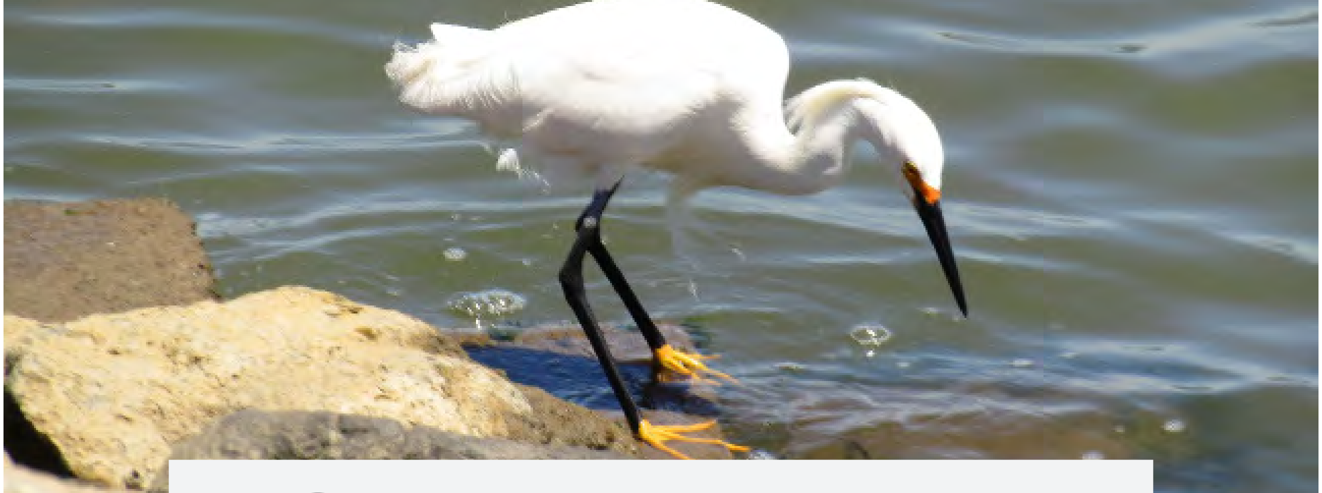
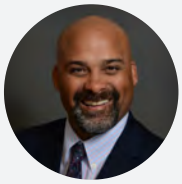
ANNUAL REPORT 2022

ENVIRONMENTAL SOLUTIONS FOR A BETTER TOMORROW

Maryland
ENVIRONMENTAL
SERVICE





WELCOME!

In a year with no shortage of challenges, the team at Maryland Environmental Service continued to provide a wide array of environmental services at small and large projects across the State, supporting essential services for Maryland's citizens. Our groups – Dredging and Restoration, Environmental Operations, Technical and Environmental Services, and Water and Wastewater Services – have each provided updates in this annual report on new and long-standing projects. The message of the year: MES proves time and time again that we are experts in our fields; always reliable, especially in times of emergency; resilient and resourceful; and can be counted on to deliver Environmental Solutions for a Better Tomorrow – which also happens to be our new motto.

This year was also full of transition, with the implementation of the MES Reform Act of 2021, the addition of several new Board Members to our team, and the development of a new, five-year vision using a strategic planning process that will be implemented and continuously evaluated by the management team through 2027. The new strategic plan was developed based on the three pillars I have discussed since the beginning of my time at MES: Safety, Level of Service, and Education and Training, with an eye toward setting measurable goals and establishing an evaluation process.

I continue to be immensely proud of the team at MES and inspired by the "MES Way." Simply put, our staff doesn't see failure, they rise to every challenge, and always work towards solutions with tenacity, flexibility, and professionalism. I'm proud to be part of the team at MES and I look forward to our future together.

Maryland ENVIRONMENTAL SERVICE

WHAT'S INSIDE

ENVIRONMENTAL SOLUTIONS FOR A BETTER TOMORROW

ABOUT MES

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 700 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 challenges.

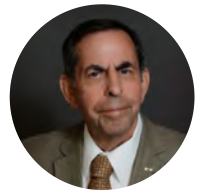
Mission

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.

BOARD OF DIRECTORS



JUDGE FREDERIC N. SMALKIN
CHAIR

ROBERT L. WITT II
SECRETARY

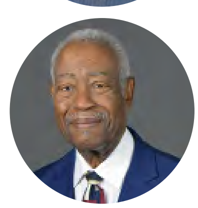
ROBERT R. NEALL
TREASURER

DERECK E. DAVIS
STATE TREASURER & BOARD MEMBER

CHARLES GLASS Ph.D., P.E.
BOARD MEMBER (NON-VOTING)

SHELLEY L. HELLER
CHAIR, AUDIT COMMITTEE

MARIAN C. HWANG, Esq.
CHAIR, HUMAN RESOURCES COMMITTEE



HIRAM L. TANNER JR., P.E.
BOARD MEMBER

Ackerman Site Monitoring

SUPPORTING OUR TEAM

The MES staff includes over 700 team members with about 70% working on-site at unique environmental projects throughout the State of Maryland. The remaining staff work at our headquarters in Millersville, MD, in departments such as information technology, finance, procurement, and human resources, along with administration and management staff that support our field operations.

This unique structure presents challenges with meeting every team member's needs, such as safety training, license renewals, and equipment needs, all while encouraging employee growth through continuing education – from GED to Ph.D. pursuit – and everything in between. MES has a robust tuition reimbursement program, as well as incentive programs that acknowledge team member contribution and continuously challenge our staff to achieve both agency developed and personal goals.

$82,819.81
PROVIDED IN TUITION REIMBURSEMENT

$30,450
AWARDED THROUGH INSPIRE PROGRAM

33
IN-HOUSE TRAINING CLASSES PROVIDED

26
SAFETY & ENVIRONMENTAL AUDITS CONDUCTED

11
CPR/FIRST AID CLASSES CONDUCTED

14
LOCK-OUT/TAG-OUT AUTHORIZED EMPLOYEES

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, outreach and engagement related to dredged material management, habitat restoration, hazardous materials management, environmental management systems and compliance, permitting, and forest, wetland, and various mitigation services.

In FY22, EDR provided continued operations of dredged material containment facilities (DMCF), 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 Maryland Department of Transportation, Maryland Port Administration (MDOT MPA). The following are some of the many highlights.

Dredging Projects

MES assisted clients with various dredging projects that included supporting MDOT MPA with the completion of Colgate Creek Phase I dredging of 86,549 cubic yards in early FY22, to accommodate vessel traffic during berth reconstruction. Colgate Creek Phase II design will include innovative reuse of the material.

MES continued support to MDOT MPA on the Seagirt Loop Study. This study commenced in 2020 to determine if federal navigation improvements to the Baltimore Harbor Channels and Anchorages project would result in improved navigation efficiencies at the Port, including managing increased calls by post-Panamax vessels and container volume at the Seagirt Marine Terminal. FY22 investigations included a ship simulation study and reassessment of economic and social benefits associated with the project which resulted in increasing the approved depth from 47 to 50 feet deep.

MES continued surveying, planning, and permitting for the Deep Creek Lake Arrowhead Cove Dredging Project on behalf of Garrett County. The project will remove approximately 15,000 cubic yards of sediment within approximately 3.6 acres of Arrowhead Cove. The dredging is planned to begin in fall 2023 and completed in early 2024.

MES, on behalf of the City of Frederick, prepared the alternatives analysis for the dredging of Fishing Creek Reservoir and began pre-design dam investigations for the improvements that are required for Fishing Creek Dam to meet Maryland Department of the Environment (MDE) safety standards. Dam improvements include modifications to the embankment and spillway for the maximum probable flood. The dredging of approximately 30,000 cubic yards of material may be removed along with this project.

Cox Creek

MES continued to manage the expansion of the Cox Creek DMCF on behalf of MDOT MPA assisting in the effort to meet the 20-year capacity needs for dredged material. Raising the dikes to Elevation +60 feet Mean Lower Low Water (MLLW) began in August 2021 and is expected to be completed in 2024. In FY22, more than 350,000 cubic yards of material were excavated from the upland. Periodic quantitative analysis and volumetric

Colgate Creek Phase 1

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

EDR continued

computations utilizing conventional and aerial survey data collected via drone were performed by MES Survey to verify quantities of material placed.

Masonville

On behalf of MDOT MPA, MES began construction of the base dike widening at Masonville DMCF in January 2022 and 125,000 cubic yards of material were placed for the first lift to elevation 12.5 feet, completing 72% of the project. Completion of the base dike widening is scheduled for the third quarter of FY23. The first lift is the base for the next phase of dike raising, assisting MDOT MPA in meeting Harbor dredging capacity needs.

MES designed a floating weir intake system, employing pumps, to provide discharge as spillways are removed and dike elevations are increased to the final elevation of +42 feet MLLW. A prototype was manufactured and successfully tested at Cox Creek in FY22 to verify the design concept. MES is planning on procuring a full system in FY23 for future use at Masonville.

Mid-Bay

Support services continued in FY22 on the MDOT MPA and U.S. Army Corps of Engineers (USACE) Mid-Bay Island Ecosystem Restoration project (Mid-Bay). MES is providing project planning, engineering, geotechnical, and environmental support for the pre-construction engineering and design phase. Barren Island restoration, construction starting in 2023, will provide a minimum 72 acres of remote island habitat. James Island restoration will restore over 2,000 acres of remote island habitat, with construction planned in 2024. The Barren Island Water Quality Certification was issued in the last quarter of FY22, and the Tidal Wetlands License is expected to be executed in the first quarter of FY23. Mid-Bay will accommodate an estimated 90-95 million cubic yards of dredged material, providing a minimum of 30 years of dredged material capacity. Mid-Bay received $84 million in federal funding through the USACE Supplemental Federal Fiscal Year 2022 Infrastructure Investment and Jobs Act.

Poplar Island

MES continued to operate and manage the Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island (Poplar Island) on behalf of MDOT MPA and USACE. MES performs daily operations, environmental monitoring, surveying, regulatory coordination, and various construction activities including wetland development services. In FY22, Poplar Island received approximately 1.43 million cubic yards of dredged material.

TERP Program

The Port of Baltimore Terrapin Education and Research Partnership (TERP) celebrated the program's 17th year. MES created the TERP Program in partnership with the MDOT 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 protocol, and research the natural history of the species.
After caring for the hatchlings, students release the terrapins to the Bay at Poplar Island. To date, over 2,900 terrapin

Cox Creek

Poplar Island

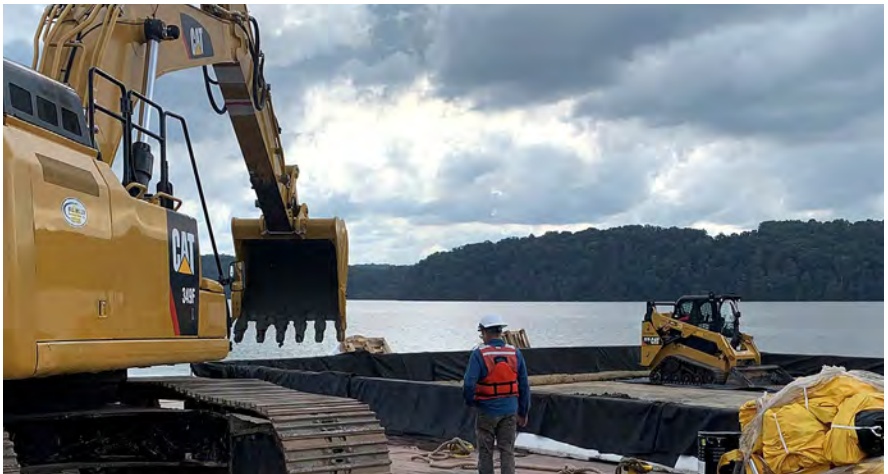
hatchlings from Poplar Island have been head-started by students, and more than 850 classes from schools around the State. Two females recaptured this season on Poplar Island were from the very first year of the program in 2005-2006!

Outreach and Education

On behalf of MDOT MPA, MES' Outreach Team provides community engagement support through participation in public and virtual platforms. In FY22, the Team resumed in-person programs, after adapting to virtual offerings the previous year due to COVID-19. Education programs engaged 2,157 Marylanders (1,624 students) in learning about Maryland's environment, natural, social, and economic resources. The EDR Team developed new virtual resources for MDOT MPA, including an education portal for educators and families: **portofbaltimoreeducation.org.**

Conowingo Pilot Project

Dredging of 1,000 cubic yards of sediment from the Susquehanna River as part of the Conowingo Sediment Characterization and Innovative Reuse and Beneficial Use Pilot Project was completed in FY22. MES completed the coordination between the contractor and property owner resulting in the executed Right of Entry Agreement allowing dredging to occur. The material was sampled and processed for use in a future innovative reuse project. The completion of this project will assist the State in the assessment to reduce nitrogen, phosphorus, and sediments to the Chesapeake Bay within the Maryland portion of the Susquehanna River.



Above: TERP Program
Left: Conowingo Dam Dredging

TECHNICAL & ENVIRONMENTAL SERVICES

The Technical and Environmental Services (TES) Group is responsible for a variety of projects and services that support State agencies, counties, municipalities, private industries, and universities in managing a range of stormwater and other environmental challenges. Service areas include environmental monitoring, reporting, laboratory services, National Environmental Policy Act review support, geospatial and engineering services (GIS), as well as digital mapping.

In FY22, the GIS and Engineering sections provided support on diverse stormwater projects across the State. TES continued National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems permit compliance support to Bowie State University, University of Maryland College Park, Universities at Shady Grove, Maryland School for the Deaf, and St. Mary's County. In Baltimore County, progress was made on stormwater asset management through completion of inspections at all stormwater features and roadways within six historic outfall drainage areas. The data collected is being used as input for models to develop an asset management priority system for the county. Over the fiscal year (FY), and in response to the 2021 Senate Bill 227, TES created a database hub to facilitate public sharing of data and information to better understand flooding within Maryland and build future storm resiliency.

TES also continued to provide environmental compliance and environmental systems maintenance support to the Maryland Aviation Administration (MAA) and private vendors operating at the Baltimore Washington International (BWI) Thurgood Marshall Airport. The TES staff at BWI maintained environmentally responsible operations in all weather conditions. As part of these efforts, they collected over 2.45 million gallons of waste deicing fluid (glycol) at BWI during the 2021–2022 deicing season, keeping the fluid from reaching nearby streams. Only 6% of applied glycol was discharged to the streams, well below the MAA limit of 30%. In addition, over 40,000 gallons of high concentration fluid was collected and recycled. Recycling the high concentrate fluid helps reduce overall program costs for the MAA and reduces the chemical and energy cost necessary to treat this additional amount of fluid.

As in years past, TES continued to serve MDOT and its transportation business units in environmental compliance tasks. Over FY22, TES expanded services to MDOT State Highway Administration (SHA) to assist with several emergency drainage repairs that posed a potential impact to public safety and the environment. Notably, TES completed approximately $5 million in emergency drainage remediation projects, with most of these events requiring response times of less than 72 hours. The end of FY22 also kicked off additional stormwater management services to the SHA Highway Hydraulics Division, with stormwater construction work totaling $2 million and additional assignments planned and continuing into FY23.

Aerial Survey by Unmanned Drone

WORKING TOGETHER TOWARDS A MORE RESILIENT & SUSTAINABLE MARYLAND

TES continued

2.45 M

GALLONS OF DEICING FLUID COLLECTED AT BWI

40 K

GALLONS OF HIGH CONCENTRATION FLUID RECYCLED AT BWI

5 M

$ ON EMERGENCY DRAINAGE REMEDIATION PROJECTS

Above: Stormwater Structure Repair
Right: Stormwater Inspection, BWI Airport


Terp Program

ENVIRONMENTAL OPERATIONS

The MES Environmental Operations (EO) Group serves counties, large municipalities, and rural communities, providing solutions for solid waste challenges and recycling services, including award-winning landfills, dual- and single-stream recycling centers that service millions of Marylanders, and composting facilities that turn yard, leaf, and food waste into the widely popular, Leafgro® and Leafgro Gold®.

The Group also works with the Department of Public Safety and Correctional Services operating an electric generation facility supplying steam to a State prison, with MDE assisting with used oil and antifreeze collection and operating a mobile chlorofluorocarbon recovery unit, and with the Maryland Department of Aging operating a Durable Medical Equipment (DME) program. This program receives discarded DME so it can be refurbished, recycled, and commissioned for reuse.

Innovative Solid Waste Management Operations

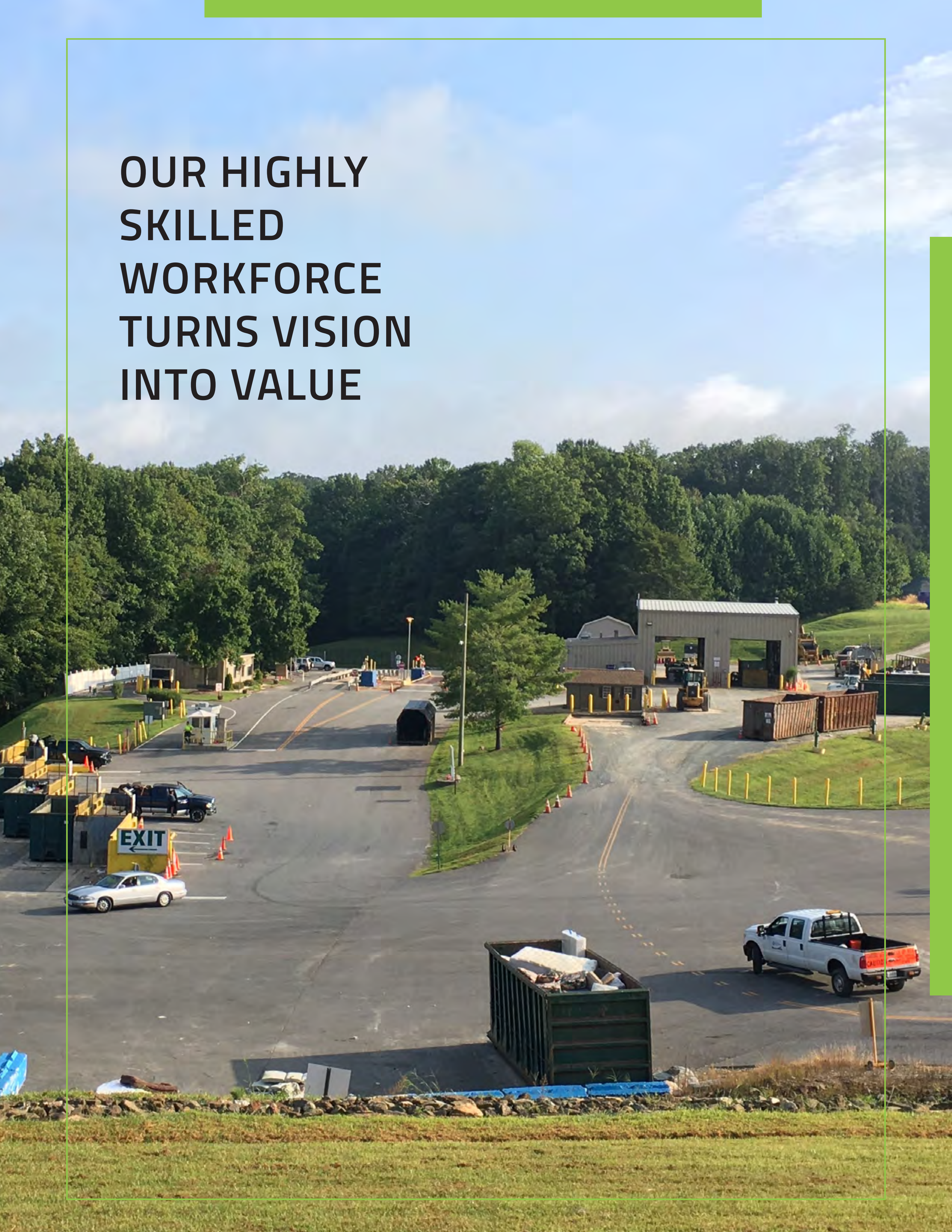
MES is a leader in Solid Waste Management operations in the State of Maryland and has the experience and skill to provide engineering, construction, and the operation of large scale diversified and integrated solid waste management systems. On the Midshore, MES operates a regional landfill for Kent, Queen Anne's, Talbot, and Caroline Counties through a partnership that will provide solid waste services for 80 years. In Montgomery County, MES manages the dual-stream recycling operations, the County's state-of-the-art leaf and yard waste composting operations, as well as the County's solid waste collection at County bus stops. MES also operates Harford County's complete solid waste management program, ranging from engineering to composting, recycling, litter control, and the management of the County's homeowner collection facilities.

In 2022, MES continued its partnership with Prince George's County, serving as the operator of the County's single-stream recycling center and the Prince George's County Organics Composting Facility. MES also provided construction management and engineering services to the Prince George's County Department of the Environment, Resource Recovery Division. Through this unique 5-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 (MRF), the Prince George's County Organics Composting Facility, and the residential convenience centers.

In Montgomery County, MES has similar consulting services which assist the County with implementing aspects of their ten-year solid waste management plan. MES evaluated solid waste disposal alternatives and is managing the study of various income strategies for their solid waste enterprise fund. In addition, MES is facilitating the expansion of their current food scraps pilot programs.

Harford County Integrated Solid Waste Management

OUR HIGHLY SKILLED WORKFORCE TURNS VISION INTO VALUE



EO continued

State-of-the-Art Composting

MES continues to operate the Prince George's County's 12-bunker food waste compost system to produce Leafgro Gold®. In FY22, the team processed over 34 million pounds of food waste, thereby diverting material that would have otherwise been landfilled. Diverting organic waste from landfills reduces the amount of methane - a very harmful Greenhouse Gas - produced at landfills and extends the useful life of a landfill.

MES also works with BWI airport and its food vendors to operate the previously developed food scrap collection program. Even though the program was delayed during the height of COVID-19, MES was still able to collect over 74,000 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 recycling over one million pounds of food scraps in 2022. Those food scraps are then sent to the MES-operated Prince George's County Organics Composting Facility.

MES also manages the leaf and yard waste composting operations for Prince George's, Harford, and Montgomery Counties. In 2022, the team processed over 180,000 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-waste-derived Leafgro Gold® compost.

Innovative Recycling Operations

The Prince George's County MRF 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. While effective for many years, Prince George's County invested in the facility by upgrading the MRF to improve plastics sorting and paper quality. The upgrades began in August 2021 and included the addition of three new optical sorters, a new plastics sorting line, a new fiber screen, and new bunkers. During the four-month construction process, the facility continued to sort paper and cardboard while diverting the remaining material. At no time were recycling services disrupted for the residents of Prince George's County.

With the upgrades completed, the facility now generates five plastic commodities, including Polyethylene Terephthalate

34,033,900
POUNDS OF FOOD WASTE COMPOSTED

96,603
TONS OF RECYCLABLES RETURNED TO THE MARKET

435,845
GALLONS OF USED OIL RECYCLED

29,682
GALLONS OF ANTI-FREEZE RECYCLED

(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, as well as increasing the recovery of recyclable plastics that would have been routed to the landfill with the old system. The replacement of the traditional fiber screen with a new, non-wrapping screen also contributed to a significant reduction in contamination in the paper bales.

This project enabled the facility to access new markets, improving both the resiliency of the recycling program and generating additional revenue. In the first nine months of operation after the upgrade, plastics revenue at the facility has increased $2,294,182 when compared to the sale of 1-7 plastics.

The MRF, 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 Montgomery County, MES initiated the design of needed upgrades at their 30-year-old MRF. These upgrades will include the latest technologies, provide more automation, and increase throughput.

Recycling with Compassion

MES staff continue to operate the unique DME Refurbishment Program in partnership with the Maryland Department of Aging (MDoA). MES staff collect DME from donation centers throughout the State and bring the items to the DME refurbishment facility in Prince George's County. At the facility, MES staff inspect, clean, and repair the DME, readying it for distribution at MDoA partner facilities throughout Maryland. In less than two years of operations, this program has recycled more than 13,000 individual items, including 1,747 wheelchairs, 824 hospital beds, 383 power wheelchairs, and 219 patient lifts, saving resources and space in landfills. This service continues to improve the quality of life for many Maryland residents, regardless of age, income, or location with priority given to the needy and elderly populations.

Prince George's County Organics Composting Facility

Above: Leafgro®
Below: DME

WATER & WASTEWATER SERVICES

The MES Water and Wastewater (WWW) Group supports the design and construction, operations and maintenance, and management of biosolids at water and wastewater treatment plants (WWTP) across the State of Maryland, including many municipal, county, and privately-owned facilities, as well as State-owned plants at correctional and health facilities, rest areas, and State parks. MES is also able to provide services in rural areas that do not have access to public water and sewer.

The MES 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 the upgrades of older plants and the construction of new ones. In many cases, MES operations and maintenance staff remain 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 who work to ensure environmentally acceptable, reliable, and cost-effective methods are used to manage the solid material generated by each WWTP.

Value-Added Engineering Services

The MES Engineering Division provides WWW utility support services to the Departments of Natural Resources, Public Safety and Correctional Services, Juvenile Services, Health, Veterans Affairs, and Maryland Military. The Division is responsible for coordination with these agencies to ensure their WWW systems meet agency needs and are compliant with environmental regulations and permits.

Engineering staff maintain the State WWW Utility Master Plan, which is updated every two to three years to reflect changes in regulations, population, or use changes at State facilities.

In FY22, the Engineering Division began the process of updating its Master Plan, visiting facilities throughout the State to talk to operations staff about their systems, issues or difficulties they may be having with equipment, and possibilities to accommodate expansion or permit changes. MES staff review the laboratory data and note any trends that might predict future compliance permit violations, then develop a multi-year capital improvements plan and share it with the capital budget analyst from the Department of Budget Management, as well as each agency. This prioritized list then becomes the MES Five-Year Plan in the annual Capital Budget Request.

140 WATER FACILITIES
89 WASTEWATER FACILITIES
1.7B GALLONS OF DRINKING WATER TREATED
6.4B GALLONS OF WASTEWATER TREATED
99.7% COMPLIANCE RATE

Eastern Correctional Institution Water and Wastewater Facility

SMART DECISIONS TODAY, LASTING VALUE TOMORROW

WWW continued

Central Maryland Correctional Facility Sanitary Collection System Upgrade

MES completed the construction and installation of a 12-inch sewage line at the Central Maryland Correctional Facility's Dorm Building, located in Sykesville, Maryland. The goal of this project was to eliminate the pumping station, which required frequent maintenance and was inside the secured area and difficult for MES staff to access. The installation of the 1,400-linear-foot gravity sewer line had to occur between January and April 2022. The tight timeline was necessary so work would not interfere with the farmer's planting season in the field that the pipeline crosses. The sewage now flows by gravity from the dorm building at the Correctional Facility to the MES-owned-and-operated Freedom District WWTP.

Woodstock Job Corp Center Wastewater Facility Upgrade

The upgrade of the Woodstock WWTP, located in Woodstock, Maryland, was needed to replace the aging 26-year-old activated sludge facility. A new Membrane Bioreactor facility is being constructed to meet new permit requirements. The facility handles 50,000 gallons per day and discharges into an unnamed tributary of the South Branch of the Patapsco River.

Victor Cullen Center Wastewater Facility Upgrade

The Victor Cullen WWTP, located in Sabillasville, Maryland, is owned by the Department of Juvenile Services and operated by MES. The plant serves the Victor Cullen Center, which is used for court-ordered youth treatment services. The aging trickling filter plant is being upgraded to a sequencing batch reactor facility. This will allow the plant to meet MDE compliance requirements for their new permit. It is a 50,000 gallon-a-day plant that discharges into Friends Creek.

Making the Rounds to Provide Cost-Effective Services

Some of MES' clients own small facilities that do not require 24- or 8-hour-per-day attendance. While these facilities are monitored remotely for emergencies, they still require periodic in-person visits by trained MES operators. These "circuit riders," who are not assigned to one location, make their rounds to small facilities every day, allowing MES to provide reliable and cost-effective service to our clients.

Keeping the Water Flowing

On August 22, 2021, the water stopped flowing at the Eastern Correctional Institution water treatment facility. The computer that controls the water facility failed due to a burned-out processor. Program repair personnel were contacted to troubleshoot the computer, while MES staff ordered a truckload of bottled water for the prison, county detention center, and State police department served by the facility. MES staff operated the facility manually to get the water service restored. Once the computer problem was corrected, the plant was returned to computer control. To prevent the problem from occurring in the future, the operations staff contracted a computer programmer to check and replace worn parts within the computer system and ordered a supply

Above: Woodstock and Freedom District WWTPs

of replacement computer hardware. Also, MES electrical staff installed a backup, low-level alarm separate from the computer system that will alert operators if a problem occurs.

Dorsey Run Advanced WWTP

Water Environment Federation Award Winners

The Water Environment Federation (WEF), in collaboration with the U.S. Environmental Protection Agency, launched the NutrientSmart (NSmart) program to help reduce nutrient loadings in waterways and recognize water utilities that are leaders and innovators. To be awarded recognition in the NSmart program, utilities must have demonstrated their facility's intent towards enhanced nutrient management and utility-community engagement through outreach (WEF website).

The WWW Group is proud to announce three MES-operated wastewater plants received Platinum Partner recognition by the WEF; Rocky Gap WWTP, Freedom District WWTP, and Dorsey Run Advanced WWTP. All three facilities were recognized for achieving greater than 90% removal of nutrients (nitrogen and phosphorus) from their effluents. These facilities were also featured in an article in Treatment Plant Operator magazine, a trade publication dedicated to wastewater and water treatment professionals across the country.

Back River Directive from the MDE

On March 27, 2022, the Secretary of the MDE issued a directive ordering MES to "take charge of the Back River WWTP to ensure that Baltimore City meets the following objectives: protecting public and environmental health; abating any further nuisance; providing appropriate levels of qualified staff; conducting appropriate maintenance, improvements, and modifications; operating the Back River WWTP in compliance with all terms of the Back River Discharge Permit; and ceasing all unpermitted discharges from the Back River WWTP." In response to the directive and to quickly resolve the most urgent problems at the Back River WWTP, MES immediately formed an Operations Team, a Maintenance Team, an Engineering Team, and a Safety and Environmental Compliance Team. These teams were supported by staff from MES' Finance Group, Procurement Section, and the Office of the Attorney General.

As a result of the teams' diligent work, the effluent at Back River WWTP met all National Pollutant Discharge Elimination System (NPDES) permit parameters within four months.

Dorsey Run Advanced WWTP

WWW continued

Beneficial Use of the Leftovers

The WWW facilities operated or supervised by MES generated approximately 30,000 wet tons (3,063 dry tons) of sludge in 2021. Approximately 52% of the material generated was beneficially reused, primarily by recycling the tonnage for its nutrient value to agricultural land in Virginia.

Two MES staff members provide daily technical support for 66 facilities, including regulatory permitting and reporting, compliance monitoring, operational support, and sludge hauler contract management. The staff manage over 173 permits, such as MDE sewage sludge utilization permits, pretreatment permits issued by local governments, and others. The certified nutrient management planners at MES prepare Maryland Department of Agriculture compliant plans for land application sites and wastewater spray irrigation fields.

Trucked sludge and other wastes from smaller, satellite facilities are transported to three MES-operated regional sludge facilities. MES accepted over 9.5 million gallons of liquid sludge, landfill leachate, and holding tank wastes at our regional facilities in 2021.

The WWW Engineering Division delivers capital improvement project management services for solids treatment processes at our sites. Two dewatering upgrade projects at State facilities (the Eastern Correctional Institution WWTP and the Dorsey Run Advanced WWTP) are currently in progress. A design project to replace the aging dewatering equipment at Dorsey Run Advanced WWTP was completed in FY22. The current belt filter presses are projected to be replaced with centrifuges in FY24. Centrifuges are more efficient at dewatering sludge and will yield a drier product, thereby reducing the tonnage and hauling costs for end use.

Providing Biosolids Services to Local Utilities

DC Water's Blue Plains Advanced WWTP and five of the 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 field inspectors who execute a customized, third-party, independent field monitoring program at these land application sites. The goal of the inspection program is to provide an additional layer of compliance oversight of the contractors' activities.

Inspection staff collect an abundant amount of field data, such as odor monitoring measurements, that is used by clients for determining program performance. MES also provides other ancillary services, such as groundwater monitoring of former sludge disposal sites and a minor public outreach task at an annual agricultural fair in Virginia.

Right: Dorsey Run Advanced WWTP


480
VOLTS
480
VOLTS

ENERGY ACTIVITIES

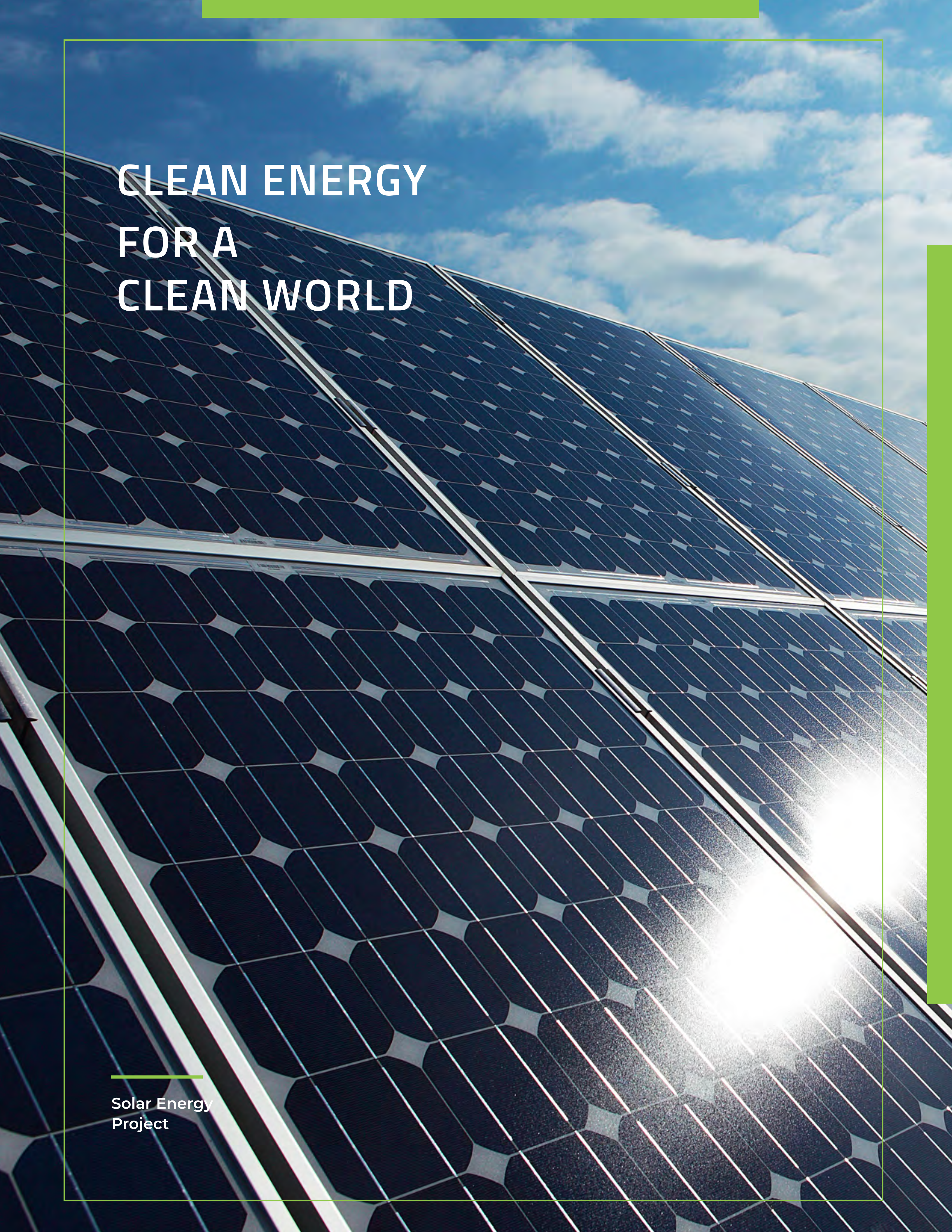
MES approaches projects with a commitment to the use of advancing technologies with an eye toward ensuring protection of the environment. In FY22, this included activities that support the expansion of and conversion to renewable energy sources, along with the generation and distribution from traditional energy sources.

The agency is assisting the Maryland Energy Administration with implementation and assessment of energy policy. MES' technical services included solar consulting and evaluation of the fixed resource requirement of the Federal Energy Regulatory Commission. The work included completion of a study evaluating the availability of landfill parcels to house solar panels. The study identified 55 landfills suitable for solar generation and in the upcoming months, MES and MEA will proceed with installing panels on some of these capped landfills. In partnership with Maryland Department of Natural Resources, MES also solicited firms to install solar panels on rooftops at five State parks. MES is now working to procure and manage the installation of the solar panels.

Additionally, MES was also part of the geothermal energy efforts for the State of Maryland, including establishing and participating in the Geothermal Workgroup as it relates to the evaluation of the status of geothermal heating and cooling systems in Maryland, as well as the potential impact of expanding and incentivizing the use of geothermal heating and cooling systems within the State.

In support of MDOT MPA's development of a Terminal Electrification Roadmap, MES provided contract management and subcontracted services, with the goal of transitioning to electric vehicles and equipment for both MDOT MPA and tenant fleets. The roadmap will help identify what types of operations will transition to electric, what the electrical demand will be, and the possible limitations and timelines. It will also determine what type of infrastructure improvements and new operating procedures are needed, and a best plan to meet those needs.

Additional MES energy activities around the State include the operation of boiler plants at three Maryland Correctional Facilities and a water-powered turbine generator at a water treatment plant. Steam produced by the boiler plants provides heat for cooking, laundry operations, and heat for the prison complex. In addition to the boiler plant operations, MES operates a biomass-fueled combined heat and power system (cogeneration plant) at the Eastern Correctional Institution (ECI) in Somerset County. The four-megawatt (MW) capacity plant currently utilizes debarked wood chips as its primary fuel source for two high-pressure boilers. In total, the plant generated 66% of the electricity and 100% of the thermal needs for ECI in FY22. However, MES entered a 10-year Gas Service Agreement (2019) with Chesapeake Utilities to utilize natural gas as a bridge fuel at ECI. Subsequently, Chesapeake Utilities Corporation completed the Del-Mar Energy Pathway Project that added natural gas transmission pipeline on the lower Delmarva Peninsula. A seven-mile leg of this new transmission pipeline extended service from Salisbury, MD to Westover, MD and was supported by the MES-operated ECI cogeneration plant - one of the two large anchor customers. The remaining task associated with the cogeneration plant's conversion is retrofitting the existing boilers, which is scheduled to begin the construction phase in FY23. Once the boiler conversion project is complete, cleaner-burning natural gas will replace wood chips, which have been used at the facility for the last 34 years, as the primary boiler fuel.



CLEAN ENERGY FOR A CLEAN WORLD

Solar Energy Project

Maryland
ENVIRONMENTAL
SERVICE

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, 2022 and 2021

(With Independent Auditor's Report Thereon)

TABLE OF CONTENTS

Independent Auditor's Report

RSM US LLP

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 aggregate remaining fund information of the Maryland Environmental Service (the Service), a component unit of the State of Maryland, as of and for the year ended June 30, 2022 and 2021, 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 aggregate remaining fund information of the Maryland Environmental Service, as of June 30, 2022 and 2021, and the respective changes in financial position, and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit 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 audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Emphasis of Matter – Adoption of New Accounting Standard

As discussed in Note 1 of the accompanying financial statements, the Service adopted the provisions of Governmental Accounting Standards Board Statement No. 87, *Leases* during the year ended June 30, 2022. Accordingly, net position was restated as of July 1, 2020. Our opinions have not been 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.

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 auditing standards generally accepted in the United States of America, 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 16, 2022 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 16, 2022

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, 2022 and 2021. 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 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

The Service continues to provide environmental, engineering, survey, and construction support services for expansion of the Maryland Department of Transportation Maryland Port Administration's (MDOT MPA) Cox Creek Dredged Material Containment Facility (DMCF). The contract for raising the dikes to elevation +60' Mean Lower Low Water (MLLW) began in August 2021. More than 350,000 cubic yards of material was excavated from the borrow pit and placed in FY22. Construction of the +60' Dike Raising contract is projected to be completed in the 2024 calendar year and will help to provide the storage capacity needed for MDOT MPA to meet the needs of their 20-year capacity plan. The Service began construction of the base dike widening at the MDOT MPA's Masonville DMCF in January 2022 and in the last six months of FY22 placed over 125,000 CY of material for the first lift to elevation 12.5' MLLW. This equates to 5,000 linear feet of the dike, or approximately 72% completion of the first lift. Completion of the Base Dike Widening is scheduled for the 3rd Quarter of FY23 which will form the base for the next phase of dike raising to elevation +30 MLLW, increasing storage capacity at the facility allowing MDOT MPA to continue to meet long term Harbor dredging capacity needs.

Work on the MDOT MPA and U.S. Army Corps of Engineers (USACE) Baltimore District jointly sponsored Mid-Bay Island Ecosystem Restoration project (Mid-Bay) continued in FY22 with the Service providing project planning, engineering, geotechnical, and environmental support for the pre-construction engineering and design phase. The Barren Island portion of the project will restore a minimum of 72 acres of remote island habitat, including wetlands and protective sills and breakwaters with construction to start in 2022. The James Island restoration will restore over 2,000 acres of lost remote island habitat to support a diverse array of wildlife, using dredged material, with construction to start in 2024. Once constructed, Mid-Bay will accommodate an estimated 90-95 million cubic yards of dredged sediment, providing a minimum of 30 years of dredged material capacity. To date, Mid-Bay has received $84 million in federal funding through the USACE Supplemental FY22 Infrastructure Investment and Jobs Act.

In early FY 22, the Service completed the Colgate Creek Phase I dredging Project which included dredging 86,549 cubic yards of material on behalf of the MDOT MPA. The project began in late FY21 to accommodate vessel traffic during berth reconstruction. Design continues for Colgate Creek Phase II which will include innovative reuse of the material rather than placement into a DMCF.

The Service continued to operate and manage the Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island (Poplar Island) on behalf of MDOT MPA and the U.S. Army Corps of Engineers. MES performs daily operations, environmental monitoring, surveying, regulatory coordination, and various construction activities including wetland development services. In FY22, Poplar Island received approximately 1.43 million cubic yards of dredged material. MES is reclaiming, dewatering, blending, and stockpiling sand in Cells 1D, 4, and 7 for future use in dike raising as part of project's vertical expansion.

Environmental Operations

In FY2022, the Service composted 34 million pounds of food waste; returned 97K tons of recyclables to the market; recycled 436K gallons of used oil, and 30K gallons of used antifreeze; processed 131K tons of organics into compost and mulch products; and generated carbon offsets equaling 18K metric tons of carbon emissions while generating 13,750 megawatts of electricity from biomass.

The Service completed the $932K underground natural gas pipeline to the Service-operated Co-generation Plant at the Eastern Correctional Institution located in Princess Anne, Maryland. This work is part of the longer-term conversion of the Co-Generation plant to natural gas. The Service completed a $6 million upgrade of the Materials Recovery Facility to install new equipment, including three optical sorters, bunkers, conveyors, and sorting screens. The upgrade allows the facility to produce five types of plastic bales, sorted by resin type. This is significantly more marketable than the previous mixed plastic bale, resulting in an increase in revenue of more than $2 million.

Work continued with the Montgomery County Commercial Food Scraps Recycling Pilot Program. In FY2022 the Service purchased a second $106K 8-yard rear load collection vehicle. The county celebrated the collection of its first 1 million pounds of commercial food scraps in FY2022, collected food scraps from this program are co-composted with other organics at the Service operated Prince George's County Organics Composting Facility. The resultant soil amendment product is marketed under the trademark name Leafgro GOLD.

The Service purchased over $1.3 million in heavy equipment on behalf of Montgomery County. One excavator, and one shredder were purchased to augment the Service's processing of natural wood waste at the County's transfer station.

Technical and Environmental Services

In addition to regular stormwater permit monitoring and compliance, the Service continued to oversee the glycol recovery program to collect and recycle glycol during deicing events at Baltimore Washington Thurgood Marshall International (BWI) airport in FY 22. During the winter season, eight deicing events occurred and MES monitored the application of over 150,000 gallons of glycol which was collected, sampled, and monitored for recycling, discharge, or treatment. A new Memorandum of Understanding (MOU) for $5 million dollars was signed with Maryland Department of Emergency Management (MDEM) in FY 22 for a variety of environmental management services related to stormwater, hazard mitigation, and floodplain management. Additionally, the Service increased staff to support MDEM with developing and administering the Resilient Maryland Revolving Loan Fund.

An MOU with Maryland Department of Transportation State Highway Administration (MDOT SHA) Drainage Emergencies and Highway Hydraulics Stormwater Construction group was expanded to include four additional Metro Districts in FY22 which provided for an additional $5 million dollars in projects that MES managed and oversaw.
The Service's support to the Maryland Energy Administration significantly ramped up in FY22 with the approval of several new tasks totaling nearly $3 million dollars.

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. On April 4, the Service began providing certified wastewater treatment plant operators, engineering project managers, sludge handling experts and maintenance personnel to the facility. As a result of the Service's efforts, the plant returned to compliance during the month of June and has remained in compliance. Based on an updated Directive from the Maryland Department of the Environment, the Service will continue to provide support to the plant until December 31, 2022.

The Service continued the design work for the expansion of the Maryland Department of the Military's Camp Fretterd Wastewater Treatment Plant, the Water Booster Station Upgrade and Water Main Replacement. All of these projects are scheduled to be bid during the calendar year 2023.

The Service continued the design work for the Maryland Department of Natural Resources' new Water Treatment Plant at the Swallow Falls State Park; its new Water Treatment Plant, Wastewater Treatment Plant, sewer collection system and water distribution system at the New Germany State Park; and the Wastewater Treatment Plant Upgrade at the Elk Neck State Park. The Swallow Falls State Park and New Germany State Park projects are scheduled to be bid in calendar year 2023. The Elk Neck State Park project will be bid in October 2022.

The Service is completing the construction of the Maryland Department of Juvenile Services' Victor Cullen Juvenile Center Wastewater Treatment Plant Upgrade. The facility is scheduled to start up in the spring of 2023.

The Service is completing the construction of the Maryland Department of General Services' Woodstock Job Corps Center Wastewater Treatment Plant Upgrade. The facility will be placed in service by the end of calendar year 2022.

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, 2022, 2021, and 2020. 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, 2022, 2021, 2020. 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, 2022, 2021, 2020.

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 26-27 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 20-53 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 54-57 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, 2022, with 2021 and 2020 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.

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)

	2022	2021	2020
Current and other assets	$ 93,263	$ 83,874	$ 81,987
Capital assets and right to use leased assets	15,463	16,249	17,753
Total assets	108,726	100,123	99,740
Deferred Outflows related to Pensions and OPEB	2,186	1,190	1,374
Long-term debt	1,573	1,359	1,827
Other liabilities	76,741	67,356	67,307
Total liabilities	78,314	68,715	69,134
Deferred Inflows related to Pensions and OPEB	3,172	2,114	1,496
Net position:			
Net investment in capital assets	13,902	14,891	15,926
Restricted	124	122	122
Unrestricted	15,400	15,471	14,436
Total net position	$ 29,426	$ 30,484	$ 30,484

Midshore Regional Landfill:

Condensed Statement of Net Position
(Expressed in Thousands)

	2022	2021	2020
Current and other assets	$ 16,892	$ 16,190	$ 15,869
Capital assets	29,308	30,510	31,253
Total assets	46,200	46,700	47,122
Bonds payable	21,326	23,208	24,963
Other liabilities	10,099	8,493	7,940
Total liabilities	31,425	31,701	32,903
Deferred inflows related to debt refunding	192	215	-
Net position:			
Net investment in capital assets	8,603	7,866	8,068
Restricted	1,738	1,630	1,629
Unrestricted	4,242	5,288	4,522
Total net position	$ 14,583	$ 14,784	$ 14,219

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 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.

Total net position for the Service increased $0 in 2021. Net investment in capital assets decreased $1,035 from the net of depreciation, acquisition of equipment, and payment of debt. The remaining components, restricted and unrestricted net position of $15,593, represent funds available for future expenditures.

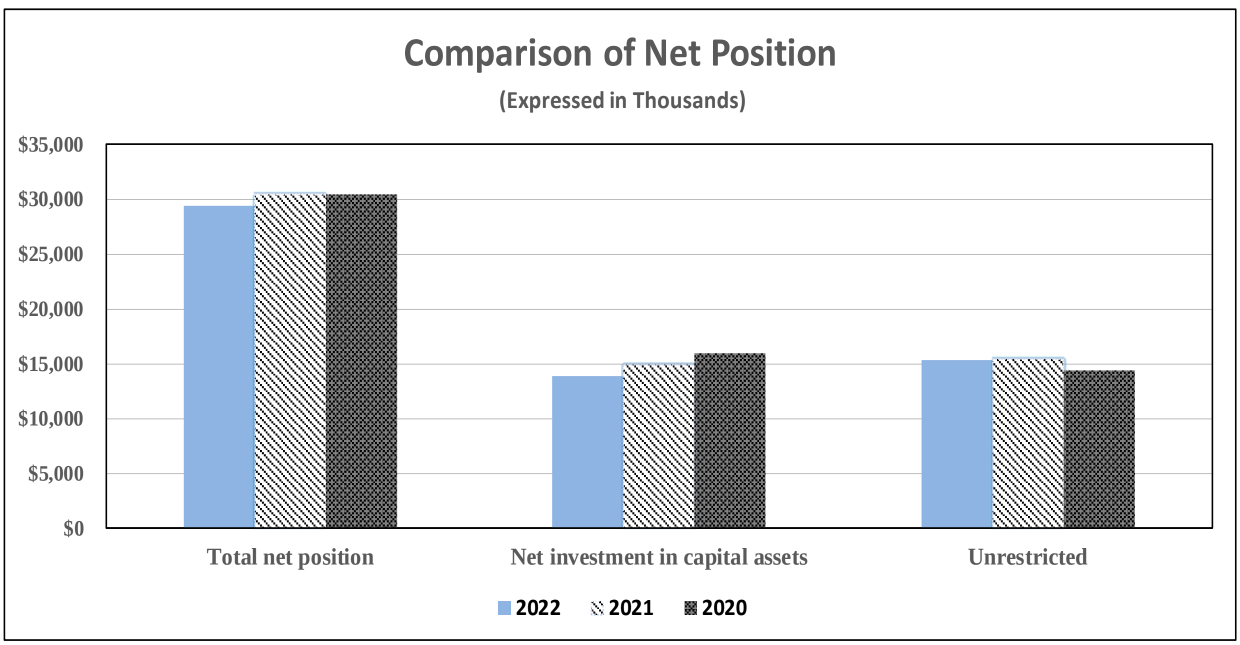
Over time, increases and decreases in net position provide an indicator of improving or deteriorating financial position.

Total net position for Midshore decreased $201 in 2022, which is related to the excess of revenue over expenses. 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.

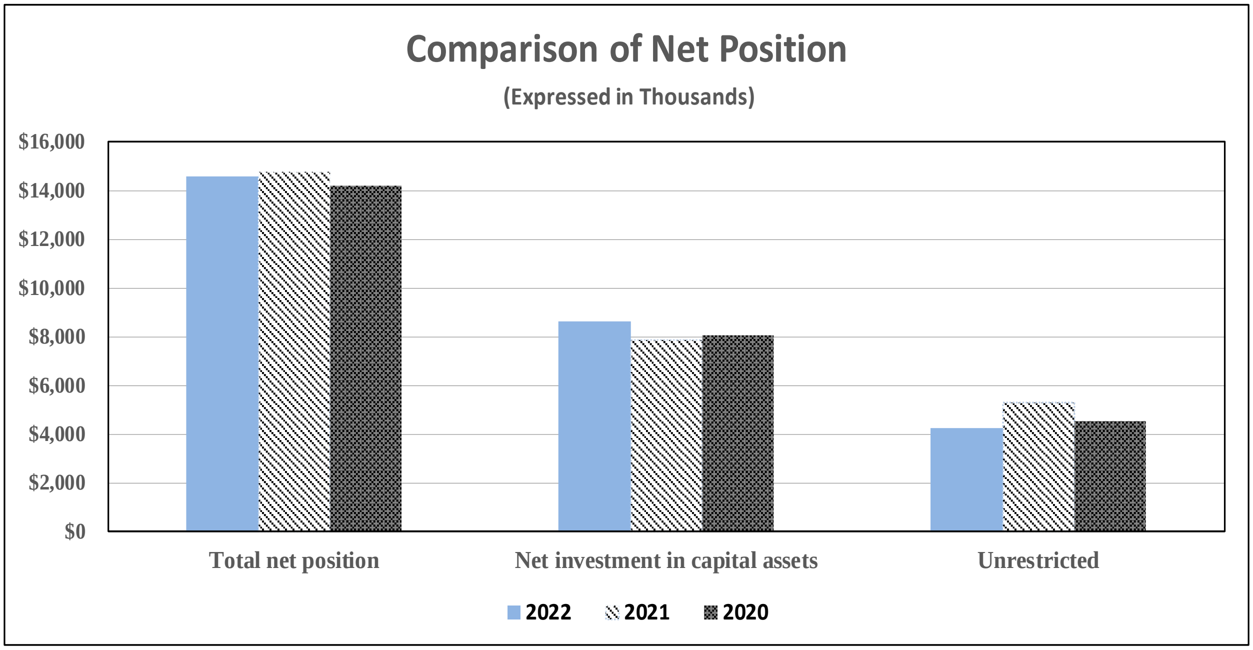
Total net position for Midshore increased $565 in 2021, which is related to the excess of revenue over expenses. Net investment in capital assets decreased $202 from the net of depreciation, acquisition of equipment, and payment of debt. The remaining components, restricted and unrestricted net position of $6,918 represent funds available for future expenditures.

A comparison of years ended June 30, 2022, 2021, and 2020 for the Service and for Midshore are presented graphically below:

Maryland Environmental Service:



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, 2022, 2021, and 2020.

Maryland Environmental Service:

Condensed Changes in Net Position
(Expressed in Thousands)

	2022	2021	2020
Total operating revenue	$ 166,474	$ 186,529	$ 182,221
Operating expenses			
Salaries and benefits	58,645	56,018	55,801
Other	95,426	113,479	109,418
General and administrative	13,531	16,992	16,381
Total operating expenses	167,602	186,489	181,600
Operating income	(1,128)	40	621
Non-operating revenue (expense), net	70	(40)	106
Change in net position	(1,058)	-	727
Net position, beginning of year	30,484	30,484	29,757
Net position, end of year	$ 29,426	$ 30,484	$ 30,484

Midshore Regional Landfill:

Condensed Changes in Net Position
(Expressed in Thousands)

	2022	2021	2020
Total operating revenue	$ 8,840	$ 8,653	$ 8,392
Operating expenses			
Salaries and benefits	1,723	1,766	1,780
Other	6,242	4,956	5,115
General and administrative	515	561	504
Total operating expenses	8,480	7,283	7,399
Operating income	360	1,370	993
Non-operating expenses, net	(561)	(805)	(725)
Change in net position	(201)	565	268
Net position, beginning of year	14,784	14,219	13,951
Net position, end of year	$ 14,583	$ 14,784	$ 14,219

Revenue by Activity

Maryland Environmental Service:

The following table presents operating revenue by activity for the years ended June 30, 2022, 2021, and 2020:

Operating Revenue by Activity
(Expressed in Thousands)

	2022	2021	2020
Environmental dredging & restoration	$ 40,658	$ 63,005	$ 67,646
Water/wastewater operations	32,987	27,313	25,402
Recycling	26,772	21,157	19,868
Solid waste management	18,775	30,037	24,385
Energy co-generation	16,763	8,618	8,173
Environmental engineering	5,309	4,239	4,518
Environmental monitoring	18,610	23,017	21,992
Hazardous waste treatment	3,959	4,471	4,653
Grants	2,613	4,055	5,123
Other	28	617	461
Total revenue	$ 166,474	$ 186,529	$ 182,221

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 10.75% in operating revenue. There was a decrease in Environmental Dredging & Restoration of $22,347; however, the decrease was offset by an increase in Recycling of $5,615 and an increase in Water/Wastewater Operations of $5,674.

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 FY 21 with final completion and close out in early FY 22. The Lake Linganore Dredging Project spanned over multiple FYs and was completed in early FY 22, so the revenue was significantly lower than FY 21. 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 FY 21. The next phase of the project, the +60 dike construction did not begin until late summer of FY 22 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 FY 22. Additionally, there was a reduction in FY 22 revenues with the completion of the geotechnical borings for the Mid-Bay Design Project in FY 21.
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.

The total increase in operating revenue for the year ended June 30, 2021 was $4,308 compared to the year ended June 30, 2020. The change represents an increase of 2.4% in operating revenue. There was a decrease in Environmental Dredging & Restoration of $4,641; however, the decrease was offset by an increase in Solid Waste Management of $5,652 and an increase in Water/Wastewater Operations of $1,911.

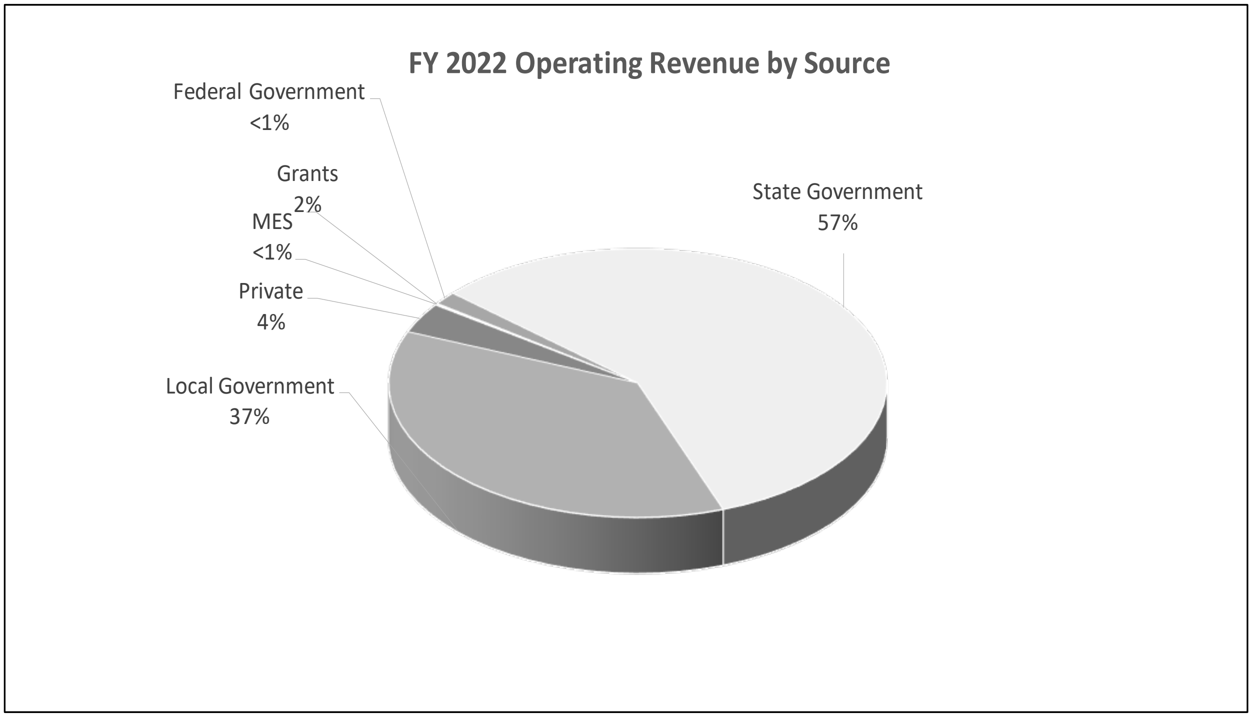
The decrease in Environmental Dredging and Restoration Group is largely attributable to the Cox Creek Expansion project, which included design efforts preparing for the +60 dike construction and continuation of large construction projects: operations complex relocation, base dike widening and upland demolition and remediation in FY 20 which either were completed or winding down in FY 21. This large decrease was offset by increases in FY 21 with the Seagirt Berth 3 Dredging Project which began and was substantially completed in FY 21; and the Mid Bay Design project, which ramped up in FY 21 with extensive geotechnical and environmental investigations. The increase in Recycling is attributable to the Prince George's MRF capital project's major equipment upgrade, allowing the facility to separate plastic recyclables into more marketable commodities.

The following table presents revenue by source for the years ended June 30, 2022, 2021, and 2020:

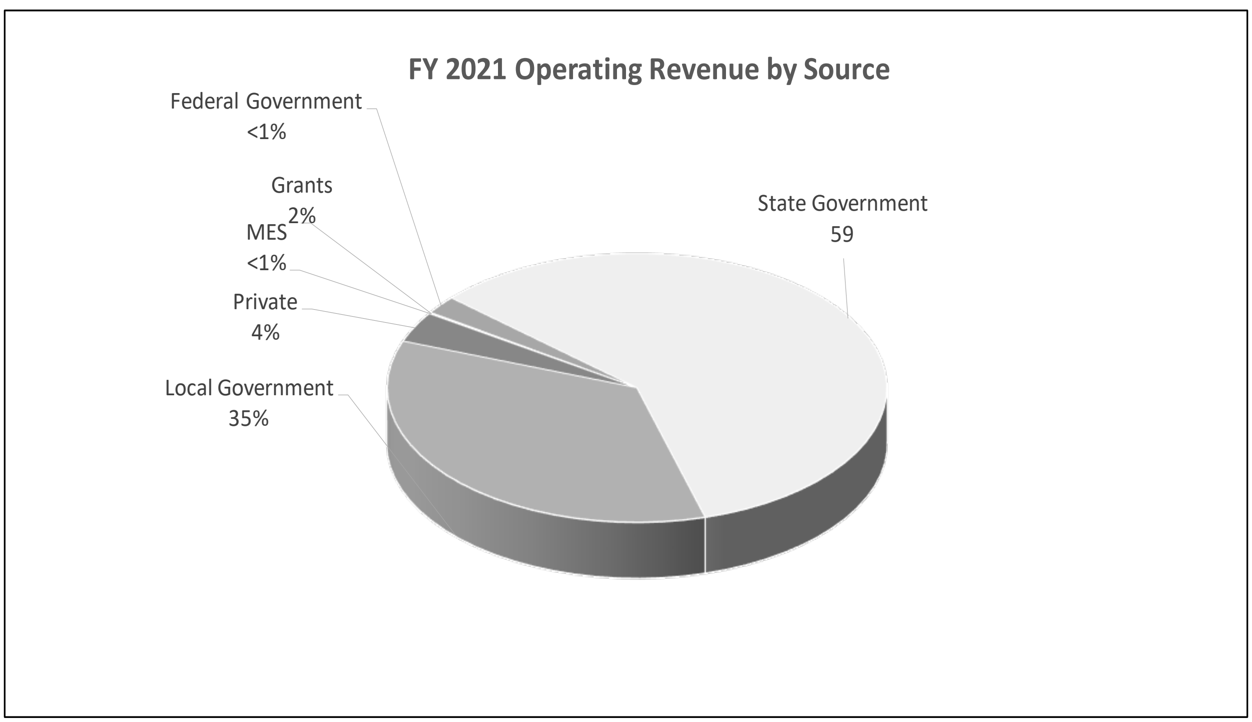
Revenue by Source
(Expressed in Thousands)

	2022	2021	2020
State government	$ 96,162	$ 109,933	$ 113,034
Local government	61,282	65,373	57,775
Private	6,061	6,884	5,831
Federal government	193	185	169
MES product revenues	163	99	289
Grants	2,613	4,055	5,123
Total Revenue	$ 166,474	$ 186,529	$ 182,221

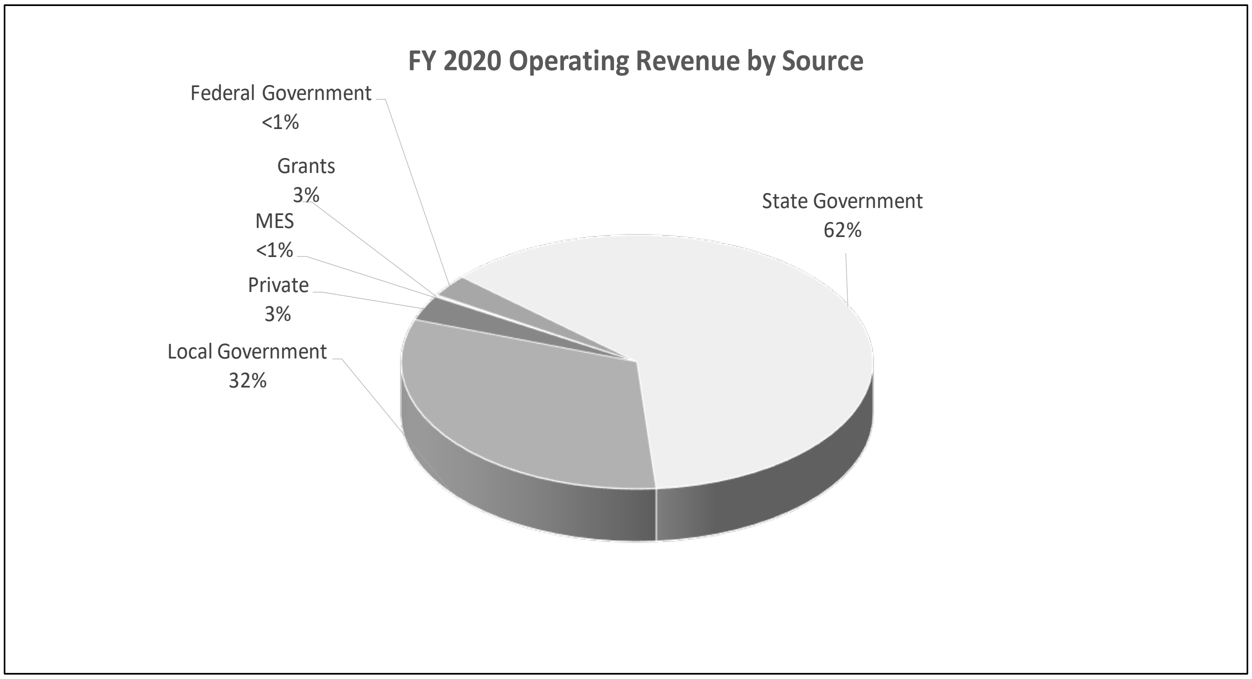
The following graph presents the Service's revenue by source for the year ended June 30, 2022:



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



The following graph presents revenue by source for the year ended June 30, 2020:



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

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.

State government revenues decreased by $3,101 in 2021, and local government revenue increased by $7,598. Grants decreased by $1,068, and all other sources of revenue increased by $879.

The main factor that contributed to the local government increase attributable to the Prince George's MRF capital project's major equipment upgrade, allowing the facility to separate plastic recyclables into more marketable commodities. The main factor for the decrease in state revenues was the completion of the Cox Creek Expansion Project. The main decrease in Grants was due to the completion of the MDE Freedom ENR Construction Upgrade.

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 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.

Service operating income reported in 2021 was $40 compared to $621 in 2020, a decrease of $581. The decrease was due to an increase in contractual services in 2021.

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.

Midshore operating income reported in 2021 was $1,370 compared to $993 in 2020, an increase of $377. This increase was driven by several factors including, primarily, an approximate 3% increase in billable tonnage received at the facility and an approximate 2% decrease in operating expenses.

Non-Operating Revenue (Expenses), Net

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.

Service non-operating revenue (expense), net decreased $146 to $(40) in 2021. Non-operating items primarily include interest income and interest expense. For 2021, investment income decreased by $206.

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 $9, and interest expense decreased by $212.

Midshore non-operating expenses, net increased $80 to $(805) in 2021. Non-operating items primarily include interest income and interest expense. For 2021, interest income decreased by $182, and interest expense decreased by $101.

Grants

Service operating grants in 2022 totaled $2,613 compared to $4,055 in 2021, and $5,123 in 2020. The main reason for the decrease was COVID negatively affecting business participants, their participation in the program, and significantly delayed equipment delivery.

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, 2022, 2021, and 2020, and capital expenditures for the years ended June 30, 2022, 2021, and 2020:

Capital Assets, Net of Depreciation
(Expressed in Thousands)

	2022	2021	2020
Land and improvements	$ 4,262	$ 4,262	$ 4,262
Buildings and improvements	4,903	5,074	5,058
Infrastructure	-	-	194
Construction in progress	-	-	456
Machinery and equipment	5,682	6,913	7,783
Total	$ 14,847	$ 16,249	$ 17,753

Right to Use Leased Assets, Net of Amortization
(Expressed in Thousands)

	2022	2021	2020
Buildings	$ 616	$ -	$ -
Total	$ 616	$ -	$ 17,753

Capital Expenditures
(Expressed in Thousands)

	2022	2021	2020
Autos and trucks	$ 210	$ 834	$ 430
Land	-	-	-
Computer hardware/software	-	103	654
Tools/machinery/equipment	-	-	24
Leasehold improvements	-	-	104
Construction in progress	-	-	507
Total	$ 210	$ 937	$ 1,719

As of June 30, 2022, the carrying value of capital assets and right to use leased assets, net of depreciation and amortization was $15,463, a decrease of $786 from 2021. The decrease is comprised of capital additions of $826, and depreciation and amortization of $1,612. The capital additions for the year were fleet vehicle replacements, construction/farm equipment, and right to use leased office space.

As of June 30, 2021, the carrying value of capital assets and right to use leased assets, net of depreciation was $16,249, a decrease of $1,504 from 2020. The decrease is comprised of capital additions of $937, net disposals/transfers of $517, and depreciation and amortization of $1,924. The capital additions for the year were fleet vehicle replacements, IT equipment.

The following tables present Midshore's capital assets, net of depreciation as of June 30, 2022, 2021, and 2020, and capital expenditures for the years ended June 30, 2022, 2021, and 2020:

Capital Assets, Net of Depreciation
(Expressed in Thousands)

	2022	2021	2020
Land and improvements	$ 1,690	$ 1,690	$ 1,690
Buildings and improvements	25,777	27,568	29,097
Construction in progress	66	57	242
Machinery and equipment	1,775	1,195	224
Total	$ 29,308	$ 30,510	$ 31,253

Capital Expenditures
(Expressed in Thousands)

	2022	2021	2020
Construction in progress	$ 9	$ 92	$ -
Tools/machinery/equipment	969	-	205
Leasehold improvements	-	1,059	2,789
Total	$ 978	$ 1,151	$ 2,994

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.

As of June 30, 2021, the carrying value of capital assets, net of depreciation was $30,510, a decrease of $743 from 2020. The decrease is comprised of capital additions of $1,151, net transfers of $21, and depreciation of $1,915.

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

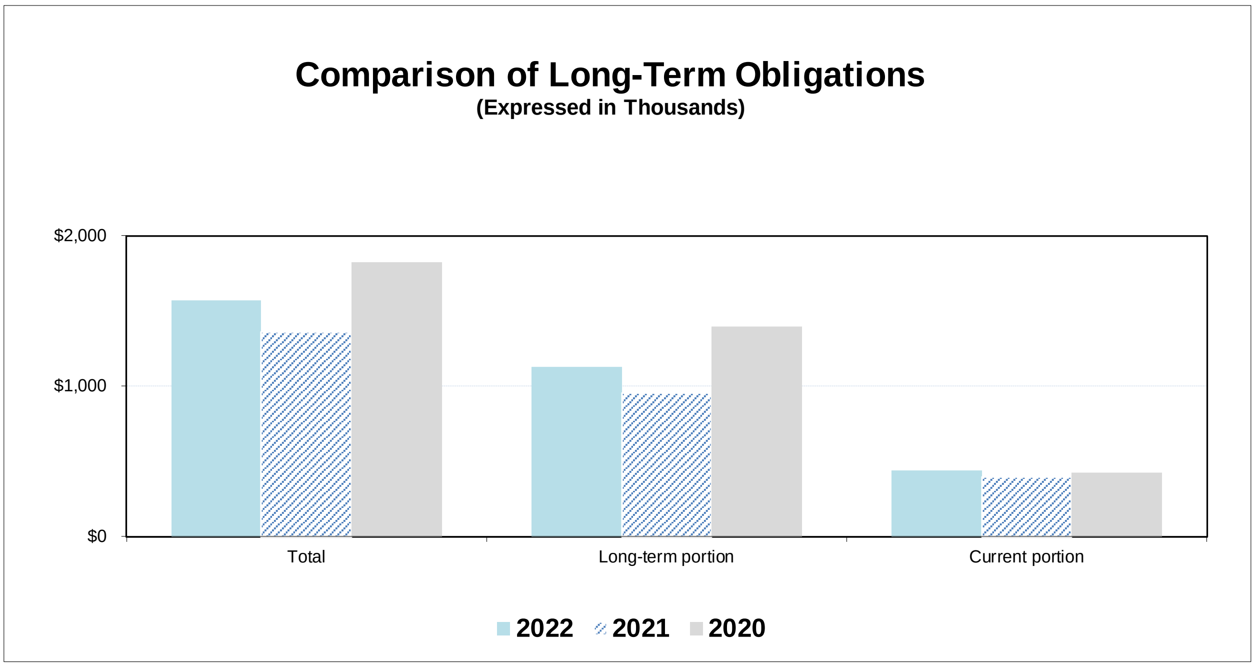
Long-Term Obligations

The following table and graph present outstanding long-term obligations as of June 30, 2022, 2021, and 2020:

Maryland Environmental Service:

Long-Term Obligations
(Expressed in Thousands)

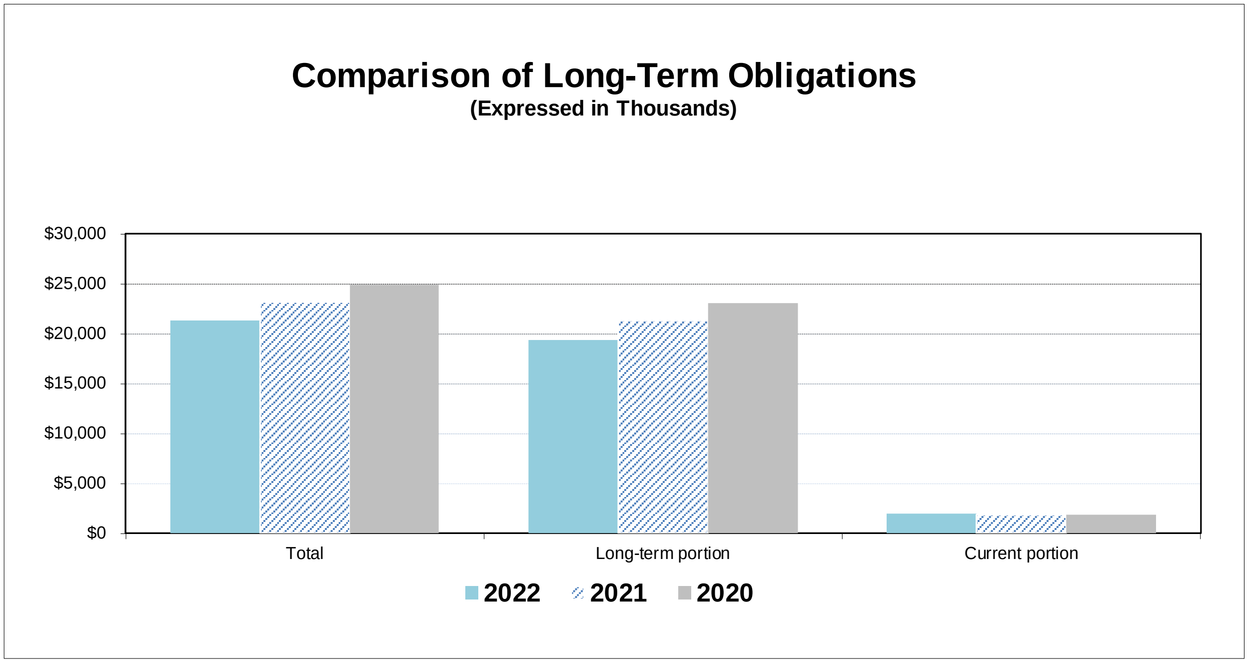
	2022	2021	2020
Lease liabilities	$ 616	$ -	$ -
Bonds and note payable	957	1,359	1,827
Total	$ 1,573	$ 1,359	$ 1,827



Midshore Regional Landfill:

Bonds Outstanding
(Expressed in Thousands)

	2022	2021	2020
Bonds payable	$ 21,326	$ 23,208	$ 24,963
Total	$ 21,326	$ 23,208	$ 24,963



As of June 30, 2022, the Service's long-term obligations increased $214 to $1,573 as a result of $616 new lease liabilities offset by $402 of lease principal payments.

As of June 30, 2021, the Service's long-term obligations was $1,359, representing a net decrease in borrowing of $468 from 2020. The net decrease consists of principal payments along with a refund and defeasance of the outstanding revenue bond 2011 series using $9.8 million in tax-exempt bonds issued in September 2020.

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

As of June 30, 2021, Midshore long-term obligations was $23,208 representing a decrease in borrowing of $1,755.

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, 2022 and 2021
(Expressed in Thousands)

	2022	2021
Assets		
Current assets:		
Cash and cash equivalents	$ 23,585	$ 30,240
Investments	19,062	4,060
Accounts receivable (net of allowance of $50)	38,402	33,696
Unbilled project costs accrued	3,186	6,121
Other	750	221
Total current assets	84,985	74,338
Non-current assets:		
Restricted cash	110	110
Due from project participants	8,168	9,426
Right to use leased assets, net of amortization	616	-
Capital assets, net of accumulated depreciation:		
Land	4,262	4,262
Buildings and improvements	4,903	5,074
Machinery and equipment	5,682	6,913
Total capital assets	14,847	16,249
Total non-current assets	23,741	25,785
Total assets	108,726	100,123
Deferred outflows:		
Deferred outflows related to OPEB	1,672	774
Deferred outflows related to pensions	514	416
Total deferred outflows	2,186	1,190
Liabilities		
Current liabilities:		
Accounts payable and accrued expenses	29,361	29,796
Accrued annual leave	3,240	2,759
Due to Midshore and other projects	13,021	12,317
Advances from project participants	21,435	11,190
Lease liabilities, current portion	14	-
Note payable, current portion	426	401
Accrued workers' compensation costs	475	609
Total current liabilities	67,972	57,072
Non-current liabilities:		
Advances from project participants	1,151	1,120
Lease liabilities, less current portion	602	-
Note payable, less current portion	531	958
Accrued workers' compensation costs	2,693	3,451
Accrued annual leave	1,580	1,901
Net OPEB liability	2,234	1,630
Net pension liability	1,551	2,583
Total other liabilities	10,342	11,643
Total liabilities	78,314	68,715
Deferred inflows		
Deferred inflows related to OPEB	1,792	1,467
Deferred inflows related to pensions	1,380	647
Total deferred inflows	3,172	2,114
Net Position		
Net investment in capital assets	13,902	14,891
Restricted net position	124	122
Unrestricted net position	15,400	15,471
Total net position	$ 29,426	$ 30,484

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

Maryland Environmental Service
Statements of Revenue, Expenses and Change in Net Position
For the years ended June 30, 2022 and 2021
(Expressed in Thousands)

	2022	2021
Operating revenue:		
Charges for services	$ 163,861	$ 182,474
Operating grants	2,613	4,055
Total operating revenue	166,474	186,529
Operating expenses:		
Salaries and benefits	58,645	56,018
Contractual services	38,695	38,582
Technical fees	9,320	13,023
Utilities	11,689	6,502
Repairs and maintenance	4,698	3,667
Materials and supplies	8,788	8,722
Land, structures and equipment	19,785	39,378
Depreciation	1,612	1,924
General and administrative	13,531	16,992
Other	839	1,681
Total operating expenses	167,602	186,489
Operating income	(1,128)	40
Non-operating revenue (expenses):		
Investment income	4	9
Interest expense	(70)	(82)
Miscellaneous income	136	33
Non-operating revenue (expenses), net	70	(40)
Change in net position	(1,058)	-
Net position, beginning of year	30,484	30,484
Net position, end of year	$ 29,426	$ 30,484

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

Maryland Environmental Service
Statements of Cash Flows
For the years ended June 30, 2022 and 2021
(Expressed in Thousands)

	2022	2021
Cash Flows From Operating Activities		
Receipts from customers	$ 164,839	$ 186,190
Payments to suppliers	(112,391)	(121,055)
Payments to employees	(54,030)	(56,018)
Payments to project participants	11,168	(9,284)
Other payments from project Midshore	704	445
Other receipts	(1,420)	1,236
Net cash provided by operating activities	8,870	1,514
Cash Flows From Capital and Related Financing Activities		
Purchases of capital assets	(210)	(937)
Proceeds from disposal of capital assets	-	542
Payments on note payable	(402)	(468)
Interest paid on note payable	(70)	(82)
Other receipts	135	-
Net cash used in capital and related financing activities	(547)	(945)
Cash Flows From Investing Activities		
Purchases of investments	(46,000)	(4,000)
Sales and maturities of investments	31,000	6,000
Interest and dividends	22	8
Net cash (used in) provided by investing activities	(14,978)	2,008
Net changes in cash and cash equivalents	(6,655)	2,577
Cash and cash equivalents - beginning of the year	30,240	27,663
Cash and cash equivalents - end of the year	$ 23,585	$ 30,240
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	$ (1,128)	$ 40
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation expense	1,612	1,924
Change in non-cash operations:		
Receivables, net	(4,706)	1,621
Other assets	3,645	(2,923)
Accounts and other payables	(275)	7,492
Due to project participants	10,338	(7,263)
Net pension liability	(1,032)	(37)
Net OPEB liability	604	(1,003)
Net change due to/from Midshore	704	444
Accrued workers compensation	(892)	1,219
Net cash provided by operating activities	$ 8,870	$ 1,514
Noncash Capital and Financing Activities		
Lease obligations incurred for new right to use leased assets	$ 616	$ -

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

Midshore Regional Landfill
Statements of Net Position
As of June 30, 2022 and 2021
(Expressed in Thousands)

	2022	2021
Assets		
Current assets:		
Due from MES	$ 13,021	$ 12,317
Accounts receivable	502	535
Total current assets	13,523	12,852
Non-current assets:		
Restricted investments	3,369	3,338
Capital assets not depreciated	1,756	1,747
Capital assets being depreciated, net	27,552	28,763
Total capital assets	29,308	30,510
Total other assets	32,677	33,848
Total assets	46,200	46,700
Liabilities		
Current liabilities:		
Accounts payable and accrued expenses	2,274	1,548
Advances from project participants	483	483
Bonds outstanding	2,003	1,898
Total current liabilities	4,760	3,929
Non-current liabilities:		
Bonds outstanding	19,323	21,310
Accrued landfill closure and postclosure care costs	7,342	6,462
Total non-current liabilities	26,665	27,772
Total liabilities	31,425	31,701
Deferred inflows:		
Deferred inflows related to debt refunding	192	215
Total deferred inflows	192	215
Net Position		
Net investments in capital assets	8,603	7,866
Restricted net position	1,738	1,630
Unrestricted net position	4,242	5,288
Total net position	$ 14,583	$ 14,784

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

Midshore Regional Landfill
Statements of Revenue, Expenses and Change in Net Position
For the years ended June 30, 2022 and 2021
(Expressed in Thousands)

		2022		2021
Operating revenue:				
Charges for services	$	8,840	$	8,653
Operating expenses:				
Salaries and benefits		1,723		1,766
Contractual services		458		584
Technical fees		780		358
Utilities		52		67
Operations and maintenance		675		405
Materials and supplies		149		255
Land, structures and equipment		302		309
Depreciation		2,180		1,915
Closure/post closure		1,579		1,026
General and administrative		515		561
Other, net		67		37
Total operating expenses		8,480		7,283
Operating income		360		1,370
Non-operating revenue (expenses):				
Interest income		15		6
Interest expense		(582)		(817)
Miscellaneous income		6		6
Non-operating expenses, net		(561)		(805)
Change in net position		(201)		565
Net position, beginning of year		14,784		14,219
Net position, end of year	$	14,583	$	14,784

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

Midshore Regional Landfill
Statements of Cash Flows
For the years ended June 30, 2022 and 2021
(Expressed in Thousands)

	2022	2021
Cash Flows From Operating Activities		
Receipts from customers	$ 8,875	$ 8,707
Payments to suppliers	(2,973)	(3,049)
Payments to employees	(1,723)	(1,766)
Payments to project participants	(704)	(444)
Net cash provided from operating activities	3,475	3,448
Cash Flows From Capital and Related Financing Activities		
Proceeds from bonds issued	-	11,505
Purchases of capital assets	(978)	(1,151)
Disposal of capital assets	6	6
Principal paid on bonds outstanding	(1,733)	(12,952)
Interest paid on bonds outstanding	(755)	(945)
Net cash used in capital and related financing activities	(3,460)	(3,537)
Cash Flows From Investing Activities		
Purchases of investments	(30)	83
Interest and dividends	15	6
Net cash (used in) provided from investing activities	(15)	89
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 income to net cash provided by operating activities:		
Operating income	$ 360	$ 1,370
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation expense	2,180	1,915
Change in non-cash operations:		
Accounts receivables	34	54
Accounts and other payables	726	324
Due from MES	(704)	(444)
Accrued landfill closure	879	229
Net cash from operating activities	$ 3,475	$ 3,448

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

Maryland Environmental Service
Other Postemployment Benefit Plan
Statement of Plan Net Position
As of June 30, 2022 and 2021
(Expressed in Thousands)

		2022		2021
Assets				
Cash and short-term investments	$	371	$	502
Investments:				
Equities		3,222		3,257
Other		1,734		1,912
Total investments		4,956		5,169
Total assets		5,327		5,671
Net position held in trust for other postemployment benefits	$	5,327	$	5,671

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

Maryland Environmental Service
Other Postemployment Benefit Plan
Statement of Changes in Plan Net Position
For the years ended June 30, 2022 and 2021
(Expressed in Thousands)

	2022	2021
Additions		
Employer contributions	$ 479	$ 541
Investment Income:		
Net appreciation (depreciation) in fair value of investments	(793)	803
Interests and dividends	166	210
	(627)	1,013
Less investment expense	16	14
Net investment (loss) income	(643)	999
Total additions	(164)	1,540
Deductions		
Benefits paid	180	180
Net change	(344)	1,360
Net position held in trust for other postemployment benefits		
Net position, beginning of year	5,671	4,311
Net position, end of year	$ 5,327	$ 5,671

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

(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, reduced by the outstanding balances of bonds, mortgages, notes 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, 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*. 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.

(l) 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 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, 2022, 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 issued GASB Statement No. 87, *Leases* for the year ended June 30, 2022. This Statement required 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, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. The Service implemented GASB 87 effective as of July 1, 2020 and these financial statements reflect the impact of this pronouncement.

(q) Recent Accounting Pronouncements

In May 2020, GASB issued GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*. This Statement provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users (governments). This Statement (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset—an intangible asset—and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA. To the extent relevant, the standards for SBITAs are based on the standards established in Statement No. 87, Leases, as amended. The Service is evaluating the impact on this statement of its financial statements for the year ended June 30, 2023 when this statement will be effective.

In June 2022, GASB issued GASB Statement No. 101, *Compensated Absences*. This Statement clarifies when liabilities for compensated absences should be recognized for (1) leave that has not been used and (2) leave that has been used but not yet paid in cash or settled through noncash means. The Service will be required to estimate leave that is more likely than not to be used or otherwise paid or settled. The Service is evaluating the impact on this statement of its financial statements for the year ended June 30, 2023 when this statement will be effective.

(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 $23,585 and $30,240 as of June 30, 2022 and 2021, respectively. Included, as cash equivalents for financial statement presentation, were certain overnight investments of $25,225 and $32,552, offset by $2,498 and $3,086 of outstanding checks as of June 30, 2022 and 2021, 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.

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

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, 2022:

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

The Service has the following recurring fair value measurements as of June 30, 2021:

- Money market funds of $4,060 are valued at quoted market price (Level 1 inputs)

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

Investment Type	Ratings by Organization Moody's	Fair Value (In Thousands)	Investment Maturities (in Years) Less than 1	1-5	6-10	11-15	More than 15
US Treasuries	Aaa	$ 19,062	$ 19,062	$ -	$ -	$ -	$ -

As of June 30, 2021, the Service had the following investments and quality ratings:

Investment Type	Ratings by Organization Moody's	Fair Value (In Thousands)	Investment Maturities (in Years) Less than 1	1-5	6-10	11-15	More than 15
Bank of America FNMA	Aaa	$ 4,060	$ 4,060	$ -	$ -	$ -	$ -

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

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

Investment Type	Ratings by Organization Moody's	Fair Value (In Thousands)	Investment Maturities (in Years) Less than 1	1-5	6-10	11-15	More than 15
US Treasuries		$ 836	$ 836	$ -	$ -	$ -	$ -
Money Market Funds		2,533	2,533	-	-	-	-
	Aaa	$ 3,369	$ 3,369	$ -	$ -	$ -	$ -

As of June 30, 2021, the Midshore Regional Landfill had the following investments and quality ratings:

Investment Type	Ratings by Organization Moody's	Fair Value (In Thousands)	Investment Maturities (in Years) Less than 1	1-5	6-10	11-15	More than 15
Money Market Funds	Aaa	$ 3,338	$ 3,338	$ -	$ -	$ -	$ -

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.

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:

	2022	2021
Service held:		
Project restricted	$ 110	$ 110

Midshore Regional Landfill:

	2022	2021
Trustee held:		
Closure Fund	$ 795	$ 795
Construction Funds	1,738	1,708
Service held:		
Liability Fund	836	835
	$ 3,369	$ 3,338

(In thousands except where noted)

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

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 $5,327 and $5,671 were uncollateralized and exposed to credit risk as of June 30, 2022 and 2021, respectively.

The Service has the following recurring fair value measurements as of June 30, 2022 and 2021:

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

Issue	Fair Value	Percentage
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%

As of June 30, 2021, the Plan had the following investments that represented 5% or more of total investments:

Issue	Fair Value	Percentage
Vanguard Total Stock Market ETF	$ 1,393	25%
Vanguard Total Bond Market Index Fund	$ 988	18%
Dodge & Cox International Stock Fund	$ 697	12%
iShares MSCI EAFE EFT	$ 682	12%
Fidelity Investment MM TSY	$ 502	8%
T. Rowe Price Real Estate Fund	$ 441	6%

(In thousands except where noted)

(3) Capital Assets

The tables below represent the changes in capital:

Maryland Environmental Service – Year Ending June 30, 2022:

	Balance 06/30/21	Additions	Deletions	Transfers In/Out	Balance 06/30/22
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	-	-	-	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

Maryland Environmental Service – Year Ending June 30, 2021:

	Balance 06/30/20	Additions	Deletions	Transfers In/Out	Balance 06/30/21
Capital assets, not depreciated					
Land and improvements	$ 4,262	$ -	$ -	$ -	$ 4,262
Construction in progress	456	-	(456)	-	-
Total capital assets not depreciated	4,718	-	(456)	-	4,262
Capital assets, being depreciated					
Structures and improvements	11,615	-	(54)	-	11,561
Equipment	23,802	937	(3,341)	(1,338)	20,060
Total capital assets being depreciated	35,417	937	(3,395)	(1,338)	31,621
Less: accumulated depreciation for					
Structures and improvements	6,362	177	(52)	-	6,487
Equipment	16,020	1,747	(3,282)	(1,338)	13,147
Total accumulated depreciation	22,382	1,924	(3,334)	(1,338)	19,634
Total capital assets, net	$ 17,753	$ (987)	$ (517)	$ -	$ 16,249

(In thousands except where noted)

(3) Capital (continued)

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					
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

Midshore Regional Landfill – Year Ending June 30, 2021:

	Balance 06/30/20	Additions	Deletions	Transfers In/Out	Balance 06/30/21
Capital assets, not depreciated					
Land and improvements	$ 1,690	$ -	$ -	$ -	$ 1,690
Construction in progress	242	92	-	(277)	57
Total capital assets, not depreciated	1,932	92	-	(277)	1,747
Capital assets, being depreciated					
Structures and improvements	49,302	-	-	277	49,579
Equipment	3,452	1,059	(1,150)	1,338	4,699
Total capital assets being depreciated	52,754	1,059	(1,150)	1,615	54,278
Less: accumulated depreciation for					
Structures and improvements	20,205	1,806	-	-	22,011
Equipment	3,228	109	(1,171)	1,338	3,504
Total accumulated depreciation	23,433	1,915	(1,171)	1,338	25,515
Total capital assets, net	$ 31,253	$ (764)	$ 21	$ -	$ 30,510

(In thousands except where noted)

(4) Right to Use Leased Assets

The tables below represent the changes in capital:

Maryland Environmental Service – Year Ending June 30, 2022:

	Balance 06/30/21	Additions	Deletions	Transfers In/Out	Balance 06/30/22
Right to use leased assets, being depreciated					
Land	$ -	$ 616	$ -	$ -	$ 616
Total capital assets being depreciated	-	616	-	-	616
Less: accumulated amortization for					
Land	-	-	-	-	-
Total accumulated depreciation	-	-	-	-	-
Total right to use leased assets, net	$ -	$ 616	$ -	$ -	$ 616

(5) Construction Commitments

The Service entered into construction contracts with unrelated parties in the amount of $92 for the construction of Midshore Cell # 3. As of June 30, 2022, all commitments had been incurred.

(6) Concentrations of Credit

The Service derived approximately 58% and 59% of its revenue in the years ended June 30, 2022 and 2021, 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 under GASB 87, *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 lease liability was measured at a discount rate of 5%. Associated with this lease, the Service has recorded a right to use asset with a net book value of $616 at June 30, 2022.

The future minimum lease obligations and the net present value of these minimum lease payments as of June 30, 2022, were as follows:

(In thousands except where noted)

Years ending June 30:	Principal	Interest	Total
2023	$14	$28	$ 42
2024	12	30	42
2025	13	29	42
2026	15	29	44
2027	17	28	45
Thereafter	545	235	780
	$ 616	$ 379	$ 995

(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, 2022, were due as follows:

Years ending June 30:	Principal	Interest	Total
2023	$426	$46	$ 472
2024	453	20	473
2025	77	2	79
	$ 956	$ 68	$ 1,024

(In thousands except where noted)

(8) Debt (continued)

Midshore Regional Landfill:

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

	2022	2021
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 2021 through 2030 in varying amounts from $815 to $1,160.	$ 10,617	$ 11,505
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.	7,466	8,063
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	2,356	2,653
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.	887	987
Total	21,326	23,208
Less: current portion	2,003	1,898
Long-term portion of debt	$ 19,323	$ 21,310

(In thousands except where noted)

(8) Debt (continued)

Future minimum payments for bonds payable as of June 30, 2022, were due as follows:

Years ending June 30:	Total	Principal	Interest
2023	$ 2,492	$ 1,797	$ 695
2024	2,492	1,868	624
2025	2,493	1,945	548
2026	2,489	2,021	468
2027	2,487	2,102	385
2028-2031	9,970	9,321	649
	22,423	19,054	3,369
Plus: Unamortized bond premium	2,272	2,272	-
Total	$ 24,695	$ 21,326	$ 3,369

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 per-ton 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.

(In thousands except where noted)

(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:

2022	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
Advances from project participants	$ 12,310	$ 51,987	$ (41,711)	$ 22,586	$ 21,435
Lease liabilities	-	616	-	616	14
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	$ 26,602	$ 59,779	$ (50,449)	$ 35,932	$ 25,590

2021	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
Advances from project participants	$ 20,375	$ 54,412	$ (62,477)	$ 12,310	$ 11,190
Note payable	1,737	-	(378)	1,359	401
Bonds payable	90	-	(90)	-	-
Accrued annual leave	4,147	3,192	(2,679)	4,660	2,759
Workers' compensation	2,842	1,218	-	4,060	609
Net OPEB liability	2,633	-	(1,003)	1,630	-
Net pension liability	2,620	-	(37)	2,583	-
Long-term liabilities	$ 34,444	$ 58,822	$ (66,664)	$ 26,602	$ 14,959

(In thousands except where noted)

(8) Debt (continued)

Midshore Regional Landfill:

2022	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
Bonds payable	$ 23,208	$ -	$ (1,882)	$ 21,326	$ 2,003
Landfill closure and postclosure care	6,462	1,125	(245)	7,342	-
Long-term liabilities	$ 29,670	$ 1,125	$ (2,127)	$ 28,668	$ 2,003

2021	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
Bonds payable	$ 24,963	$ 11,505	$ (13,260)	$ 23,208	$ 1,898
Landfill closure and postclosure care	6,233	713	(484)	6,462	-
Long-term liabilities	$ 31,196	$ 12,218	$ (13,744)	$ 29,670	$ 1,898

(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 https://sra.maryland.gov/annual-financial-reports.

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, 2022 and 2021.

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, 2022 and 2021 was $3,001 and $2,720, respectively. Employees are fully vested when eligible for the plan.

(In thousands except where noted)

(10) Pension (continued)

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

As of June 30, 2022 and 2021, the Service reported a liability of $1,551 and $2,583, respectively, for its proportionate share of the ERS net pension liability. The ERS net pension liability was measured as of June 30, 2021 and 2020, 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. As of June 30, 2022 and 2021, the Service's proportion for ERS was .0111% and 0.0122%, respectively.

For the years ended June 30, 2022 and 2021, the Service recognized pension expense for ERS of approximately $512 and $554, respectively. As of June 30, 2022, the Service reported deferred outflows of resources and deferred inflows of resources related to ERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes in assumptions	$ 265	$ -
Net difference between projected and actual earnings on pension plan investment	-	(693)
Net difference between actual and expected experience	-	(136)
Net change in proportionate share	-	(551)
Contributions made subsequent to the measurement date	249	-
Total	$ 514	$ (1,380)

The $249 reported as deferred outflows of resources related 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, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to ERS will be recognized in pension expense as follows:

	Deferred Outflows	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
2023	$ 56	$ (161)	$ (186)	$ (60)
2024	53	(152)	(117)	(35)
2025	55	(166)	(160)	(19)
2026	65	(214)	(66)	(15)
2027	36	-	(22)	(7)
Total	$ 265	$ (693)	$ (551)	$ (136)

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.

(In thousands except where noted)

(10) Pension (continued)

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 $1,551. 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 $2,642 or 1 percentage point higher (7.80%) is $646.

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	Annual Limit
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, 2021, 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.

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.

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

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 $478 and $541, respectively, in fiscal years 2022 and 2021. Total reimbursement of medical expenses was $156 and $180, respectively, in fiscal years 2022 and 2021.

As of the June 30, 2022, the Plan was 70.5% funded. The actuarial accrued liability for benefits was $7,561 resulting in a total net OPEB liability of $2,234.

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, 2022, the Service's annual OPEB cost was $509.

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.

(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, 2022, were as follows:

Total OPEB liability	$	7,561
Plan fiduciary net position		5,327
MES's net OPEB Liability	$	2,234
Plan fiduciary net position as a percentage of total OPEB liability		70.5%

Year Ended June 30,		2022		2021
Total OPEB Liability				
Service cost	$	156	$	150
Interest		516		490
Changes of benefit terms		-		-
Difference between expected and actual experience		(756)		(61)
Changes in assumptions and other inputs		523		(42)
Benefit payments		(179)		(180)
Net Change in Total OPEB Liability		260		357
Total OPEB Liability - Beginning		7,301		6,944
Total OPEB Liability - Ending	$	7,561	$	7,301
Plan Fiduciary Net Position				
Contributions - employer	$	479	$	541
Net investment income		(643)		999
Benefit payments		(180)		(180)
Net Change in Plan Fiduciary Net Position		(344)		1,360
Plan Fiduciary Net Position - Beginning		5,671		4,311
Plan Fiduciary Net Position - Ending	$	5,327	$	5,671
Net OPEB Liability	$	2,234	$	1,630

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.

(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		July 1, 2021
Actuarial value of assets	$	5,327
Actuarial accrued liability	$	7,561
Unfunded actuarial liability	$	2,234
Funded ratio		70.5%
Annualized covered payroll	$	53,178
Inflation		2.30%
Ratio of unfunded actuarial liability to annual covered payroll		4.20%
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:

Asset Class	Target Allocation	Long-Term Expected Real Rates of Return
Cash & Equivalents	5.00%	-1.30%
Equity	70.00%	4.70%
Fixed Income	15.00%	1.20%
Real Estate	10.00%	3.70%
Other	0.00%	0.00%
Total	100.00%	3.78%

(In thousands except where noted)

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

OPEB Deferred Outflows and Inflows of Resources

At June 30, 2022 and 2021, the Service reported deferred outflows of resources and deferred inflows of resources as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between actual and expected experience	$ 130	$ 925
Changes in assumptions	606	457
Difference between actual and expected investment earnings	936	410
Total	$ 1,672	$ 1,792

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	
2023	$ 169
2024	116
2025	(101)
2026	115
2027	(84)
Thereafter	(335)
Total	$ (120)

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	3,325	2,234	1,336

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	2,234	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, 2022, 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 $3,296, as determined through engineering studies and $1,852 has been recognized as a liability by the Service as of June 30, 2022.

Midshore II current cells are approximately 32% filled as of June 30, 2022, with a remaining life of 21 years. Total closure and postclosure care costs for the landfill is currently estimated to be $20,215, as determined through engineering studies, and $5,490 has been recognized as a liability by the Service as of June 30, 2022. 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, 2022. The Service expects to satisfy these requirements as of June 30, 2023, 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, 2022 and 2021, no additional assessments were made and the Service's premium for the years ended June 30, 2022 and 2021 was $4,528 and $4,710, respectively.

Schedule of Changes in Net OPEB Liability and Related Ratios

Year Ended June 30,	2022	2021	2020	2019	2018	2017
Total OPEB Liability						
Service cost	$ 156	$ 150	$ 148	$ 111	$ 107	$ 152
Interest	516	490	410	285	343	319
Changes of benefit terms	-	-	-	1,312	-	-
Difference between expected and actual experience	(756)	(61)	321	6	(501)	-
Changes in assumptions and other inputs	523	(42)	450	173	(669)	-
Benefit payments	(179)	(180)	(175)	(120)	(89)	(84)
Net Change in Total OPEB Liability	260	357	1,154	1,767	(809)	387
Total OPEB Liability - Beginning	7,301	6,944	5,790	4,023	4,832	4,445
Total OPEB Liability - Ending	$ 7,561	$ 7,301	$ 6,944	$ 5,790	$ 4,023	$ 4,832
Plan Fiduciary Net Position						
Contributions - employer	$ 479	$ 541	$ 473	$ 263	$ 368	$ 335
Net investment income	(643)	999	(19)	176	154	349
Benefit payments	(180)	(180)	(175)	(120)	(89)	(84)
Net Change in Plan Fiduciary Net Position	(344)	1,360	279	319	433	600
Plan Fiduciary Net Position - Beginning	5,671	4,311	4,032	3,713	3,280	2,680
Plan Fiduciary Net Position - Ending	$ 5,327	$ 5,671	$ 4,311	$ 4,032	$ 3,713	$ 3,280
Net OPEB Liability	$ 2,234	$ 1,630	$ 2,633	$ 1,758	$ 310	$ 1,552
Plan fiduciary net position as a percentage of total OPEB Liability	70.5%	77.7%	62.1%	69.6%	92.3%	67.9%
Covered Employee Payroll	53,178	48,536	$ 46,669	$ 44,599	$ 42,883	$ 44,599
Net OPEB liability as a percentage of covered employee payroll	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 7.00%

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

Schedule of Employer Contributions OPEB

	2017	2018	2019	2020	2021	2022
Actuarially Determined Contribution	$ 257	$ 266	$ 132	$ 287	$ 348	$ 283
Employer Contribution	335	368	263	473	541	479
Contribution Deficiency/(Excess)	(70)	(102)	(130)	(186)	(194)	(194)
Covered Employee Payroll	39,956	42,883	44,599	46,669	48,536	53,178
Employer Contribution as a Percentage of Covered Employee Payroll	0.8%	0.9%	0.6%	1.0%	1.1%	0.9%

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:	17 years
Asset Valuation Method:	Market Value
Inflation:	2.30%
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.

Schedule of Proportionate Share of Net Pension Liability

	2022	2021	2020	2019	2018	2017	2016	2015
The Service's proportion of the ERS net pension liability	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	$ 1,551	$ 2,583	$ 2,620	$ 3,260	$ 2,822	$ 3,761	$ 2,968	$ 2,102
The Service's covered employee payroll	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	146%	238%	234%	239%	207%	147%	120%	97%
Plan net position as a percentage of the total pension liability	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

	2022	2021	2020	2019	2018	2017	2016	2015
Contractually required contribution (ERS)	$ 249	$ 228	$ 243	$ 262	$ 303	$ 318	$ 336	$ 301
Contributions in relation to the contractually required contribution	249	228	243	262	303	318	336	301
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
The Service's covered-employee payroll	$ 1,062	$ 1,085	$ 1,119	$ 1,365	$ 1,365	$ 2,557	$ 2,483	$ 2,177
Contributions as a percentage of covered employee payroll	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.

RSM

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* issued by the Comptroller General of the United States (*Government Auditing Standards*), the financial statements of each major fund and the aggregate remaining fund information of Maryland Environmental Service (Service), as of and for the year ended June 30, 2022, 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 16, 2022. Our report contained an emphasis of matter paragraph for the adoption of the provision of GASB Statement No. 87, *Leases*. Our opinion has not been modified with respect to this matter.

Report on Internal Control Over Financial Reporting

In planning and performing our audit 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.*

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 16, 2022

MARYLAND ENVIRONMENTAL SERVICE
259 Najoles Road
Millersville, MD 21108
410.729.8200

www.menv.com