

# A MESSAGE FROM DR. GLASS



As I reflect on the past year, I can summarize FY23 as a period of remarkable growth and success after success for the Maryland Environmental Service (MES). The Agency remains committed to our three pillars: Safety, Level of Service, and Education and Training; and to our 5-year strategic plan, containing clear and measurable key performance indicators that are being tracked by the MES leadership team. We worked hard this year to improve the employee experience, ensuring both fairness and consistency by reviewing and updating policies and procedures, creating career pathways that encourage professional growth, and an official compensation guidelines administration document that details all the great benefits of being part of the MES team. I am proud of our commitment to doing our best work for our customers and clients, the investments made in our employees, and the establishment of a well-defined trajectory for the future.

For over 50 years, MES has provided essential services for Maryland's citizens and responded to emergencies when needed with a team of professional environmental experts, who take on any challenge, do not give up until the work is done, and are the definition of stewards to the environment. Our operating groups – Dredging and Restoration, Environmental Operations, Technical and Environmental Services, and Water and Wastewater Services – have provided project updates for the fiscal year, which you can read more about in the remainder of this report.

The MES teams in administration, finance, procurement, human resources, and information technology also continue to advance our processes, including notably dropping our vacancy rate from 11% to below 5%, in the first quarter of FY23. The recruitment efforts and strategies developed by the collaboration of these teams, working with our operating groups, directly resulted in meeting this aggressive goal quickly and with much success.

As we move into FY24, MES will continue to play an important role in furthering the State of Maryland's dedication to environmental protection and supporting the goal to become the greenest state in the country, while investing in community resiliency and sustainability, and remaining at the forefront of advancements in environmental science.

Charle Han



# **MISSION**

To provide operational and technical services to protect and enhance the environment for the benefit of the people of Maryland.

# **VISION**

Maryland Environmental Service is an innovative and leading-edge solver of environmental problems; a responsible and successful manager of environmental operations; and a great place to work.

MES was established by the General Assembly in 1970 to assist with the preservation, improvement, and management of the quality of air, land, water, and natural resources, and to promote the health and welfare of the citizens of the State. Today, MES employs over 800 teammates and operates more than 1,000 environmental projects across Maryland and the Mid-Atlantic region. As a not-for-profit business unit of the State of Maryland, MES provides multi-disciplinary environmental compliance services to enhance and protect the environment through innovative solutions to the region's most complex environmental challenges.

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MES CONTINUES TO RISE TO
CHALLENGES AND PROVIDE SUPPORT
TO ENVIRONMENTAL PROJECTS FOR
OUR MANY CLIENTS AND PARTNERS
THROUGHOUT THE STATE.





# **COMPANY FACTS**



\$82,120 PROVIDED IN TUITION REIMBURSEMNET



\$64,550 AWARDED THROUGH INSPIRE PROGRAMS



50 SAFETY & ENVIRONMENTAL COMPLIANCE TRAINING CLASSES CONDUCTED



78
TEAMMATES HONORED
FOR YEARS OF SERVICE

# ENVIRONMENTAL DREDGING & RESTORATION

The MES Environmental Dredging and Restoration Group (EDR) provides operational and technical services on behalf of our clients in the areas of dredged material management, habitat restoration, hazardous materials management, environmental management systems and compliance, permitting, surveying and Unmanned Aircraft Systems (UAS) imagery, forest, wetland and various mitigation services, and outreach and engagement related to dredged material management. In fiscal year (FY) 2023, EDR provided continued operations of dredged material containment facilities (DMCFs), maintenance and monitoring at Hawkins Point Landfill and the Baltimore Inner Harbor Project, materials management and permit compliance at Dundalk Marine Terminal, and support of innovative reuse endeavors on behalf of the Maryland Port Administration (MPA). The following are some additional highlights of FY23.

# PORT OF BALTIMORE SUSTAINABILITY

EDR supported MPA's Environmental Management System by providing a variety of technical, operational, and subcontracted services to support safety, environment, and risk management sustainability strategy. This included assisting with the International Organization for Standardization 14001:2015 **Environmental Management System** recertification audit in FY23 for the fourth time since the original certification in 2011. Throughout FY23, EDR remained committed to assisting MPA with their environmental initiatives, supporting activities such as establishing a pollinator garden, overseeing the upkeep of over 30 best management practices for stormwater, and contributing to the reduction of air emissions at the Port of Baltimore through the administration of the Port of Baltimore Diesel Equipment Upgrade Program.

# **COX CREEK DMCF EXPANSION**

EDR continued management of the Cox Creek Expansion and Dike Raising to +60 throughout FY23 on behalf of our client, MPA. During the early part of FY23, dike raising was completed and stabilized to elevation +60 of the waterside DMCF. Maryland Department of the Environment (MDE) Dam Safety granted permission to increase the permitted water surface elevation (WSE) from +36 to +39 in the fall of 2022 to increase capacity to allow



for the federal fiscal year 2023 U.S. Army Corps of Engineers (USACE) inflow. WSE was limited to +39 due to a North South Cross Dike (NSCD) that separates the waterside portion of the DMCF from the upland section. Additionally, 5,300 linear feet of slurry wall was installed along the footprint of the upland dikes from November through March 2023, and the contractor placed approximately 325,000 compacted cubic yards of material to raise the upland dikes to an elevation of +60, for a total of approximately 1.5 million cubic yards of material placed for the entire project. During the last part of FY23, the contractor began performing final construction items such as milling and paving the end of Kembo Road



Masonville DMCF – Base Dike Widening Project

and converting sediment basins into permanent storm water management ponds.

EDR started design and permit modifications in FY23 to increase the height of the NSCD to allow for an increased WSE, which will expand capacity in the waterside of the DMCF and delay the need to utilize the upland portion of the DMCF for dredged material inflow. This is necessary to allow for a design and permit modification to further excavate surplus material within the upland cell to increase capacity overall at Cox Creek. This design was also initiated in FY23.

### MASONVILLE DMCF EXPANSION

EDR completed construction of the Base Dike Widening Project which started in January 2022. The project consisted of placing over 300,000 cubic yards of fill material, including 177,000 placed along the interior of the dike in FY23, decommissioning and demolition of the two existing spillway weir structures, and placement of 125,000 square yards of high strength geotextile material. The base dike widening was necessary to lay the foundation for the next phase

of dike raising. The project was completed in June 2023.

EDR completed the design and received the necessary Dam Safety and Erosion and Sediment Control Permits for the Masonville DMCF Dike Raising to Elevation +30. This design included improvements to the adjacent Masonville Marine Terminal Upper Lot to prevent seepage from two sand filters and associated swales from impacting the future DMCF dikes, and the relocation of a storm drain. The project was advertised in June 2023, with construction expected to start in FY24.

# MID-BAY ISLAND (BARREN AND JAMES ISLANDS)

EDR provides project management, planning, engineering and design, geotechnical, construction management, outreach, and adaptive management and environmental support services to MPA and USACE for the Mid-Bay Island Ecosystem Restoration Project (Mid-Bay). Mid-Bay will accommodate an estimated 90-95 million cubic yards of dredged material, providing a minimum of 30 years of capacity. Barren Island restoration construction started in March 2023, and will provide a minimum 72 acres of



**Cox Creek DMCF - Expansion** 

WE WORK WITH PASSION & INTEGRITY TO SUPPORT OUR CLIENTS & PROJECTS

# **EDR CONTINUED**

remote island habitat. James Island restoration will restore approximately 2,072 acres of remote island habitat, with construction planned to begin in 2025/2026.

Design, environmental, and geotechnical field work continued for both James and Barren Islands. EDR supported the Mid-Bay Project Development Team by coordinating the issuance of the Barren Island Tidal Wetlands License during the first quarter of FY23, which enabled Phase I Barren Island construction and associated permit-required monitoring to commence. MES continued to support the team in the design of James Island, including coordinating with agency stakeholders. Efforts to ensure continued community and stakeholder engagement included Mid-Bay Workgroup meetings, seasonal newsletters, the annual public meeting, and numerous one-on-one meetings, as needed, to keep the agencies and the public involved and up to date with the project.

# **POPLAR ISLAND**

EDR continues to manage the Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island (Poplar Island) on behalf of the project partners, USACE and MPA. EDR oversees daily operations of the site, including construction, environmental monitoring, and surveying. Poplar Island has received over 40 million cubic yards of dredged material through FY23.

In FY23, EDR continued efforts to prepare for future development by reclaiming approximately 160,000 cubic yards of construction sand material to increase capacity during dredged material inflow and to begin the early stages of upland dike raising.

EDR worked with a small group of agency representatives to investigate how changing the project's restored wetland high-marsh to low-marsh ratio would impact the response to sea-level rise. Lessons learned from both the Cell 5CD, and marsh ratio investigations will help develop more resilient wetlands across the rest of Poplar Island, as well as future wetland restoration at Mid-Bay.

# COX CREEK SEDIMENT TECHNOLOGY AND REUSE (STAR) FACILITY

In December 2022, MPA purchased the former Tronox Hawkins Point facility. An Administrative Consent Order has been established for the site. This year, EDR and our subcontractors provided support for remediation planning. In coordination with remediation activities, the site will be developed as the future hub for processing dredged material from the Cox Creek DMCF for innovative and beneficial reuse.



# **DEEP CREEK LAKE**

MES manages the Deep Creek Lake Arrowhead Cove Dredging Project on behalf of Garrett County. Past and current work includes planning, permitting, and design, with construction beginning in fall 2023. The project will involve mechanical removal of approximately 11,000 cubic yards of sediment from Arrowhead Cove in Deep Creek Lake. The dredging will be complete in the first quarter of 2024, with site restoration to occur in spring/summer 2024.

### **OUTREACH AND EDUCATION**

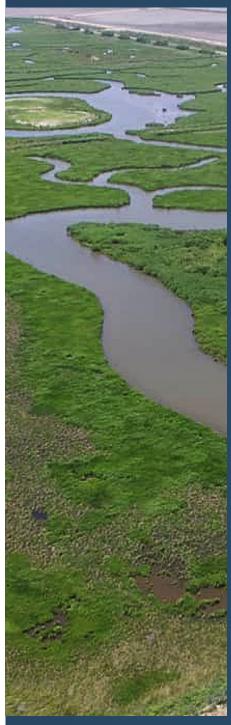
During the COVID-19 pandemic when in-person outreach proved to be difficult, the MES Environmental Education Team developed the Environmental Education E-Learning (E3) Portal (www.portofbaltimoreeducation.org) for the Port of Baltimore as a platform to make lessons, programs, and activities more accessible to educators, students, parents, and the general public. In FY23, the E3 Portal received national recognition from the American Association of Port Authorities, which accorded it the Award of Overall Communications Excellence, the highest award in its category.

In July 2022, EDR staff assisted MPA in planning and implementing the first MPA Youth Birding Week program for ten students. The program was jointly funded by a Chesapeake Bay Trust grant awarded to MES for the weeklong program. Students explored Masonville, Hart-Miller Island, Poplar Island, and Cox Creek while learning birding basics and citizen science from an experienced youth birding instructor. Highlights from the week included touching an osprey, participating in bird banding and learning its importance, seining for fish to learn about food chains, enjoying habitats restored by MPA through beneficial use of dredged material, and seeing firsthand how these habitats are helping birds and other wildlife.

# **TERP PROGRAM**

The Port of Baltimore Terrapin Education and Research Partnership (TERP) celebrated the 18th anniversary of the program this year. MES created the TERP Program in partnership with MPA and the Arlington Echo Outdoor Education Center, which is part of the Anne Arundel County Public School system. Other program partners include the National Aquarium, CHESPAX, and the William S. Schmidt Center. Juvenile turtles from Poplar Island live in Maryland classrooms for a school year (fall to spring). Students collect growth data, observe behavior, learn husbandry protocols, and research the natural history of the species. After caring for the hatchlings, students release the terrapins into the Chesapeake Bay at Poplar Island. To date, over 3,100 terrapin hatchlings from Poplar Island have been head-started by students from more than 850 classes in schools around the State.

# Poplar Island Wetland Creation



# TECHNICAL & ENVIRONMENTAL SERVICES

The Technical and Environmental Services (TES) group provides expertise in diverse areas of environmental services and project management supporting the needs of State agencies, counties, municipalities, private industries, and universities. FY23 saw continued service in the areas of environmental monitoring, reporting, laboratory services, National Environmental Policy Act (NEPA) review assistance for Maryland Department of Natural Resources (DNR) and Maryland Department of Transportation (MDOT), geospatial digital mapping, application development and programming, as well as stormwater engineering, inspection, and technical services. New in FY23, TES significantly expanded our role in a broad range of projects and initiatives on behalf of the Maryland Energy Administration (MEA) and

the Maryland Military Department (MMD).

In FY23, TES continued to support stormwater compliance projects regulated under the National Pollutant Discharge Elimination System (NPDES) and Municipal Separate Storm Sewer Systems (MS4) across the State, including services to Bowie State University, University of Maryland College Park, Universities at Shady Grove, Maryland School for the Deaf, and St. Mary's County. Notable projects for TES in FY23 included the kickoff of the Mesonet Project with the Maryland Department of Emergency Management (MDEM). TES is providing management and technical services in support of the creation and maintenance of a statewide monitoring system that measures the size and duration of mesoscale weather events.



Working with the Maryland DNR, TES also completed the first stage of a project to evaluate and implement a lead abatement and remediation project at Seneca State Park where lead shot has been found to be contaminating the ground.

The highly specialized archaeology staff in TES worked with the State Highway Administration (SHA) on the research, excavation, curating, and public outreach events related to artifacts found at Harriet Tubman's birthplace historic site, and staff also continue to support the MDOT Roadside Historical Markers program. For this program, TES staff assist in application review, historical research for marker accuracy, and coordination for new marker unveiling events.

TES also kicked off its participation in Maryland's Five Million Trees Initiative, which is a multi-

agency effort to commit to growing five million native trees by 2031. TES staff developed the online site for information on the program and tree tracking.

Although the Baltimore/Washington International (BWI) Thurgood Marshall Airport experienced an unseasonably warm winter with minimal snowfall or freezing temperatures last winter, decreasing the need for deicing fluid collection management, TES nevertheless continued to provide environmental compliance and environmental systems maintenance support to the Maryland Aviation Administration (MAA) and private vendors operating BWI. The TES staff at BWI maintained environmentally responsible operations in all weather conditions and handled an unusual number of emergency spill responses in FY23, in addition to providing on-call emergency maintenance, and repair service to the airport's stormwater infrastructure systems.

TES also ramped up support in FY23 to the MMD on underground storage tank inspection, removals,



# **TES CONTINUED**

and remediation, as well as spill prevention control and countermeasure plans and other stormwater inspection and maintenance.

As in years past, TES continued to serve the MDOT modal administrations in environmental compliance and operational tasks. TES continued to grow our partnership with SHA with the execution of a new MOU for \$60 million over a five-year term, providing technical expertise and supporting SHA within the Metropolitan Districts (Districts 3, 4, 5 and 7) in the areas of drainage system inspection, operation and maintenance of stormwater facilities, control of vegetation, investigations and assessments related to drainage structures, and remediation related to drainage structures requiring response within 72 hours. There were approximately 20 locations assigned to MES in FY23 requiring either immediate drainage remediation response or stormwater planning and construction. TES also continued in FY23 to provide staffing support to SHA Office of Materials Technology, adding four full-time employees onsite for field exploration, and continuing expert support for the Engineering Geology Division in the inventory and assessment of 125 rock slopes. TES continued our long-standing relationship with the Office of Environmental Design, providing compliance support in the areas of industrial wastewater management, waste management services, and drinking water sampling.



# **ENERGY ACTIVITIES**

During FY23, the TES team added four full-time staff to meet the needs of the new work associated with support to MEA. MES, on behalf of MEA, worked this year on efforts related to the Clean Energy Rebate Program (CERP) for both residential and commercial applications, as well as the Electric Vehicle Supply Equipment (EVSE) program. TES also regularly participates in the work associated with MEA's Geothermal Study task force, the Solar Taskforce, and a landfill solar study (to place solar panels on closed landfills). In partnership with DNR, MES will oversee the installation of solar systems on the buildings at five Maryland parks in FY24.







# ENVIRONMENTAL OPERATIONS

The MES Environmental Operations (EO) Group serves counties, large municipalities, and rural communities, offering solutions for solid waste challenges and recycling services. The Group operates award-winning landfills and dual- and single-stream recycling centers which serve millions of Marylanders. Additionally, we manage composting facilities that transform yard, leaf, and food waste into the highly sought-after products Leafgro® and Leafgro Gold®.

The Group also works with the Maryland Department of Public Safety and Correctional Services operating a cogeneration facility that supplies steam and electricity to the Eastern Correctional Institution (ECI), and steam for heating, laundry, and cooking at three other Maryland Correctional Facilities. EO collaborates with various government agencies in Maryland to provide essential services, including the MDE to support used oil and antifreeze collection and operate a mobile chlorofluorocarbon recovery unit. Additionally, EO partners with the Maryland Department of Aging (MDoA) to manage a Durable Medical Equipment program. This program receives discarded durable medical equipment so it can be refurbished, recycled, and commissioned for reuse.



# INTEGRATED SOLID WASTE MANAGEMENT OPERATIONS

MES is a leader in integrated solid waste management operations in the State of Maryland. The Agency's solid waste operations focus on source reduction, reusing and recycling, and composting to reduce the volume of materials being sent to landfills or for incineration. We offer engineering, construction, and operations for large-scale, diversified, innovative, and integrated solid waste management.

# STATE-OF-THE-ART COMPOSTING

Composting is an integral component in Waste Diversion Strategies worldwide. Diverting organic waste from landfills extends their useful life and reduces the amount of produced methane, a very harmful greenhouse gas produced at landfills. MES is proud to operate two of the largest, longstanding, and successful composting programs in the United States.

MES manages the leaf- and yard-waste composting operations for Prince George's, Harford, and Montgomery Counties. In 2023, the team processed over 155,000 tons of organic material, producing high-quality compost and wood mulch which is sold commercially (and typically sells out) throughout the Mid-Atlantic region. The Prince George's and Montgomery County Facilities produce Leafgro® compost, while Prince George's County also produces food-scrap derived Leafgro Gold® compost.

In addition to composting yard waste, MES operates the Prince George's County's 12-bunker food-waste compost system to produce Leafgro Gold®. In FY23, the team processed over 33 million pounds of food waste, thereby diverting material that would have otherwise been landfilled. In FY23, MES celebrated 10 years of composting food scraps in Prince George's County. The facility hosts many tours each year for residents, school groups, and local, State, national, and international representatives interested in food scrap composting. This year such tours included the Department of State, colleagues from the White House's Council on Environmental Quality, the National Oceanic and



Atmospheric Administration, the Office of Waste Diversion for Baltimore City, MDE, the U.S. Environmental Protection Agency, and the U.S. Composting Council. Frank Franciosi, the Executive Director of the U.S. Composting Council had this to say about the tour: "I wanted to take a moment to thank you all for your time and hospitality. The tour was a real eye opener for many of the attendees."

In FY23, MES continued working with BWI Airport and its food vendors to operate a food-scrap collection program. This program continues to expand, and now involves work with over 40 vendors within the airport, resulting in the collection of over 188,000 pounds of food scraps for recycling that would have otherwise been landfilled.

Over the past two years, MES helped our long-time partner Montgomery County with a Commercial Food Scraps Recycling Partnership Program. This program has been extremely successful, with the County recently celebrating the recycling of over 1,225,000 pounds of food scraps. Those food scraps are then sent to the MES-operated Prince George's County Organics Composting Facility and the Maryland Bioenergy Center located in Howard County and owned by Bioenergy Devco.

# **INNOVATIVE RECYCLING OPERATIONS**

The Prince George's County Materials Recycling Facility opened in 1993 and was converted to a single-stream facility in 2007. The conversion allowed the facility to produce the traditional single-stream materials but limited the production of mixed 1-7 plastic bales and separate rigid plastics. The facility was upgraded

in 2021 with the addition of three new optical sorters, a new plastics sorting line, a new fiber screen, and new bunkers.

In addition to producing fiber, glass, and metal recyclables, the facility now generates five plastic commodities, including polyethylene terephthalate (No. 1 PET), naturally high-density polyethylene (No. 2 HDPE), colored high-density polyethylene (No. 2 HDPE), polypropylene (No. 5 PP), and bulk mixed rigid, significantly expanding the marketability of the plastic bales and increasing the recovery of recyclable plastics that would have been routed to the landfill. The replacement of a traditional fiber screen with a new, non-wrapping screen also contributed to a significant reduction in contamination in the paper bales.

The Prince George's County Materials Recycling Facility, now equipped with the newest technology in optical sorting, is well-positioned to continue serving the residents of Prince George's County for many years into the future. In 2023, the facility processed and marketed over 29,000 tons of recyclables with a market value of \$3,460,804. This facility also hosts many tours, educating all types of groups about recycling. This year, tour highlights included the Solid Waste Association of North America, the World Bank, the Association of Energy Engineers, and a group from the United States Agency for International Development.

In Montgomery County, EO has operated a dual-stream recycling facility along with a separate fiber recovery line for 30 years. In 2023, MES and Montgomery County processed over 41,535 tons of recyclables. In addition, MES continued to work with the County on the design of needed upgrades at the Materials Recycling Facility. These upgrades will include the latest technologies, provide more automation, and increase throughput.

# **EO** CONTINUED

# RECYCLING DURABLE MEDICAL EQUIPMENT

MES operates the State of Maryland's only Durable Medical Equipment (DME) Recycling Facility in partnership with the MDoA. MES staff collects DME from Statewide donation centers and brings the items to the refurbishment facility in Prince George's County. At the facility, MES staff inspects, cleans, and repairs the equipment, readying it for distribution at MDoA partner facilities throughout Maryland. This program – brainchild of former MDoA Secretary Rona Kramer – improves the quality of life for many Maryland residents, regardless of age, income, or location, with priority given to the needy and elderly populations. The program aligns perfectly with the MES mission and is one we are proud to support. In less than three years of operations, this program has recycled more than 26,465 individual items, including 2,847 wheelchairs, 1,330 hospital beds, 655 power wheelchairs, and 394 patient lifts.

# **ENERGY PLANT OPERATIONS**

MES operates a four-megawatt, combined heat and power facility for the Maryland Department of Public Safety and Correctional Services at the ECI Complex in Somerset County. The correctional complex has its own dedicated cogeneration power plant, which is designed to produce the thermal and electrical needs of the institution. It provides electrical power, high-temperature hot water for heating and cleaning services, and steam for laundry operations to the correctional complex. The facility currently burns on-spec wood chips for fuel; however, in FY23, MES began a longawaited conversion that will allow the plant to utilize natural gas as a fuel. This conversion to natural gas is an important transition to a more environmentally sustainable and efficient method of operation. The Gas Conversion Project is the final step in an initiative to bring natural gas service to Somerset County. The project kicked off in FY21 with a request for proposals by MES for the supply of natural gas to ECI and the University of Maryland Eastern Shore. Chesapeake Utilities was the successful offeror, which led to the installation of a gas pipeline that extended an existing natural gas pipeline into Somerset County. The project made natural gas service available in Somerset County for the first time, an investment that will allow Somerset County to thrive by retaining existing and attracting new businesses.

In addition to ECI, MES also operates steam boiler plants for the Jessup Correctional Facility, the Central Maryland Correctional Institution, and the Maryland Correctional Institution in Hagerstown. These plants produce steam for heat, cooking, and laundry at each of the three prisons .

# Montgomery County Leafgro Bagging Operations



# REGIONAL SOLID WASTE MANAGEMENT

In 1988, MES and Queen Anne's, Talbot, and Caroline Counties of Maryland's Eastern Shore worked out a regional agreement to meet the municipal solid waste needs of the area for 80 years. Kent County later joined the partnership in 1992. The agreement – the only regional solid waste management agreement in Maryland – consists of four planned facilities. To date, two of the four landfills have been financed and constructed by MES. The Agency also acts as the landfills' owner and operator. In addition to landfill operations, MES manages the recycling program for the four counties, including collection and sale of recyclables.

# **ENVIRONMENTAL ENGINEERING AND MONITORING**

EO also provides up-to-date landfill monitoring support services for both open and closed facilities, including sampling, analysis, statistical interpretation, and reporting results of the analysis of groundwater, surface water, and landfill gas at 27 landfills located throughout the State of Maryland.

EO provides solid waste engineering and construction management services for clients throughout Maryland, such as construction management and engineering services to the Prince George's County Department of the Environment, Resource Recovery Division. Through this unique five-year agreement, MES manages consulting and service contracts related to capital improvement projects and regulatory compliance at multiple facilities, including the Brown Station Road Sanitary Landfill, Sandy Hill Landfill, the Prince George's County Materials Recycling Facility, the Prince George's County Organics Composting Facility, and the residential convenience centers.

Additionally, MES provides consulting services to several Maryland Counties for services such as updating their ten-year solid waste management plans, evaluating solid waste disposal alternatives, developing strategies for sustainable resource management, and zero-waste management planning.

# ON THE WORLD STAGE

This year EO was proud to host two members of the Young Southeast Asian Leaders Initiative (YSEALI), an exchange program that places international professionals with organizations in the United States working on various topics, including sustainability and the environment. The program is a partnership between the International City/County Management Association and the American Council of International Education. It offers opportunities for educational exchanges between U.S. and young Southeast Asian leaders, along with a competitive reciprocal exchange component. As part of the program, a Division Chief from MES traveled to Indonesia to learn about the country's solid waste management systems.



33,794 LBS OF FOOD WASTE COMPOSTED



440,662 Gallons of USED OIL RECYCLED



15,250
METRIC TONNES
OF CARBON OFFSETS
BY LANDFILL GAS
MANAGEMENT



11,181 MEGAWATT-HOURS OF ELECTRICITY GENERATED FROM BIOMASS



22,968
GALLONS OF
ANTIFREEZE RECYCLED



155,322 Tons of Organics Processed for Compost and Mulch

# WATER & WASTEWATER SERVICES

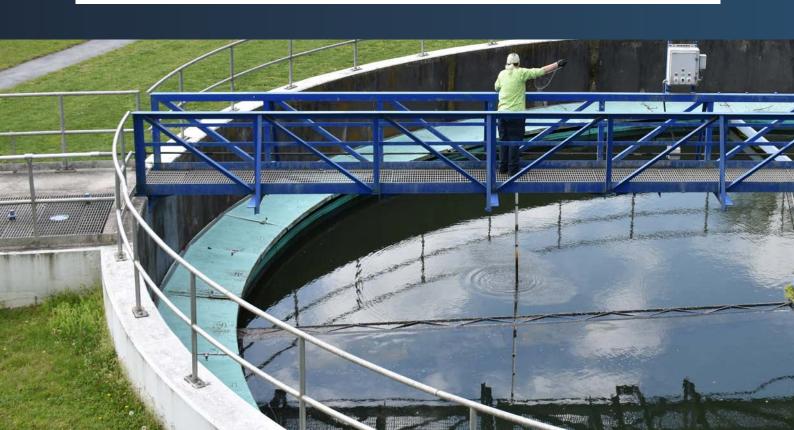
The MES Water and Wastewater Group (W/ WW) supports the design and construction, operations and maintenance, and management of biosolids and residuals for water and wastewater treatment plants across the State of Maryland. These include many municipal, county, and privately-owned facilities, as well as State-owned plants at correctional and health facilities, rest areas, and State parks.

The engineering staff plan and manage capital improvement and other public works projects, helping clients determine their water and wastewater needs, assisting in selecting the right size facility, technology, and equipment, preparing specifications, and overseeing upgrades of older plants and construction of new ones. In many cases, MES operations and maintenance staff remains on these sites, handling the day-to-day tasks that keep plants running smoothly and meeting permit requirements, along with help from the biosolids staff which work to ensure environmentally acceptable, reliable, and costeffective methods are used to manage the solid material generated by each wastewater treatment plant (WWTP).

W/WW engineering staff maintain the State Water and Wastewater Utility Master Plan, which reflects changes in regulations, population, or level of usage changes at State facilities. Based on the master plan, coordination efforts, and interface with operations, the staff then develop a multi-year capital improvements plan and share it with the Capital Budget Analyst from the Maryland Department of Budget and Management, as well as each agency. This prioritized list then becomes the MES Five-Year Plan in the annual Capital Budget Request. In FY23, MES received a total appropriation of \$25,992,000 for 13 projects.

The water and wastewater facilities operated by MES generated approximately 27,573 wet tons (3,009 dry tons) of sludge in FY23. Approximately 53% of the material generated in FY23 was beneficially reused, primarily by recycling the tonnage for its nutrient and soil conditioning properties onto agricultural land.

DC Water's Blue Plains Advanced WWTP and five of Washington Suburban Sanitary Commission's WWTPs produce a treated biosolids material that is land-applied by



contractors to various agricultural, forestry, and reclamation sites. MES employs a staff of four Virginia-certified field inspectors, who execute a customized, third-party independent field monitoring program at these land application sites.

**UPGRADING WATER AND WASTEWATER FACILITIES** 

The W/WW Engineering Division provides water and wastewater utility support services to the Maryland Departments of Natural Resources, Public Safety and Correctional Services, Juvenile Services, Health, Veterans Affairs, and Maryland Military, and internally to MES W/WW Operations. The Division coordinates with these agencies to ensure the facilities meet the needs of their water and



**Dorsey WWTP** 

wastewater systems and are compliant with environmental regulations. The Division also coordinates upgrades and expansions as needed.

The following projects were completed or in progress in FY23:

The Woodstock Job Corps
Center WWTP was upgraded to
a membrane bioreactor (MBR)
facility with a capacity of 50,000
gallons a day in December
2022 and began to meet the
enhanced nutrient removal
(ENR) requirements in January
2023. The center, located in
Woodstock, MD, is run by the
Department of Labor.

Victor Cullen WWTP, located in Sabillasville, MD, is owned by the Department of Juvenile Services and serves the Victor Cullen Center. The aged trickling filter plant has been upgraded to a 50,000-gallona-day sequencing batch reactor facility capable of meeting ENR-level treatment. The upgraded plant is in service, and a final inspection has been conducted.

The MMD is expanding **Camp Fretterd**, located in Reisterstown,
MD, with the construction of
a new Marine Corps Reserve
Center; the water and wastewater
requirements will exceed current

capacities. MES designed a new booster pump station and a WWTP expansion plan for the facility. Both facilities are expected to be online by January 2025, coinciding with the completion of the facility expansion.

The Cheltenham Youth Detention Center in Prince George's County is operated by the Maryland Department of Juvenile Services for male youth who are waiting to go to court or be placed in a treatment facility. The current WWTP serving the center opened in 1990 and is obsolete. A new design capable of meeting ENR limits was completed in FY23. Construction will begin in FY24.

Phase II of the Rocky Gap State Park sewer collection system upgrade is almost completed. This project includes the installation of new RV dump stations and a new force main so utility access points across the golf course could be abandoned. Additionally, three pump stations were upgraded and a new emergency generator was installed. This project's biggest hurdle was getting the RV dump station installed and operational by the 2023 Memorial Day weekend. MES met this goal and DNR and their holiday campers were not disappointed.



Freedom District WWTP

MES STRIVES TO DELIVER
EXCEPTIONAL SERVICE
TO OUR CLIENTS AND
PARTNERS

# W/WW CONTINUED



W/WW staff worked to evaluate the entire electrical system at **Elk Neck State Park**. This study will be the basis for the design of an upgrade of the entire system, which will eliminate all non-code-compliance issues and ensure it meets DNR's future needs.

Designs for improvement to the water treatment plant and water tower at **Sandy Point State Park** are about 50 percent complete. Permit applications have been submitted and meetings with the Critical Areas Commission have been held. The designs are expected to be completed by the end of the calendar year, and the project should be underway before the end of FY24.

Upgrades to **Point Lookout State Park** include replacement of the entire water distribution system and wastewater collection system, comprised of distribution lines, gravity sewer, force mains, sewage pump stations, and a hydropneumatics potable water tank. This has been a complicated project that traverses many wetland areas and crosses through a Confederate cemetery. During FY23, W/WW staff also worked on developing a preliminary engineering report (PER) for the upgrade of the electric power distribution system throughout Point Lookout State Park. The report summarized the findings and recommended improvements. DNR reviewed and approved the PER to move to the design phase.

In FY23, MES contracted WATEK Engineering Corporation to design and replace the gravity-force main that runs from Catoctin Hollow Road, down Route 77, to the Town of Thurmont's sanitary sewer collection system. The sewer line is original to when the park was built and carries sewer flows from both Cunningham Falls State Park and Catoctin Mountain National Park.

The sewer line crosses Hunting Creek in multiple spots, both below the stream bed and above it in a bridge decking. This will be a unique sewer line replacement, incorporating several different technologies to avoid disturbing the least number of historical structures, creeks, and wildlands. The design – which incorporates directional drilling, pipe bursting, and open cut excavation – is complete.

A PER highlighting improvement needs to the **Janes Island State Park** water, electric, and fire suppression systems was completed during FY23, and includes extension of the water main, improvements to the power distribution system, and installation of fire suppression systems in cabins, conference room, and other structures. DNR reviewed and approved the PER to move to the design phase. The findings from this study will provide the basis for the design of an upgrade of the entire system, which will eliminate all non-codecompliance issues identified and ensure it meets DNR's future needs. Funds for the design of recommended improvements were provided in early FY24 and the design is currently underway.

# WATER AND WASTEWATER PLANT OPERATIONS ACROSS MARYLAND

Throughout the State of Maryland, MES operates and maintains 145 water treatment facilities, 93 WWTPs, and 32 pump stations for the State of Maryland and municipal clients. During FY23, MES treated 1.84 billion gallons of drinking water and 6.27 billion gallons of wastewater. Our primary goal for our clients is compliance with all applicable standards. To that end, MES tracked 85,596 permit parameters and achieved a compliance rate of 99.7 percent.

# **EMERGENCY RESPONSE**

In January 2023, the Midland-Lonaconing Water System was placed under a boil water advisory by the MDE, leaving the town of Lonaconing without potable water. MDE directed the town to reach out to MES for assistance with their failed treatment facilities. The MES Western Region's staff immediately assessed the three treatment facilities and reviewed the distribution system to determine an action plan to feed the town potable water from the Town of Frostburg. MES coordinated the effort between the two towns, and MDE put the plan into action. After two weeks of extensive work flushing the lines and conducting sampling, MES was able to restore potable service to most of the residents. Newly elected Governor Wes Moore visited the town and recognized MDE, the Maryland Department of Health, the Maryland Department of Emergency Management, and

145
WATER TREATMENT
FACILITIES
OPERATED BY MES

93 WASTEWATER TREATMENT FACILITIES OPERATED BY MES

1.84
BILLION GALLONS
OF DRINKING
WATER TREATED

6.27 BILLION GALLONS OF WASTEWATER TREATED

32 PUMP STATIONS OPERATED BY MES

99.7
PERCENT
COMPLIANCE WITH
SAFETY STANDARDS



MES for working in partnership with the Town of Lonaconing and the City of Frostburg to restore a safe and sustainable supply of drinking water to the town.

MES also successfully assisted the City of Baltimore in meeting their permit parameters for four months, fulfilling an emergency directive from MDE. The operations and maintenance staff left the facility in December 2022. The city requested MES remain to finish the projects started on the high rate digestors (HRD) and the primary settling tanks (PST). Rehabilitating PST 7 was completed, and the tank was put in service in December 2022. The repairs to PST 2 and HRD 4 should be complete by the end of October 2023.

# **FY24 OPERATION AND MAINTENANCE GRANTS**

Five MES-operated facilities achieved compliance with ENR goals and were awarded \$354,321 in Operating and Maintenance Grants from MDE. Those five facilities are Dorsey Run Advanced WWTP, Freedom District WWTP, Rocky Gap State Park WWTP, and the Maryland Correctional Institution (Hagerstown) and ECI WWTPs.

# TRAINING AND LICENSING

MES was issued a permit that required training in drainfield management. After investigating the availability of classes for the training and finding none, Northern Region Environmental Systems Regional Supervisor Todd Boulden developed a drainfield training class and had it approved by MDE for training credits toward license recertification. The four-hour course covered topics including key parts of drainfield systems, drainfield monitoring, operation, and maintenance (best practices), and drainfield troubleshooting. The first class is expected to be held in August 2023.

Operators in the Water/Wastewater group must pass certification exams to obtain the required licenses to operate water and wastewater systems in Maryland. The average passing percentage for all exams statewide is only 33 percent. MES sends candidates to sit for an exam only after they have proven their proficiency by passing an in-house pre-exam. The overall passing percentage for MES employees is currently 51 percent, 18 percent higher than the State average! Thanks to the rigorous operator in training program and the mentors involved, MES produces some of the best-trained operators in Maryland!

After a three-year absence, MES once again assembled a team for the annual Operations Challenge competition in Ocean City. The team is coached by Todd Boulden and staffed by Jerome Lucky, Chris Dallas, Dwayne Biles, and Ryan Zacherl. The team is training diligently and looks forward to demonstrating their skills at the Tri-Association Conference in August!

# **CLASSIFICATIONS LIST**

	Job Profile	Count	Sum of Total Base Pay Annualized - Amount
A/R Specialist		2	123,947.20
Accounting Assistant		1	54,641.60
Administrative Safety and E	nvironmental Compliance Support Specialist	1	59,592.00
Administrative Services Spe	cialist	1	51,043.20
Administrative Specialist		6	302,161.60
Administrator		3	197,241.50
Assistant Attorney General	∕I	2	269,793.00
Assistant Engineer		4	240,044.80
Assistant Environmental Sec	ction Chief	4	403,276.24
Associate Engineer		5	391,543.20
Audit Trainee		1	52,270.40
Boiler Operator		4	276,120.00
Building and Facilities Assis	tant	1	53,019.20
Business Analyst		1	127,067.20
CBT - Accountant		1	44,998.20
CFC Technician		1	65,395.20
Chief Engineer		3	312,769.60
Chief, Administrative Service	es	1	91,374.40
Chief, Communications and	Public Relations	1	123,468.80
Chief, Human Resources		1	128,377.60
Chief, Information Technology	ду	1	155,000.00
Chief, Procurement/Purchas	sing	1	145,704.00
Chief, Safety & Compliance		1	146,348.80
Collection Technician		1	44,948.80
Communications and Develo	opment Officer, CBT	1	62,100.00
Contract Specialist		1	69,118.40
Crew Chief		1	49,940.80
Deputy Director, MES		1	253,718.40
Deputy Division Chief, Solid	Waste	2	254,862.40
Deputy Division Chief, TES		2	265,033.60
Deputy Division Chief, W/W	W	1	143,790.40
Design & Communications S	Specialist	1	71,115.20
Development Assistant		1	47,250.00
Development, Marketing & C	Communications Intern	1	31,200.00
Dir of Finance & Adm Bay T	rust	1	134,400.00
Director of Development		1	110,200.00
Director, Government Affairs	5	1	151,320.00
Director, MES		1	272,126.40
Director, Prog Outreach CB	Т	2	246,000.00
Diversity and Equal Employs	ment Opportunity Officer	1	106,828.80
Division Chief, EDR		2	331,510.40

Division Chief, Engineering	1	160,513.60
Division Chief, Operations	2	333,569.60
Division Chief, Project Management	1	172,307.20
Division Chief, TES	1	161,304.00
Division Chief, Water/Wastewater	1	166,150.40
Division Director	1	187,716.00
Driver	5	274,102.40
Durable Medical Equipment Sanitizing Technician	2	100,131.20
Durable Medical Equipment Technician	1	63,502.40
Electrician Trainee	3	138,652.80
Engineering Section Chief	1	150,945.60
Engineering Technician	2	124,467.20
Env Specialist Trainee	8	355,534.40
Environmental Dredging Technician	4	189,030.40
Environmental Section Chief	4	481,436.80
Environmental Specialist	25	1,251,411.20
Environmental Systems Assistant Regional Supervisor	8	805,875.20
Environmental Systems Regional Supervisor	5	648,574.39
Environmental Systems Supervisor	19	1,550,283.20
Equipment Control Specialist	1	67,111.18
Equipment Operator	14	680,950.40
Equipment Operator Trainee	1	42,307.20
Executive Assistant	1	74,880.00
Executive Director, Bay Trust	1	182,961.00
Facility Safety Coordinator	1	58,864.00
Field Operations Supervisor	16	1,191,985.60
Finance and Administration Assistant, CBT	2	105,000.00
Financial Accountant	1	89,731.20
Financial Accounting Manager	3	366,828.80
Financial Analyst	2	137,896.20
Fiscal Accountant	1	75,940.80
Fleet Manager	2	196,289.60
GIS Specialist	3	172,140.80
Grant Accountant, CBT	1	77,000.00
Grants Administrator	1	121,126.64
Group Administrator	4	444,142.40
HR Generalist	1	71,729.20
HR Specialist	1	67,184.00
Inspector	18	848,057.60
Intern	6	217,360.00
Internal Auditor	1	115,606.40
IT Support Specialist	2	124,945.60
Laborer	35	1,294,180.16

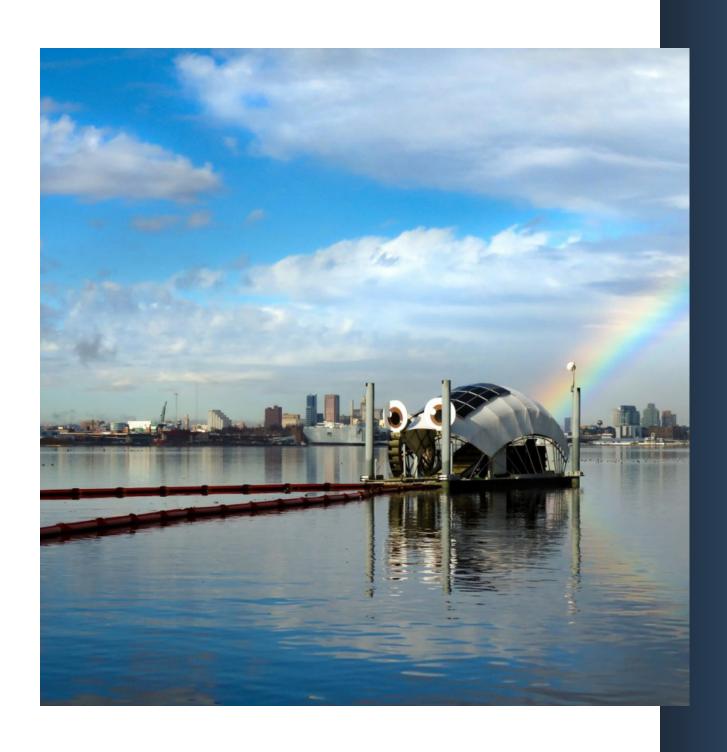
# **CLASSIFICATIONS LIST CONTINUED**

Lead Communications Specialist	1	67,371.20
Lead Electrician	5	350,480.00
Lead Engineering Technician	2	131,497.60
Lead Environmental Specialist	25	2,020,642.00
Lead Equipment Operator	43	2,745,433.60
Lead GIS Specialist	4	320,424.00
Lead Inspector	3	222,768.00
Lead Maintenance Mechanic	4	266,177.60
Lead Maintenance Supervisor	3	274,705.39
Lead Mechanic	10	679,149.12
Lead Operations Manager	4	473,009.60
Lead Operator	8	467,708.80
Lead Sorter	8	335,441.60
Lead Survey Technician	2	153,462.40
Maintenance Aide	1	46,737.60
Maintenance Supervisor	4	318,614.40
Management Specialist	4	251,763.20
Manager, Contract Administration	1	98,654.40
Manager, Environmental Projects	1	100,000.00
Manager, Landfill Operations	1	119,912.00
Manager, MBE & SBR Programs	1	96,865.60
Manager, Mechanical Projects	6	542,172.80
Manager, Network & Data Services	1	124,841.60
Manager, Operations Training	1	70,470.40
Managing Director, Water/ Wastewater	1	189,883.20
Managing Director, Administration	1	180,000.00
Managing Director, Environmental Dredging & Restoration	1	205,712.00
Managing Director, Environmental Operations	1	203,840.00
Managing Director, Finance	1	207,022.40
Managing Director, Technical & Environmental Services	1	199,908.80
Marketing Analyst	1	75,004.80
Marketing and Communications Manager, CBT	1	15,600.00
Marketing Officer, CBT	1	63,000.00
Mechanic	6	314,641.60
Mechanic Trainee	2	89,606.40
Network Administrator	1	77,188.80
Occupational Safety & Health Compliance Officer	1	50,606.40
Operations Manager	3	230,235.20
Operations Manager, CBT	1	80,000.00
Operator	5	244,691.20
Operator-In-Training	16	588,827.20
Operator-In-Training I	22	929,676.80

Operator-In-Training II	10	457,828.80
Payroll Specialist	1	77,812.80
Procurement Administrator	2	148,195.92
Product Marketing Dispatcher	1	65,790.40
Production Manager, Recycling	2	172,036.80
Program Assistant, CBT	3	133,000.00
Program Coordinator	4	198,000.00
Program Manager, CBT	3	290,043.00
Program Officer, CBT	3	171,500.00
Project Engineer	2	191,852.96
Project Manager	5	527,998.40
Project Manager I - Steam Operations	1	113,360.00
Purchasing Support Specialist	1	57,012.80
Recycling Coordinator	1	100,880.00
Restoration Program Coordinator, CBT	1	55,000.00
Restoration Program Officer, CBT	1	57,000.00
Safety and Environmental Compliance Associate I	2	126,000.00
Safety and Environmental Compliance Associate II	1	75,982.40
Sampler	2	85,280.00
Section Chief, EMS & Remediation	1	133,140.80
Section Chief, Environmental Operations	1	117,748.80
Section Chief, Environmental Services	1	124,009.60
Section Chief, GIS	2	202,681.44
Section Chief, Operations	1	154,273.60
Section Chief, Surveying	1	127,150.40
Senior A/R Specialist	1	80,620.80
Senior Administrative Specialist	8	490,131.20
Senior Assistant Attorney General	1	145,418.00
Senior Buyer	1	70,241.60
Senior Driver	4	223,288.00
Senior Electrical/Electronic Control Technician	1	59,105.28
Senior Electrician	1	58,968.00
Senior Engineer	12	1,504,933.80
Senior Engineering Technician	2	133,411.20
Senior Environmental Dredging Technician	5	292,685.12
Senior Environmental Dredging Technician/Safety Office	er 2	140,233.60
Senior Environmental Specialist	12	729,289.60
Senior Environmental Specialist II	3	208,020.80
Senior Equipment Operator	14	745,680.00
Senior Fiscal Associate	3	175,926.40
Senior GIS Specialist	1	62,254.40
Senior Inspector	4	246,584.00
Senior Lab Scientist	1	96,844.80

# **CLASSIFICATIONS LIST CONTINUED**

Senior Lead Engineering Tec	nnician	2	163,384.00
Senior Lead Environmental S	pecialist	16	1,463,152.53
Senior Lead GIS Specialist		2	66,064.30
Senior Lead Inspector		3	259,714.76
Senior Lead Maintenance Sup	pervisor	1	114,441.60
Senior Lead Mechanic		3	262,620.80
Senior Lead Operations Mana	ager	6	713,232.00
Senior Lead Operator		20	1,355,057.60
Senior Lead Sampler		1	69,305.60
Senior Lead Survey Technicia	an	1	82,180.80
Senior Lead, Recycling Progr	am	1	82,326.40
Senior Maintenance Supervis	or	6	515,057.92
Senior Management Specialis	t	7	562,702.40
Senior Manager, Software Ap	plications	2	268,174.40
Senior Mechanic		18	1,099,467.20
Senior Operations Manager		9	829,316.80
Senior Operator		16	885,539.20
Senior Paralegal		1	96,595.20
Senior Program Officer, CBT		2	122,500.00
Senior Project Manager		3	340,087.18
Senior Survey Technician		1	55,286.40
Senior Technical Advisor		1	163,259.20
Senior Water/Wastewater Sp	ecialist	1	127,878.40
Service Technician Trainee		1	44,512.00
Shift Engineer		17	1,395,502.16
Shift Engineer - Steam Produ	ction Plant	1	91,520.00
Software Application Specialis	st	1	61,568.00
Superintendent		1	122,824.00
Survey Technician		1	49,795.20
Survey Technician Trainee		1	40,996.80
Systems Administrator		1	92,476.80
Urban Trees Senior Program	Officer	1	75,000.00
Utility Operator		3	164,507.20
Utility Operator- MD 2-5 Grad	e Stationary Engineers – Steam Plant	2	116,500.80
Weighmaster		8	399,276.80
Wood Fuel Laborer-ECI		1	42,016.00
Total		790	57,188,758.19





259 Najoles Road Millersville, MD 21108

(A Component Unit of the State of Maryland)

Financial Statements and Reports Required for Audits Performed in Accordance with Government Auditing Standards

Fiscal Years Ended June 30, 2023 and 2022

(With Independent Auditor's Report Thereon)

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**RSM US LLP** 

### **Independent Auditor's Report**

Board of Directors Maryland Environmental Service

# **Report on the Audit of the Financial Statements**

### **Opinions**

We have audited the financial statements of each major fund and the fiduciary activities of the Maryland Environmental Service (the Service), a component unit of the State of Maryland, as of and for the years ended June 30, 2023 and 2022, and the related notes to the financial statements, which collectively comprise the Service's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of each major fund and the fiduciary activities of the Service, as of June 30, 2023 and 2022, and the respective changes in financial position, and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

# **Basis for Opinions**

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Service and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

# Emphasis of Matter

As discussed in Notes 1 and 15 to the basic financial statements, the Service adopted the provisions of Governmental Accounting Standards Board Statement No. 96, *Subscription-Based Information Technology Arrangements*, which resulted in the restatement of certain beginning balances as of July 1, 2021. Our opinions are not modified with respect to this matter.

### Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Service's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

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# Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and Government Auditing Standards, we

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to
  fraud or error, and design and perform audit procedures responsive to those risks. Such procedures
  include examining, on a test basis, evidence regarding the amounts and disclosures in the financial
  statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Service's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that
  raise substantial doubt about the Service's ability to continue as a going concern for a reasonable
  period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

# Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in net OPEB liability and related ratios, schedule of employer contributions OPEB, schedule of proportionate share of net pension liability, and schedule of required employer pension plan contributions be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

# Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 22, 2023 on our consideration of the Service's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Service's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Service's internal control over financial reporting and compliance.

RSM US LLP

Gaithersburg, Maryland December 22, 2023

(In thousands except where noted)

As the management of the Maryland Environmental Service (MES or the Service) we offer the following narrative overview and analysis of the financial activities of the Service for the fiscal years ended June 30, 2023 and 2022. This unaudited management discussion and analysis should be read in conjunction with the audited financial statements and the notes thereto, which follow this section.

The Service is an independent agency of the State of Maryland that provides environmental services to both the public and private sectors on a fee for service basis. Substantially all of the Service's revenue is derived from the delivery of technical and operational environmental services. The Service is organized into three basic groups: Administration, Environmental Operations (recycling and solid waste services), and Environmental Services. The Environmental Services group includes water and wastewater, dredging and environmental monitoring services. The Service also accounts for operations of the Midshore Regional Landfills (Midshore).

# **Financial Highlights**

The Service continues with another year of solid financial performance due to continuing and adding additional projects across the State of Maryland.

# **Environmental Dredging and Restoration**

Cox Creek DMCF Expansion. The Service continues to provide environmental, engineering, survey and construction support services for the Cox Creek Dredged Material Containment Facility (DMCF) Expansion and Dike Raising to elevation +60 feet mean lower low water (MLLW) throughout FY23 on behalf of our client, Maryland Port Administration (MPA). During the early part of FY23, the Service's Contractor completed dike raising and stabilization to elevation +60 feet MLLW of the original waterside DMCF. 5,300 Linear Feet (LF) of a slurry wall was installed along the footprint of the Upland dikes from November through March 2023 and the Contractor placed approximately 325,000 Compacted Cubic Yards (CCY) of material to raise the Upland Dikes to an Elevation of +60, for a total of approximately 1.5 Million CY of material placed for the entire project. During the last part of FY23, the Contractor began performing final construction items like milling and paving the end of Kembo Road and converting sediment basins into permanent Storm Water Management (SWM) ponds.

Masonville DMCF Expansion. In June 2023, the Service on behalf of MPA completed construction of the Masonville DMCF Base Dike Widening project which started in January 2022. The project consisted of placing over 300,000 cubic yards of fill material, 177,000 placed within FY23, along the interior of the dike, decommissioning and demolition of the two existing spillway weir structures, and placement of 125,000 square yards of high strength geotextile material. The Base Dike Widening was necessary to lay the foundation for the next phase of dike raising.

In FY 23, the Service completed the design and received the necessary Dam Safety and Erosion and Sediment Control Permits for the Masonville DMCF Dike Raising to Elevation +30 feet MLLW. This design included improvements to the adjacent Masonville Marine Terminal (MMT) Upper Lot to prevent seepage from two sand filters and associated swales from impacting the future DMCF dikes, and the relocation of a storm drain. The project was advertised in June of 2023 with construction expected to start in FY24.

Mid-Bay Island (Barren and James Islands). The Service continues to provide project management, planning, engineering and design, geotechnical, construction management, outreach, and adaptive management and environmental support services to the MPA and the U.S. Army Corps of Engineers (USACE) for the Mid-Bay Island Ecosystem Restoration Project (Mid-Bay). Mid-Bay will accommodate an estimated 90-95 million cubic yards of dredged material, providing a minimum of 30 years of dredged material capacity. Barren Island restoration, construction started in March 2023, and will provide a minimum 72 acres of remote island habitat. James Island restoration will restore approximately 2,072 acres of remote island habitat, with construction planned to begin in 2025/2026.

(In thousands except where noted)

Design, environmental and geotechnical field work continued for both James and Barren Islands in FY 23. The Service supported the Mid-Bay Project Development Team by coordinating the issuance of the Barren Island Tidal Wetlands License during the first quarter of FY23 which enabled Phase I Barren Island construction and associated permit required monitoring to commence. The Service continued to support the team in the design of James Island including coordination with agency stakeholders. Efforts to ensure continued community and stakeholder engagement included Mid-Bay Workgroup meetings, seasonal newsletters, the annual public meeting, and numerous one-on-one meetings, as needed, to keep the agencies and the public involved and up to date with the project.

<u>Poplar Island</u>. The Service continues to manage the Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island (Poplar Island) on behalf of the project partners, the USACE and the MPA by managing daily operations of the site including construction, environmental monitoring, and surveying. Poplar Island has received 40.2 million cubic yards of dredged material through FY 23.

In FY 23, the Service continued efforts to prepare for future development by reclaiming approximate 160,000 cubic yards of construction sand material to increase capacity during dredged material inflow and began the early stages of upland dike raising.

In FY 23, habitat efforts on Poplar Island focused on incorporating over 20 years of monitoring results into future wetland design. Towards this effort, throughout the year, the Service facilitated meetings and discussions related to the design of Cell 5CD, the next wetland to be developed. These focused meetings were initiated to address construction limitations, design lessons learned, desired habitat features and future upland to wetland connection.

# **Environmental Operations**

In FY23, the Service composted 34 million pounds of food waste; returned 74K tons of recyclables to the market; recycled 441K gallons of used oil, and 23K gallons of used antifreeze; processed 116K tons of organics into compost and mulch products; and generated carbon offsets equaling 15K metric tons of carbon emissions while generating 11,181 megawatts of electricity from biomass.

In FY23 the Service sold 155K cubic yards of organic compost along with 82K tons of residential recyclables. The sale of compost and recyclables generated \$10.9 million in revenue. The revenue generated was used to offset operational costs for each facility. Facilities include Montgomery County Materials Recovery Facility, Montgomery County Yard Trim and Compost Facility, Prince George's County Materials Recovery Facility, Prince George's County Organics Compost Facility, and the Midshore Residential Recycling Program.

Following last year's completion of the underground natural gas pipeline, the Service began constructing boiler conversion improvements at the Eastern Correctional Institution co-generation plant in Princess Anne, Maryland. This project is scheduled to finish by mid-FY24. MES also assumed full maintenance responsibility this year for the steam plant at the Central Maryland Correctional Facility in Sykesville, MD.

The Service began our thirteenth year of operations at the Midshore II Regional Solid Waste Facility in Ridgely, MD. This program provides comprehensive solid waste and recycling services to Talbot, Caroline, Queen Anne and Kent Counties. MES also initiated permitting efforts for a future Midshore III facility in Queen Anne's County, thus commencing the third stage of an eighty-year regional agreement.

The Service purchased four GORE™ covers for the Prince George's County Organics Composting Facility. This \$400,000 purchase replaces covers that were past their useful life. The Service also added six new full-time positions at the Prince George's County Materials Recovery Facility to improve the quality control for commodities.

(In thousands except where noted)

In FY 23 with less than three years of operations, The Services operations of the Maryland Department of Aging's Durable Medical Equipment Facility has recycled more than 26,465 individual items, including 2,847 wheelchairs, 1,330 hospital beds, 655 power wheelchairs, and 394 patient lifts.

The Service purchased over \$1.6 million in heavy equipment on behalf of Montgomery County. One wheel loader and one shredder were purchased to replace aging equipment at the County's yard trim composting facility and augment the Service's processing of natural wood waste at the County's transfer station, respectively.

# **Technical and Environmental Services**

A new Memorandum of Understanding (MOU) for \$5 million dollars was signed with Maryland Military Department (MMD) in FY 23 for a variety of environmental management services; over \$1 million dollars in tasks were assigned under this agreement during the fiscal year. Additionally, the Service continued to provide another year of support to the Prince George's County Clean Water Partnership with a FY budget of \$800 thousand dollars. The services support to the Maryland Energy Administration significantly ramped up even more in FY23 with the approval of multiple new tasks totally over \$7 million dollars.

A new MOU was signed with State Highway Administration (SHA) for \$60 million dollars for drainage emergency projects in Metropolitan Districts 3, 4, 5 and 7. MES is providing SHA with assistance in environmental services including drainage system inspections and assessments for remediation, operation and maintenance of storm water facilities, control of vegetation and enhancing the use of GIS technologies for data collection and documentation to maintain the highways in an environmentally sound manner.

# Water and Wastewater

On March 27, 2022, the Secretary of the Maryland Department of the Environment issued a Directive to the Service to assist the City of Baltimore's Back River Wastewater Treatment Plant in bringing the facility back into compliance with its permit. As a result of the Service's efforts, the plant returned to compliance during the month of July 2022 and has remained in compliance. On December 31, 2022, operations and maintenance personnel assigned to the plant left the plant. The Service's project management personnel remained engaged with the plant to complete two projects initiated by the Service. Those projects were completed at the end of September 2023.

The Service continued the design work for the expansion of the Maryland Department of the Military's Camp Fretterd Water Main Replacement.

The Service started the construction of the Maryland Department of the Military's new Water Booster Pump Station at Camp Fretterd. Construction of the Wastewater Treatment Plant upgrade is expected to start in the calendar year 2023.

The Service anticipates starting the design services for the Maryland Department of Natural Resources' sewer collection system rehabilitation and water distribution system improvements at Greenbrier State Park in November 2023; water distribution system improvements at Fort Frederick in November 2023.

The Service continued the design work for the Maryland Department of Natural Resources' new Wastewater Treatment Plant and Water Treatment Plant at Swallow Falls State Park; its new Water Treatment Plant, water tower and sewer pump station improvements at Sandy Point State Park; its new Water Treatment Plant, Wastewater Treatment Plant, sewer collection system and water distribution system improvements at the New Germany State Park; its new Wastewater Treatment Plant at Point Lookout State Park; elevated water storage tank rehabilitation at Tuckahoe State Park; sewer collection system rehabilitation at Cunnigham Falls Rt. 77; water distribution system improvements at Elk Neck State Park.

(In thousands except where noted)

The Service started the construction of the Maryland Department of Natural Resources' new Wastewater Treatment Plant Upgrade at Elk Neck State Park; its sewer collection system rehabilitation and water distribution system improvements at Point Lookout State Park; elevated water storage tank rehabilitation at Martinak State Park; its sewer collection system rehabilitation at Rocky Gap State Park.

The Service continued the design work for the Maryland Department of Veterans Affairs' new Water Treatment Plant at Charlotte Hall Veterans Home.

The Service continued the design work for the Maryland Department of Juvenile Services' new Wastewater Treatment Plant and Water Treatment Plant improvements at Cheltenham Youth Facility.

The Service has completed the construction of the Maryland Department of Juvenile Services' Victor Cullen Juvenile Center Wastewater Treatment Plant Upgrade. The project is substantially complete.

The Service has completed the construction of the Maryland Department of General Services' Woodstock Job Corps Center Wastewater Treatment Plant Upgrade. The project is substantially complete.

The Service continued the design work for the University of Maryland' sewer collection system upgrade at Horn Point Laboratory.

The Service started the construction of the Maryland Department of Public Safety and Correctional Services' advanced Wastewater Treatment Plant Class A and Dewatering Biosolids improvements at Dorsey Run, its Wastewater Treatment Plant Sludge Facility upgrade at Eastern Correctional Institution.

During the year, the Water and Wastewater Group added 17 new facilities to its Operations Division.

# **Overview of Financial Statements**

The basic financial statement for the Service and Midshore is prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) as promulgated by the Governmental Accounting Standards Board (GASB). The Service's financial statements are reported as a special purpose business-type entity. This report includes three basic financial statements: the statement of net position; the statement of revenue, expenses and changes in net position; and the statement of cash flows for each major enterprise fund.

The condensed statements of net position present the financial position of the service as of June 30, 2023, 2022, and 2021. They provide information about the nature and the amount of resources (assets), plus deferred outflows (as applicable), obligations (liabilities), plus deferred inflows (as applicable) and net position.

The statements of revenue, expenses and changes in net position present the changes in net position over the course of the years ended June 30, 2023, 2022, and 2021. The change in net position may be useful in assessing whether the financial position improved or deteriorated for the year.

The statements of cash flows present the cash activities segregated by four major cash flow categories: operating activities, noncapital financing activities, capital and related financing activities, and investing activities. These statements may be useful in determining the changes in liquidity and in understanding how cash and cash equivalents were used during the years ended June 30, 2023, 2022, and 2021.

(In thousands except where noted)

#### **Fiduciary Fund**

Fiduciary funds are used to account for resources held for the benefit of parties outside the Service. These activities are excluded from the business-type activities because the resources of these funds are restricted and cannot be used to finance the Service's operations. The Service's fiduciary funds include the OPEB Trust Fund.

The fiduciary activities are reported in the Other Postemployment Benefit Plan Statements of Plan Net Position and the Statements of Changes in Plan Net Position.

- The Statements of Plan Net Position present a point-in-time snapshot of the amounts the other postemployment benefit (OPEB) plan has accumulated in net position to pay for future benefits and any liabilities that are owed as of the date of the statements.
- The Statements of Changes in Plan Net Position present the additions and deductions for the fiscal years. Major sources of additions are contributions and net investment income. Major sources of deductions include benefit payments. These statements present how the net position changed from the prior fiscal year.

The fiduciary fund financial statements can be found on pages 27-28 of this report.

#### **Notes to the Basic Financial Statements**

The notes to the basic financial statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements.

The basic financial statements can be found on pages 21-54 of this report.

#### **Required Supplementary Information**

In addition to the basic financial statements and accompanying notes, this report also presents certain Required Supplementary Information concerning the Service's defined benefit pension plan and OPEB plan for its employees.

The required supplementary information can be found on pages 55-57 of this report.

#### **Financial Analysis**

The purpose of the discussion and analysis that follows is to provide an understanding of the financial performance and activities of the Service as of and for the fiscal year ended June 30, 2023, with 2022 and 2021 for comparative purposes. As required supplementary information, the accompanying analysis of financial information should be used in conjunction with the financial statements and related notes thereto included elsewhere to assess the overall financial condition and reported operating results of the Service.

(In thousands except where noted)

The following tables present condensed financial information about the Service and Midshore's net position as of June 30.

Maryland Environmental Service:

#### **Condensed Statement of Net Position**

(Expressed in Thousands)

(Empressed in Thous	,	Restated)	)				
	2023		2022		2021		
Current and other assets	\$ 117,904	\$	93,263	\$	83,874		
Capital assets and right to use leased assets	19,632		19,082		16,249		
Total assets	137,536		112,345		100,123		
Deferred Outflows related to Pensions and OPEB	1,155		2,186		1,190		
Long-term debt	5,142		5,192		1,359		
Other liabilities	101,894		76,741		67,356		
Total liabilities	107,036		81,933		68,715		
Deferred Inflows related to Pensions and OPEB	1,612		3,172		2,114		
Net position:							
Net investment in capital assets	14,490		13,902		14,891		
Restricted	124		124		122		
Unrestricted	15,429		15,400		15,471		
Total net position	\$ 30,043	\$	29,426	\$	30,484		

#### Midshore Regional Landfill:

### Condensed Statement of Net Position (Expressed in Thousands)

2023 2022 2021 \$ Current and other assets 19,502 16,892 \$ 16,190 27,244 Capital assets 29,308 30,510 Total assets 46,746 46,200 46,700 19,363 21,326 Bonds payable 23,208 Other liabilities 13,123 10,099 8,493 Total liabilities 32,486 31,701 31,425 Deferred inflows related to debt refunding 169 192 215 Net position: Net investment in capital assets 7,898 8,603 7,866 Restricted 1,804 1,738 1,630 Unrestricted 5,288 4,389 4,242 Total net position 14,091 14,583 14,784

(In thousands except where noted)

The statements of net position present the financial position of the Service. Net position represents the difference between the amount of resources (assets), plus deferred outflows (as applicable), obligations (liabilities), plus deferred inflows (as applicable) and net position. Over time, increases and decreases in net position provide an indicator of improving or deteriorating financial position.

Total net position for the Service increased \$617 in 2023. Net investment in capital assets increased \$588 from the net of depreciation, acquisition of equipment, and payment of debt. The remaining components, restricted and unrestricted net position of \$15,553, represent funds available for future expenditures.

Total net position for the Service decreased \$1,058 in 2022. Net investment in capital assets decreased \$989 from the net of depreciation, acquisition of equipment, and payment of debt. The remaining components, restricted and unrestricted net position of \$15,524, represent funds available for future expenditures.

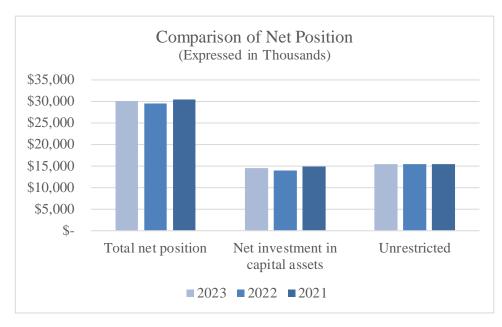
Over time, increases and decreases in net position provide an indicator of improving or deteriorating financial position.

Total net position for Midshore decreased \$492 in 2023, which is related to the excess of expenses over revenues. Net investment in capital assets decreased \$705 from the net of depreciation, acquisition of equipment, and payment of debt. The remaining components, restricted and unrestricted net position of \$6,193 represent funds available for future expenditures.

Total net position for Midshore decreased \$201 in 2022, which is related to the excess of expenses over revenues. Net investment in capital assets increased \$737 from the net of depreciation, acquisition of equipment, and payment of debt. The remaining components, restricted and unrestricted net position of \$5,980 represent funds available for future expenditures.

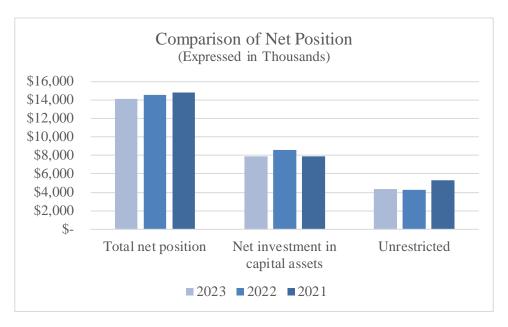
A comparison of years ended June 30, 2023, 2022, and 2021 for the Service and for Midshore are presented graphically below:

#### Maryland Environmental Service:



(In thousands except where noted)

#### Midshore Regional Landfill:



The following table presents condensed financial information about the Service and Midshore revenue, expenses and changes in net position for the years ended June 30, 2023, 2022, and 2021.

Maryland Environmental Service:

## Condensed Changes in Net Position (Expressed in Thousands)

(Restated) 2022 2023 2021 Total operating revenue 198,872 166,474 \$ 186,529 Operating expenses Salaries and benefits 65,675 58,645 56,018 Other 120,150 95,886 113,479 General and administrative 12,849 13,071 16,992 Total operating expenses 198,674 167,602 186,489 Operating income (loss) 198 (1,128)40 419 Non-operating revenue (expense), net 70 (40)Change in net position 617 (1,058)Net position, beginning of year 29,426 30,484 30,484 30,484 Net position, end of year 30,043 29,426

(In thousands except where noted)

Midshore Regional Landfill:

#### **Condensed Changes in Net Position**

(Expressed in Thousands)

		2023	2022		2021
	Ī				
Total operating revenue		\$ 9,781	\$	8,840	\$ 8,653
Operating expenses					
Salaries and benefits		2,039		1,723	1,766
Other		7,684		6,242	4,956
General and administrative		583		515	561
Total operating expenses		10,306		8,480	7,283
Operating (loss) income		(525)		360	1,370
Non-operating revenue (expense), net		33		(561)	(805)
Change in net position		(492)		(201)	565
Net position, beginning of year		14,583		14,784	14,219
Net position, end of year		\$ 14,091	\$	14,583	\$ 14,784

#### **Revenue by Activity**

Maryland Environmental Service:

The following table presents operating revenue by activity for the years ended June 30, 2023, 2022, and 2021:

### Operating Revenue by Activity (Expressed in Thousands)

(Eup) esseu iii 1.ious			
	2023	2022	2021
Environmental dredging & restoration	\$44,636	\$ 40,658	\$ 63,005
Water/wastewater operations	36,647	32,987	27,313
Recycling	36,633	26,772	21,157
Solid waste management	19,525	18,775	30,037
Energy co-generation	23,109	16,763	8,618
Environmental engineering	6,075	5,309	4,239
Environmental monitoring	24,181	18,610	23,017
Hazardous waste treatment	5,533	3,959	4,471
Grants	2,425	2,613	4,055
Other	108	28	617
Total revenue	\$ 198,872	\$ 166,474	\$ 186,529

The total increase in operating revenue for the year ended June 30, 2023 was \$32,398 compared to the year ended June 30, 2022. The change represents an increase of 19.5% in operating revenue. There was an increase in Environmental Dredging & Restoration of \$3,978, an increase in Energy Generation of \$6,346, an increase in Environmental Monitoring of \$5,571, an increase in Recycling of \$9,861, and an increase in Water/Wastewater Operations of \$3,660.

(In thousands except where noted)

The increase in Environmental Dredging and Restoration Group's revenue is largely attributable to The Masonville Base Dike Widening Project that consisted of placing over 300,000 cubic yards of fill material, 177,000 placed within fiscal year June 30, 2023, along the interior of the dike, decommissioning and demolition of the two existing spillway weir structures, and placement of 125,000 square yards of high strength geotextile material. The Base Dike Widening was necessary to lay the foundation for the next phase of dike raising. The project started in January 2022 and was completed in June 2023 with most of the work occurring in fiscal year June 30, 2023.

The increase in Energy Generation is driven by utility costs. Billing for the natural gas pipeline began shortly after its completion in November 2021. Thus, the pipeline capacity costs for fiscal year June 30, 2022 only covered a portion of the fiscal year, whereas these pipeline capacity costs were borne for the entirety of fiscal year June 30, 2023. Another factor was that the unit costs of both primary (wood chips) and secondary fuel (#2 oil) increased. Most notably, the unit cost of wood chips increased by nearly double about halfway through fiscal year June 30, 2022.

The increase in Water/Wastewater was due to MES overseeing the operation, maintenance and improvements of the Baltimore City Back River plant, the largest in the state, to ensure that Baltimore City meets objectives that include protecting public and environmental health. On June 10, 2022, MDE and Baltimore City leadership reached an agreement that charts a course for continued progress at the Back River WWTP.

The total decrease in operating revenue for the year ended June 30, 2022 was \$20,055 compared to the year ended June 30, 2021. The change represents a decrease of 10.8% in operating revenue. There was a decrease in Environmental Dredging & Restoration of \$22,347.

The decrease in Environmental Dredging and Restoration Group's revenue is largely attributable to completion of a handful of very large dredging and construction projects. The largest decrease was due to the Seagirt Berth 3 Dredging Project which began and was substantially completed in fiscal year June 30, 2021 with final completion and close out in early FY 22. The Lake Linganore Dredging Project spanned over multiple FYs and was completed in early fiscal year June 30, 2022, so the revenue was significantly lower than fiscal year June 30, 2021. Additional reductions in revenue were attributed to the completion of the very large Cox Creek Expansion base dike widening construction project that was completed in fiscal year June 30, 2021. The next phase of the project, the +60 dike construction did not begin until late summer of fiscal year June 30, 2022 and started with lower revenues associated with contractor submittals and installation of sediment and erosion measures. Larger revenues associated with the larger earthmoving work did not occur until the third quarter of fiscal year June 30, 2022. Additionally, there was a reduction in fiscal year June 30, 2022 revenues with the completion of the geotechnical borings for the Mid-Bay Design Project in fiscal year June 30, 2021.

The increase in Recycling revenues was due to the initiation of several major capital projects at Brown Station, and Sandy Hill, increase in operations and MES labor to manage the increase of projects.

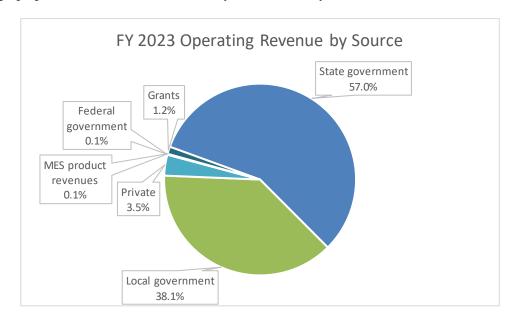
(In thousands except where noted)

The following table presents revenue by source for the years ended June 30, 2023, 2022, and 2021:

## Revenue by Source (Expressed in Thousands)

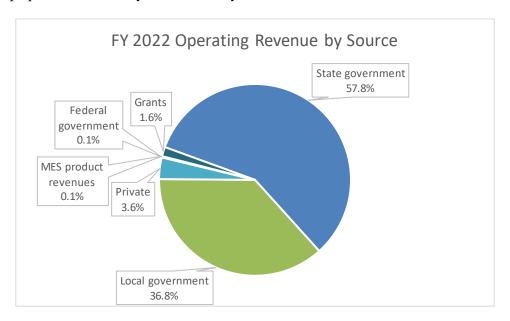
(Expressed in Thouse	iiids)		
	2023	2022	2021
State government	\$113,301	\$ 96,162	\$ 109,933
Local government	75,830	61,282	65,373
Private	6,988	6,061	6,884
Federal government	218	193	185
MES product revenues	110	163	99
Grants	2,425	2,613	4,055
Total Revenue	\$ 198,872	\$ 166,474	\$ 186,529

The following graph presents the Service's revenue by source for the year ended June 30, 2023:

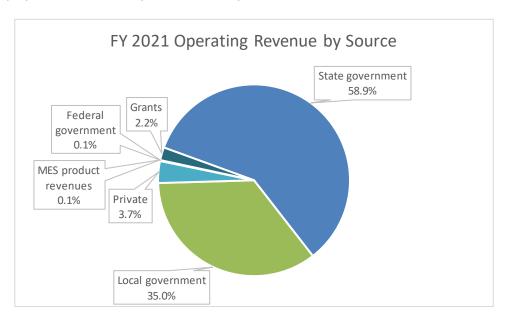


(In thousands except where noted)

The following graph presents revenue by source for the year ended June 30, 2022:



The following graph presents revenue by source for the year ended June 30, 2021:



State government and Local government revenues increased by \$17,139 and \$14,548, respectively in 2023.

The main factor for the increase in state revenues was due to The Masonville Base Dike Widening Project that consisted of placing over 300,000 cubic yards of fill material, 177,000 placed within FY2023, along the interior of the dike, decommissioning and demolition of the two existing spillway weir structures, and placement of 125,000 square yards of high strength geotextile material. The Base Dike Widening was necessary to lay the foundation for the next phase of dike raising. Also, the State Highway Administration has substantially increased the number of both stormwater construction and drainage remediation projects assigned to MES.

(In thousands except where noted)

State government and local government revenues decreased by \$13,771 and \$4,091, respectively in 2022.

The main factor for the decrease in state revenues was due to the completion of several large projects, the Seagirt Berth 3 Dredging Project, the Lake Linganore Dredging Project, and Cox Creek Expansion base dike widening construction project. The main factor that contributed to the local government decrease attributable to the Prince George's MRF capital project's completion of a major equipment upgrade, and renovations that started in 2021 and were completed at the beginning of 2022.

#### **Operating Expenses**

For both the Service and Midshore, operating expenses are predominantly related to those classified as cost of goods and services, general and administrative and depreciation on capital assets.

#### **Operating Income**

Service operating income reported in 2023 was \$198 compared to an operating loss of (\$1,128) in 2022, an increase of \$1,326. The increase was mainly due to the increase in Revenues.

Service operating income reported in 2022 was (\$1,128) compared to \$40 in 2021, a decrease of (\$1,168). The decrease was mainly due to a decrease in Revenues, and land, structures and equipment expenses.

Midshore operating loss reported in 2023 was \$(525) compared to operating income of \$360 in 2022, a decrease of \$885. This decrease was driven primarily by an updated closure-postclosure cost estimate.

Midshore operating income reported in 2022 was \$360 compared to \$1,370 in 2021, a decrease of \$1,010. This decrease was driven primarily by an updated closure-postclosure cost estimate.

#### Non-Operating Revenue (Expenses), Net

Service non-operating revenue (expense), net increased \$349 to \$419 in 2023. Non-operating items primarily include interest income and interest expense. For 2023, investment income increased by \$667.

Service non-operating revenue (expense), net increased \$110 to \$70 in 2022. Non-operating items primarily include interest income and interest expense. For 2022, investment income increased by \$13.

Midshore non-operating revenue (expense), net increased \$594 to \$33 in 2023. Non-operating items primarily include interest income and interest expense. For 2023, interest income increased by \$9, and interest expense decreased by \$212.

Midshore non-operating expenses, net decreased \$244 to \$(561) in 2022. Non-operating items primarily include interest income and interest expense. For 2022, interest income increased by \$538.

#### Grants

Service operating grants in 2023 totaled \$2,425 compared to \$2,613 in 2022, and \$4,055 in 2021. The main reason for the \$1,442 decrease in 2022 compared to 2021 was COVID negatively affecting business participants, their participation in the program, and significantly delayed equipment delivery.

(In thousands except where noted)

#### **Capital Assets and Right to Use Leased Assets**

The following tables present the Service's capital assets and right to use leased assets, net of depreciation as of June 30, 2023, 2022, and 2021, and capital expenditures for the years ended June 30, 2023, 2022, and 2021:

#### **Capital Assets, Net of Depreciation**

(Expressed in Thousands)

	2023		2022		2021
Land and improvements	\$	4,262	\$	4,262	\$ 4,262
Buildings and improvements		4,737		4,903	5,074
Machinery and equipment		5,845		5,682	6,913
Total	\$	14,844	\$	14,847	\$ 16,249

#### Right to Use Leased Assets, Net of Amortization

(Expressed in Thousands)

	2023	(	(Restated) 2022		2021	
Land	\$ 584	\$	616	\$		_
Subscription based software	4,204	'	3,619	<u> </u>		-
Total	\$ 4,788	\$	4,235	\$		-

#### **Capital Expenditures**

(Expressed in Thousands)

	2023		2022		202	
Autos and trucks	\$	1,178	\$	210	\$	834
Land		349		-		-
Computer hardware/software		-		-		103
Total	\$	1,527	\$	210	\$	937

As of June 30, 2023, the carrying value of capital assets and right to use leased assets, net of depreciation and amortization was \$19,632, an increase of \$550 from 2022. The increase is comprised of capital additions of \$1,527 and additional right of use leased assets of \$1,285 that was offset by depreciation and amortization of \$2,158. The capital additions for the year were fleet vehicle replacements, construction/farm equipment, and IT Equipment. Additional right of use leased assets were subscription-based information technology arrangements.

As of June 30, 2022, the carrying value of capital assets and right to use leased assets, net of depreciation and amortization was \$19,082, an increase of \$2,833 from 2021. The increase is comprised of capital additions of \$210 and additional right of use leased assets of \$4,965 that was offset by depreciation and amortization of \$2,072. The capital additions for the year were fleet vehicle replacements, construction/farm equipment, and right to use leased office space.

(In thousands except where noted)

The following tables present Midshore's capital assets, net of depreciation as of June 30, 2023, 2022, and 2021, and capital expenditures for the years ended June 30, 2023, 2022, and 2021:

#### **Capital Assets, Net of Depreciation**

(Expressed in Thousands)

(Expressed in Thousands)									
	2023	2022	2021						
Land and improvements	\$1,690	\$ 1,690	\$ 1,690						
Buildings and improvements	23,956	25,777	27,568						
Construction in progress	85	66	57						
Machinery and equipment	1,513	1,775	1,195						
Total	\$ 27,244	\$ 29,308	\$ 30,510						

#### **Capital Expenditures**

(Expressed in Thousands)

	2023		2022		2021
					_
Construction in progress	\$	19	\$	9	\$ 92
Tools/machinery/equipment		181		969	-
Leasehold improvements				-	1,059
Total	\$	200	\$	978	\$ 1,151

As of June 30, 2023, the carrying value of capital assets, net of depreciation was \$27,244, a decrease of \$2,064 from 2022. The decrease is comprised of capital additions of \$200 and depreciation of \$2,264.

As of June 30, 2022, the carrying value of capital assets, net of depreciation was \$29,308, a decrease of \$1,202 from 2021. The decrease is comprised of capital additions of \$978, and depreciation of \$2,180.

Additional information on the Service's capital assets can be found in Note 3 to the financial statements.

(In thousands except where noted)

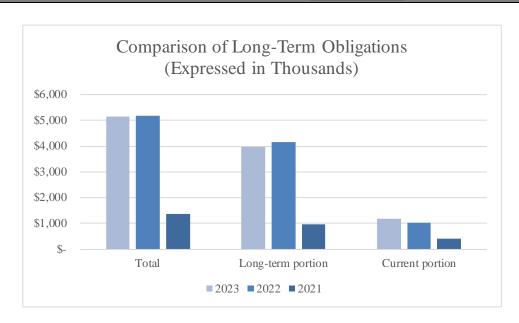
#### **Long-Term Obligations**

The following table and graph present outstanding long-term obligations as of June 30, 2023, 2022, and 2021:

Maryland Environmental Service:

**Long-Term Obligations** (Expressed in Thousands)

(24)	2023	(	(Restated) 2022	2021
Lease liabilities	\$ 4,611	\$	4,235	\$ -
Bonds and note payable	531		957	1,359
Total	\$ 5,142	\$	5,192	\$ 1,359



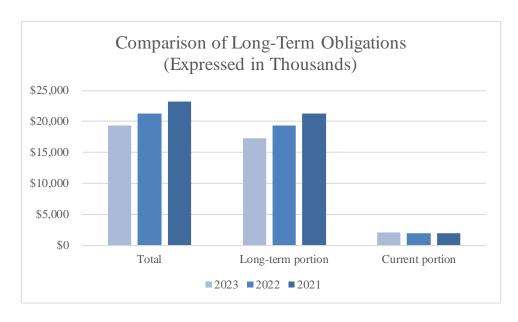
(In thousands except where noted)

Midshore Regional Landfill:

#### **Bonds Outstanding**

(Expressed in Thousands)

(Expressed in Thouse	iius)				
		<b>2023</b> 2022		2021	
					<u> </u>
Bonds payable	\$	19,363	\$	21,326	\$ 23,208
Total	\$	19,363	\$	21,326	\$ 23,208



As of June 30, 2023, the Service's long-term obligations decreased \$50 to \$5,142 as a result of \$1,285 new lease liabilities offset by \$1,335 of principal payments.

As of June 30, 2022, the Service's long-term obligations increased \$3,833 to \$5,192 as a result of \$4,695 new lease liabilities offset by \$862 of principal payments.

As of June 30, 2023, Midshore long-term obligations was \$19,363 representing a decrease in outstanding principal of \$1,963.

As of June 30, 2022, Midshore long-term obligations was \$21,326 representing a decrease in outstanding principal of \$1,882.

Additional information on the Service's debt activity can be found in Note 7 to the financial statements.

**Requests for information:** To obtain further information regarding current and future programs, prior year financials and contact information for the Service's employees, please refer to our website at: www.menv.com.

## MARYLAND ENVIRONMENTAL SERVICE FINANCIAL STATEMENTS

#### Maryland Environmental Service Statements of Net Position As of June 30, 2023 and 2022 (Expressed in Thousands)

		(As Restated)
	2022	2022
	2023	2022
Assets		
Current assets:		
Cash and cash equivalents	\$ 12,641	\$ 23,585
Investments	59,688	19,062
Accounts receivable (net of allowance of \$50)	34,698	38,402
Unbilled project costs accrued	3,674	3,186
Other	220	750
Total current assets	110,921	84,985
Non-current assets:		
Restricted cash	110	110
Due from project participants	6,873	8,168
Right to use leased assets, net of amortization	4,788	4,235
Capital assets, net of accumulated depreciation:		
Land	4,262	4,262
Buildings and improvements	4,737	4,903
Machinery and equipment	5,845	5,682
Total capital assets	14,844	14,847
Total non-current assets	26,615	27,360
Total assets	137,536	112,345
Deferred outflows:		,
Deferred outflows related to OPEB	705	1,672
Deferred outflows related to pensions	450	514
Total deferred outflows	1,155	2,186
		_,
Liabilities		
Current liabilities:		
Accounts payable and accrued expenses	27,709	29,361
Accrued annual leave	3,337	3,240
Due to Midshore and other projects	15,915	13,021
Advances from project participants	45,782	21,435
Lease liabilities, current portion	713	601
Note payable, current portion	453	426
	429	
Accrued workers' compensation costs		475
Total current liabilities	94,338	68,559
Non-current liabilities:		
Advances from project participants	1,106	1,151
Lease liabilities, less current portion	3,898	3,634
Note payable, less current portion	78	531
Accrued workers' compensation costs	2,428	2,693
Accrued annual leave	1,859	1,580
Net OPEB liability	1,253	2,234
Net pension liability	2,076	1,551
Total other liabilities	12,698	13,374
Total liabilities	107,036	81,933
Deferred inflows		
Deferred inflows related to OPEB	1,088	1,792
Deferred inflows related to pensions	524	1380
Total deferred inflows	1,612	3,172
1000 001000 0010	1,012	3,172
Net Position		
Net investment in capital assets	14 400	13,902
	14,490 124	
Restricted net position		124
Unrestricted net position  Total net position	\$ 30,043	\$ 29,426

## Maryland Environmental Service Statements of Revenue, Expenses and Change in Net Position For the years ended June 30, 2023 and 2022 (Expressed in Thousands)

		(As l	Restated)
	2023	•	2022
Operating revenue:			
Charges for services	\$ 196,447	\$	163,861
Operating grants	2,425		2,613
Total operating revenue	198,872		166,474
Operating expenses:			
Salaries and benefits	65,675		58,645
Contractual services	51,919		38,695
Technical fees	12,598		9,320
Utilities	15,370		11,689
Repairs and maintenance	5,728		4,698
Materials and supplies	12,009		8,788
Land, structures and equipment	19,776		19,785
Depreciation and amortization	2,158		2,072
General and administrative	12,849		13,071
Other	592		839
Total operating expenses	198,674		167,602
Operating income (loss)	198		(1,128)
Non-operating revenue (expenses):			
Investment income	671		4
Interest expense	(250)		(70)
Miscellaneous (expense) income	(2)		136
Non-operating revenue, net	419		70
Change in net position	617		(1,058)
Net position, beginning of year, restated	29,426		30,484
Net position, end of year	\$ 30,043	\$	29,426

#### Maryland Environmental Service Statements of Cash Flows For the years ended June 30, 2023 and 2022 (Expressed in Thousands)

(Expressea in Inousanas)				
		-0	(A	s Restated
		2023		2022
Cash Flows From Operating Activities		225		4=-05=
Receipts from customers	\$	227,685	\$	176,007
Payments to suppliers		(129,071)		(108,030
Payments to employees		(66,595)		(58,645
Net cash provided by operating activities		32,019		9,332
Cash Flows From Capital and Related Financing Activities				
Purchases of capital assets		(1,527)		(210
Principal maturities		(1,335)		(864
Interest paid		(250)		(70
Other receipts		27		135
Net cash used in capital and related financing activities		(3,085)		(1,009
Cash Flows From Investing Activities				
Purchases of investments		(186,000)		(46,000
Sales and maturities of investments		145,374		31,000
Interest and dividends		671		22
Net cash used in investing activities		(39,955)		(14,978
		. , ,		,
Net changes in cash and cash equivalents		(11,021)		(6,655
Cash and cash equivalents - beginning of the year		23,585		30,240
Cash and cash equivalents - end of the year	\$	12,564	\$	23,585
Cush and cush equivalents—end of the year	Ψ	12,304	Ψ	23,303
Reconciliation of operating income (loss) to net cash provided by				
operating activities:				
Operating income (loss)	\$	198	\$	(1,128
Adjustments to reconcile operating income (loss) to net cash provided by operating activities	es:			
Depreciation and amortization expense		2,158		1,612
Loss on disposal of capital assets		77		-
Change in non-cash operations:				
Receivables, net		3,216		(4,706
Other assets		528		4,107
Accounts and other payables		(1,276)		(275
Due from and advances from project participants		25,597		10,338
Net pension liability		(267)		(1,032
Net OPEB liability		(718)		604
Net change due to/from Midshore		2,894		704
Accrued workers compensation		(311)		(892
Net cash provided by operating activities	\$	32,096	\$	9,332
Noncash Capital and Financing Activities  Lease obligations incurred for new right to use leased assets	¢	1 205	¢	1 605
Lease obligations incurred for new right to use leased assets	\$	1,285	\$	4,695

#### Midshore Regional Landfill Statements of Net Position As of June 30, 2023 and 2022 (Expressed in Thousands) 2023 2022 Assets Current assets: \$ 15.915 \$ 13,021 Due from MES Accounts receivable 707 502 Total current assets 13,523 16,622 Non-current assets: Restricted investments 2,880 3,369 Capital assets not depreciated 1,775 1,756 25,469 27,552 Capital assets being depreciated, net 27,244 29,308 Total capital assets 30,124 Total other assets 32,677 Total assets 46,746 46,200 Liabilities Current liabilities: 2.520 2,274 Accounts payable and accrued expenses Advances from project participants 483 483 Bonds outstanding 2,003 2,056 Total current liabilities 5,059 4,760 Non-current liabilities: Bonds outstanding 17,307 19,323 7,342 Accrued landfill closure and postclosure care costs 10,120 Total non-current liabilities 27,427 26,665 Total liabilities 32,486 31,425 Deferred inflows: 169 Deferred inflows related to debt refunding 192 Total deferred inflows 169 192 **Net Position** Net investments in capital assets 7,898 8,603 1,804 1,738 Restricted net position Unrestricted net position 4,389 4,242

The accompanying notes are an integral part of these financial statements.

**Total net position** 

\$

14,091

\$

14,583

## Midshore Regional Landfill Statements of Revenue, Expenses and Change in Net Position For the years ended June 30, 2023 and 2022 (Expressed in Thousands)

		2022	
Operating revenue:			
Charges for services	\$	9,781 \$	8,840
Operating expenses:			
Salaries and benefits		2,039	1,723
Contractual services		415	458
Technical fees		78	780
Utilities		54	52
Operations and maintenance		722	675
Materials and supplies		151	149
Land, structures and equipment		311	302
Depreciation		2,264	2,180
Closure/post closure		3,611	1,579
General and administrative		583	515
Other, net		78	67
Total operating expenses		10,306	8,480
Operating (loss) income		(525)	360
Non-operating revenue (expenses):			
Interest income		553	15
Interest expense		(521)	(582)
Miscellaneous income		1	6
Non-operating revenue (expenses), net		33	(561)
Change in net position		(492)	(201)
Net position, beginning of year		14,583	14,784
Net position, end of year	\$	14,091 \$	14,583

#### Midshore Regional Landfill Statements of Cash Flows For the years ended June 30, 2023 and 2022 (Expressed in Thousands) 2023 2022 Cash Flows From Operating Activities \$ 9,577 \$ 8,875 Receipts from customers (5,873)(3,677)Payments to suppliers Payments to employees (2,039)(1,723)Net cash provided from operating activities 3,475 1,665 Cash Flows From Capital and Related Financing Activities Purchases of capital assets (200)(978)Proceeds from sale of capital assets (1,797)Principal maturities (1,733)Interest paid (755)(710)Net cash used in capital and related financing activities (2,707)(3,460)**Cash Flows From Investing Activities** Purchases of investments (30)Proceeds from sale of investments 489 Interest and dividends 553 15 Net cash provided by (used in) from investing activities 1,042 (15)Net changes in cash and cash equivalents Cash and cash equivalents - beginning of the year Cash and cash equivalents - end of the year \$ \$ Reconciliation of operating (loss) income to net cash provided by operating activities: \$ Operating (loss) income (525) \$ 360 Adjustments to reconcile operating (loss) income to net cash provided by operating activities: 2,264 2,180 Depreciation expense Change in non-cash operations: Accounts receivables (204)34 Accounts and other payables 246 726 Due from MES (2,894)(704)Accrued landfill closure 879 2,778 Net cash from operating activities 1,665 3,475

# Maryland Environmental Service Other Postemployment Benefit Plan Statement of Fiduciary Net Position As of June 30, 2023 and 2022 (Expressed in Thousands)

	2023	2022
Assets		
Cash and short-term investments	\$ 760	\$ 371
Investments:		
Equities	3,871	3,222
Other	2,057	1,734
Total investments	5,928	4,956
Total assets	6,688	5,327
Net position held in trust for other postemployment benefits	\$ 6,688	\$ 5,327

# Maryland Environmental Service Other Postemployment Benefit Plan Statement of Changes in Fiduciary Net Position For the years ended June 30, 2023 and 2022 (Expressed in Thousands)

	2023		2022
Additions			
Employer contributions	\$ 1,13	36 \$	479
Investment Income:			
Net appreciation (depreciation) in fair value of investments	30	)4	(793)
Interests and dividends	18	33	166
Total investment income	4:	37	(627)
Less investment expense		21	16
Net investment income (loss)	4	66	(643)
Total additions	1,60	)2	(164)
Deductions			
Benefits paid	24	<b>41</b>	180
Net change	1,30	51	(344)
Net position held in trust for other postemployment benefits			
Net position, beginning of year	5,32	27	5,671
Net position, end of year	\$ 6,68	38 \$	5,327

#### (1) Organization and Summary of Significant Accounting Policies

#### (a) Reporting Entity

The General Assembly created Maryland Environmental Service (MES or the Service) in 1970 as an agency of the Maryland State Department of Natural Resources. Major activities of the Service include the provision of water supply and wastewater treatment, sewage sludge management, recycling assistance, solid waste management, and resource recovery from waste and dredging services. Services are provided to State of Maryland owned facilities, local communities, political subdivisions, Federal facilities and the private sector.

Pursuant to Chapter 196 of the 1993 Acts of the Maryland General Assembly, effective July 1, 1993, the Service was established as an instrumentality of the State and a public corporation independent of the Department of Natural Resources. Chapter 196 also expanded the Service's Board of Directors from seven to nine members; provided for the appointment of the Deputy Director, Secretary and Treasurer by the Director, with the approval of the Governor; provided for the appointment of the remaining Board members by the Governor, with the advice and consent of the Senate; exempted the Service from most provisions of the State Procurement Law; established the retirement and health benefits available for certain employees of the Service; authorized the Service to create a new personnel system; exempted the Service from most provisions of the State Merit System Law effective January 1, 1995; authorized the Service to create private corporations; authorized the Service to exercise the corporate powers granted Maryland corporations under the Maryland General Corporation Law; and made other changes to the law governing the Service. For financial reporting purposes, the Service is considered a discrete component unit of the State of Maryland.

The Service operates public and private water and wastewater treatment plants throughout the State of Maryland. Licensed and certified personnel operate and maintain the facilities. Projects range in size from basic pumping stations to advanced wastewater treatment facilities. Capabilities include laboratory testing, operations oversight, and management, operations, maintenance and plant supervision.

In the area of solid waste management, the Service operates state-of-the-art waste facilities including municipal solid waste and rubble landfills, incinerators, resource reclamation facilities in Montgomery and Prince George's Counties.

The Service has the capabilities to provide site analysis, planning, engineering, design and construction services, and the resources to finance and build water, wastewater and solid waste projects. The Service operates the Hart-Miller Island, Poplar Island, Cox Creek and Masonville Dredge Material Disposal Facilities as well as provides technical support for the Maryland Department of Transportation Maryland Port Administration.

The Service produces and sells yard waste compost for Montgomery and Prince George's Counties under the registered trademark Leafgro®.

The Service also reports a second major enterprise fund for the purpose to account for operations of the Midshore Regional Landfills. The landfills, located in Talbot County, Maryland and Caroline County, Maryland, are operated for the benefit of the governments of Caroline, Kent, Queen Anne's and Talbot Counties. The counties have the ultimate responsibility for payment of operating expenses and debt of the facilities.

#### (1) Organization and Summary of Significant Accounting Policies (continued)

#### (a) Reporting Entity (continued)

Certain employees of the Service are eligible to participate in the Retiree Medical Reimbursement Plan (OPEB Plan), which is a single-employer defined benefit plan administered by the Service. The plan is considered part of the Service's financial reporting entity. A separate report for the OPEB Plan is prepared in compliance with Governmental Accounting Standards Board (GASB) Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans.

#### (b) Measurement focus, basis of accounting, and financial statement presentation

The accompanying financial statements present the financial position and results of operations of all of the Service, Midshore and OPEB Plan activities. The financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) as applied to governmental entities. GASB is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. Under these standards, the Service utilizes the accrual basis of accounting and the economic measurement focus in preparing its financial statements wherein revenues are recognized when earned and expenses are recognized when incurred.

The GASB requires that resources be classified into three categories of net position. Net position represents the residual interest in the Service's assets plus deferred outflows (as applicable) of resources less liabilities plus deferred inflows (as applicable) of resources and consist of net investment in capital assets, restricted and unrestricted, as follows:

*Net investment in capital assets*: The net investment in capital assets component of net position consists of capital assets, net of accumulated depreciation, and right to use lease assets, net of amortization reduced by the outstanding balances of bonds, mortgages, notes, lease liabilities or other borrowings that are attributable to the acquisition, construction or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction or improvement of those assets or related debt are included in this component of net position.

*Restricted:* Restricted net position represents the portion of net position that is reported as restricted when there are external third-party limitations (statutory, contractual or bond covenant) on its use.

*Unrestricted:* Unrestricted net position represents the portion of net position that is not subject to externally imposed stipulations. Unrestricted net position may be designated for specific purposes by the Board or may be otherwise limited by contractual agreements with outside parties.

#### (c) Revenue Recognition

The Service distinguishes operating revenue and expenses from nonoperating items. Operating revenue and expenses generally result from providing services and producing and delivering goods in connection with ongoing operations. The principal operating revenue of the Service are charges to customers for services. Operating expenses include the cost of services, administrative expenses, and depreciation on capital assets. All revenue and expenses not meeting this definition are reported as non-operating revenue and expenses. Interest income is recognized as non-operating revenue as earned. Grants and similar items are recognized as soon as all eligibility requirements imposed by the provider have been met.

#### (1) Organization and Summary of Significant Accounting Policies (continued)

#### (d) Cash and Cash Equivalents

The Service's cash is considered to be cash on hand and demand deposits and highly liquid interest investments with maturities of three months or less from the date of acquisition.

#### (e) Investments

The Service's investments are reported at fair value using quoted market price or the best available estimate thereof. GASB Statement No. 72, *Fair Value Measurement and Application*, defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

#### (f) Capital Assets

Capital assets are stated at cost and consist primarily of Service-owned assets related to projects operated for participants. Certain contracts contain provisions whereby the participants have the option to purchase certain equipment during the terms of the contracts.

The Service defines capital assets as assets with an initial, individual cost of more than \$5,000 (amount not rounded to thousands) and an estimated useful life in excess of one year. The costs of normal maintenance and repairs that do not add to the value of the assets or materially extend an asset's life are not capitalized.

Capital assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Impaired assets that will no longer be used are reported at the lower of carrying value or fair value. Impairment losses on capital assets that will continue to be used are measured using the method that best reflects the diminished service utility of the capital asset. Impairment of capital assets with physical damage are measured using a restoration cost approach, an approach that uses the estimated cost to restore the capital asset to identify the portion of the historical cost of the capital asset that should be written off. The Service did not record any impairment charges as of June 30, 2023 and 2022 as there were no indicators of impairment.

Depreciation is computed using the straight-line method over the estimated useful lives of the capital assets, which range from 3 to 40 years. For purposes of the statements of revenue, expenses and change in net position, the depreciation on assets, which are not directly related to projects, are included in general and administrative expenses and product costs.

Certain contracts contain provisions whereby the Service purchases equipment or constructs assets for clients. These expenses are recorded as land, structures and equipment in the statements of revenue, expenses and change in net position and are not capitalized.

#### (g) Receivables and Payables

During the course of its operations, the Service has numerous transactions with Midshore Regional Landfill to manage operations, provide services, construct assets, and service debt. To the extent that such transactions have not been paid or received as of June 30, the balances of interfund amounts receivable or payable have been reflected accordingly.

#### (1) Organization and Summary of Significant Accounting Policies (continued)

#### (h) Receivables and Payables (continued)

All receivables are shown net of an allowance for uncollectible accounts. Accounts receivable in excess of 90 days that are not deemed collectible are written off against the allowance for uncollectible accounts.

The Service payables include project related expenses and accruals, personnel related costs, and pass-through product revenues owed to some of its major clients.

#### (i) Right to use assets

The Service has recorded right to use lease assets as a result of implementing GASB 87, *Leases* and GASB 96 *Subscription-Based Information Technology Arrangements*. The right to use assets are initially measured at an amount equal to the initial measurement of the related lease liability plus any lease payments made prior to the lease term, less lease incentives, and plus ancillary charges necessary to place the lease into service. The right to use assets are amortized on a straight-line basis over the life of the related lease.

#### (j) Compensated Absences

Employees of the Service earn vacation benefits based on time in service. The rights to such benefits are vested and recorded as earned. Sick leave is also earned and accumulated by employees based on time in service. However, such benefits do not vest and are not paid or recorded unless sickness causes employees to be absent.

#### (k) Pensions and Other Postemployment Benefits.

Certain employees of the Service are members of the Maryland State Retirement and Pension System. Employees are members of the Employees Retirement System of the State of Maryland (ERS). ERS is part of the State of Maryland Retirement and Pension System, which is considered a single multiple employer cost sharing plan.

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of ERS and additions to/deductions from ERS' fiduciary net position have been determined on the same basis as they are reported by ERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

The Service provides certain postemployment benefits to eligible employees. These benefits are paid out of the Service's Retiree Medical Reimbursement Plan (the Plan), a single-employer defined benefit plan. It is offered to eligible employees not covered under the State Retiree Plan. To be eligible, employees must have 30 years of service with the Service, or retire at age 60 or over and have 16 years of employment with the Service. Retired employees or their spouses ages 60 or over can be reimbursed up to \$3,600 per calendar year for medical expenses. The net other postemployments benefits (OPEB) liability is calculated as the OPEB liability, as actuarially determined, less the Plan's net position.

#### (1) Organization and Summary of Significant Accounting Policies (continued)

#### (j) Pensions and Other Postemployment Benefits (continued)

#### Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then. The Service's deferred outflows consistent of changes to pension and OPEB expenses. Deferred outflows of resources relating to pension and OPEB are described in Notes 9 and 10, respectively.

In addition to liabilities, the Statement of Net Position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The Service's deferred inflows consisted of items relating to pension and OPEB, as described in Notes 9 and 10, respectively.

#### (1) Advances from Project Participants

Advances from project participants are received by the Service as provided for under contracts and are generally for working capital purposes. Such advances are recorded as a liability and are generally refunded to project participants at the end of the related contracts.

#### (m) Long Term Obligations and Bond Discount

Long term debt and other long-term obligations, including long-term contractual lease payments are reported as liabilities in the applicable Statements of Net Position. Bond payable is reported net of bond discount, which is recognized during the current period. Bond discount is amortized to interest expense using the effective interest method over the contractual term of the bonds.

#### (n) Arbitrage

The U.S. Treasury has issued regulations on calculating the rebate due to the Federal government on arbitrage profits and determining compliance with the arbitrage rebate provisions of the Tax Reform Act of 1986. Arbitrage profits arise when the Service temporarily invests the proceeds of tax-exempt debt in securities with higher yields. The Service treats the estimated rebate payable as a reduction of any interest income earned. As of June 30, 2023, there was no arbitrage rebate liabilities.

#### (o) Use of Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows, liabilities, and deferred inflows and disclosures of contingencies at the date the financial statements and the reported amounts of revenues and expenses during the period. Actual results could differ from these estimates.

#### (1) Organization and Summary of Significant Accounting Policies (continued)

#### (p) Accounting Pronouncements Adopted

The Service adopted GASB Statement No. 96, Subscription-Based Information Technology Arrangements for the year ended June 30, 2023. This Statement required the recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It established a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset. The implementation of GASB 96 resulted in the Service recognizing right-to-use lease assets and lease liabilities. Standard was adopted as of July 1, 2021, see note 15 - Restatement which discusses the effects of the adoption of the new standard.

#### (2) Cash and Cash Equivalents and Investments

State statutes require that deposits and investments with financial institutions be fully collateralized. The investment policies for all of the Service's funds are the same as those of the State of Maryland Treasurer (Finance and Procurement Article 6-222). The Service's cash is considered to be cash on hand and demand deposits. Cash and cash equivalents totaled \$12,641 and \$23,585 as of June 30, 2023 and 2022, respectively. Included, as cash equivalents for financial statement presentation, were certain overnight investments of \$15,474 and \$25,225, offset by \$2,833 and \$1,640 of outstanding checks as of June 30, 2023 and 2022, respectively. Investments are valued at fair value, which is based on quoted market prices.

The State Finance and Procurement Article Section 6-222 defines the types of securities authorized as appropriate investments for the Service and the conditions for making investment transactions. Investment transactions may be conducted only through qualified depositories, certified dealers or directly with issuers of the investment securities. The National Resource Article Section 3-126 authorizes the investment in obligation as described in the State Finance and Procurement Article Section 6-222.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Service's policy for managing its exposure to fair value loss arising from increasing interest rates is to comply with the State. The Service intends to hold investments until maturity to reduce adverse effect of changes in interest rates.

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Service's policy for reducing its exposure to credit risk is to comply with the State, which states that investments with financial institutions must be fully collateralized.

The Service categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The Service has the following recurring fair value measurements as of June 30, 2023:

• US Treasury investments of \$59,688 are valued at quoted market price (Level 1 inputs)

#### Maryland Environmental Service Notes to Financial Statements June 30, 2023 and 2022

(In thousands except where noted)

#### (2) Cash and Cash Equivalents and Investments (continued)

The Service has the following recurring fair value measurements as of June 30, 2022:

• US Treasury investments of \$19,062 are valued at quoted market price (Level 1 inputs)

As of June 30, 2023, the Service had the following investments and quality ratings:

	Ratings by	Fair V	alue _	<b>Investment Maturities (in Years)</b>					
<b>Investment Type</b>	Organization	(In Thou	ısands)	Less than				More than	
	Moody's			1	1-5	6-10	11-15	15	
US Treasuries	Aaa	\$	59,688	\$ 59,688					

As of June 30, 2022, the Service had the following investments and quality ratings:

	Ratings by	Fair Value		Investme	ent Maturit	ies (in Year	s)
<b>Investment Type</b>	Organization	(In Thousand	s) Less than	1			More than
-	Moody's		1	1-5	6-10	11-15	15
US Treasuries	Aaa	\$ 19,06	2 \$ 19,062	\$	- \$	- \$	- \$ -

As of June 30, 2023, the Midshore Regional Landfill had the following investments and quality ratings:

	Ratings by	Fai	r Value			In	vestmen	t Matur	ities	(in Ye	ars)		
Investment Type	Organization	(In T	housands)	Le	ess than							Mor	e than
-	Moody's				1		1-5	6-10	١	11-1	15		15
US Treasuries		\$	864	\$	864	\$	-	\$	_	\$	_	\$	-
Money Market Funds			2,016		2,016		-		-		-		-
	Aaa	\$	2,880	\$	2,880	\$	-	\$	-	\$	-	\$	-

As of June 30, 2022, the Midshore Regional Landfill had the following investments and quality ratings:

	Ratings by	Fai	ir Value			In	vestmen	t Matur	ities	(in Ye	ars)		
Investment Type	Organization	(In T	housands)	Le	ess than							Mor	e than
	Moody's				1		1-5	6-10	)	11-	15		15
US Treasuries		\$	836	\$	836	\$	-	\$	_	\$	_	\$	-
Money Market Funds			2,533		2,533		-		-		-		-
	Aaa	\$	3,369	\$	3,369	\$	-	\$	-	\$	-	\$	-

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. The Service's policy for reducing this risk of loss is to comply with State regulation.

#### (2) Cash and Cash Equivalents and Investments (continued)

The issuance of debt is authorized by National Resource Article Section 3-112. Each Bond issue includes a Tax and Section 148 Certificate, which specifies the investment type and yield requirements.

Restricted cash and investments include deposits and investments that relate to the bond indentures and restricted project funds, which are not available to pay the general operating expenses of the Service.

The restricted cash and investments are comprised of the following funds as of June 30:

Maryland Environmental Service:

	2023		2022		
Service held:					
Project restricted	\$	110	\$	110	
Midshore Regional Landfill:					
		2023	2022		
Trustee held:					
Closure Fund	\$	820	\$	795	
Construction Funds		1,196		1,738	
Service held:					
Liability Fund		864		836	
•	\$	2,880	\$	3,369	

#### **OPEB Trust:**

All investments are valued at fair value. Fair value for investments is determined using quoted market value of securities. Assets held in trust are held in a custodial account for which the custodian makes no investment decisions. PNC Institutional Investments is the advisor that provides investment management services. The Service follows the asset allocation policy adopted by the State of Maryland for the Post-Retirement Health Benefits Trust (the Plan).

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Plan's investment policy does not limit investment maturities as a means of managing its exposure to fair value losses arising from increases in interest rates.

For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the Plan would not be able to recover the value of its investments that are in the possession of an outside party. Investment securities are exposed to custodial risk if the securities are uninsured, are not registered in the name of the Plan, and are held by either: (a) the counterparty, or (b) the counterparty's trust department or agent but not in the Plan's name. Cash and investments of \$6,688 and \$5,327 were uncollateralized and exposed to credit risk as of June 30, 2023 and 2022, respectively.

#### (2) Cash and Cash Equivalents and Investments (continued)

The Service has the following recurring fair value measurements as of June 30, 2023 and 2022:

 All investments consist of equities and mutual funds and are valued using quoted market prices (Level 1 inputs)

Concentration of credit risk is the risk of loss attributed to the magnitude of the Plan's investment in the securities of a single issuer. As of June 30, 2023, the Plan had the following investments that represented 5% or more of total investments:

Issue	Fair Value	Percentage		
iShares CORE S&P 500 ETF	\$ 2,170	37%		
Vanguard Total Bond Market Index Fund	1,240	21%		
iShares CORE S&P MID-CAP ETF	503	8%		
iShares CORE S&P SMALL-CAP ETF	436	7%		
iShares MSCI USA EFT	313	5%		
iShares MSCI EAFE EFT	299	5%		
DODGE & COX Incle Fund	272	5%		
Blackrock Srat Inc OPP-INST	241	4%		

As of June 30, 2022, the Plan had the following investments that represented 5% or more of total investments:

Issue	Fa	ir Value	Percent	age
Vanguard Total Stock Market ETF	\$	1,210	24%	
Vanguard Total Bond Market Index Fund		1,150	23%	
Dodge & Cox International Stock Fund		630	13%	
iShares MSCI EAFE EFT		548	11%	
Fidelity Investment MM TSY		371	7%	
Fidelity MSCI Real Estate Index ETF		348	7%	
Blackrock High Yield Bond Portfolio		346	7%	

#### (3) Capital Assets

The tables below represent the changes in capital:

Maryland Environmental Service – Year Ending June 30, 2023:

	Balance					Trar	ısfers	В	alance	
	00	6/30/22	Ad	lditions	ns Deletions		In/Out		06/30/23	
Capital assets, not depreciated										
Land and improvements	\$	4,262	\$	-	\$	-	\$	-	\$	4,262
Total capital assets not depreciated		4,262		=		-		-		4,262
Capital assets, being depreciated										
Structures and improvements		11,561		-		(249)		-		11,312
Equipment		18,720		1,527		(1,806)		-		18,441
Total capital assets being depreciated		30,281		1,527		(2,055)		-		29,753
Less: accumulated depreciation for										
Structures and improvements		6,659		165		(249)		-		6,575
Equipment		13,037		1,261		(1,702)		-		12,596
Total accumulated depreciation		19,696		1,426		(1,951)		-		19,171
Total capital assets, net	\$	14,847	\$	101	\$	(104)	\$	_	\$	14,844

Maryland Environmental Service – Year Ending June 30, 2022:

	alance 6/30/21	Additions		s Deletions		Tran eletions In/O			alance 6/30/22
Capital assets, not depreciated	 0/20/21	0,21 1144110115		Detetions		ns m/out			0/50/22
Land and improvements	\$ 4,262	\$	_	\$	_	\$	_	\$	4,262
Construction in progress	-		_	·	_	·	_	·	_
Total capital assets not depreciated	4,262		-		-		-		4,262
Capital assets, being depreciated									
Structures and improvements	11,561		-		-		_		11,561
Equipment	20,060		210		(1,660)		110		18,720
Total capital assets being depreciated	31,621		210		(1,660)		110		30,281
Less: accumulated depreciation for									
Structures and improvements	6,487		172		-		-		6,659
Equipment	13,147		1,440		(1,550)		-		13,037
Total accumulated depreciation	19,634		1,612		(1,550)		-		19,696
Total capital assets, net	\$ 16,249	\$	(1,402)	\$	(110)	\$	110	\$	14,847

#### (3) Capital (continued)

Midshore Regional Landfill – Year Ending June 30, 2023:

	Balance			<b>Transfers</b>		S	Balance		
	06	30/22	A	dditions	<b>Deletions</b>		In/Out		06/30/23
Capital assets, not depreciated									
Land and improvements	\$	1,690	\$	-	\$	-	\$	-	\$ 1,690
Construction in progress		66		19		-		-	85
Total capital assets, not depreciated		1,756		19		-		-	1,775
Capital assets, being depreciated									
Structures and improvements		49,579		-		-		-	49,579
Equipment		5,235		181		(513)			4,903
Total capital assets being depreciated		54,814		181		(513)		-	54,482
Less: accumulated depreciation for									
Structures and improvements		23,802		1,821		-		-	25,623
Equipment		3,460		443		(513)			3,390
Total accumulated depreciation		27,262		2,264		(513)		-	29,013
Total capital assets, net	\$	29,308	\$	(2,064)	\$	-	\$	-	\$ 27,244

Midshore Regional Landfill – Year Ending June 30, 2022:

	Balance 06/30/21	Additions	Deletions	Transfers In/Out	Balance 06/30/22
Capital assets, not depreciated	00/20/21	11dditions	Detections	III, Out	00/00/22
Land and improvements	\$ 1,690	\$ -	\$ -	\$ -	\$ 1,690
Construction in progress	57	9	-	-	66
Total capital assets, not depreciated	1,747	9	-	-	1,756
Capital assets, being depreciated					
Structures and improvements	49,579	-	-	-	49,579
Equipment	4,699	969	(433)	-	5,235
Total capital assets being depreciated	54,278	969	(433)	-	54,814
Less: accumulated depreciation for					
Structures and improvements	22,011	1,791	-	-	23,802
Equipment	3,504	389	(433)	-	3,460
Total accumulated depreciation	25,515	2,180	(433)	=	27,262
Total capital assets, net	\$ 30,510	\$ (1,202)	\$ -	\$ -	\$ 29,308

#### (4) Right to Use Leased Assets

The tables below represent the changes in right to use lease assets:

Maryland Environmental Service – Year Ending June 30, 2023:

	В	estated) alance 5/30/22	Additions		Additions D		Additions		Additions		Additions Deletions		Transfers In/Out			
Right to use leased assets, being depreciated																
Land	\$	616	\$	-	\$ -	\$	-	\$	616							
Subscription based software		4,079		1,285	-		-		5,364							
Total capital assets being depreciated		4,695		1,285	-		-		5,980							
Less: accumulated amortization for																
Land		-		32	-		-		32							
Subscription based software		460		700	-		-		1,160							
Total accumulated depreciation		460		732	-		-		1,192							
Total right to use leased assets, net	\$	4,235	\$	553	\$ -	\$	-	\$	4,788							

Maryland Environmental Service – Year Ending June 30, 2022:

	(Restated) Balance						Tra	nsfers	•	estated) alance
	06/30/21		Additions		ns Deletions		s In/Out		06	5/30/22
Right to use leased assets, being depreciated										
Land	\$	-	\$	616	\$	-	\$	-	\$	616
Subscription based software		4,079		-		-		-		4,079
Total capital assets being depreciated		4,079		616		-		-		4,695
Less: accumulated amortization for										
Land		-		-		-		-		-
Subscription based software		-		460		-		-		460
Total accumulated depreciation		-		460		-		-		460
Total right to use leased assets, net	\$	4,079	\$	156	\$	-	\$	-	\$	4,235

#### (5) Construction Commitments

The Service entered into construction contracts with unrelated parties in the amount of \$85 for the construction of Midshore Cell # 3. As of June 30, 2023, all commitments had been incurred.

#### (6) Concentrations of Credit

The Service derived approximately 57% and 58% of its revenue in the years ended June 30, 2023 and 2022, respectively, from providing services to the State of Maryland.

#### (7) Lease Liabilities

The Service reports its leasing arrangements that qualify as other than short-term leases at the present value of their future minimum lease payments as of the date of its inception.

The Service leases office space under a non-cancellable agreement requiring monthly payments expected to range from \$4 to \$6 through August 2041. The Service also leases third-party technology requiring annual payments ranging from \$603 to \$968 through June 2030. The lease liabilities were measured at a discount rate of 5%. Associated with these leases, the Service has recorded right to use assets with net book values of \$4,788 and \$4,235 at June 30, 2023 and 2022, respectively.

The future minimum lease obligations and the net present value of these minimum lease payments as of June 30, 2023, were as follows:

Years ending June 30:	Pr	incipal	Interest	Total		
2024	\$	713	\$ 235	\$	948	
2025		783	198		981	
2026		854	159		1,013	
2027		596	115		711	
2028		565	84		649	
Thereafter		1,100	237		1,337	
Total	\$	4,611	\$ 1,028	\$	5,639	

#### (8) Debt

Maryland Environmental Service:

The Service issued a General Obligation Bond in 2007 to finance the acquisition of property associated with a project in Talbot County. Costs associated with carrying and maintaining the property were charged to the project, however the debt was payable from the Service's resources. The Service paid off the General Obligation Bond remaining balance in April 2021.

On April 5, 2003, the Service received note proceeds of \$5.5 million from a lending institution. The note agreement requires monthly payments of \$39 through August 2024 including interest at 6.98%.

Future minimum payments for the note payable as of June 30, 2023, were due as follows:

Years ending June 30:	Princi	ipal	Iı	nterest	Total		
2024 2025	\$	453 78	\$	20 1	\$	473 79	
Total	\$	531	\$	21	\$	552	

#### (8) **Debt** (continued)

#### Midshore Regional Landfill:

Bonds outstanding (including current portion) consists of the following as of June 30:

		2023	2022		
Midshore II Regional Landfill Project Revenue Bonds, Series 2020 \$9,805 (plus bond premium of \$1,700); interest at 3.0% to 4.0% paid semiannually on May 1 and November 1; due in annual installments beginning	¢.	0.679	ø	10 (17	
2021 through 2030 in varying amounts from \$815 to \$1,160.	\$	9,678	\$	10,617	
Midshore II Regional Landfill Project Revenue Bonds, Series 2018					
\$7,850 (plus bond premium of \$793); interest at 3.0% to 5.0% paid semiannually on May 1 and November 1; due in annual installments beginning 2018 through 2030 in varying amounts from \$500 to \$1,260.		6,849		7,466	
Midshore II Regional Landfill Project Revenue Bonds, Series 2014 \$2,940; interest at 3.1% paid semiannually on May1 and November 1; due in annual installments beginning 2014 trough 2029 in varying amounts from \$247 to \$369		2,050		2,356	
Hobbs Road Landfill Closure Project Water Quality Bond, Series 2011A; April 2011 \$1,087; interest at 1.1% paid semiannually in February and August; due in annual installments beginning 2013 through 2031 in varying amounts from					
\$90 to \$111.		786		887	
	-				
Total		19,363		21,326	
Less: current portion		2,056		2,003	
Long-term portion of debt	\$	17,307	\$	19,323	

#### (8) **Debt** (continued)

Future minimum payments for bonds payable as of June 30, 2023, were due as follows:

Years ending June 30:	Total Principal		rincipal	Interest		
2024	\$	2,492	\$	1,868	\$	624
2025		2,493		1,945		548
2026		2,489		2,021		468
2027		2,487		2,102		385
2028		2,488		2,189		299
2029-2031		7,481		7,130		351
		19,930	•	17,255		2,675
Plus: Unamortized bond premium		2,108		2,108		
Total	\$	22,038	\$	19,363	\$	2,675

The Regional Landfill Project Revenue Bonds, 2011 Series, were issued in connection with the construction of the Midshore II Landfill Facility. The bonds constitute special obligations of the Service and are payable solely from revenues (tipping fees and supplemental fees) from the project pledged by the Service under the bond indentures. Neither the State of Maryland, nor any political subdivision, nor the Service shall be obligated to pay the bonds or the interest thereon, except from such project revenue. In the event of any participating county's failure to pay any amounts required under the related Waste Service Agreement when due, the Service may accept Acceptable Waste generated outside the Midshore Counties. In addition, the State Intercept Provision (Md. Natural Resource Article Section 3-108(b)) provides that if a Midshore County fails to pay the Service within 60 days of the due date as established by contract, all State funds, or that portion of them required, relating to the income tax, the tax on racing, the recordation tax, the tax on amusements and the license tax which would otherwise be distributed to such Midshore County by the Comptroller of Maryland shall be paid directly to the Service. These bonds were defeased in November 2020.

The Maryland Environmental Service Water Quality Bond, Series 2011A, was issued in connection with the closure and capping of the Hobbs Road Landfill. The bond constitutes special obligations of the Service and are payable solely from revenues (tipping fees and supplemental fees) from the project pledged by the Service under the bond indentures. Neither the State of Maryland, nor any political subdivision, nor the Service shall be obligated to pay the bonds or the interest thereon, except from such project revenue. In the event of any participating county's failure to pay any amounts required under the related Waste Service Agreement when due, the Service may accept Acceptable Waste generated outside the Midshore Counties. In addition, the State Intercept Provision (Md. Natural Resources Article Section 3-108(b)) provides that if a Midshore County fails to pay the Service within 60 days of the due date as established by contract, all State funds, or that portion of them required, relating to the income tax, the tax on racing, the recordation tax, the tax on amusements and the license tax which would otherwise be distributed to such Midshore County by the Comptroller of Maryland shall be paid directly to the Service.

#### (8) **Debt** (continued)

The Regional Landfill Project Revenue Bond, 2014 Series, was issued in connection with the construction of a new landfill cell to increase the capacity of the Midshore II Regional Landfill. The bond constitutes a special obligation of the Service and is payable solely from revenues (tipping fees and supplemental fees) from the project pledged by the Service under Indenture of Trust. Neither the State of Maryland, nor any political subdivision, nor the Service shall be obligated to pay the bond or the interest thereon, except from such project revenues. In the event of any participating county's failure to pay any amounts required under the related Waste Disposal Service Agreement when due, the Service may accept Acceptable Waste generated outside the Midshore Counties. In addition, the State Intercept Provision, (Md. NR Code Ann., Section 3-108(b)), provides that if any local government fails to pay the Service within 60 days of the due date as established by contract, all State funds, or that portion of them required, relating to the income tax, the tax on racing, the recordation tax, the tax on amusements and the license tax which would otherwise be distributed to such local government, including a Midshore County, by the Comptroller of Maryland shall be paid directly to the Service.

MES issued \$8.9 million in tax-exempt bonds in July of 2018, for the purpose of financing the cost of the planning, design, construction, equipping and operation of Midshore II Regional Landfill Project Cell #3, located in Caroline County, Maryland, to improve or increase the disposal capacity of the Midshore II Landfill. The Service entered into separate Waste Disposal Service Agreements in 2009 with County Commissioners of Caroline County, County Commissioners of Queen Anne's County, County Commissioners of Kent County and Talbot County, Maryland. Each of the Midshore Counties has agreed to deliver all its Acceptable Waste for disposal at the Regional Landfill, in each year throughout the term of the Series 2018 Bonds and to pay certain disposal fees. The Service Agreements executed by each Midshore County contain substantially similar terms and conditions. Each Midshore County will pay the Service a perton disposal fee (or Tipping Fee) for Acceptable Waste deliveries to the Regional Landfill by the Midshore County. The Service will also charge a Tipping Fee for disposal of Acceptable Waste deliveries to the Regional Landfill by persons other than the Midshore Counties. If in any year the Tipping Fees charged to all users of the Midshore II Landfill, other operating revenues of the Midshore II Landfill, including, but not limited to, charges for services or use of property or equipment, proceeds from the sale of recovered materials and revenues from gas, steam, or electricity, and interest earnings on money held by the Service in the Special Purpose Fund are insufficient to pay the total costs, defined in the Service Agreements and including but not limited to the costs of financing and operating the Regional Landfill, then each County will pay the Service a fee equal to its share based on its population compared to the population of all Midshore Counties of such deficiency.

Midshore issued \$9.8 million in tax-exempt bonds in September 2020 with a premium of \$1.7 million, for the purpose of refunding Midshore's outstanding revenue bond 2011 series. This funding, along with \$1.1 million in debt service reserve fund sources, was used to defease the 2011 Series and the Service has removed the liability from its accounts. The advance refunding reduced total debt service payments over the next 10 years by nearly \$2.25 million. This results in an economic gain (difference between the present values of the debt service payments on the old and new debt) of approximately \$2.5 million. A deferred gain on refunding of \$0.2 million was recorded as a result of the refunding.

#### (8) **Debt** (continued)

The Service entered into separate Waste Disposal Service Agreements in 2009 with County Commissioners of Caroline County, County Commissioners of Queen Anne's County, County Commissioners of Kent County and Talbot County, Maryland. Each of the Midshore Counties has agreed to deliver all its Acceptable Waste for disposal at the Regional Landfill, in each year throughout the term of the Series 2020 Bonds and to pay certain disposal fees. The Midshore counties have agree to pay a Tipping Fee for each ton of acceptable waste delivered to the Service by or for the account of the Midshore Counties. The Tipping Fee might be adjusted by the Service. The Midshore Counties have also agreed in each fiscal year to pay a supplemental fee equal to the amount by which total costs exceed revenues in such fiscal year.

The Bonds are not payable from the general funds of the Service and do not constitute a legal or equitable pledge, or lien or encumbrance upon, any of the assets or property of the Service or upon any liability of the State of Maryland, of any political subdivision thereof (including the Subdivisions) or of the Service.

The following table represents changes in long-term liabilities for the years ended June 30:

#### Maryland Environmental Service:

2023		eginning Balance	A	Additions	Re	eductions		Ending Balance	ue Within One Year
Advances from project participants	\$	22,586	\$	76,164	\$	(51,862)	•	46,888	\$45,782
Lease liabilities	Ф	· ·	Ф	,	Ф		Ф	,	
		4,235		982		(606)		4,611	713
Note payable		957		-		(426)		531	453
Accrued annual leave		4,820		3,683		(3,307)		5,196	3,337
Workers' compensation		3,168		-		(311)		2,857	429
Net OPEB liability		2,234		-		(981)		1,253	-
Net pension liability		1,551		525		-		2,076	-
Long-term liabilities	\$	39,551	\$	81,354	\$	(57,493)	\$	63,412	\$ 50,714

(Restated) 2022	eginning Balance	Additions	Re	eductions	Ending Balance	 e Within ne Year
Advances from project participants	\$ 12,310	\$ 51,987	\$	(41,711)	\$ 22,586	\$ 21,435
Lease liabilities	4,079	616		(460)	4,235	601
Note payable	1,359	_		(402)	957	426
Accrued annual leave	4,660	3,404		(3,244)	4,820	3,240
Workers' compensation	4,060	3,168		(4,060)	3,168	475
Net OPEB liability	1,630	604		-	2,234	-
Net pension liability	2,583	-		(1,032)	1,551	-
Long-term liabilities	\$ 30,681	\$ 59,779	\$	(50,909)	\$ 39,551	\$ 26,177

#### (8) **Debt** (continued)

Midshore Regional Landfill:

2023	ginning alance	A	dditions	Re	ductions	Ending Balance	Within ne Year
Bonds payable Landfill closure and postclosure care	\$ 21,326 7,342	\$	- 3,113	\$	(1,963) (335)	\$ 19,363 10,120	\$ 2,056
Long-term liabilities	\$ 28,668	\$	3,113	\$	(2,298)	\$ 29,483	\$ 2,056
2022	eginning Salance	A	dditions	Re	ductions	Ending Balance	e Within ne Year
Bonds payable  Landfill closure and postclosure care	\$ 23,208 6.462	\$	- 1,125	\$	(1,882) (245)	\$ 21,326 7,342	\$ 2,003

#### (9) Accrued Workers' Compensation Costs

The accrued workers' compensation costs, applicable to the Service's coverage discussed in Note 13, are recorded as a short-term and long-term liability. As these costs are recoverable under the Service's contracts, a receivable from project participants has been recorded to reflect the future funding of this liability.

#### (10) Pension

Employees of the Service who were members of the State Employees Retirement or Pension systems on June 30, 1993, continue to participate in the Employees' Retirement and Pension Systems. These systems are part of the Maryland State Retirement and Pension System (the System), and are cost-sharing multiple employer public employee retirement systems. The System, which is administered in accordance with the State Personnel and Pensions Article of the Annotated Code of Maryland, consists of several plans, which are managed by the Board of Trustees for the System. The System provides retirement, death and disability benefits in accordance with State statutes. Vesting begins after completion of 5 years of service. Members of the Retirement System may retire with full benefits after attaining the age of 60, or completing 30 years of Service Credit, regardless of age. Members of the Pension system may retire with full benefits after attaining the age of 62 or after completing 30 years of Service Credit, regardless of age. The State Employees Retirement and Pension System prepares a separately audited Annual Comprehensive Financial Report, which can be obtained from the State Retirement and Pension System of Maryland, 120 E. Baltimore Street, Baltimore, Maryland 21202 or at <a href="https://sra.maryland.gov/annual-financial-reports">https://sra.maryland.gov/annual-financial-reports</a>.

Members of the Retirement System are required to contribute to the System either 7% or 5% of their regular salaries and wages depending upon the retirement option selected. Members of the Contributory Pension System are required to contribute to the System 7% of their regular salaries and wages. Employer contribution rates are determined by the State annually. The Service's share of the cost of participation was \$40 and \$288, respectively, for the years ended June 30, 2023 and 2022.

All other employees of the Service participate in a Vanguard 401(k) Savings Plan. The plan requires the Service to contribute to the fund. The Service's share of the cost of participation for the years ended June 30, 2023 and 2022 was \$2,913 and \$3,001, respectively. Employees are fully vested when eligible for the plan.

# Maryland Environmental Service Notes to Financial Statements June 30, 2023 and 2022

(In thousands except where noted)

#### (10) **Pension** (continued)

<u>Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions</u>

As of June 30, 2023 and 2022, the Service reported a liability of \$2,076 and \$1,551, respectively, for its proportionate share of the ERS net pension liability. The ERS net pension liability was measured as of June 30, 2023 and 2022, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Service's proportion of the ERS net pension liability was based on a projection of the Service's long-term share of contributions to the pension plan relative to the projected contributions of all participating government units, actuarially determined. The Service's proportion for ERS was 0.0127% for both of the years ended June 30, 2023 and 2022.

For the years ended June 30, 2023 and 2022, the Service recognized pension expense for ERS of approximately \$526 and \$512, respectively. As of June 30, 2023, the Service reported deferred outflows of resources and deferred inflows of resources related to ERS from the following sources:

	Out	ferred flows of ources	Deferred Inflows of Resources		
Changes in assumptions	\$	211	\$	_	
Net difference between projected and actual earnings on pension plan investment		10		-	
Net difference between actual and expected experience		-		(159)	
Net change in proportionate share		-		(365)	
Contributions made subsequent to the measurement date		229		-	
Total	\$	450	\$	(524)	

The \$450 reported as deferred outflows of resources relates to ERS resulting from the Service contributions subsequent to the measurement date will be recognized as a reduction of the ERS net pension liability in the year ending June 30, 2024. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to ERS will be recognized in pension expense as follows:

	<b>Deferred Outflows</b>	Deferred Inflows				
Years Ending June 30	Change in Assumptions	Net difference between projected and actual earnings on pension plan investments	Net change in proportionate share	Actual and Expected Experience		
2024	\$ 54	\$ (18)	\$ (117)	\$ (53)		
2025	56	(31)	(160)	(37)		
2026	66	(79)	(66)	(32)		
2027	35	138	(22)	(25)		
2028				(12)		
Total	\$ 211	\$ 10	\$ (365)	\$ (159)		

#### (10) **Pension** (continued)

Actuarial assumptions, long-term expected rate of return on pension plan investments, discount rate, and pension plan fiduciary net position are available at https://sra.maryland.gov/actuarial-valuation-reports.

Sensitivity of the Services' proportionate share of the net pension liability to changes in the discount rate.

The Service's proportionate share of the ERS net pension liability calculated using the discount rate of 6.80% is \$2,076. Additionally, the Service's proportionate share of the ERS net pension liability if it were calculated using a discount rate that is 1 percentage point lower (5.80%) is \$3,186 or 1 percentage point higher (7.80%) is \$1,156.

*Plan Description*. The Maryland Environmental Service (the Service) Retiree Medical Reimbursement Plan (the Plan) is a single-employer defined benefit plan. It is offered to eligible employees not covered under the State Retiree Medical Plan. To be eligible for coverage under the Service's plan, an employee must retire from the Service at age 60 or older and have at least 16 years of service with the Service. Through December 31, 2018, the Plan reimbursed retirees for eligible medical expenses incurred by the retiree or spouse up to \$3,600 per calendar year per retiree. Effective January 1, 2019, the annual limit was increased to \$4,000 for current retirees. For retirements on or after January 1, 2019, the annual limit is based on the number of years of service at retirement, as follows:

Service at Retirement	<b>Annual Limit</b>
15-19	\$ 4,000
20-24	\$ 4,500
25-29	\$ 5,000
30+	\$ 5,500

Retirees are not required to contribute to the Plan.

#### (11) Other Postemployment Benefits (OPEB)

The number of participants in the OPEB Plan as of the actuarial valuation date of July 1, 2022, was as follows:

Active	751
Retired	53
Total	804

*General:* Participation in the Plan is on a voluntary basis. In order to participate in the Plan, a retiree must complete annual enrollment forms. Participation is effective on the first of the month following the date the Service receives the completed enrollment forms.

*Contributions:* The Service makes contributions to the Plan on a quarterly basis based on an actuarially determined amount in accordance with the actuarial valuation. Participants do not contribute to the Plan.

*Benefit Payment:* The reimbursement account can be used to pay for any healthcare expense that would qualify as a deduction under IRS rules such as deductibles and copayments, dental expenses, prescription drug costs, vision care expenses. The expenses submitted for reimbursement must not be eligible for payment or reimbursement under any other health plan.

#### (11) Other Postemployment Benefits (OPEB) (continued)

*Plan Termination:* Although it has not expressed intent to do so, the Service has the right to discontinue its contributions or to terminate the Plan. Upon termination of the Plan, any unused benefits at the time of termination may be used up to the end of the Plan year in which termination occurs.

In 2010, the Service set up an irrevocable trust, the Maryland Environmental Service OPEB Trust Fund for the sole purpose of funding postemployment benefits for current and future retirees. Contribution requirements are determined according to actuarial valuations.

Actuarial Methods and Assumptions: Projections of benefits for reporting purposes are based on the substantive plan (the plan as understood by the Service and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of benefit costs of the Service to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with long-term perspective of the calculations.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the Service are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

In the July 1, 2021, actuarial valuation, the entry age normal cost method was used. The actuarial assumptions included a 6.0% estimated long-term investment yield on the investments that are expected to be used to finance the payment of benefits, which are the assets held in the trust.

Funding Policy: The Service has an irrevocable trust, the Maryland Environmental Service OPEB Trust Fund, for the sole purpose of funding postemployment benefits for current and future retirees. Contribution requirements are determined according to actuarial valuations. The Service contributed \$1,135 and \$478, respectively, in fiscal years 2023 and 2022. Total reimbursement of medical expenses was \$241 and \$156, respectively, in fiscal years 2023 and 2022.

As of the June 30, 2023, the Plan was 84.2% funded. The actuarial accrued liability for benefits was \$7,941 resulting in a total net OPEB liability of \$1,253.

Annual OPEB Cost and Net Obligation: The Service's annual OPEB cost (expense) is calculated based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with the parameters of generally accepted accounting principles. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. For the fiscal year ended June 30, 2023, the Service's annual OPEB cost was \$169.

*Plan Expenses:* The Plan incurs investment expenses in proportion to its share of each investment for which it is involved. The Service absorbs all internal administration costs related to the Plan.

# Maryland Environmental Service Notes to Financial Statements June 30, 2023 and 2022

(In thousands except where noted)

## (11) Other Postemployment Benefits (OPEB) (continued)

The components of the net OPEB liability of the Service as of June 30, 2023, were as follows:

Total OPEB liability		\$		,941
Plan fiduciary net position		Ф.		,688
MES's net OPEB Liability		\$	1.	,253
Plan fiduciary net position as a percentage of total OPEB liability			8	4.2%
Year Ended June 30,		2023		2022
Total OPEB Liability				
Service cost	\$	164	\$	156
Interest		456		516
Changes of benefit terms		-		-
Difference between expected and actual experience		1		(756)
Changes in assumptions and other inputs		-		523
Benefit payments		(241)		(179)
Net Change in Total OPEB Liability		380		260
Total OPEB Liability - Beginning		7,561		7,301
Total OPEB Liability - Ending	\$	7,941	\$	7,561
Plan Fiduciary Net Position				
Contributions - employer	\$	1,136	\$	479
Net investment income		466		(643)
Benefit payments		(241)		(180)
Net Change in Plan Fiduciary Net Position	•	1,361		(344)
Plan Fiduciary Net Position - Beginning		5,327		5,671
Plan Fiduciary Net Position - Ending	\$	6,688	\$	5,327
Net OPEB Liability	\$	1,253	\$	2,234
		·		

Projections of benefits for reporting purposes are based on the substantive plan (the plan as understood by the Service and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of benefit costs of the Service to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with long-term perspective of the calculations.

# Maryland Environmental Service Notes to Financial Statements June 30, 2023 and 2022

(In thousands except where noted)

# (11) Other Postemployment Benefits (OPEB) (continued)

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the Service are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

In the July 1, 2021, the actuarial valuation date, the entry age normal cost method was used. The actuarial assumptions included a 6.0% estimated long-term investment yield on the investments that are expected to be used to finance the payment of benefits, which are the assets held in the trust.

As of July 1, 2021, the latest actuarial valuation date, the accrued liability for the Plan was \$7,301.

Actuarial valuation date	Ju	ly 1, 2021
Actuarial value of assets	\$	6,688
Actuarial accrued liability	\$	7,941
Unfunded actuarial liability	\$	1,253
Funded ratio		84.2%
Annualized covered payroll	\$	55,306
Inflation		2.00%
Ratio of unfunded actuarial liability to annual covered payroll		2.27%
Actuarial cost method		Entry age
Money-weighted return		-10.75%

Mortality rates were based on the PubG.H-2010 Employee and Healthy Retiree Mortality Tables, with generational projection using Scale MP-2020.

The long-term rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns net of OPEB plan investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of the geometric real rates of return for each major asset class are summarized in the following table:

		Long-Term Expected
Asset Class	Target Allocation	Real Rates of Return
Cash & Equivalents	5.00%	-1.00%
Equity	70.00%	5.00%
Fixed Income	15.00%	1.50%
Real Estate	10.00%	4.00%
Other	0.00%	0.00%
Total	100.00%	9.50%

#### (11) Other Postemployment Benefits (OPEB) (continued)

#### OPEB Deferred Outflows and Inflows of Resources

At June 30, 2023 and 2022, the Service reported deferred outflows of resources and deferred inflows of resources as follows:

Out	flows of		ed Inflows
\$	65	\$	689
	352		399
	288		
\$	705	\$	1,088
	Out	352 288	Outflows of Resources         Deferr of Resources           \$ 65         \$           352         288

Amounts reported and deferred outflows of resources and deferred inflows of resources related to OPEB expense will be recognized in OPEB expense as follows:

Years Ending June 30	
2024	\$ 92
2025	(124)
2026	91
2027	(107)
2028	(84)
Thereafter	 (251)
Total	\$ (383)

# Sensitivity of Net OPEB Liability to Changes in the Healthcare Cost Trend Rate and Discount Rate

The following presents the net OPEB liability of the Service, as well as what the Service's net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.0%) or 1 percentage point higher (8.0%) than the current discount rate:

	1% Decrease	No Change	1% Increase
Net OPEB liability	2,363	1,253	323

The following presents the net OPEB liability of the Service, as well as what the Service's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1 percentage-point lower or 1 percentage-point higher than the current healthcare cost trend rates (7.0%):

	1% Decrease	No Change	1% Increase
		_	
Net OPEB liability	1,259	1,253	2,404

## (12) Contingent Liabilities

The Service is involved in litigation arising from the normal course of its operations. In the opinion of management, the amount of liability, if any, resulting from the final resolution of these matters will not be material to the financial position of the Service.

On April 15, 2011, the Maryland Environmental Service issued \$1.5 million of Water Quality Bond, Series 2011B with the Maryland Water Quality Financing Administration (the Administration) in connection with the closure and capping of the Hobbs Road Landfill. Pursuant to the Clean Water Act, the Administration has forgiven the repayment of the principal amount and interest payment of the bond subject to MES continues to perform its other obligations under the agreement. Upon determination by the Administration that any of the other obligations under the agreement have been violated, payment of the principal and interest will become due and payable on demand. As of June 30, 2023, management believes it is in compliance with its obligations and has not violated the agreement.

#### (13) Landfill Closure and Postclosure Care Costs

State and Federal laws require the Service to cover and to perform certain maintenance and monitoring functions at Midshore I, Easton Landfill, Midshore II and Hobbs Road Landfill sites for 30 years after closure. Although closure and postclosure care costs will be paid near or after the date the landfills stop accepting waste, the Service reports a portion of these closure and post closure costs as a liability based upon the estimated useful life of the landfills.

Midshore I stopped accepting waste on December 31, 2010, was capped, and is now in the postclosure monitoring and maintenance period. Total closure and postclosure care costs for the landfill is currently estimated to be \$4,799, as determined through engineering studies and \$3,057 has been recognized as a liability by the Service as of June 30, 2023.

Midshore II current cells are approximately 35% filled as of June 30, 2023, with a remaining life of 20 years. Total closure and postclosure care costs for the landfill is currently estimated to be \$25,407, as determined through engineering studies, and \$7,063 has been recognized as a liability by the Service as of June 30, 2023. Costs may be subject to change due to inflation, deflation, technology, and changes in applicable laws and regulations.

Under Federal regulations, the Service satisfied its financial assurance requirements based upon local government financial ratio tests of the project participants as of June 30, 2023. The Service expects to satisfy these requirements as of June 30, 2024, using the same criteria.

The Service serves as an operator for various landfills throughout the State of Maryland and no liability is recognized in regard to landfill closure and postclosure costs related to these landfills because of the Service's limited role solely as an operator of these facilities.

#### (14) Risk Management

The Service is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Service participates in the State of Maryland's self-insurance program (the program). The program covers general liability, property and casualty, workers' compensation (see Note 9), and environmental liabilities and provides certain employee health benefits. The program allocates its cost of providing claims servicing and claims payments by charging a "premium" to the Service based on a percentage of estimated current payroll or based on average loss experience. As of June 30, 2023 and 2022, no additional assessments were made and the Service's premium for the years ended June 30, 2023 and 2022, was \$4,970 and \$4,528, respectively.

#### (15) Restatement of Prior Year

Right to use leased assets, net of amortization and lease liabilities were restated as a result of adopting GASB Statement No. 96 *Subscription-Based Information Technology Agreements*. This included the recording of a right of use lease asset and offsetting lease liability as of the July 1, 2021 implementation date. Also, there was a reclassification of lease expenses made in fiscal year 2022 from general and administrative expense to amortization of the right of use lease asset which is included in depreciation expense as shown below.

Net Position
30,484
30,484
29,426
29,426
Change in Net Position
617
617
1

#### Maryland Environemental Service Schedule of Changes in Net OPEB Liability and Related Ratios

Year Ended June 30,	 2023		2022	2021		2020		2019		2018		2017
Total OPEB Liability												
Service cost	\$ 164	\$	156 \$	150	\$	148	\$	111	\$	107	\$	152
Interest	456		516	490		410		285		343		319
Changes of benefit terms	-		-	-		-		1,312		-		-
Difference between expected and actual experience	1		(756)	(61)		321		6		(501)		-
Changes in assumptions and other inputs	-		523	(42)		450		173		(669)		-
Benefit payments	 (241)		(179)	(180)		(175)		(120)		(89)		(84)
Net Change in Total OPEB Liability	380		260	357		1,154		1,767		(809)		387
Total OPEB Liability - Beginning	7,561		7,301	6,944		5,790		4,023		4,832		4,445
Total OPEB Liability - Ending	\$ 7,941	\$	7,561 \$	7,301	\$	6,944	\$	5,790	\$	4,023	\$	4,832
Plan Fiduciary Net Position												
Contributions - employer	\$ 1,136	\$	479 \$	541	\$	473	\$	263	\$	368	\$	335
Net investment income	466		(643)	999		(19)		176		154		349
Benefit payments	(241)		(180)	(180)		(175)		(120)		(89)		(84)
Net Change in Plan Fiduciary Net Position	 1,361		(344)	1,360		279		319		433		600
Plan Fiduciary Net Position - Beginning	5,327		5,671	4,311		4,032		3,713		3,280		2,680
Plan Fiduciary Net Position - Ending	\$ 6,688	\$	5,327 \$	5,671	\$	4,311	\$	4,032	\$	3,713	\$	3,280
Net OPEB Liability	\$ 1,253	\$	2,234 \$	1,630	\$	2,633	\$	1,758	\$	310	\$	1,552
Plan fiduciary net position as a percentage of total OPEB Liability	84.2%		70.5%	77.7%		62.1%		69.6%		92.3%		67.9%
Covered Employee Payroll	55,306		53,178 \$	48,536	\$ 4	46,669	\$	44,599	\$	42,883	\$	44,599
Net OPEB liability as a percentage of covered employee payroll	2.3%		4.2%	3.4%		5.6%		3.9%		0.7%		3.5%

#### **Notes to the Schedule:**

This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is completed, OPEB plans should present information for those years for which information is available.

Changes of Benefit Terms: Effective January 1, 2019, the reimbursement limit for current retirees was increased to \$4,000. For retirements on or after January 1, 2019, the reimbursement limit was changed to (a) \$4,000 for 15-19 years of service (b) \$4,500 for 20-24 years of service, (c) \$5,000 for 25-29 years of service, and (d) \$5,500 for 30+ years of service at retirement.

Changes of Assumptions: Discount Rate 2017-2021 0.00%; 2022-2023 6.00%

#### Mortality Rates:

2017-2018	RPH-2014 Employee and Healthy Annuity, Generational with MP-2018
2019	PubG.H-2010 Employee and Healthy Retiree, Generational with MP-2018
2020	PubG.H-2010 Employee and Healthy Retiree, Generational with MP-2019
2021	PubG.H-2010 Employee and Healthy Retiree, Generational with MP-2020
2022-2023	PubG.H-2010 Employee and Healthy Retiree, Generational with MP-2021

# Maryland Environmental Service Schedule of Employer Contributions OPEB

	2	2017	 2018	 2019	 2020	 2021	 2022	 2023
Actuarially Determined Contribution	\$	257	\$ 266	\$ 132	\$ 287	\$ 348	\$ 283	\$ 333
Employer Contribution		335	368	263	473	541	479	1,136
Contribution Deficiency/(Excess)		(78)	(102)	(131)	(186)	(193)	(196)	(803)
Covered Employee Payroll		39,956	42,883	44,599	46,669	48,536	53,178	55,306
Employer Contribution as a Percentage of Covered Employee Payroll		0.8%	0.9%	0.6%	1.0%	1.1%	0.9%	2.1%

#### Notes to Schedule

Methods and assumptions used to determine contributions rates:

Valuation Date: Actuarially determined contributions are calculated as of June 30, one year prior to

the end of the fiscal year in which contributions are reported.

Actuarial Cost Method: Entry Age

Amortization Method: Level percentage of payroll, closed

Amortization Period: 16 years

Asset Valuation Method: Market Value

Inflation: 2.00%

Healthcare Cost Trend Rates: 6.50% initial, decreasing 0.50% per year to an ultimate rate of 5.00%

Salary Increases: 4.00% average, including inflation

Investment Rate of Return: 6.00%, net of plan investment expenses, including inflation

Retirement Rates: In the actuarial valuation

Mortality Rates: Mortality rates were based on the PubG.H-2010 Employee and Healthy Retiree

mortality tables, Generational with Projection Scale MP-2021 for males or females,

as appropriate.

# Maryland Environmental Service Schedule of Proportionate Share of Net Pension Liability

	2023	2022	2021	2020	2019	2018	2017	2016	2015	
The Service's proportion of the ERS net pension liability	0.0127%	0.0127%	0.0122%	0.0127%	0.0155%	0.0131%	0.0159%	0.0143%	0.0125%	
The Service's proportionate share of the ERS net pension liability	\$ 2,076	\$ 1,551	\$ 2,583	\$ 2,620	\$ 3,260	\$ 2,822	\$ 3,761	\$ 2,968	\$ 2,102	
The Service's covered employee payroll	997	1,062	1,085	1,119	1,365	1,365	2,557	2,483	2,177	
The Service's proportionate share of the net pension liability as a percentage of its covered employee payroll	208%	146%	238%	234%	239%	207%	147%	120%	97%	
Plan net position as a percentage of the total pension liability	81.84%	81.84%	70.72%	72.34%	69.38%	69.38%	65.79%	68.78%	71.87%	

This schedule is presented to illustrate the requirement to show information for 10 years. However, information prior to June 30, 2015 is not available.

# **Schedule of Required Employer Pension Plan Contributions**

	2023		2022		2021		2020		2019		2018		2017		2016		 2015
Contractually required contribution (ERS)	\$	229	\$	249	\$	228	\$	243	\$	262	\$	303	\$	318	\$	336	\$ 301
Contributions in relation to the contractually required contribution	_	229		249		228		243		262		303		318		336	 301
Contribution deficiency (excess)	\$		\$		\$		\$		\$		\$		\$		\$	-	\$ 
The Service's covered-employee payroll	\$	997	\$	1,062	\$	1,062	\$	1,085	\$	1,119	\$	1,365	\$	1,365	\$	2,557	\$ 2,177
Contributions as a percentage of covered employee payroll		22.97%		23.45%		21.01%		21.72%		22.19%		22.19%		12.43%		13.53%	13.83%

This schedule is presented to illustrate the requirement to show information for 10 years. However, information prior to June 30, 2015 is not available.



# Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With Government Auditing Standards

RSM US LLP

Board of Directors Maryland Environmental Service

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*), the financial statements of each major fund and the fiduciary activities of Maryland Environmental Service (the Service), a component unit of the State of Maryland, as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Service's basic financial statements, and have issued our report thereon dated December 22, 2023. Our report contained an emphasis of matter paragraph for the adoption of the provision of Governmental Accounting Standards Board Statement No. 96, *Subscription-Based Information Technology Arrangements*.

#### **Report on Internal Control Over Financial Reporting**

In planning and performing our audits of the financial statements, we considered the Service's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Service's internal control. Accordingly, we do not express an opinion on the effectiveness of the Service's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

#### **Report on Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the Service's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

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# **Purpose of This Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

RSM US LLP

Gaithersburg, Maryland December 22, 2023





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