



CLEAN WATER FUND

– FISCAL YEAR 2022 –

Prepared for:

Wes Moore, Governor
State of Maryland

Bill Ferguson, Senate President
Maryland General Assembly

Adrienne A. Jones, House Speaker
Maryland General Assembly

House Environment & Transportation Committee

Senate Education, Health and Environmental Affairs Committee



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MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard | Baltimore, MD 21230 | mde.maryland.gov
410-537-3000 | TTY Users: 800-735-2258 | Emergency: 866-633-GOTO
Wes Moore, Governor | Arunda Miller, Lt. Governor | Serena McIlvan,
Secretary



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I. EXECUTIVE SUMMARY

Senate Bill 575, passed during the 2013 legislative session, requires the Maryland Department of the Environment to report on the status of the Maryland Clean Water Fund to the Senate Education, Energy, and Environment Committee and the House Environment & Transportation Committee in accordance with subsection 2-1246 of the State Government Article, on the status of the Maryland Clean Water Fund. This report was compiled by the Water and Science Administration (WSA) of the Maryland Department of the Environment (MDE or the Department) with input from the Land and Materials Administration (LMA), and the Office of Budget and Infrastructure Financing (OBIF).

II. MARYLAND CLEAN WATER FUND ACTIVITIES

A. WATER AND SCIENCE ADMINISTRATION

1. Compliance Program:

The Compliance Program is primarily responsible for inspections and enforcement actions of the Water and Science Administration. The Program is organized into three inspection divisions geographically located in field offices across the state, and the Program's Enforcement Division, administrative, and support staff are centrally located in MDE's Baltimore headquarters. The Water and Science Administration issues permits and approvals with requirements and conditions designed to minimize/eliminate pollution and impacts to resources. The Program is responsible for inspection, audit and enforcement of permits and authorizations addressing industrial and municipal wastewater discharges to surface and groundwater, construction activities involving sediment control, stormwater management, tidal and nontidal wetlands, and waterway construction.

Each Regional Inspection Division in the program performs inspections and works with local governments, businesses, and private citizens to ensure they operate or complete their activities in compliance with these issued permits or approvals and achieve the intended environmental result. The Program's staff assist the regulated community by determining the compliance status of sites and explaining federal, state, and local environmental laws and regulations. The Program's inspection staff also respond to citizen complaints, and when necessary, take appropriate steps to ensure activities are conducted in compliance with applicable Maryland laws and regulations by developing litigation packages or developing settlements with the violators.

The Enforcement Division in the Program performs audits and prepares and works closely with the Office of the Attorney General on appropriate formal enforcement actions for violations of issued National Pollutant Discharge Elimination System (NPDES) and State discharge permits, laws and regulations. Based upon the facts of each case, orders and penalty actions are taken by the Division to regain compliance, address environmental harm and deter future violations.

2. Wastewater Pollution Prevention and Reclamation Program:

The Wastewater Pollution Prevention and Reclamation Program operates to protect public health and water quality through federal NPDES and State permits for surface water discharges – both industrial and municipal – and control of discharges to groundwater of the State through both State issued permits and through issuance of federally delegated permits for Underground Injection Control. This includes responsibility for implementing Clean Water Act permits to achieve Total Maximum Daily Load (TMDL) requirements for the Chesapeake Bay and local tributaries consistent with Maryland's Watershed Implementation Plan (WIP). Finally, this program also is responsible for individual wells and septic systems by overseeing programs delegated at the local level.

Discharge Permits for Surface Water Discharges:

This functional area affects many of the Department's stakeholders on a daily basis through permitting activities for both industrial and municipal discharges. These permits implement the public health and water quality protections required by the National Pollution Discharge Elimination System as mandated under the Federal Clean Water Act and Maryland water quality standards. Included within this functional area is control of stormwater associated with construction and industrial activity, discharges from sewage treatment plants, pretreatment including programs delegated to local municipalities, and wastewater discharge of industries such as power plants and mining operations. Applicants include municipalities, counties, federal facilities, schools, and commercial water and wastewater treatment plants, as well as, treatment systems for private residences that discharge to surface waters.

The Program issues general discharge permits for different categories of industrial wastewater to increase the efficiency of the Department's permitting process. These permits are developed and issued to broad categories of business activities which are generally very similar in their wastewater characteristics. For example, general permits with standardized permit conditions have been established for surface and groundwater discharges from a variety of categories including vehicle washing, swimming pools, hydrostatic testing, pesticides, and stormwater associated with industrial activity (which includes construction, seafood processing, mineral mines, coal mines, and marinas).

This functional area also controls pretreatment - industrial wastewater discharges into municipal sewer systems. A separate pretreatment permit is required for certain facilities that seek to discharge non-domestic wastewater to publicly-owned wastewater treatment works (POTW). The Department delegates to many local municipalities the authority to operate a pretreatment regulatory program. The pretreatment permit is issued locally from the publicly-owned wastewater treatment works in consultation with the Department. The Department also directly issues a few pretreatment permits where the local publicly-owned wastewater treatment works has not been delegated sufficient authority to do so on its own.

State Groundwater Discharge Permits:

State Groundwater Discharge Permits are implemented by the Program to protect groundwaters of the State. Discharges include both municipal and industrial wastewaters. Groundwater Discharge Permits control the disposal of treated municipal or industrial wastewater into the State's groundwater via spray irrigation and other land-treatment applications, as well as, into the subsurface by a drainfield or seepage pit. Permit conditions are set to protect water resources, and public health.

Onsite Systems Delegation:

This functional area provides technical guidance and regulatory interpretations to County approving authorities regarding implementation and technical assistance of well drilling and well construction, septic system construction, best available technology (BAT) program implementation, soil evaluations and subdivisions of land. The program handles digital databases of well records and provides information to drillers, residents, other programs, and local authorities. Well tags and permitting supplies are provided to all counties and training of local inspectors on well drilling practices. The program provides annual training and maintains a database for certified contractors for sand mound, at-grade and BAT installation. In addition the program handles licensing of property transfer wastewater inspectors, registration of individuals who perform services to onsite wastewater systems and development of the Board of On-Site Wastewater Professionals. The BAT program handles oversight to the counties for the 14,000 BAT units installed in Maryland working with vendors, manufactures, contractors, and the public on issues surrounding the program including financing, operation and maintenance, tracking of installations through the database, inspection audits of the installations statewide, technology review and evaluation of sites with a wastewater flow greater than 5,000 gallons per day.

3. Stormwater, Dam Safety, and Flood Management Program:

The Stormwater, Dam Safety, and Flood Management Program is responsible for administering three major statewide programs. These are erosion and sediment control, stormwater management, and dam safety. The Program also houses the Coordinating Office of the National Flood Insurance Program (NFIP) responsible for local floodplain management oversight and regulatory flood mapping services. In order to accomplish its mission, the program is organized by five separate divisions.

Sediment and Stormwater Plan Review Division:

Reviews state and federal construction project plans for conformance with state standards and policies relating to controlling runoff during and after construction. Additionally, this Division shapes technical policy and provides technical assistance to local governments and the private sector with regard to stormwater management and sediment control.

Program Review Division:

Oversees the sediment control and stormwater management programs administered by counties and municipalities and is responsible for issuing National Pollution Discharge Elimination System municipal stormwater permits required under the Clean Water Act. This Division also provides sediment control and stormwater management policy

guidance, sediment control training, and technical assistance to local governments and the private sector regarding best management practices and new sediment control and stormwater management technology.

Dam Safety Permits Division:

Reviews and issues new dam construction permits; evaluates and performs structural, hydrologic and hydraulic analyses associated with new dam permit applications; and approves modifications to existing structures. Additionally, this Division reviews, approves, and exercises emergency warning plans for “high” and “significant” hazard dams to ensure public safety during emergency situations and unusual weather events.

Dam Safety Inspections Division:

Performs existing dam safety inspections; performs dam safety construction inspections; issues dam condition compliance notices. Additionally, this Division reviews, approves, and exercises emergency warning plans for “high” and “significant” hazard dams to ensure public safety during emergency situations and unusual weather events.

Flood Management Division:

Implements the requirements of two Federal Emergency Management Administration (FEMA) funded programs for the National Flood Insurance Program (NFIP). The Community Assistance Program State Support Services Element provides assistance and oversight to the 147 communities in Maryland that participate in the National Flood Insurance Program. The citizens of these communities are eligible for federally backed flood insurance, representing \$16 billion in flood insurance coverage. The Community Technical Partners program develops digital flood insurance rate maps and other modeling and assessment tools to ensure Maryland's communities remain resilient to flooding. This program also provides assistance to communities in using the maps, regulating construction in the floodplain, and coordination with FEMA.

4. Wetlands and Waterways Protection Program:

Maryland’s Wetlands and Waterways Protection Program is responsible for the management, conservation, and protection of wetland and waterway resources through regulation development and interpretation and implementation of permitting programs. Aquatic resources managed under the Program include tidal wetlands, nontidal wetlands, and nontidal waterways, including the 100-year nontidal floodplain. In general, the regulation of nontidal wetlands and waterways affects land development interests, and the regulation of tidal wetlands affects riparian property owners (construction of shoreline protection and piers) and the boating public (construction of marinas and dredging of channels). Another important distinction is that, while regulated activities conducted in nontidal wetlands affects private property owners, regulated activities conducted in tidal wetlands typically affects submerged lands owned by the State and held in trust for the benefit of the public. The Program coordinates extensively with the Army Corps of Engineers, which is responsible for implementing the federal dredge and fill permitting program under the Clean Water Act.

The Wetlands and Waterways Protection Program also has lead responsibility within MDE for implementing the federal Clean Water Act (CWA), Section 401 Water Quality Certification (WQC) requirements, and the Section 307 Federal Consistency provisions of the federal Coastal Zone Management Act (CZMA). The wetlands and waterways regulatory process implemented by each Division of the Program incorporates the Water Quality Certification (Section 401 WQC requirements, and the Section 307 Federal Consistency provisions of the Coastal Zone Management Act. Section 401 of the Water Quality Certification requires that any applicant for a federal permit or license to conduct an activity that may result in a discharge to waters of the U.S. obtain a Water Quality Certification from the State which certifies that the proposed discharge will not result in a violation of the State's water quality standards. This includes licenses and permits issued by the Federal Energy Regulatory Commission (FERC) and the U.S. Army Corps of Engineers. Section 307 of the Coastal Zone Management Act requires that proposed federal activities, including direct federal actions, federal licenses or permits, and assistance to State and local governments, that have reasonably foreseeable effects on the State's coastal resources or uses, be consistent, to the maximum extent practicable with the enforceable policies of the State's federally-approved Coastal Zone Management Program. Maryland's Coastal Zone Management Program is a "networked program" that is based on existing State laws and regulations. Thus, the Federal Consistency determination is a statement that a proposed federal action complies with and will be conducted in a manner consistent with applicable State laws and regulations. The vast majority of Water Quality Certifications and Federal Consistency decisions made by the Program are for CWA, Section 404 discharges requiring a permit from the U.S. Corps of Engineers.

The Program is composed of four Divisions: the Tidal Wetlands Division, the Nontidal Wetlands Division, the Waterway Construction Division, and the Regulatory and Customer Service Division, which includes the permit application in-processing unit. Each Division plays a vital role in maintaining the health and function of the Chesapeake and Coastal Bays as well as all waters of the State. The functions and values of the natural resources protected by these Divisions include fish and wildlife habitat and migration; water quality enhancement; natural shoreline protection; flood protection; recreational opportunities; and aesthetics. For wetlands, in particular, a statutory goal has been established to achieve "no net loss" of wetland acreage and function and to strive for a net gain in wetlands over time. This goal is achieved through the regulatory program's permit application process, which focuses on the avoidance and minimization of impacts associated with development.

Tidal Wetlands Division:

This Division regulates activities conducted in tidal wetlands and waters by avoiding and minimizing proposed impacts and requiring mitigation for impacts determined to be unavoidable. Authorization must be obtained before a person dredges, fills or otherwise alters a tidal wetland. The form of authorization is either a tidal wetlands license (for activities on state tidal wetlands) or a tidal wetlands permit (for activities on private tidal wetlands). The Board of Public Works, consisting of the Governor, State Treasurer, and

Comptroller of Maryland is responsible for licensing activities on state tidal wetlands. The Board has issued a General License for certain types of routine activities and delegated to the Department the authority to review qualification under the General License, on the Board's behalf. Projects that exceed the scope of the General License require approval by the Board itself. Generally speaking, only very large or unusual projects require Board review.

Nontidal Wetlands Division:

This Division regulates new or restorative activities conducted in nontidal wetlands and their regulated buffers (generally 25-feet although it is expanded to 100 feet for wetlands of special State concern or wetlands adjacent to steep slopes that contain highly erodible soils) through the implementation of a comprehensive program designed to avoid and minimize proposed impacts and to mitigate for impacts determined to be unavoidable. A permit or Letter of Authorization must be obtained from the Department prior to conducting a regulated activity. This Division also oversees the implementation of mitigation activities required for all unavoidable impacts authorized by the Wetlands and Waterways Program through its permitting program.

Waterway Construction Division:

This Division regulates man-made changes to nontidal waterways that affect their course, current or cross-section. The Division ensures that activities in a nontidal waterway or its 100-year floodplain do not create flooding on adjacent property, maintain fish habitat and migration, and protect waterways from erosion associated with new construction and restoration projects.

Regulatory and Customer Service Division:

This Division provides Geographic Information System screening and in-processing of permit applications. The Division also processes and uploads Public Notices to the website for pending permit applications. This Division also manages individual Water Quality Certification and Coastal Zone Management Act consistency determinations.

5. Field Investigations and Environmental Response Program:

The Field Investigations and Environmental Program currently provides field support to WSA as well as to a diverse variety of permitting and enforcement units within the Department responsible for multiple (state and federally mandated) monitoring functions. The Field Investigations and Environmental Program comprises four Divisions with varying programmatic goals. Each program is associated with either managing or monitoring to protect public health (drinking water, shellfish, algae blooms, beaches) or targeted environmental assessments (TMDL and Tier II).

Biological and Chemical Monitoring Division:

TMDL monitoring: The Clean Water Act requires that impaired watersheds be evaluated and monitored in a comprehensive manner so to identify all point and nonpoint sources of pollutants, and to allocate the pollutant loads among the various sources. When impairments or potential impairments are demonstrated by Core Trend water monitoring data, Maryland Biological Stream Survey data, Chesapeake Bay Monitoring Program

and/or other data, the intensive watershed monitoring and evaluations conducted under this program will confirm the extent of the impairment. These data are then used to calibrate the models necessary to develop and define the Total Maximum Daily Load and permits needed to correct the impairment.

The targeting of the monitoring effort in impaired watersheds on the State's 303(d) list and National Pollution Discharge Elimination System modeling needs are established with the goal to provide the detailed spatial data needed for modeling and development of Total Maximum Daily Loads necessary to achieve water quality standards. Also, this provides detailed data for determining permit limits for all facilities in a given watershed that are operating under National Pollution Discharge Elimination System permit.

Water quality standards: The Biological and Chemical Monitoring Division provides field services and technical guidance which include project, scope of work, budget, contract, and quality assurance project plan development in support of water quality standards development and statewide water quality assessments. This group supports the establishment of water quality standards through the generation of necessary field data needed to evaluate a water body attainment of its designated use.

Algae bloom and fish kill investigations: The Biological and Chemical Monitoring Division responds and investigates all reported instances of algae blooms and fish kills in the state in a timely manner. This group attempts to solve causation of as many occurrences as practical and coordinates with various sister agencies for technical support and enforcement as necessary. If a pollution source is identified, appropriate action will be taken to remediate and enforce water pollution laws of the state.

Harmful Algal Blooms confirmation and response: This group maintains a critical safeguard to protect public health when an algae bloom investigation identifies the presence of a potential toxic algae species. The laboratory component of this Division has the capability to detect the presence and level of toxins in the water column that have the potential to detrimentally affect drinking water sources, water contact recreation and shellfish consumption. It provides data and expertise to an established Harmful Algal Bloom workgroup composed of individuals from MDE, the Maryland Department of Health (MDH), and the Maryland Department of Natural Resources (DNR) that can quickly issue public health warnings and/or postings and inform local county environmental health officials of the public health threat.

Fish tissue consumption advisories: The Biological and Chemical Monitoring Division ensures the protection of public health of all Maryland citizens consuming fish through the collection of targeted fish tissue species in tidal and non-tidal waterways. The data generated is used by the Environmental Assessment and Standards Program to calculate human consumption advisories but also by the Integrated Water Planning Program for TMDL development.

Tier II biological assessments: The Biological and Chemical Monitoring Division plays an important role in supporting the Departments compliance of the CWA antidegradation

regulations by providing capacity to conduct biological monitoring of high-quality waters that are experiencing development pressure. Targeted monitoring activities include coordination with Water Quality Assessment and Standards Program and DNR in site selections, Quality Assurance Project Plan development, adherence to Maryland Biological Stream Survey protocols, and database management.

Compliance Monitoring Division (CMD):

Drinking water monitoring: The U.S. Environmental Protection Agency (EPA) established the Public Water System Supervision Program under the authority of the 1974 Safe Drinking Water Act to set national limits of contaminant levels in public water systems. The Field Investigation Environmental Response Program Drinking Water Monitoring Section is a technical/monitoring component of the MDE's Water Supply Program and receives an annual list of routine contaminant monitoring requirements for community and non-community non-transient public water systems. In addition, this group provides emergency monitoring requirements to include responses to contaminant detections and consumer complaints. This group also provides additional support through participation in EPA's unregulated contaminant monitoring program.

Shellfish monitoring: The National Shellfish Sanitation Program (NSSP), of which Maryland participates, establishes temporal and spatial monitoring frequencies of shellfish harvesting waters. The Shellfish Monitoring Section generates the data base necessary for the classification of shellfish harvesting waters of the Chesapeake Bay, coastal bays, and Atlantic Ocean. This program is audited annually by the U.S. Food and Drug Administration for compliance with the National Shellfish Sanitation Program. This group also performs harmful algal bloom surveillance in support of Maryland's Harmful Algal Bloom Program and coordinates with academia in joint research ventures addressing Vibrios and remote sensing opportunities.

Pollution source assessment: The National Shellfish Sanitation Program, of which Maryland participates, requires an assessment of all potential pollutant sources from drainage basin's surrounding shellfish harvesting waters. Inspections of residential, agricultural, and commercial properties are documented and all identified pollution sources are remediated by appropriate enforcement agencies. This program is audited by the FDA for compliance with the National Shellfish Sanitation Program.

Aquaculture monitoring: The success of the emerging aquaculture industry has required a subsequent expansion of the monitoring activities of the shellfish program to assure the protection of public health and compliance with the National Shellfish Sanitation Program. In addition to water quality monitoring, each near-shore aquaculture site requires a yearly assessment of surrounding properties for potential pollution sources. Due to the proximity of these pollution sources to these near-shore sites harvesting shellfish directly for the market and public consumption, increased inspections are necessary to protect public health. This program is audited by the Food and Drug Administration for compliance with the National Shellfish Sanitation Program.

Public Health Division

Shellfish harvesting waters are classified based on assessments of potential pollution sources, water quality data generated by the Compliance Monitoring Division field teams, and environmental stressors (harmful algal blooms, sewage spills, etc.). This Division represents Maryland at the Interstate Shellfish Sanitation Conference and is a voting member on federal regulations addressing the shellfish industry. This program is audited by the FDA for compliance with the National Shellfish Sanitation Program.

The EPA provides funding to Maryland for protection of public health through water quality monitoring at public beaches. This program controls the dissemination of funds to the counties that are responsible for the monitoring programs and assuring safe water contact recreation by the public.

B. LAND AND MATERIALS ADMINISTRATION

Land and Materials Administration contributes to the Clean Water Fund from the Sewage Sludge Generator fees, the Sewage Sludge Utilization Permit Application fees, and penalties for violations of Sewage Sludge Utilization Permits, General Discharge Permit for Animal Feeding Operations, and Annual Confined Animal Feeding Operations Permit Fees.

Land and Materials Administration uses these funds for costs associated with salaries and fringe, operating costs, Inspection and Monitoring of Sewage Sludge Utilization Activities Agreements with four (4) counties, contractual work for Animal Feeding Operations Section and National Pollutant Discharge Elimination System permit inspections.

III. FINANCIAL STATEMENT

FINANCIAL STATEMENT

FY 2022, July 1, 2021 – June 30, 2022

A. Ending Fund Balance 6/30/21	\$ 4,489,206.58
B. <u>FY 2022 Receipts</u>	
Permit Fees	\$ 1,168,358.58
Fines & Penalties	\$ 1,817,105.00
Fees	\$ 305,429.42
Revenue Accrued	<u>\$ 867,312.24</u>
Total	\$ 4,158,205.24

C. FY 2022 Expenditures

Salaries and Wages	2,618,957.63
Technical and Special Fees	19,653.25
Communications	82,509.16
Travel	1,007.94
Vehicle Replacement, Operations, and Maintenance	101,353.57
Contractual Services	757,912.51
Supplies and Materials	6,359.10
Equipment	16,233.25
Grants	503,750.00
Fixed Charges	1,834.82
Total Expenditures	4,109,571.23

D. Indirect Costs **\$ (678,901.17)**

Fund Balance Before Encumbrances - \$ 3,858,939.42
Less : Encumbrances \$ (1,003,250.55)
E. Year End Fund Balance 6/30/22 \$ 2,855,688.87

