,959	18,892,402	34,229,303	15,336,901	81.2%
09 Supplies and Materials	703,185	964,149	837,889	-126,260	-13.1%
10 Equipment – Replacement	484,990	673,709	466,017	-207,692	-30.8%
11 Equipment – Additional	267,945	25,000	25,000	0	0%
12 Grants, Subsidies, and Contributions	22,064,261	16,669,656	37,094,490	20,424,834	122.5%
13 Fixed Charges	6,134,959	6,066,741	6,308,788	242,047	4.0%
14 Land and Structures	31,828,851	33,000,000	33,000,000	0	0%
Total Objects	\$ 167,939,603	\$ 174,078,335	\$ 214,662,741	\$ 40,584,406	23.3%
Funds					
01 General Fund	\$ 33,276,953	\$ 36,309,458	\$ 44,670,270	\$ 8,360,812	23.0%
03 Special Fund	98,026,736	99,855,122	132,289,785	32,434,663	32.5%
05 Federal Fund	29,938,692	33,356,591	33,944,515	587,924	1.8%
09 Reimbursable Fund	6,697,222	4,557,164	3,758,171	-798,993	-17.5%
Total Funds	\$ 167,939,603	\$ 174,078,335	\$ 214,662,741	\$ 40,584,406	23.3%

Note: The fiscal 2022 working appropriation does not include deficiency appropriations. The fiscal 2022 working appropriation and fiscal 2023 allowance do not reflect funding for statewide personnel actions budgeted in the Department of Budget and Management, which include cost-of-living adjustments, increments, bonuses, and annual salary review adjustments.