Maryland
ENVIRONMENTAL
SERVICE

MOVING FORWARD TO A NEW ERA

www.menv.com
Changing Maryland's Environment for the Better

CONTENTS

3 EXECUTIVE DIRECTOR'S STATEMENT

4 BOARD OF DIRECTORS

6 WHO WE ARE

8 ENVIRONMENTAL DREDGING AND RESTORATION

12 TECHNICAL AND ENVIRONMENTAL SERVICES

16 ENVIRONMENTAL OPERATIONS

20 WATER AND WASTEWATER OPERATIONS

Maryland ENVIRONMENTAL SERVICE

WELCOME

I'm happy to report that it's been another incredible year for MES. Fiscal year 2021 was full of challenges and uncertainty as we navigated the ongoing impacts and evolving safety standards of the COVID-19 pandemic. MES staff continued to rise to these challenges and provided support to environmental projects for our many clients and partners throughout the State in areas such as water/wastewater; environmental monitoring; solid waste and recycling; dredging and restoration; and stormwater management.

Our team at MES consists primarily of essential employees who work on environmental projects that provide vital services to Maryland's citizens: safe drinking water; reliable waste management; clear shipping channels; critical inspections and monitoring; and so many other crucial tasks. These team members work in every county across the State and are dedicated and flexible - always ready to find solutions to environmental challenges big and small. I am proud to work alongside such an incredible team.

Despite the challenging year, MES took on new projects and achieved success for our partners because of our team's expertise, professionalism, and commitment. We remain a strong leader in every area of our business and will continue to open doors to new opportunities in FY22.

"MES team members work in every county across the State and are dedicated and flexible - always ready to find solutions to environmental challenges big and small. I am proud to work alongside such an incredible team."

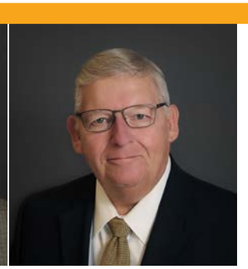
OUR BOARD OF DIRECTORS

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.

The Board of Directors are an asset to the agency and its critical work enhancing Maryland's environment. MES' 800+ teammates and the many stakeholders served across the Mid-Atlantic Region benefit from their expertise and ability to deliver strong financial leadership.

DR. CHARLES GLASS, EXECUTIVE DIRECTOR
APPOINTED 6/29/20

JUDGE FREDERIC SMALKIN, CHAIR
APPOINTED 9/17/20



DR. RICHARD P. STREETT, JR., SECRETARY
SERVICE ENDED 8/21/20

LESLIE JACKSON JENKINS, ESQ., BOARD MEMBER
SERVICE ENDED 11/1/20

JOSEPH F. SNEE, JR., ESQ., BOARD MEMBER SERVICE ENDED 6/30/21

WILLIAM B.C. ADDISON, JR., BOARD MEMBER
SERVICE ENDED 8/27/20

SHELLEY L. HELLER, BOARD MEMBER
CHAIR, AUDIT COMMITTEE
APPOINTED 11/10/20

J.P. SMITH, JR., BOARD MEMBER
SERVICE ENDED 6/30/21

MORGAN HALL, BOARD MEMBER
SERVICE ENDED 6/30/21

Sunset on the Chesapeake Bay

WHO WE ARE

MES was established by the Maryland 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. MES employs over 800 teammates and operates more than 1,000 environmental projects across Maryland and the Mid-Atlantic region. As a non-budgeted instrumentality of the State of Maryland, MES provides multi-disciplinary environmental services to enhance and protect the environment through innovative solutions to the region's most complex environmental challenges.

OUR TEAM

Over 500 of the MES team members work on-site at essential environmental projects throughout the State of Maryland. During the COVID-19 pandemic, these staff members continued to provide the 24/7 service that many of our clients and partners require while meeting rigorous safety requirements with flexibility and commitment.

The other 200+ MES team members work at our headquarters, located in Millersville, MD. These teammates spent much of FY21 teleworking full-time while also continuing to meet the needs of MES' clients and partners.

Blue Heron on Poplar Island

Provided in Tuition Reimbursement

$130,171

Awarded through Inspire & All-Stars Programs

$5,990

Participated in Historically Black Colleges & Universities (HBCU) Virtual Career Fairs

4

Managers & Supervisors who attended Virtual Unconscious Bias Training

90+

Eastern Correctional Institution Ribbon-Cutting Ceremony

MES maintained continuous operations during the pandemic, which included remaining in compliance with regulatory requirements and employee trainings and certifications. The Safety and Environmental Compliance division helped monitor facilities and sites to assure implementation of COVID-19 preventative measures and education of employees on reducing the spread of the virus.

Safety Training Classes Provided

118

Safety Inspections Conducted

54

Environmental Compliance Audits Conducted

34

CPR/First Aid Classes Conducted

23

ENVIRONMENTAL DREDGING AND RESTORATION

Dredging at Lake Linganore

The Lake Linganore project - one of the largest lake dredging projects in the State in recent history - substantially reversed the effects of sediment build-up in the lake, restored water storage capacity in a vital water source for local residents, and improved recreational access for community members.

OUR COMMITMENT TO OUR CLIENTS AND PROJECTS

During the COVID pandemic in FY21, the Environmental Dredging and Restoration field teams provided our clients with uninterrupted services to ensure construction, dredging, and operations continued at Hart-Miller Island; the Cox Creek and Masonville dredged material containment facilities (DMCF); Poplar Island; Dundalk Marine Terminal; Hawkins Point; and Lake Linganore. FY21 was just one more example of MES' commitment to our clients and projects.

DREDGING PROJECTS

On behalf of the Maryland Department of Transportation Maryland Port Administration (MDOT MPA), MES completed the 400,000 cubic-yard Seagirt Berth 3 Project, which included planning, permitting, design, procurement, and construction oversight of the dredging of Seagirt Berth 3 with wideners and Seagirt Turning Basin to facilitate larger vessel access. This dredging work was done in coordination with landside improvements at the Seagirt Marine Terminal as part of a Better Utilizing Investments to Leverage Development grant to allow the private-industry partner to receive four new Post-Panamax cranes for the Seagirt Marine Terminal that arrived at the Port in September 2021. MES also facilitated maintenance dredging in front of the berths at South Locust Point to respond to an urgent need by MDOT MPA.

MES successfully completed dredging of approximately 150,000 cubic yards of sediment from Lake Linganore, a 209-acre lake located in central Frederick County. Working with partners from the City of Frederick, Frederick County, and the Lake Linganore Association, along with subcontractors Anchor QEA and Mobile Dredging and Video Pipe, Inc., MES managed all stages of this project, from the alternatives analysis and design to permitting, procurement, and construction. This project - one of the largest lake dredging projects in the State in recent history - substantially reversed the effects of sediment build-up in the lake, restored water storage capacity in a vital water source for local residents, and improved recreational access for community members, while also innovatively reusing the dredged material as landfill cover material for Frederick County.

Pictured Right, Post-Panamax Cranes Arriving at the Seagirt Marine Terminal.

Cox Creek Operation and Management Complex

COX CREEK

MES continued to successfully manage the ongoing group of projects making up the expansion of the Cox Creek DMCF on behalf of our client, MDOT MPA. Three contracts - the Security System Poles, the Security System, and the Borrow Area Excavation and Base Dike Widening - were completed in FY21. A contract for raising the dikes to elevation +60' Mean Lower Low Water (MLLW) was competitively bid and awarded with construction to be completed in the 2024 calendar year. The expansion of the facility will help to provide the storage capacity needed for MDOT MPA to meet the needs of their 20-year capacity plan.

MES also supported MDOT MPA's Innovative Reuse and Beneficial Use of Dredged Material program with technical, operations, sampling, and outreach services associated with the Ridgley's Cove demonstration project. The Ridgley's Cove demonstration project is part of mitigation for a new Topgolf facility in Baltimore City. 22,000 cubic yards (cy) of material from Cox Creek was provided as remedial capping material that included 14,000 cy of dredged material blended with 8,000 cy of on-site borrow material.

ENVIRONMENTAL DREDGING AND RESTORATION

James Island

The James Island project will restore over 2,000 acres of lost remote-island habitat to support a diverse array of wildlife.

MASONVILLE

MES began preparations to widen the existing dike within the interior of the DMCF, which will form the base for the next phase of dike raising, increasing storage capacity at the facility and allowing MDOT MPA to continue to meet long term Harbor dredging needs and capacity requirements. To facilitate future dike-raising phases of the Masonville DMCF, MES designed a floating weir intake system utilizing a pumped system to provide discharge in a cost-effective manner as dike elevations are increased to the eventual final elevation of +42 MLLW. This system is necessary based upon the need to decommission the existing spillway pipes through the current dikes, which were completed in January 2020.

As part of the mitigation package required for the permit to construct the Masonville DMCF, MDOT MPA provided funding for the construction of a fourth trash wheel, Gwynnda the Good Wheel of the West, located at the mouth of the Gwynns Falls just before the stream enters the Middle Branch of the Patapsco River. The trash wheel was installed in July 2021 and will be operated and maintained by the Baltimore Waterfront Partnership as part of the Healthy Harbor program. Gwynnda is anticipated to divert up to 65% of trash entering the Harbor.

POPLAR AND MID-BAY ISLANDS

MES provided support to MDOT MPA and the U.S. Army Corps of Engineers (USACE) for the expansion of the Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island which was completed in FY21. The first inflow of dredged material into the expansion cells began in April 2021 and was completed in late summer.

The Mid-Bay Island Ecosystem Restoration project, jointly sponsored by the MDOT MPA and USACE Baltimore District, will be the focus for future capacity after the completion of the Poplar Island project. The Mid-Bay project's purpose is to protect and restore aquatic, intertidal wetland, and upland habitat for fish and wildlife at both James and Barren Islands, utilizing dredged material from the Maryland Chesapeake Bay navigation channels. The Barren Island portion of the project will restore a minimum of 72 acres of remote-island habitat, including wetlands, protective sills, and breakwaters. The James Island restoration will restore over 2,000 acres of lost remote-island habitat to support a diverse array of wildlife. The geotechnical borings necessary for design were completed in early 2021, and MES subcontractors completed a majority of the environmental and natural resource studies in FY21, which will be utilized to update National Environmental Policy Act (NEPA) documents for the project. Completion of all remaining surveys and the accompanying summary reports will occur in early FY22. Following design and permitting, construction activities are estimated to begin at Barren Island in 2022 and at James Island in 2024 and will accommodate an estimated 90-95 million cubic yards of dredged sediment, providing a minimum of 30 years of dredged material capacity.

Gwynnda the Good Wheel of the West Trash Wheel

Restoration of Ridgley's Cove

Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island

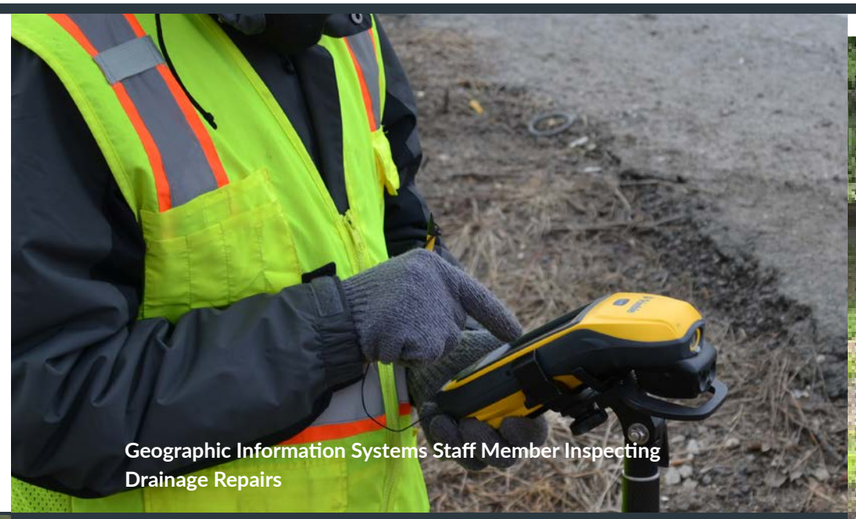
CONOWINGO PILOT PROJECT

MES continued to provide environmental, engineering, and outreach services for the Maryland Department of the Environment (MDE) on the Conowingo Sediment Characterization and Innovative Reuse and Beneficial Use Pilot Project. The project includes both a sediment characterization and a pilot removal/dredging project of up to 1,000 cubic yards of sediment from the Susquehanna River upstream of the Conowingo Dam, along with innovative reuse and/or beneficial reuse of the dredged material. MES performed agency coordination, prepared and submitted non-tidal wetland permits for sediment sampling and dredging, and successfully negotiated a Right of Entry Agreement with Exelon, which allowed sediment sampling and analysis to be performed in the fall/winter of 2020. The Final Sediment and Characterization Report was completed at the end of FY21. MES applied in coordination with Exelon and received approval from the Federal Energy Regulatory Commission for the dredging and innovative reuse/beneficial reuse of the material to occur in the fall of 2021. The completion of this project will allow the State to assess potential solutions for reducing the nitrogen, phosphorus, and sediment inputs to the Chesapeake Bay from the accumulated sediments within the Maryland portion of the Susquehanna River upstream of the Conowingo Dam.

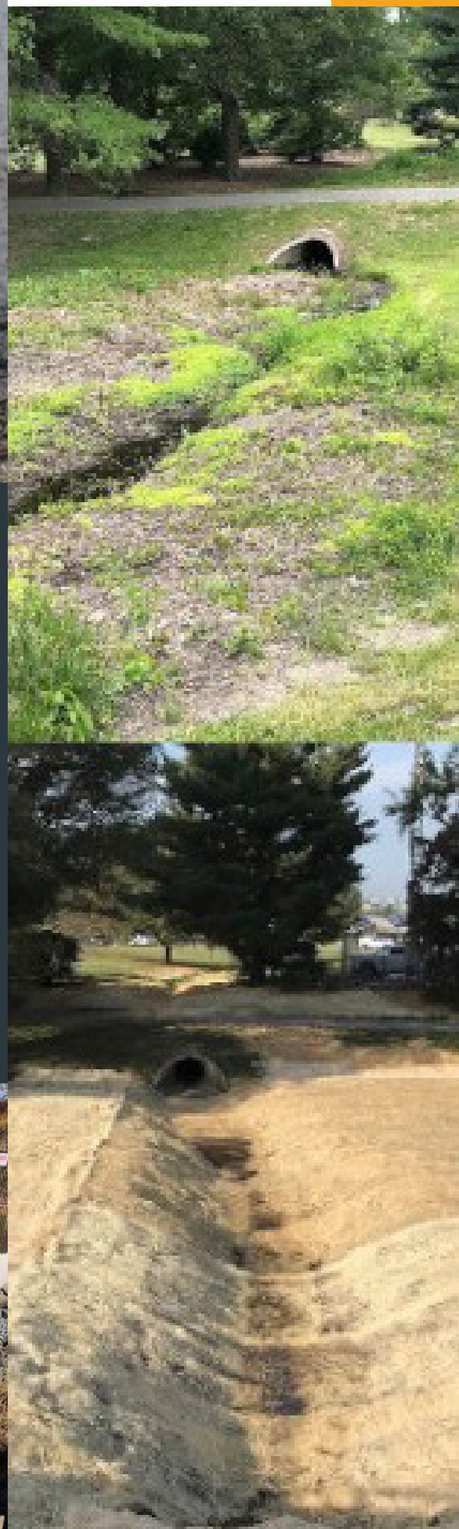
Conowingo Pilot Project

TECHNICAL AND ENVIRONMENTAL SERVICES

The MES Technical and Environmental Services Group supports our partners by providing multi-disciplinary environmental planning, environmental monitoring, environmental systems maintenance, geospatial, and engineering and renewable services throughout the Chesapeake Bay Watershed. Our project teams are involved in the full project life cycle, from planning to permitting, inspection and monitoring, reporting, through to operating and maintaining.



Geographic Information Systems Staff Member Inspecting Drainage Repairs



WORKING TOGETHER TO FUND A MORE RESILIENT MARYLAND

Although it is a common theme to accomplish more with less funding available, FY21 posed unique challenges as many government partners had to cut back on budgets and focus resources in response to COVID-19. Environmental compliance requirements and project needs did not go away. The response of the Technical and Environmental Services Group was to find potential grant funding to help offset some of the cost of the environmental needs of our partners.

In FY21 our GeoSpatial and Engineering Services Division was able to leverage over $2 million in federal grant funding toward the execution of projects for the Maryland Department of the Environment, the Maryland Department of Natural Resources, the Maryland Emergency Management Agency, and the Delaware Department of Transportation. Grant funds also supported projects for floodplain mapping and nuisance flooding projects in local jurisdictions such as Charles County, Baltimore County, and Montgomery County.

ACHIEVING SUSTAINABLE INFRASTRUCTURE

MES routinely partners with the Maryland Department of Transportation (MDOT) and its Transportation Business Units to minimize “adverse impacts from its activities, products, and services,” and to integrate “an ethic of sustainability” into “transportation planning, design, construction, and day-to-day operations” (MDOT Environmental Policy Statement). This partnership typically results in both mandated environmental compliance and achievement of environmental leadership.

Pictured Above, Technical and Environmental Services Surveyor

During FY21, the MDOT Maryland Transit Administration (MDOT MTA) was recognized at the Maryland Quality Initiative’s annual conference (MdQI). The Northwest Bus Wash Water Reclamation project won the MdQI Green/Sustainability/Environmental Award and, also the MdQI MDOT MTA Modal Award for a project under $5 million. MES is proud to support MTA’s efforts by providing staff to perform energy reviews and input on the schematic study that was used to implement the design.

MES also expanded services to MDOT State Highway Administration (MDOT SHA) during the last fiscal year. At the request of MDOT SHA, MES expanded the scope of emergency drainage repairs for SHA District 3 to also include Districts 4, 5, and 7. This allows MDOT SHA quick access to MES for emergency drainage repairs that pose a potential impact to the safety of the public.

Stormwater Repair

TECHNICAL AND ENVIRONMENTAL SERVICES

Stormwater Inspection at BWI Airport

OPEN FOR BUSINESS

MES provides environmental compliance and environmental systems maintenance support to the Maryland Aviation Administration (MAA) and private vendors operating at the BWI Thurgood Marshall Airport (BWI). While passenger traffic slowed initially during FY21 due to the pandemic, freight and cargo operations showed no signs of slowing and the MES Environmental Monitoring Division was there to help maintain environmentally responsible operations in all weather conditions.

As part of these efforts, MES staff collected over 2.3 million gallons of waste deicing fluid at BWI during the 2020–2021 deicing season, keeping the fluid from reaching nearby streams. In addition, 132,500 gallons of high concentration fluid was collected and recycled. Recycling of the high concentrate fluid (fluid containing 5%-35% glycol) helps reduce overall program cost for the MAA and reduces the chemical and energy cost necessary to treat this additional amount of fluid.

Renewable Energy Solar Field

Gallons of Fluid Collected & Recycled at BWI

132.5K

Gallons of Waste Deicing Fluid Collected at BWI

2.3M

Deicing at BWI Airport

MAINTAINING A BRIGHT FUTURE FOR RENEWABLE ENERGY

During the 2009 Legislative Session, MES' charter was updated to allow for assistance to State, counties, and municipalities with the planning, designing, and construction of renewable energy projects, as well as the production, generation, or distribution of energy from a renewable or other energy source. During FY21, the MES team helped support several significant efforts to advance implementation of renewable energy within the State of Maryland.

MES partnered with Hagerstown Community College to solicit firms for development of on-campus renewable energy such as canopy solar. MES worked with the community college to put out a request for proposals based on the previous renewable energy feasibility study completed by MES, which documented a potential reduction of 94 tons of carbon dioxide annually, 169 kilograms of nitrogen dioxide annually, and 470 kilograms of sulfur dioxide annually.

MES also continued to support the Maryland Energy Administration by implementing and assessing energy policy impacts at the State level. Technical support services included solar consulting and technical services for implementation of rooftop solar on public buildings, and evaluation of the fixed resource required by the Federal Energy Regulatory Commission.

ENVIRONMENTAL OPERATIONS

The MES Environmental Operations Group serves counties, large municipalities, and rural communities which need creative solutions for solid waste challenges and recycling services. We strive to provide our partners and clients with cost-effective and environmentally-responsible solutions such as award-winning landfills; recycling centers that serve millions of Maryland citizens; and composting facilities that turn yard, leaf, and food waste into marketable products such as the widely popular Leafgro® and Leafgro GOLD®. Additionally, we work with the Department of Public Safety and Correctional Services operating an electric generation facility, supplying steam and electricity to a State prison. We assist the Maryland Department of the Environment with used oil and antifreeze collection and operate a mobile chlorofluorocarbon recovery unit and mobile grinding units to service clients. We also work with the Maryland Department of Aging to take what would be discarded durable medical equipment (i.e., would have ended up in a landfill) and refurbish, recycle, and commission it for reuse.

MES operates Prince George's County's 12-bunker food waste compost system to produce Leafgro GOLD®. In FY21, the team processed over 18,000 tons of food waste, thereby diverting material that would have otherwise been landfilled.

Prince George's County Organics Composting Facility.

INNOVATIVE SOLID WASTE MANAGEMENT OPERATIONS

MES is a leader in solid-waste management operations in the state of Maryland. We have the experience and skill to operate large-scale, diversified, and integrated solid waste management systems. We operate a regional landfill for the upper Eastern Shore (Kent, Queen Anne's Talbot, and Caroline Counties). We manage Montgomery County's Dual-Stream Recycling Operations; its state-of-the-art leaf- and yard-waste composting operations; and its program to collect solid waste at County bus stops. Additionally, we fully operate Harford County's solid waste management operations, including engineering, composting, recycling, litter control, and the management of the County's homeowner collection facilities.

In 2021, MES continued its partnership with Prince George's County, serving as general contractor to the Prince George's County Department of the Environment, Resource Recovery Division. Through this unique 5-year agreement, which began in 2020, 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 Materials Recycling Facility, the Prince George's County Organics Composting Facility, and the residential convenience centers.

Brown Station Road Leachate Pretreatment Facility

Prince George's County Materials Recycling Facility

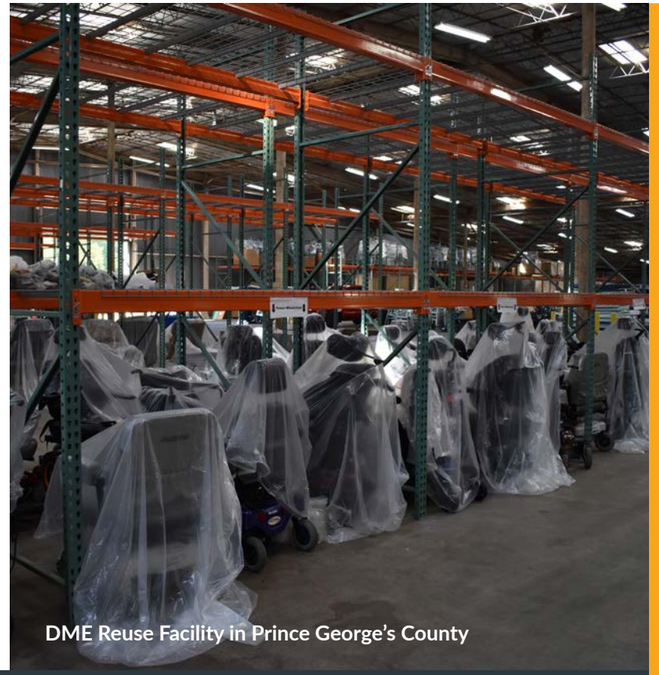
STATE-OF-THE-ART COMPOSTING

MES operates Prince George's County's 12-bunker food waste compost system to produce Leafgro GOLD®. In FY21, the team processed over 18,000 tons of food waste, thereby diverting material that would have otherwise been landfilled.

Over the past year, MES also helped long-time partner, Montgomery County kick off its Commercial Food Scraps Recycling Partnership Program. Since the kickoff, the County has signed up 17 commercial partners and recycled a combined 259.5 tons of food scraps. Those food scraps are then sent to the Prince George's County Organics Compost Facility. In addition to the food waste composting system at Prince George's County, MES also operates leaf and yard waste composting operations for Prince George's, Harford, and Montgomery Counties. In 2021, the team processed 186,794 tons of organic material, producing high quality compost and wood mulch. These are sold commercially (and typically sell out) throughout the Mid-Atlantic region. The Prince George's and Montgomery County Facilities produce the popular Leafgro® compost, while Prince George's County also produces food-waste-derived Leafgro GOLD® compost.

RECYCLING WITH COMPASSION

In partnership with the Maryland Department of Aging (MDoA), our group helped plan and open a unique Durable Medical Equipment (DME) Reuse Program for Maryland residents. MES staff collects DME from donation centers throughout the state and brings the items to the DME Reuse facility in Prince George's County. At the facility, MES staff inspects, cleans and repairs the DME, readying it for distribution by MDoA at their partner facilities throughout Maryland. During the first ten months of operation, this program has recycled more than 3,700 individual items, saving landfill space and resources. In this short time period, we have collected 847 wheelchairs, 374 hospital beds, 227 power wheelchairs, and 99 patient lifts. In FY22, the DME Reuse program looks forward to increasing collections and distribution throughout the state. This service will improve the quality of life for many Maryland residents, regardless of age, income, or location.



DME Reuse Facility in Prince George's County

847
Wheelchairs Collected

374
Hospital Beds Collected

227
Power Wheelchairs Collected

99
Patient Lifts Collected

DME Reuse Facility in Prince George's County

Pounds of Food Waste Composted	36,486,000
Tons of Recyclables Returned to the Market	140,470
Gallons of Used Oil Recycled	446,177
Number of CFC Units Serviced	28,434
Megawatts of Electricity Generated from Biomass	12,772 enough to power 1,200 homes per year
Gallons of Antifreeze Recycled	31,328

WATER AND WASTEWATER SERVICES

Water Treatment Plant in Frostburg, MD

The MES Water and Wastewater Group operates and maintains municipal, county, and privately-owned facilities, as well as State-owned plants at correctional and health facilities, rest areas, and State parks. MES also provides services in areas that do not have access to public water and sewer. Our engineering staff manage the design and construction of capital improvement projects and other public works projects. We help clients determine their water and wastewater needs, assist in selecting the right size facility, the right technology and equipment, prepare specifications, and oversee the construction of new plants.

The biosolids staff work to ensure environmentally acceptable, reliable, and cost-effective methods are used to manage the solid material generated by MES' numerous wastewater treatment plants. Water/Wastewater Treatment Plant (WWTP) Operators, as essential frontline workers, continued to report to their assigned facilities during the pandemic, ensuring essential services for the citizens of Maryland and protecting Maryland's waterways.

FAIR HILL WATER TREATMENT PLANT, DISTRIBUTION SYSTEM, AND WATER STORAGE TANK UPGRADE

The Fair Hill Natural Resources Management Area (NRMA) needed to be updated to provide a new racetrack and equestrian facilities which would allow the State to host 4- and 5-star international events such as Olympic equestrian trials. To accommodate the new facilities, MES had to design and construct a new water treatment plant, water distribution system, and water storage tank, which were needed to replace outdated utilities and provide a reliable source of potable water and fire protection for the NRMA and planned equestrian events.

Pictured Right; Fair Hill Water Treatment Plant and Equestrian Facilities

Dorsey Road Advanced WWTP

Water and Wastewater Facilities Maintained by MES	144 W 89 WW
Gallons of Drinking Water Treated	1.8 Billion
Gallons of Wastewater Treated	6.7 Billion

VALUE-ADDED ENGINEERING SERVICES FOR OUR CLIENTS

The MES Water/Wastewater Engineering Division provides water and wastewater 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 the agencies to ensure their water and wastewater systems meet agency needs and are compliant with environmental regulations.

MES staff maintain the State Water and Wastewater Utility Master Plan, which is updated every 2-3 years to reflect changes in regulations, population, or use changes at State facilities. The Engineering staff visit 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. They review the laboratory data and note any trends that might predict future compliance permit violations. The entire staff then develop a multi-year capital improvements plan and shares it with the Capital Budget Analyst from the Department of Budget and Management. This prioritized list then becomes the MES Five-Year Plan in the annual Capital Budget Request.

In FY21, MES received an appropriation of total $12,591,657 for 11 projects.


Ribbon Cutting at the Eastern Correctional Institution

EXPANSION AND UPGRADE OF THE ECI WWTP

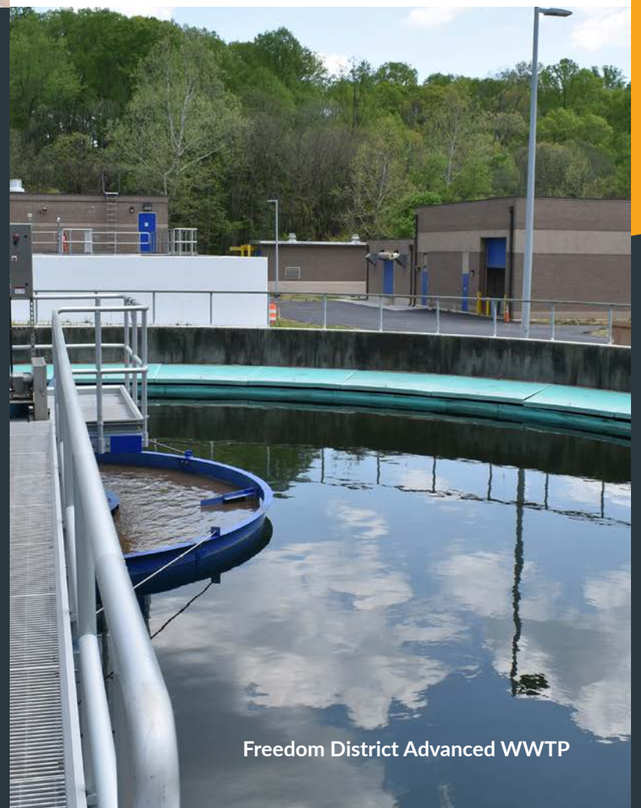
The upgrade to the wastewater plant at Eastern Correctional Institution included the expansion of the WWTP from 0.48 million gallons per day to 0.9 million gallons per day to nearly double the capacity. MES was issued a very stringent discharge permit, which requires treatment beyond enhanced nutrient removal limits. To meet these discharge limits required construction of a new membrane bioreactor wastewater treatment plant, a deep bed filtration facility, a ballasted flocculation CoMag® System, and improvement of the UV disinfection system. Also included in the upgrade were a new administrative and laboratory building, office, control and maintenance buildings, and integration of a new Supervisory Control and Data Acquisition system. The new WWTP is now capable of meeting better-than Enhanced Nutrient Removal treatment parameters and will be operating under one of the most stringent permits issued by the State.

MAKING "THE ROUNDS" TO PROVIDE COST EFFECTIVE SERVICES

Some of MES' clients own small, unattended 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

Maintenance of water distribution and sewerage collection are also included with the Water and Wastewater Group's responsibilities. During the afternoon of February 2, 2021, there was a water main break in the distribution system serving the Rocky Gap Casino and Lodge. MES was immediately on the site to locate and repair the leak. Backup systems allowed the casino and lodge to operate with no service interruptions while the repairs were made during the 20-degree weather.


Freedom District Advanced WWTP

BENEFICIAL USE OF THE LEFTOVERS

Water and wastewater facilities operated or supervised by MES generated approximately 30,000 wet tons (3,300 dry tons) of sludge in FY21. Approximately 52% of the material generated in 2021 was beneficially reused, primarily as recycled tonnage that was land applied in Virginia. This mirrors the beneficial reuse rate on a national basis, which is approximately 55%.

Two MES staff members provide daily technical support for 66 facilities. This support includes regulatory permitting and reporting, compliance monitoring, and sludge hauler contract management. The MES staff manage over 198 permits (MDE Sewage Sludge Utilization Permits, pretreatment permits issued by local governments, and others). MES also prepares nutrient management plans for a few land application sites and wastewater spray irrigation fields.

Trucked sludge and other wastes from smaller, satellite facilities are transported to MES-operated regional sludge facilities. MES accepted over 4 million gallons of liquid sludge, landfill leachate, and holding tank wastes at our regional facilities in FY21.

The Water and Wastewater Group provides capital planning for solids processing and treatment, having supported the development of a Master Biosolids Plan. The goal of this planning effort is the long-term implementation of new technologies leading to the production of better quality biosolids for beneficial reuse.

PROVIDING BIOSOLIDS SERVICES TO LOCAL UTILITIES

DC Water's Blue Plains Advanced WWTP and four of Washington Suburban Sanitary Commission's (WSSC) treatment plants produce a treated biosolids material that is land applied by contractors to various agricultural, forestry, and reclamation sites. MES employs a staff of five field inspectors who institute a unique, 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. We also provide 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.


DC Water's Blue Plains Advanced WWTP

Maryland
ENVIRONMENTAL
SERVICE

MARYLAND ENVIRONMENTAL SERVICE

259 Najoles Road
Millersville, MD 21108

(410) 729-8200
www.menv.com

Maryland
FOR THE BETTER