Bay Restoration Fund Advisory Committee
Christopher P. Murphy, Chairman

Annual Status Report
January 2026 (21st Report)

Maryland Department of the Environment
Submitted January 27, 2026
Maryland General Assembly
Reporting Period Fiscal Year 2025




Bay Restoration Fund Advisory Committee Members

Committee Members	Affiliation
Christopher P. Murphy (Committee Chairman)	Anne Arundel County Department of Public Works
Serena McIlwain	Maryland Department of the Environment
Adriana Caldarelli	Maryland Department of the Environment – WIFA
Walid Saffouri	Maryland Department of the Environment – WSA
Kevin Atticks	Maryland Department of Agriculture
Jason Keppler	Maryland Department of Agriculture
Rebecca L. Flora	Maryland Department of Planning
Ellen Mussman	Maryland Department of Planning
Josh Kurtz	Maryland Department of Natural Resources
Kristin Saunders	Maryland Department of Natural Resources
Jake Weissmann	Maryland Department of Budget and Management
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William P. Ball, Ph.D.	Johns Hopkins University
Dong Hee Kang	Morgan State University
Bob Buglass	Washington Suburban Sanitary Commission (WSSC)
John Dinkel	DBD, LLC
Crystal Faison	Shepherd Design & Construction, LLC
Gussie Maguire	Chesapeake Bay Foundation
Timothy Male	Environmental Policy Innovation Center
Peter Bozick	George, Miles & Buhr
Douglas Abbott	Easton Utilities
John Carroll	Town of Galena
Heather Moritz	St. Mary's County Health Department
Barry Glotfelty	Frederick County Health Department

PURPOSE OF THIS REPORT

Section 1605.2 of the Environment Article, *Annotated Code of Maryland*, requires that, beginning January 2006, and every year thereafter, the Bay Restoration Fund (BRF) Advisory Committee (BRFAC) provides an update to the Governor and the General Assembly on the implementation of the BRF program, and report on its findings and recommendations.

EXECUTIVE SUMMARY

The BRFAC is pleased to present to Governor Wes Moore and the Maryland General Assembly its 21st Annual Legislative Update Report. Great strides have been made in implementing this historic BRF, but many challenges remain as we continue with the multi-year task of upgrading the state's wastewater treatment plants (WWTPs) and onsite sewage disposal systems (OSDSs), and planting cover crops to reduce nitrogen and phosphorus in the Chesapeake Bay.

- As of June 30, 2025, the Comptroller of Maryland (CoM) has deposited approximately, since the 2004 program inception, $1.86 billion in the Maryland Department of the Environment (MDE) WWTP fund, $275 million in the MDE Septic Systems Upgrade fund, and $192 million in the Maryland Department of Agriculture (MDA) Cover Crop Program fund, for a total of $2.327 billion in BRF fees (wastewater and septic users).

- Enhanced Nutrient Removal (ENR) upgrades of the state's major sewage treatment plants are almost completed with 66 of the 67 major facilities currently in operation. The remaining facility, Princess Anne, Somerset County, is in the planning phase.

- MDE has initiated the ENR Refinement Program. Many of the upgrades of major treatment plants are approaching or have reached their twenty-year anniversary, and some have begun to experience some issues due to the age of equipment. In addition to ensuring that these plants continue to achieve the ENR goals for the next twenty years, MDE intends under this program to fund further upgrades to achieve better than ENR. The new ENR goal for nitrogen will be 2.85 mg/l total nitrogen (instead of 3 mg/l) to help offset the climate change impact.

- Upgrades are underway for some minor sewage treatment plants (less than 0.5 million gallons per day). To date, 17 minor facilities have completed the ENR upgrade and are in operation. Two more are under construction, and 16 additional plants have signed the funding agreement and have progressed into planning or design. All facilities that pay into the BRF and provide services to residential dwelling units are eligible to receive BRF grants if MDE determines that the ENR upgrade would be cost effective at the selected facility. MDE estimates that potentially a total of 80 minor facilities may

meet the cost-effectiveness criteria and could be upgraded if they apply for BRF funding.

- MDE is using BRF to upgrade septic systems with the Best Available Technology (BAT) for nitrogen removal. As of June 30, 2025, the BRF has funded 17,184 BAT upgrades throughout Maryland, of which 10,550 upgrades were completed within Maryland's Critical Areas. In addition, 1,677 homes have been connected to public sewers using BRF.

- During the 2021 legislative session, the Clean Water Commerce Act (CWCA) was established to allow MDE to purchase nitrogen reductions from environmental practices with a life between 10 and 20 years. Twenty million dollars a year are being transferred from the BRF-Wastewater fund to the Clean Water Commerce Act account to be used for these purchases. The second project solicitation, for FY24 and FY25 transferred funds, opened during the regular MDE solicitation period between December 2023 and January 2024, and then reopened until August 30, 2024, due to legislative changes. There has been significant interest in the program, with 22 applications received and over $77 million in funding requested. MDE, MDA and the Environmental Policy Innovation Center (EPIC) evaluated the submitted applications and selected 15 projects to be funded.

- MDA dedicates its portion of BRF for the implementation of the statewide Cover Crop Program. Now in its third year of implementation, MDA continued to offer a multi-year contract option consistent with recommendations by the state's Soil Health Advisory Committee. This Cover Crop+ Program promotes soil health benefits associated with cover crop implementation. Management practices, such as requiring at least 50% cereal grains and 25% legumes into the cover crop mix, maintaining year-round soil cover, and allowing livestock grazing on established cover crop fields not only provide water quality benefits but also improve soil health.

- In FY25, Maryland farmers applied to plant over 656,000 acres of cover crops. Typically, they enroll more acreage than they plant. Farmers planted a record 491,000 acres of traditional cover crops attaining an estimated nutrient reduction of 3.4 million pounds of nitrogen and 3,900 pounds of phosphorus.

- Cover crops are planted in the fall to prevent excess nitrogen runoff from the soil after crop harvest. It is one of the Best Management Practices (BMPs) within Maryland's Watershed Implementation Plan (WIP) to meet Total Maximum Daily Loads (TMDL) nutrient reductions. The practice is recognized as one of the state's most cost effective BMPs available to prevent nitrogen movement to groundwater and subsequently the Bay. Cover crops also prevent soil erosion and improve soil quality.

- Due to an overwhelming response by farmers, program expenditures for FY25 exceeded $32 million. Approximately $14 million in funding was provided by BRF, while the remaining was provided by the Chesapeake and Atlantic Coastal Bays Trust Fund and EPA – Most Effective Basins (CBRAP Grant), among other sources.

- For FY26, the program was adjusted to ensure the $22.5 million annual budget was maintained. As a result, enrollment in this summer's program fell slightly to 625,000 acres. The program is traditional, meaning the crop recovers unused plant nutrients in the fall then recycles the nutrients for the following spring crop. The traditional planted acres along with commodity acres reported by the U.S. Department of Agriculture (USDA) Farm Service Agency should allow Maryland farmers to reach Chesapeake Bay goals. In addition, since being introduced, MDA has received 30 applications totaling nearly 6,000 acres annually over the next three years for the Cover Crop+ Program.

- MDE and the Maryland Department of Planning (MDP) are continuing their efforts to implement the requirements of Chapter 257 of the 2007 Acts, which requires MDE and MDP, in concert with the BRFAC and in consultation with local governments, to report on the growth influences that ENR-upgraded WWTPs may be having in the jurisdiction served. As part of this report, MDP is continuing its analysis, and is reporting on all qualifying WWTPs, grouped by regions, found in Table 1 of this report.

- State-funded ENR upgrades created the possibility for capacity expansion beyond the original design capacity at several WWTPs (Available Capacity table, Chapter 257 Implementation section). Some of those WWTPs that received that capacity expansion opportunity are serving a relatively low percentage of lots within Priority Funding Areas (PFAs). Although not currently required by law, MDP recommends that all lots receiving service from the new capacity obtained by those WWTPs be within PFAs, with the exception of existing homes previously served by septic systems that were connected to those WWTPs. According to MDP's State Data & Analysis Center, the population is projected to grow by 1 million between 2020 and 2050. Optimizing the use of Maryland's land is critical as we continue to grow in population and strive to minimize the loss of our remaining farmland and forest land. Land that qualifies as a PFA indicates that local planning and zoning support compact development and sustainable growth.

Conclusions and Recommendations

MDE will continue to ensure that BRF-funded projects remain on schedule to assist the state to continue meeting its final 2025 nutrient reduction targets for the Bay and achieve further reductions to help offset climate change impact.

Programs and Administrative Functions

Comptroller of Maryland (CoM):

The role of the CoM is to act as the collection agent for BRF and make distributions to MDE and MDA as required by the law.

In the third year of administering BRF, the CoM began the compliance phase of the fee administration. The law specifies that BRF shall be administered under the same provisions allocable to administering the sales and use tax. Granted that authority, the

CoM began the audit process for both filers and non-filers of BRF quarterly reports.

For non-filers, CoM began contacting the billing authorities and users who have failed to file or pay BRF and is obtaining sufficient documentation to make an assessment and begin collection activity. Federal government billing authorities and users have, to date, refused to participate in the BRF process. MDE secured an agreement with the U.S. Department of Defense (DoD) to have WWTPs upgrade their systems over a defined period of time to exempt them from BRF. A copy of the agreement was provided by MDE to CoM, and those BRF accounts were subsequently placed on inactive status.

The CoM is continuing its audits of billing authorities to ensure fees are calculated correctly and are being collected.

MDE:

Three units within MDE are involved in the implementation of BRF.

1. *Maryland Water Infrastructure Financing Administration:*
   The Maryland Water Infrastructure Financing Administration, established under Title 9, Subtitle 16 of the Maryland Code, has the primary responsibility for the capital budget development, financial management, and fund accounting of the Water Quality Revolving Loan Fund, the Drinking Water Revolving Loan Fund, and BRF. Specifically, for BRF, it is responsible for the issuance of revenue bonds, payment disbursements, and the overall financial accounting, including audited financial statements.

2. *Engineering and Capital Projects Program:*
   The Engineering and Capital Projects Program manages the engineering and project management of federal capital funds consisting of special federal appropriation grants, and state revolving loan funds for water quality and drinking water projects. Also, the Program manages projects funded by state grant programs, including BRF, Special Water Quality/Health, Small Creeks and Estuaries Restoration, Stormwater, Comprehensive Flood Management Grant, and Water Supply Financial Assistance. There may be as many as 250 active capital projects ranging in levels of complexity at any given time. Individual projects range in value from $10,000 to $500 million. A single project may involve as many as eight different funding sources, and multiple construction and engineering contracts over a period of three to ten years. The program is responsible for ensuring compliance with the requirements for each funding source while achieving the maximum benefit of funds and timely completion of the individual projects.

3. *Wastewater Permits Program:*
   The Wastewater Permits Program (WWPP) issues permits for surface and groundwater discharges from municipal and industrial sources and oversees onsite sewage disposal and well construction programs delegated to local approving authorities. Large municipal and industrial discharges to the groundwater are regulated through individual groundwater discharge permits. All surface water discharges are regulated through combined state and federal permits under the

National Pollutant Discharge Elimination System. These permits are issued for sewage treatment plants, some water treatment plants, and industrial facilities that discharge to state surface waters. These permits are designed to protect the quality of the body of water receiving the discharge.

Anyone who discharges wastewater (WW) to surface waters needs a surface water discharge permit. Applicants include industrial facilities, municipalities, counties, federal facilities, schools, and commercial water and WWTPs, as well as treatment systems for private residences that discharge to surface waters.

WWPP ensures that the ENR goals and/or limits are included in the discharge permits of facilities upgraded under BRF. To accommodate the implementation of the OSDS portion of BRF, the program has been designated as the lead for the OSDS upgrade program.

Maryland Department of Agriculture (MDA):

MDA delivers soil conservation and water quality programs to agricultural landowners and operators using a number of mechanisms to promote and support the implementation of BMPs. Programs include information, outreach, technical assistance, financial assistance, and regulatory programs such as Nutrient Management. Soil Conservation Districts (SCDs) are the local delivery system for many of these programs.

BRF provides a dedicated funding source for the Cover Crop Program. In prior years, funding fluctuated, and program guidelines were modified accordingly to try to get the best return on public investment. For FY25, incentive payments were adjusted based on rising input costs. A maximum payment could have reached $105/acre for those meeting all of the incentive criteria, which included a $10/acre spring delayed crop termination incentive.

Now in its third year of implementation, MDA's Cover Crop+ Program offers higher incentive payments and more perks for farmers who plant cover crops to improve soil health. To participate in this program, farmers sign a contract to grow cover crop mixes on the same field for three consecutive years. They also agree to maintain a living root system in enrolled fields throughout the year and manage their cover crop to achieve maximum soil health and water quality benefits.

The FY25 base payment for this premium incentive program was raised to $125/acre per year. Optional add-on practices, such as cover crops following commodity grains, livestock integration, and pre-sidedress soil nitrate testing can increase the reimbursement rate to $180/acre. To qualify for payment, optional add-ons must be new practices (not used in the previous three years) for an enrolled field.

MDA is projected to receive $14.2 million in BRF support in FY26. It is projected that BRF will provide financial assistance for approximately 230,000 acres of cover crops.

Over the past ten years, the Cover Crop Program has been co-funded by the BRF and Trust Fund and has worked to support the increased level of farmer participation.

MDA's outreach for the program included news releases, print ads, direct mail, posters, outdoor banners at commercial grain facilities and equipment dealer facilities, cover crop field signs, seed testing bags, bumper stickers, and educational displays targeted toward farmers.

MDA administers the Cover Crop Program through the Conservation Grants Program, which offers several incentive programs and provides financial assistance to farm operators to help them implement more than 40 BMPs. Cover crops are one of the most cost-effective methods for sequestering residual nutrients from the soil following the fall harvest of crops. They minimize nitrogen leaching, prevent soil erosion, and improve soil quality.

Maryland Department of Planning (MDP):

The Maryland Department of Planning (MDP) is a statutory member of the Bay Restoration Fund Advisory Committee (BRFAC). Chapter 80 of 2014's House Bill 11 allows for the use of Bay Restoration Fund (BRF) monies for the remediation of failing septic systems outside of the Priority Funding Area (PFA) connecting to the qualified WWTPs. Such cases must meet certain conditions and gain approval from the Sustainable Growth Subcabinet prior to using BRF. MDP works with local governments to ensure that land use plans maintain consistency with both local development goals and state growth policies, in light of these external PFA sewer extensions, to remediate failing septic systems.

Specific functions MDP carries out related directly or indirectly to BRF are summarized below. House Bill 893, enacted in 2007, added an additional BRF reporting responsibility, which is discussed later in this report.

State Clearinghouse Review:

> All state and federal financial assistance applications, including those for BRF funds, are required to be submitted for review through MDP's State Clearinghouse. The Clearinghouse solicits comments on these applications from all relevant state agencies and local jurisdictions. The applicant and funding agency are subsequently notified of any comments received. This review ensures the interests of all reviewing parties are considered before a project is sent forward for final federal or state approval.

County Water and Sewerage Plans and Amendments:

> MDP assists local governments in preparing amendments and revisions to water and sewer planning documents at the request of the local governments.
>
> MDP is directed by law to advise MDE regarding the consistency of county water and sewerage plans and amendments with regard to the "local master plan and other appropriate matters" (Environment Article § 9-507 (b) (2)).
>
> The law requires that county water and sewerage plans and amendments be consistent with the local comprehensive plan. If a plan or amendment is not consistent, it is subject to disapproval, in whole or in part, by MDE.

Priority Funding Areas (PFAs):

PFAs are delineated by local governments in accordance with statutory criteria that focus on concentrating high density growth in and near existing communities. If local PFA designations do not meet the legal requirements of the §5-7B-02 and 03 State Finance and Procurement Article, MDP identifies those portions as “comment areas” to indicate they are noncompliant. In these areas “growth-related projects” are ineligible for certain state funding until requirements are met or unless an exception is granted by the Maryland Smart Growth Coordinating Committee.

The PFA statute lists the specific state financial assistance programs required to focus their funding on projects inside the PFA with certain specified exceptions. BRF was enacted after the PFA law and is not included in the list of state financial programs subject to the PFA funding restrictions. However, BRF is monitored to avoid negatively impacting the efforts of Sustainable Growth policies, specifically those which support new developments at lower densities, especially those planned outside of designated growth areas.

Although PFA law is not directly applicable in this capacity, as highlighted in Table 1 of this report, it appears that sewerage treatment capacity has been consistently used for service connections within the PFA. MDP will continue to monitor this activity, especially in areas where failing septic systems are increasing in numbers and in other jurisdictions where remediation of failing septic systems for public health and safety reasons is on the rise. Where BRF septic funds are provided for these types of connections, local governments are guided and advised by MDE and MDP.

Local Comprehensive Plan Review and Comment

Local comprehensive plans must be prepared by every county, Baltimore City, and every municipality pursuant to the Land Use Article of the Annotated Code. MDP provides comments on draft local comprehensive plans and amendments. Through the Clearinghouse review process, MDP coordinates other state agency comments prior to being adopted by local governing bodies.

While these plans are not subject to state approval and comments provided are advisory only, local governing bodies provide full consideration to the state advisory comments as state funds may later be needed to implement specific recommendations in the local plans.

MDP works closely with and provides technical assistance to local governments in the processes leading to the adoption of local comprehensive plans. MDP ensures consistency with state policies, including the plans, policies, and programs of the Governor’s Sustainable Growth Subcabinet.

BRF Status

BRF fees collected from WWTP users are identified as “Wastewater” fees, and those collected from users on individual OSDSs are identified as “Septic” fees. These fees are collected by the CoM and deposited as follows:

- Wastewater fees (net of local administrative expenses) are deposited into MDE’s “Wastewater Fund.”
- 60% of the Septic fees (net of local administrative expenses) are deposited into MDE’s “Septic Fund.”
- 40% of the Septic fees (net of local administrative expenses) are deposited into MDA’s “Septic Fund.”

The status of the deposits from the CoM to MDE and MDA for each of the sub-funds identified above, as of June 30, 2025, is as follows:

Wastewater Fund (MDE 100% - FY25):

Sources:	$ Million	Uses:	$ Million
Fee Revenue Deposits	$108.96	Grant Awards	$26.2
Interest Earnings	$7.4	Admin. Expense Allowance	$2.7
Net Bond Proceeds	$0.00	Bond DS Payments	$27.2
Total	**$116.4**	**Total**	**$56.1**

Wastewater Fund (MDE 100% - cumulative since inception 2004):

Sources:	$ Billion	Uses:	$ Billion
Fee Revenue Deposits	$1.860	Grant Awards	$1.777*
Interest Earnings	$0.057	Admin. Expense Allowance	$0.027
Net Bond Proceeds	$0.362	Bond DS Payments	$0.319
Total	**$2.278**	**Total**	**$2.123**

*Funds are awarded after construction bids have opened (except for planning/design) and payment disbursements are made as expenses are incurred.

As of June 30, 2025, the grants under the Wastewater Fund were awarded as follows:

Major WWTP ENR Grantee	Project Title	Grant Award
Aberdeen, City of	Aberdeen WWTP ENR Upgrade	14,581,773.00
Allegany Co	Georges Creek ENR Upgrade	9,875,136.00
Allegany Co	Celanese ENR Upgrade	2,333,382.00
Anne Arundel Co.	Annapolis WRF ENR	14,683,515.00
Anne Arundel Co	Broadneck WRF	7,762,678.00
Anne Arundel Co	Broadwater ENR	6,044,053.00
Anne Arundel Co	Cox Creek WRF ENR Upgrade	88,600,000.00

Major WWTP ENR Grantee	Project Title	Grant Award
Anne Arundel Co	MD City Facility ENR Upgrade	3,473,000.00
Anne Arundel Co	Mayo WRF BNR ENR Upgrade	9,509,370.00
Anne Arundel Co	Patuxent WRF ENR Upgrade	3,713,000.00
Baltimore City	Back River WW ENR Upgrade. (SC877)	300,885,432.00
Baltimore City	Back River WW ENR Upgrade. (SC882)	46,219,057.00
Baltimore City	Patapsco ENR Upgr. (SC845 & 852)	145,503,477.36
Bowie, City of	Bowie ENR Upgrade	8,668,492.00
Brunswick, City of	WWTP ENR Upgrade	8,263,000.00
Cambridge, City of	Cambridge ENR Upgr.	8,618,255.00
Carroll Co.	Hampstead WWTP ENR Upgrade	9,651,298.00
Cecil Co.	Northeast River Adv WWTP ENR Upgr.	10,923,342.00
Chesapeake Beach, Town of	Chesapeake Beach WWTP ENR Upgr.	7,099,652.00
Chestertown, Town of	Chestertown BNR ENR Improvs	1,490,854.14
Crisfield, City of	Crisfield WWTP BNR ENR Upgrade	4,230,766.00
Cumberland, City of	Cumberland WWTP BNR ENR Upgrade	25,654,866.00
Delmar, Town of	Delmar WWTP BNR ENR Upgrade	2,369,464.00
Denton, Town of	Denton WWTP ENR Upgrade	4,405,615.00
Denton, Town of	Denton WWTP ENR Refinement	779,754.00
Easton, Town of	Easton WWTP ENR Upgrade	7,788,021.00
Elkton, Town of	Elkton BNR ENR Upgrade	7,403,154.00
Emmitsburg, Town of	Emmitsburg WWTP ENR Upgrade	5,517,848.00
Federalsburg, Town of	Federalsburg BNR ENR Upgrade	2,900,000.00
Frederick, City of	Gas House Pike WWTP	17,422,090.00
Frederick Co.	Ballenger Creek McKinney WWTP	29,812,509.00
Fruitland, City of	Fruitland WWTP ENR Upgrade	4,700,298.00
Hagerstown, City of	WWTP ENR Upgrade	10,191,836.00
Harford Co.	Joppatown ENR Upgrade	3,399,778.00
Harford Co.	Sod Run ENR Upgrade	36,640,567.00
Havre de Grace, City of	Havre de Grace WWTP ENR	10,474,820.00
Howard County	Little Patuxent WWTP ENR Upgr.	35,493,172.00
Hurlock, Town of	Hurlock WWTP ENR Upgrade	941,147.75
Indian Head, Town of	Indian Head ENR Upgrade	5,822,098.00
LaPlata, Town of	La Plata ENR Upgrade	9,367,610.00
Leonardtown	Leonardtown WWTP ENR Upgrade	8,667,382.00
MD Environmental Svcs	Freedom District WWTP ENR	7,483,475.00

Major WWTP ENR Grantee	Project Title	Grant Award
MD Environmental Svcs	MD Correctional Instit. WWTP ENR	6,764,539.00
MD Environmental Svcs	Dorsey Run WWTP ENR	47,986.00
Mt.Airy, Town of	Mt Airy WWTP/ENR	3,354,144.00
Perryville, Town of	Perryville ENR Upgrade	3,888,168.00
Perryville, Town of	Perryville WWTP ENR Refinement	7,975,325.00
Pocomoke, City of	Pocomoke WWTP ENR Upgrade	3,214,878.00
Poolesville, Town of	Poolesville WWTP ENR	223,132.00
Poolesville, Town of	Poolesville WWTP ENR Refinements	8,596,570.00
Queen Anne's County	Kent Island WWTP ENR	6,380,645.09
Salisbury, City of	Salisbury WWTP ENR Upgrade	2,553,876.86
Salisbury, City of	WWTP BNR ENR (Drain Pmp St)	11,362,766.00
Snow Hill, Town of	BNR ENR Upgrade	3,275,455.00
Somerset County	Princess Anne WWTP ENR	23,000.00
St. Mary's County	Marlay Taylor Water Reclam.	9,896,000.00
Talbot County	St Michaels WWTP ENR	1,978,698.78
Taneytown, City of	WWTP ENR Planning /Design	5,381,998.00
Thurmont, Town of	Thurmont WWTP ENR	6,680,679.00
Washington County	Winebrenner WWTP ENR	2,990,607.00
Washington County	Conococheague WWTP ENR	18,725,544.00
Westminster, City of	Westminster WWTP ENR	40,347,789.00
WSSC	Blue Plains WWTP ENR	143,632,166.00
WSSC	Damascus WWTP ENR Upgrade	5,053,399.00
WSSC	Parkway WWTP ENR Upgrade	14,271,803.00
WSSC	Piscataway WWTP ENR Upgrade	6,324,000.00
WSSC	Seneca WWTP ENR Upgrade/Expan.	5,550,048.00
WSSC	Western Branch WWTP ENR Upgrade.	37,589,528.00
		1,305,447,781.
	MAJOR WWTP GRANT TOTAL	**98**

Minor WWTP Grantee	Project Title	Grant Award
Betterton, Town of	Betterton WWTP BNR ENR Upgrade	5,935,956.00
Boonsboro, Town of	Boonsboro WWTP ENR Upgrade	2,000,000.00
Cecil County	Harbour View WWTP ENR Upgrade	5,131,902.00
Cecil County	Port Deposit WWTP Replacement	7,618,421.00
Cecilton, Town of	WWTP ENR	34,908.00
Chesapeake City, Town of	Chesapeake City WWTP ENR	6,868,900.00
College of Southern Maryland	WWTP ENR Upgrade (Charles Co.)	713,571.00
Frederick Co.	Lewistown WWTP ENR Up	2,466,000.00
Fruitland, City of	Tuxent Branch Stormwater Drainage and Culver	605,341.00

Minor WWTP Grantee	Project Title	Grant Award
Galena, Town of	Galena WWTP ENR	1,768,370.00
Garrett Co San Dist	Trout Run Oakland WWTP	1,621,035.00
Grantsville, Town of	WWTP ENR Upgrade	776,526.00
Greensboro, Town of	Greensboro WWTP ENR	2,581,838.00
Hancock, Town of	Hancock WWTP ENR Upgrade	763,208.00
Manchester, Town of	WWTP ENR Upgrade	1,257,067.00
MD Environmental Svc	Elk Neck St Park WWTP ENR	8,219,070.00
MD Environmental Svc	Victor Cullen WWTP ENR Upgrade	5,046,147.00
MD Environmental Svc	Cheltenham Village WWTP ENR	5,993,072.00
MD Environmental Svc	Point Lookout State Park WWTP ENR	53,035.00
Middletown, Town of	Middletown WWTP ENR Upgrade	49,923.00
New Windsor, Town of	New Windsor WWTP ENR Upgrade	30,604.00
Oxford, Town of	Oxford WWTP/ ENR Upgrade	6,999,116.00
Preston, Town of	Preston WWTP ENR Upgrade	9,120,869.00
Queenstown, Town of	Queenstown WWTP BNR ENR	842,895.00
Rising Sun, Town of	Rising Sun WWTP ENR	1,099,268.00
Rock Hall, Town of	Rock Hall WWTP ENR	745,571.00
Secretary, Town of	Twin Cities WWTP ENR Upgrade	17,724,632.00
Somerset County	Smith Island BNR ENR Upgrade	10,012,677.00
Sudlersville, Town of	Sudlersville BNR ENR	2,299,722.00
Talbot Co., Town of	Region V (Tilghman Isl) WWTP ENR Upg.	28,990.00
Trappe, Town of	Trappe WWTP ENR Upgrade	25,975.00
Union Bridge, Town of	WWTP ENR Upgrade	99,800.00
Upper Potomac River Commission	UPRC WWTP ENR Upgrade	100,000.00
Vienna, Town of	Vienna WWTP ENR Upgrade	550,900.00

Other Expanded Use Projects (Sewer, Septic, Stormwater BMP) Grantee	Project Title	Grant Award
Allegany Co.	Bedford Rd San Sew Rehab Ph VI	1,137,072.00
Allegany Co.	Braddock & Jennings RCS Sewer Conv.	21,684,573.00
Baltimore, City of	Patapsco SSI (SC-903)	19,869,452.00
Baltimore, City of	Herring Run SSI HR07A (SC-937)	5,055,835.00
Baltimore, City of	LowLevel SSI (SC-914)	11,834,981.00
Baltimore, City of	SSI SW SC963 & Maiden Choice	11,977,946.00
Baltimore, City of	Gwynns Falls Sewershed SC921	8,454,271.00
Baltimore, City of	Gwynns Falls Sewershed SC977	5,720,729.00
Baltimore, City of	Herring Run Sewershed II SC910	10,686,000.00
Baltimore, City of	Improvs to SS Herring Run SC956	5,882,802.00
Baltimore, City of	Improvs to SanSewer SC965	9,803,428.00
Baltimore, City of	Hydraulic Improvs HL SCS (SC940)	10,601,422.00

Other Expanded Use Projects (Sewer, Septic, Stormwater BMP) Grantee	Project Title	Grant Award
Carroll County	SW Mgmnt Rest (Greens of Westminster)	347,340.00
Carroll County	SW Mgmnt Rest (Woodsyde)	779,195.00
Carroll County	SW Mgmnt Rest (East West Pond)	568,973.00
Carroll County	SW Mgmnt Rest (Trevanion Terrace)	607,193.00
Cecil County	Connect Triumph Ind Park to SS	3,550,101.00
Cumberland, City of	CSO Storage Facility Ph I	25,895,569.00
Frederick County	Lewistown Wastewater Collection System	825,000.00
Frostburg, City of	CSO Ph VIII-B	2,130,050.00
Frostburg, City of	CSO Ph IX-A	1,775,478.00
Frostburg, City of	CSO Ph IX-B Stoyer St Corridor	1,918,821.00
Frostburg, City of	CSO Ph IX-C Beall St Corridor	1,208,046.00
Frostburg, City of	CSO Ph X-A Geroge's Creek	981,313.00
Greensboro, Town of	Goldsboro Reg WW Ph V	2,213,095.00
Howard County	Ashleigh Knolls Sh Sew Disposal Fac	2,881,550.00
I-97 Sewer	Dover Rd Bus Bldg Sew Connection	42,220.00
I-97 Sewer	BWI Commerce Park Sewer Ext.	1,265,568.00
I-97 Sewer	Int Trade Ctr Sew Ext.(St.John's Prop)	1,131,795.00
I-97 Sewer	Business Park Sewer Ext.	842,603.00
LaVale Sanitary Commission	LaVale Manhole Rehab Ph II	714,855.00
Luke, Town of	Landslide Sewer Ln Repair	65,468.00
Queen Anne's Co.	Southern Kent Island Sanitary Project Ph II	1,918,000.00
Queen Anne's Co.	Southern Kent Island Sanitary Project Ph III	4,187,500.00
Sudlersville, Town of	Town of Barclay Sanitary Project	1,550,000.00
WSSC	Lower Anacostia Sewer Basin PGC	3,791,375.00
WSSC	Beaverdam Sewer Basin PGC	6,062,000.00
WSSC	NorthWest Sewer Basin PGC	5,831,875.00
WSSC	Parkway Sewer Basin PGC	159,250.00
WSSC	Piscataway Sewer Basin PGC	2,235,311.00
WSSC	NorthEast Sewer Basin PGC	5,362,875.00
WSSC	Broad Creek Sewer Basin PGC	4,550,000.00
WSSC	WSSC/OXON RUN BASIN SECTION 4: TASK ORDERS NO. 34, 43, 45, 46 (SEWER BASIN RECONSTRUCTION PROGRAM)	7,252,996.00
TOTAL MINOR WWTP & EXPANDED USE PROJECT GRANTS		**325,144,576.00**

SEWER PROJECTS (PRE FY10)

Grantee	Project Title	Total Grant Disbursement
Allegany County	Braddock Run Interceptor	499,748.00
Baltimore City	Gwynn's Run Sewer	1,575,000.00
Baltimore City	Greenmount Br Sewer Interceptor	2,300,000.00
Baltimore City	Greenmount Br Sewer Interceptor II	1,000,000.00
Cumberland, City of	CSO Elimination-Evitts Creek	1,319,889.00
Denton, Town of	Lockerman St. Lift Station	100,000.00
Emmitsburg, Town of	South Seton Ave Sewer Line	600,000.00
Federalsburg, Town of	Maple Ave Sewer	600,000.00
Frostburg, Town of	Combined Sewer Overflow Ph IV	1,000,000.00
Frostburg, Town of	CSO - Phase V	800,000.00
Frostburg, Town of	CSO - Phase VI Elimination	1,100,000.00
Fruitland, City of	Infiltration & Inflow Sewer	800,000.00
Hagerstown, City of	Collection System Rehab	800,000.00
Havre de Grace, City of	I&I Sewer Reduction	166,500.00
Mountain Lake Park, Town of	Sewer Rehab III	731,884.00
Port Deposit, Town of	Inflow & Infiltration Reduction	178,199.00
Secretary, Town of	Gordon Street Lift Station	150,000.00
Secretary, Town of	Infiltration/Inflow Reduction	172,068.00
St. Mary's METCOM	Evergreen Park Sewer	203,714.00
St. Mary's METCOM	Piney Pt. Sewer Repair	465,559.00
Talbot County	St Michaels Sewer & Upgrade	1,000,000.00
Talbot County	St Michaels Region II Sewer & Upgrade	450,000.00
Taneytown, City of	Baltimore St Water Main	200,000.00
Thurmont, Town of	Sewer Line Rehab	947,000.00
Washington County	Halfway Inflow/Infiltration Reduction	200,000.00
Westernport, Town of	CSO	936,000.00
Westernport, Town of	CSO/ Elim Philos Ave Area	1,032,519.00
Williamsport, Town of	Inflow & Infiltration Reduction	383,226.00
SEWER GRANT SUBTOTAL (PRE FY10)		**19,711,306.00**

Operation & Maintenance (O&M) Grants

Grantee	Project Title	Total Grant Disbursement
Aberdeen, City of	Aberdeen WWTP O&M thru GY25	269,472.00
Allegany County	North Branch WWTP O&M thru GY25	979,551.00
Allegany County	George's Creek WWTP O&M thru GY25	383,658.00
Anne Arundel County	Annapolis WWTP O&M thru GY25	3,239,140.00
Anne Arundel County	Broadneck WWTP O&M thru GY25	1,887,156.00
Anne Arundel County	Broadwater WWTP O&M thru GY25	668,038.00
Anne Arundel County	Cox Creek WWTP O&M thru GY25	2,963,037.00
Anne Arundel County	Maryland City WWTP O&M thru GY25	775,565.00
Anne Arundel County	Patuxent WWTP O&M thru GY25	2,513,955.00
Baltimore, City of	Back River WWTP O&M thru GY25	1,620,558.00
Baltimore, City of	Patapsco WWTP O&M thru GY25	376,911.00
Betterton, Town of	Betterton WWTP O&M thru GY25	20,000.00
Boonsboro, Town of	Boonsboro WWTP O&M thru GY25	344,547.00
Bowie, City of	Bowie WWTP O&M thru GY25	980,587.00
Brunswick, City of	Brunswick WWTP O&M thru GY25	561,384.00
Cambridge, City of	Cambridge WWTP O&M thru GY25	2,381,389.00
Cecil County	Northeast River WWTP O&M thru GY25	584,381.00
Cecil County	Harbour View WWTP O&M thru GY25	30,202.00
Cecil County	Port Deposit WWTP O&M thru GY25	63,882.00
Charles County	Mattawoman WWTP O&M thru GY25	816,000.00
Chesap. Beach, Town of	Chesapeake Beach WWTP O&M thru GY25	201,468.00
Chesapeake City, Town of	Chesapeake City WWTP O&M thru GY25	12,500.00
Chestertown, Town of	Chestertown WWTP O&M thru GY25	315,528.00
Crisfield, City of	Crisfield WWTP O&M thru GY25	168,649.00
Cumberland, City of	Cumb/John Difonzo WWTP O&M thru GY25	4,663,659.00
Delmar, Town of	Delmar WWTP O&M thru GY25	214,825.00
Denton, Town of	Denton WWTP O&M thru GY25	262,256.00
Easton Utilities	Easton WWTP O&M thru GY25	1,950,786.00
Elkton, Town of	Elkton WWTP O&M thru GY25	1,278,303.00
Emmitsburg, Town of	Emmitsburg WWTP O&M thru GY25	168,393.00
Federalsburg, Town of	Federalsburg WWTP O&M thru GY25	245,160.00
Frederick County	Ballenger Creek WWTP O&M thru GY25	3,146,657.00
Frederick, City of	Gas House Pike WWTP O&M thru GY25	632,472.00
Fruitland, City of	Fruitland WWTP O&M thru GY25	142,328.00
Greensboro, Town of	Greensboro WWTP O&M thru GY25	52,500.00
Hagerstown, City of	Hagerstown WWTP O&M thru GY25	3,543,640.00
Harford County	Aberdeen WWTP O&M thru GY25	1,087,242.00
Harford County	Joppatowne WWTP O&M thru GY25	390,778.00
Harford County	Sod Run WWTP O&M thru GY25	3,457,134.00
Havre de Grace, City of	Havre de Grace WWTP O&M thru GY25	1,007,155.00
Howard County	Little Patuxent WWTP O&M thru GY25	4,481,759.00
Hurlock, Town of	Hurlock WWTP O&M thru GY25	776,591.00

Grantee	Project Title	Total Grant Disbursement
Indian Head,Town of	Indian Head WWTP O&M thru GY25	392,742.00
Kent County	Galena WWTP O&M thru GY25	30,239.00
La Plata, Town of	La Plata WWTP O&M thru GY25	393,556.00
Leonardtown, Town of	Leonardtown WWTP O&M thru GY25	198,717.00
MD Environmental Svc	Dorsey Run WWTP O&M thru GY25	653,508.00
MD Environmental Svc	Eastern Corr. Inst WWTP O&M thru GY25	404,355.00
MD Environmental Svc	Freedom District WWTP O&M thru GY25	728,423.00
MD Environmental Svc	MD Correctional Inst WWTP O&M thru GY25	453,749.00
MD Environmental Svc	Rocky Gap WWTP O&M thru GY25	160,053.00
MD Environmental Svc	So.MD Pre-Release WWTP O&M thru GY25	117,827.00
Mount Airy, Town of	Mount Airy WWTP O&M thru GY25	518,796.00
Oxford, Town of	Oxford WWTP O&M thru GY25	55,000.00
Perryville, Town of	Perryville WWTP O&M thru GY25	470,755.00
Pocomoke City, City of	Pocomoke City WWTP O&M thru GY25	360,167.00
Poolesville, Town of	Poolesville WWTP O&M thru GY25	13,500.00
Queen Anne County	Kent Island WWTP O&M thru GY25	1,298,562.00
Queenstown, Town of	Queenstown WWTP O&M thru GY25	160,510.00
Rising Sun, Town of	Rising Sun WWTP O&M thru GY25	146,655.00
Salisbury, City of	Salisbury WWTP O&M thru GY25	2,393,767.00
Snow Hill, Town of	Snow Hill WWTP O&M thru GY25	251,290.00
St. Mary's County	Marlay Taylor WWTP O&M thru GY25	836,261.00
Talbot County	Talbot Region II WWTP O&M thru GY25	436,382.00
Thurmont, Town of	Thurmont WWTP O&M thru GY25	399,570.00
Upper Potomac RC	Upper Potomac Rvr Comm WWTP thru GY25	100,781.00
Washington County	Conococheague WWTP O&M thru GY25	1,033,774.00
Washington County	Winebrenner WWTP O&M thru GY25	225,231.00
Westminster, City of	Westminster WWTP O&M thru GY25	75,000.00
WSSC	Damascus WWTP O&M thru GY25	616,024.00
WSSC	Parkway WWTP O&M thru GY25	3,267,064.00
WSSC	Piscataway WWTP O&M thru GY25	4,718,631.00
WSSC	Seneca WWTP O&M thru GY25	3,665,532.00
WSSC	Western Branch WWTP O&M thru GY25	4,913,989.00
	Total O&M Grant Award	**79,149,606.00**

CWCA: Nutrient Load Reduction GRANTS

Grantee	Project Title	Award Amount
Anne Arundel Co.DPW	Muni Disch @ Broadneck/Annapolis WRF	8,181,550.00
Anne Arundel Co.DPW	Muni Disch @Cox Creek & Patuxent	9,498,475.00

	WRF	
HGS LLC (RES)	Winters Run Stream Restoration	4,910,825.00
Howard County DPW	Little Pat Water Recl Plant (APICS)	1,818,450.00
Conservation Innovation Fund	Aggrow - Alternative Crop Environmental Practice	1,375,251.00
QA/ShoreRivers, Inc	Carter Farm Stream and Wetland Restoration	8,280,000.00
QA/Ecotone, LLC	Talisman Living Shoreline Restoration	3,713,645.00
Wicomico/ShoreRivers, Inc	Lowe Farm Drainage Water Management	395,465.00
NUTRIENT LOAD REDUCTION/CWCA TOTAL		**38,173,661.00**

TREE SOLUTIONS NOW ACT:

Grantee	**Project Title**	**Award Amount**
Chesapeake Bay Trust	Urban Tree Program	10,000,000.00
MD Dept of Agriculture	Conservation Reserve Enhancement Prog	2,500,000.00
MD Dept. of Natural Res.	Ches.& Atlantic Coastal Bays Trust Fund	2,500,000.00
TREE SOLUTIONS NOW ACT- TOTAL		**15,000,000.00**

TOTAL BRF A0111 Grants	**1,777,448,723.98**

Septic Fund (MDE 60% for OSDS upgrades FY25):

Sources:	$ Million	Uses:	$ Million
Fee Revenue Deposits	$ 17.15	Capital Grant Awards	$ 16.8
Interest Earnings	$ 0.4	Admin. Expense Allowance	$ 1.2
		HB-12 Local Admin Grants	$ 1.5
Total	**$ 17.6**	**Total**	**$ 19.5**

Septic Fund (MDE 60% for OSDS upgrades except 22.4% in FY10 - cumulative since inception 2004):

Sources:	$ Million	Uses:	$ Million
Fee Revenue Deposits	$275.3	Capital Grant Awards	$242.4*
Interest Earnings	$4.8	Admin. Expense Allowance	$18.4
		HB-12 Local Admin Grants	$15.5**
Total	**$280.1**	**Total**	**$276.2**

*Does not include $15 million of FY26 grant awarded in June 2025. Payment disbursements are made as BATs, and public sewer connections are installed and expenses are incurred.

** HB12, passed during the 2014 session, allows for up to 10% of the MDE septic fee

allocation to be used for grants to local health departments to implement and enforce the septic regulations requiring BAT for nitrogen reduction from septic systems.

As of June 30, 2025, the grants under the Septic Fund were awarded as follows:

Grantee	Total Capital Program Grant Award	Total HB12 Admin Grant Award
Allegany County Health Department / CVI	1,224,087.85	305,000.00
Anne Arundel County Health Department	43,930,409.62	915,000.00
Baltimore County Department of Environmental Protection & Sustainability	7,836,881.16	747,000.00
Calvert County Health Department	23,424,840.44	1,280,000.00
Caroline County Health Department	5,897,563.46	804,000.00
Carroll County Bureau of Environmental Health/CVI	3,666,481.73	517,000.00
Cecil County	12,172,609.33	587,000.00
Charles County Department of Health	6,900,797.75	657,000.00
Dorchester County Health Department	10,080,583.96	949,500.00
Frederick County Health Department/CVI	5,566,442.65	732,000.00
Garrett County Health Department	1,692,623.90	420,000.00
Harford County Health Department	7,111,396.82	710,000.00
Howard County Health Department/CVI	2,790,985.96	483,000.00
Kent County Health Department	8,414,554.64	876,000.00
Montgomery County Health Department/CVI	3,428,017.00	120,000.00
Prince George's County Division of Environmental Health	1,005,090.16	227,500.00
Queen Anne's County Department of Health	20,283,735.17	801,000.00
Somerset County Health Department	5,355,766.36	767,000.00
St. Mary's County Health Department	18,983,706.07	1,258,000.00
Talbot County Government	13,242,903.18	1,004,000.00
Washington County Health Department /CVI	5,246,669.80	449,000.00
Wicomico County Health Department	10,137,781.50	603,000.00
Worcester County Department of Environmental Programs	4,968,408.50	294,000.00
Direct Grant Awards Individual	17,725,266.58	-
Direct-2nd year O&M_ BAT vendor	1,264,966.25	-
Total BRF SEPTIC Grant Awards	**242,352,569.84**	**15,506,000.00**

**CVI- refers to the Canaan Valley Institute, a non-profit organization responsible for administering the grant funds on behalf of the county.*

Septic Fund (MDA 40% for Cover Crops)

Sources:		Uses:	
Cash Deposits*	$183,880,303	Grant Awards	
	$180,535,941		
		Admin. Expense	$ 3,344,362

Total	$183,880,303

*Cumulative revenue and expenditures as of June 30, 2025.

Historically, there is attrition between acres enrolled and actual payments for cover crops planted under the Conservation Grants Program. The main cause of reduced acreage is one of time and labor availability in the fall planting of cover crops after harvest. Other causes include delays due to weather and other uncontrolled factors. There is also a smaller reduction in acres planted and those paid due to conversions from traditional to commodity cover crops or removal of acres from the program. The Table below illustrates the “typical” program attrition profile.

MDA Cover Crop Program 1 – Acres

Year	Application Acres	Approved Acres	Fall Certification	Paid Acres
2005/2006	210,258	205,268	135,328	126,245
2006/2007	451,467	290,000	243,945	238,674
2007/2008	336,800	303,364	203,497	187,479
2008/2009	398,225	387,022	237,144	238,839
2009/2010	330,469	330,469	206,810	206,810
2010/2011	508,000	492,757	400,311	381,949
2011/2012	570,183	567,154	429,818	400,795
2012/2013	607,433	604,186	415,437	414,558
2013/2014	608,427	602,481	423,212	415,550
2014/2015	631,374	617,714	475,559	473,790
2015/2016	656,173	652,594	501,205	500,022
2016/2017	691,787	689,389	561,344	558,976
2017/2018	636,904	636,904	395,862	359,873
2018/2019	617,269	604,135	362,976	359,702
2019/2020	649,89	620,900	488,214	485,206
2020/2021	640,864	634,739	433,116	429,095
2021/2022	638,226	627,778	435,628	424,616
2022/2023	600,282	582,780	397,066	395,003
2023/2024	625,197	621,609	447,622	446,639
2024/2025	656,032	652,888	494,845	491,108
2025/2026	624,820	622,328	TBD	TBD

Clean Water Commerce Act of 2021:

During the 2021 legislative session, the CWCA was established to allow MDE to purchase nitrogen reductions from environmental practices with a life between ten and twenty years. Twenty million dollars a year are transferred from the Wastewater Fund to this account to be used for these purchases.

In each FY, the purchase must include:

- At least 35% from agricultural practices;
- At least 20% from projects in communities disproportionately burdened by environmental harms or risks; and
- At least 10% from nonagricultural landscape restoration projects.

Any unencumbered funds not used during the FY for the above categories become available in the subsequent FYs for any eligible environmental practice.

The second project solicitation, for FY24 and FY25 transferred funds, opened during the regular MDE solicitation period between December 2023 and January 2024, and then reopened in the summer of 2024 until August 30, 2024, due to legislative changes. HB1266/SB1144 of 2024 – *Clean Water Commerce – Contracts for the Purchase of Environmental Outcomes* - increased the flexibility for payment schedules for projects funded under the Clean Water Commerce Program. There has been significant interest in the program, with 22 applications received and over $77 million in funding requested. MDE, MDA and the Environmental Policy Innovation Center (EPIC) evaluated the submitted applications and selected 15 projects to be funded. The selected 15 projects have total of approximately $47 million for the following categories:

Agricultural Practices Funded by MDE:	$32,489,599
Agricultural Practices Funded by MDA:	$946,918
Agricultural Practices Funded by EPIC:	$1,980,286
Practices in Environmental Justice Communities:	$7,558,851
Nonagricultural Landscape Restoration Projects:	$4,000,000

The total reduction of the selected project is 2,268,659 over ten to twenty years, which yields an average nitrogen reduction purchase price of about $21 per pound. This is much lower than MDE cost-effectiveness criteria of $150 per pound of nitrogen.

The FY26 solicitation opened during the regular MDE solicitation period between December 2025 and January 2026.

WWTP Upgrades with Enhanced Nutrient Removal

Status of Upgrades:

MDE is implementing a strategy and is providing financial assistance to upgrade WWTPs in order to achieve ENR level of treatment. MDE's strategy and BRF set forth annual average nutrient goals of WWTP effluent quality of Total Nitrogen (TN) at 3 mg/l and Total Phosphorus (TP) at 0.3 mg/l, where feasible, for all major WWTPs with a design capacity of 0.5 million gallons per day (MGD) or greater. Other smaller WWTPs are currently being selected by MDE for upgrade on a case-by-case basis, based on the cost effectiveness of the upgrade, environmental benefits, and land use factors. Primarily, Maryland's 67 major sewage treatment facilities were targeted for the initial upgrades.

Major WWTPs:
ENR upgrades of the state's major sewage treatment plants are almost completed with 66 of the 67 major facilities having been upgraded and in operation. The remaining facility, Princess Anne, Somerset County, is in planning.

Minor WWTPs:
ENR upgrades are underway for some minor sewage treatment plants (less than 0.5 MGD). MDE and Planning have been assisting local governments in applying for BRF grants, and to date, 17 minor facilities have completed the ENR upgrade and are in operation. Two more are under construction, and 16 additional plants have signed the funding agreement and have progressed into planning or design. All facilities that pay into the BRF and provide services to residential dwelling units are eligible to receive BRF grants if MDE determines that the ENR upgrade would be cost effective at the selected facility. MDE estimates that potentially a total of 80 minor facilities may meet the cost-effectiveness criteria and could be upgraded if they apply for BRF funding.

ENR Refinement Program (Asset Renewal):
MDE has initiated the ENR Refinement Program. Many of the upgrades of major treatment plants are approaching or have reached their twenty years of age, and some have begun to experience some issues due to the age of equipment. In addition to ensuring that these plants continue to achieve the ENR goals for the next twenty years, MDE intends under this program to fund further upgrades to achieve better than ENR. The new ENR goal for nitrogen will be 2.85 mg/l total nitrogen (instead of 3 mg/l) to help offset the climate change impact.

MDE has developed the program guidelines to be posted on MDE's website and started the discussions with some of the potentially eligible plants.

DoD and Other Federal WWTPs:
On July 19, 2006, the State of Maryland and DoD signed a Memorandum of Understanding (MOU) to resolve a dispute regarding the applicability of BRF to DoD. The state's legal position is that the federal government is not exempt from paying the BRF fee; however, the DoD asserts that the BRF fee is a tax and that the state may not tax the federal government. With the advice of counsel, the state chose to settle the matter with DoD rather than to litigate. In the MOU, neither party concedes any legal position with

respect to the BRF fee. MDE has agreed to accept DoD's proposal to undertake ENR upgrades at certain DoD-owned WWTPs at its own expense in lieu of paying the fee.

MDE has worked with DoD to complete the ENR upgrade of the targeted facilities as specified in the MOU. Specifically, the following targeted DoD facilities were upgraded to ENR:

DoD Facility	Date of Start Meeting ENR Goals
Aberdeen Proving Ground – Aberdeen	March 2006
Aberdeen Proving Ground – Edgewood	March 2016
Fort Detrick	June 2012
Naval Station – Indian Head	September 2011
Fort Meade	January 2015
Naval Support Activity – Annapolis	April 2021

The following are the upgraded major, minor, and federal facilities with their nitrogen and phosphorus reductions achieved in CY24:

ENR Wastewater Treatment Plant	County	CY24 Average Flow (MGD)	CY 24 TN Reduction (Lbs)	CY 24 TP Reduction (Lbs)
John J. Difonzo	Allegany	9.850	191,900.06	53,072.36
George's Creek	Allegany	0.847	43,316.33	5,079.35
North Branch	Allegany	1.353	69,605.48	7,990.21
Rocky Gap	Allegany	0.051	2,654.76	298.08
UPRC	Allegany	0.998	51,038.60	5,225.38
Annapolis	Anne Arundel	8.146	141,344.26	43,891.11
Broadneck	Anne Arundel	3.908	84,464.03	22,246.16
Broadwater	Anne Arundel	0.917	18,981.79	5,471.22
Cox Creek	Anne Arundel	10.526	205,070.06	60,880.17
Dorsey Run	Anne Arundel	0.913	46,413.70	5,002.67
Fort Mead	Anne Arundel	1.670	75,746.34	9,150.56
Maryland City	Anne Arundel	1.528	29,303.72	9,023.69
Naval Academy	Anne Arundel	0.070	3,196.31	381.43
Patuxent	Anne Arundel	5.791	105,770.30	32,965.08
Piney Orchard	Anne Arundel	0.590	11,494.52	3,322.64
Back River	Baltimore	134.800	2,503,102.55	53,344.81
Patapsco	Baltimore City	50.700	2,207,002.94	274,717.85
Chesapeake Beach	Calvert	0.644	12,154.48	3,705.16

ENR Wastewater Treatment Plant	County	CY24 Average Flow (MGD)	CY 24 TN Reduction (Lbs)	CY 24 TP Reduction (Lbs)
Denton	Caroline	0.500	7,458.05	2,800.57
Federalsburg	Caroline	0.290	14,389.46	1,491.91
Greensboro	Caroline	0.193	8,107.66	1,063.40
Preston	Caroline	0.066	1,366.19	363.65
Freedom District	Carroll	2.050	26,833.74	12,043.98
Hampstead	Carroll	0.310	13,211.39	1,708.04
Mount Airy	Carroll	0.712	10,837.00	4,074.71
Taneytown	Carroll	0.878	11,492.70	4,570.35
Westminster	Carroll	4.153	83,438.17	23,767.24
Chesapeake City	Cecil	0.112	5,420.93	661.42
Elkton	Cecil	1.830	71,305.00	8,578.88
Harbour View	Cecil	0.020	815.82	117.50
Northeast River	Cecil	1.262	21,129.10	-
Perryville	Cecil	0.770	31,409.02	3,867.53
Port Deposit	Cecil	0.100	4,809.68	593.60
Rising Sun	Cecil	0.247	12,331.04	1,293.26
Indian Head	Charles	0.432	21,435.33	2,446.00
La Plata	Charles	1.220	13,741.07	6,907.67
Mattawoman	Charles	9.010	323,642.62	1,645.64
Naval Station	Charles	0.350	15,981.53	1,374.41
Swan Point	Charles	0.080	3,458.10	438.35
Cambridge	Dorchester	3.228	49,131.77	18,277.02
Hurlock	Dorchester	1.337	65,933.38	7,814.33
Ballenger Creek	Frederick	7.750	158,064.89	46,711.71
Brunswick	Frederick	0.522	24,788.72	2,971.47
Emmitsburg	Frederick	0.540	22,027.11	2,958.87
Fort Detrick	Frederick	0.750	37,670.74	4,406.33
Frederick City	Frederick	6.274	122,231.57	33,040.72
Thurmont	Frederick	0.647	12,211.10	3,801.20
Victor Cullen	Frederick	0.005	248.09	30.29
Aberdeen	Harford	1.690	28,809.36	9,363.04
APG-Aberdeen	Harford	0.600	25,022.50	3,506.80
APG-Edgewood	Harford	0.820	37,192.81	4,318.36
Havre de Grace	Harford	1.721	27,766.15	9,691.96
Jopppatowne	Harford	0.749	13,452.18	4,195.26
Sod Run	Harford	10.206	177,088.08	58,097.32

ENR Wastewater Treatment Plant	County	CY24 Average Flow (MGD)	CY 24 TN Reduction (Lbs)	CY 24 TP Reduction (Lbs)
Little Patuxent	Howard	18.660	318,096.27	35,217.80
Betterton	Kent	0.026	1,203.03	134.55
Chestertown	Kent	0.688	31,624.55	4,104.91
Galena	Kent	0.023	1,064.22	105.72
Damascus	Montgomery	0.876	17,333.11	5,013.27
Poolesville	Montgomery	0.550	6,697.02	2,963.43
Seneca	Montgomery	14.609	253,486.16	7,204.34
Bowie	Prince George's	1.480	27,932.66	3,919.58
Parkway	Prince George's	6.554	131,676.81	16,160.34
Piscataway	Prince George's	21.419	436,850.57	9,128.22
USDA EAST-SIDE	Prince George's	0.090	3,397.22	430.13
Western Branch	Prince George's	23.180	444,542.10	56,449.79
Kent Island	Queen Anne's	2.540	115,980.21	14,690.83
Queenstown	Queen Anne's	0.086	4,502.83	463.37
Sudlersville	Queen Anne's	0.122	4,085.18	705.62
Blue Plains	Regional	127.550	1,747,237.30	46,592.99
Crisfield	Somerset	0.790	31,984.36	4,497.05
ECI	Somerset	0.542	27,883.35	3,200.81
Leonardtown	St. Mary's	0.670	11,013.55	3,752.77
Marlay Taylor	St. Mary's	3.260	53,588.34	17,267.35
Easton	Talbot	2.381	118,867.23	14,423.52
Oxford	Talbot	0.121	5,377.71	710.89
Talbot Region II	Talbot	0.320	16,852.14	1,870.30
Boonsboro	Washington	0.353	17,407.99	2,116.90
Conococheague	Washington	2.500	38,812.28	13,241.84
Hagerstown	Washington	6.150	117,943.65	32,949.34
MCI	Washington	0.692	15,588.23	4,149.84
Winebrenner	Washington	0.188	8,870.51	1,030.12
Delmar	Wicomico	0.687	33,879.01	4,140.77

ENR Wastewater Treatment Plant	County	CY24 Average Flow (MGD)	CY 24 TN Reduction (Lbs)	CY 24 TP Reduction (Lbs)
Fruitland	Wicomico	0.562	8,040.69	2,891.23
Salisbury	Wicomico	5.500	277,926.33	30,973.72
Pocomoke City	Worcester	0.663	12,311.25	3,875.02
Snow Hill	Worcester	0.350	17,153.50	2,024.33
Total Reductions in CY24:			**11,666,021.63**	**1,231,161.40**

Annual O&M Grants for the Upgraded Facilities:

Starting in FY10, the law allows up to 10% of the annual fee generated from users of WWTPs to be earmarked for grants for O&M costs of ENR technologies. To ensure that each upgraded facility receives a reasonable and fair amount of grant, MDE, in consultation with BRFAC, is allocating the base grants at the following rates:

- Minimum annual allocation per facility (for design capacity ≤ 1 MGD) = $30,000
- For facility with design capacity between 1 and 10 MGD = $30,000 per MGD
- Maximum allocation per facility (for design capacity ≥ 10 MGD) = $300,000

In addition to the base grants specified above, on April 19, 2021, MDE adopted a change in the regulations to allow the department to provide additional funding for WWTPs achieving better than ENR. The goal is to allocate the full amount of the authorized annual O&M fund, which is approximately $11 million per year. After distributing the base grants based on the above rates, the remaining amount of the authorized fund is allocated to each WWTP achieving beyond ENR based on the additional load reduction achieved beyond ENR.

On August 27, 2025, the BPW approved $11 million (under FY26 authorization) for facilities that achieved ENR level of treatment during CY24. Also, additional grants were provided for facilities achieving better than ENR level of treatment.

MDE is requesting authorization for $11 million in FY27. The upgraded facilities will receive O&M grants based on the above rates if they continue to achieve ENR level of treatment in CY25.

Chesapeake Bay TMDL Implications:

In November 2009, the U.S. Environmental Protection Agency (EPA) officially transmitted the WIP guidance. EPA, in coordination with the Bay watershed jurisdictions of Maryland, Virginia, Pennsylvania, Delaware, West Virginia, New York, and Washington D.C., developed and, on December 29, 2010, established the TMDL and a nutrient and sediment pollution diet for the Chesapeake Bay, consistent with the Clean Water Act

requirements. Current model estimates are that the states' Bay water quality standards can be met at basin-wide loading levels of 200 million pounds of nitrogen per year and 15 million pounds of phosphorus per year. Maryland's current target loads, with climate change allocation, are 46.2 million pounds of nitrogen per year and 3.57 million pounds of phosphorus per year by 2025. Currently, Maryland's nutrient loads entering Chesapeake Bay are 46.6 million pounds of nitrogen per year and 2.91 million pounds of phosphorus per year.

Continuing to upgrade major and minor WWTPs as described above is essential for Maryland to meet its 2025 target loads. In addition, MDE is providing more incentive through the O&M grants for facilities achieving better than ENR levels of treatment.

Chapter 257 Implementation

Chapter 257 (HB 893) of 2007 - *Bay Restoration Fund - Wastewater Treatment Facilities Upgrades - Reporting Requirements* requires that "Beginning January 1, 2009, and every year thereafter, MDE and Planning shall jointly report on the impact that a wastewater treatment facility that was upgraded to enhanced nutrient removal during the calendar year before the previous calendar year with funds from the Bay Restoration Fund had on growth within the municipality or county in which the wastewater treatment facility is located."

As required by this law, Planning and MDE have advised the BRFAC with the best available information and data analysis to address this mandate.

Available Capacity

This report addresses the following funded facilities that were upgraded to ENR with BRF, and completed prior to January 1, 2024, and operational for one full calendar year:

		Design Capacity (MGD)		
Facility	**County**	**Original**	**At Upgrade**	**Flow in CY24 (MGD)**
John J. Difonzo	Allegany	15	15	9.850
George's Creek	Allegany	0.6	0.6	0.847
North Branch	Allegany	2	2	1.353
Annapolis	Anne Arundel	13	13	8.146
Broadneck	Anne Arundel	6	6	3.908
Broadwater	Anne Arundel	2	2	0.917
Cox Creek	Anne Arundel	15	15	10.526
Maryland City	Anne Arundel	2.5	2.5	1.528
Patuxent	Anne Arundel	7.5	7.5	5.791
Back River	Baltimore City	180	180	134.8
Patapsco	Baltimore City	73	81	50.7
Chesapeake Beach	Calvert	1.32	1.5	0.644
Denton	Caroline	0.8	0.8	0.5
Federalsburg	Caroline	0.75	0.75	0.29
Greensboro	Caroline	0.28	0.332	0.193
Preston	Caroline	0.115	0.115	0.066
Freedom District	Carroll	3.5	3.5	2.05
Hampstead	Carroll	0.9	0.9	0.31
Mount Airy	Carroll	1.2	1.2	0.712
Taneytown	Carroll	1.1	1.1	0.878
Westminster	Carroll	5	5	4.153
Chesapeake City	Cecil	0.163	0.2	0.112
Elkton	Cecil	2.7	3.05	1.83
Harbour View	Cecil	.065	.065	0.02
Northeast River	Cecil	2	2	1.262

Facility	County	Design Capacity (MGD)		Flow in CY24 (MGD)
		Original	At Upgrade	
Perryville	Cecil	1.65	2	0.77
Port Deposit	Cecil	0.15	0.15	0.1
Rising Sun	Cecil	0.275	0.5	0.247
Indian Head	Charles	0.5	0.5	0.432
La Plata	Charles	1.5	1.5	1.22
Cambridge	Dorchester	8.1	8.1	3.228
Hurlock	Dorchester	2	1.65	1.337
Ballenger Creek	Frederick	6	15	7.65
Brunswick	Frederick	0.7	1.4	0.522
Emmitsburg	Frederick	0.75	0.75	0.54
Frederick	Frederick	8	8	6.274
Thurmont	Frederick	1	1	0.647
Victor Cullen	Frederick	0.05	0.05	0.005
Aberdeen	Harford	4	4	1.69
Havre De Grace	Harford	1.89	3.03	1.721
Joppatowne	Harford	0.95	0.95	0.749
Sod Run	Harford	20	20	10.206
Little Patuxent	Howard	25	29	18.66
Betterton	Kent	0.2	0.146	0.026
Chestertown	Kent	0.9	0.9	0.688
Galena	Kent	0.08	0.11	0.023
Damascus (WSSC)	Montgomery	1.5	1.5	0.876
Poolesville	Montgomery	0.75	0.75	0.55
Seneca (WSSC)	Montgomery	26	26	14.609
Blue Plains	Regional	169.6	169.6	127.55
Bowie	Princes George's	3.3	3.3	1.48
Parkway (WSSC)	Prince George’s	7.5	7.5	6.554
Piscataway (WSSC)	Prince George’s	30	30	21.419
Western Branch (WSSC)	Prince George’s	30	30	23.18
Kent Narrows	Queen Anne's	2	3	2.54
Queenstown	Queen Anne’s	0.085	0.2	0.086
Sudlersville	Queen Anne’s	0.20	0.2	0.122
Crisfield	Somerset	1	1	0.79
Leonardtown	St. Mary’s	0.68	0.68	0.67
Marlay Taylor	St. Mary’s	6	6	3.26
Easton	Talbot	2.35	4	2.381
Oxford	Talbot	0.15	0.15	0.121
Talbot Region II	Talbot	0.5	0.66	0.32
Boonsboro	Washington	0.46	0.53	0.356
Conococheague	Washington	4.1	4.5	2.5
Hagerstown	Washington	8	8	6.15

Facility	County	Design Capacity (MGD)		Flow in CY24 (MGD)
		Original	At Upgrade	
MCI	Washington	1.6	1.6	0.692
Winebrenner	Washington	1	0.6	0.188
Delmar	Wicomico	0.65	0.85	0.687
Fruitland	Wicomico	0.8	0.8	0.562
Salisbury	Wicomico	6.8	8.5	5.5
Pocomoke City	Worcester	1.47	1.47	0.663
Snow Hill	Worcester	0.5	0.5	0.35

2025 BRF Analysis Findings

Methodology

MDP conducts a BRF analysis for each calendar year (CY) as directed by Chapter 257 (HB 893) of the 2007 - *Bay Restoration Fund - Wastewater Treatment Facilities Upgrades - Reporting Requirements*. The purpose is to provide the BRFAC and legislature with information on the impact that ENR-upgraded WWTPs may have on growth in the municipalities and counties in which the facility is located.

Growth is measured before and after ENR upgrades within existing sewer service area boundaries and PFAs using Geographical Information System (GIS) mapping software. These findings help assess changes in growth patterns, the capacity of the upgraded facility to meet the demands of current and future users, and possible changes in development patterns that may be influenced by upgrades.

MDP works with every county and many municipalities to maintain and annually update the Statewide Sewer Service Data layer to ensure as accurate a representation as possible. MDP has successfully conducted a BRF analysis each year since 2009 by utilizing the most recently published data from Maryland Property View and MDP's Sewer Service Data layers. It should be noted that data for each of these datasets affects the annual findings. MDP is committed to continuous improvement to its processes as important factors contributing to the state's overarching goal of restoring water quality in the Chesapeake Bay.

Available Capacity

An ENR upgrade can create the possibility for capacity expansion beyond the capacity of the original design. However, the limitations of the WWTP nutrient discharge caps established by Maryland's Point Source Policy for the Bay[1] heavily influence whether such

[1] Annual nutrient load caps for major WWTPs were based on an annual average concentration of 3 mg/l total nitrogen and 0.3 mg/l total phosphorus, at the approved design capacity of the plant. Design capacity for major WWTPs met both of the following two conditions: (1) A discharge permit was issued based on the plant capacity, or MDE issued a letter to the jurisdiction with design effluent limits based on the new capacity

expansion is realized, notwithstanding new treatment technologies, or the use of multiple means of discharge, or wastewater reuse. As required by state regulations that guide county water and sewer plans, to date, all ENR upgrades and plant expansions have been found to be consistent with locally adopted and approved comprehensive plans. Our analyses show that the nutrient discharge caps following the ENR upgrades have not had any notable compromising effects on development.

MDP's Findings

For this year's reporting period, MDP reviewed development served by 74 major and minor WWTPs with ENR upgrades completed within the timeframe specified in Chapter 257 (HB 893) of 2007 - *Bay Restoration Fund - Wastewater Treatment Facilities Upgrades - Reporting Requirements*. The selection of ENR upgrades to be analyzed in this annual report is based on the following criteria: (1) ENR upgrades completed before January 1, 2024, and (2) have been operational for one calendar year. Four new ENR WTTP upgrades are included in this year's report: one major WWTP in Westminster (Carroll County), which became operational on 7/1/2023; and three minor WWTPs, including: Chesapeake City (Cecil County) which became operational on 8/1/2023: Harbour View (Cecil County) became operational on 12/31/2023; and Victor Cullen (Frederick County) became operational on 6/1/2023. Table 1 (Attachment 1) summarizes the ENR upgrades that are completed, operational, and meet the criteria.

Table 1 depicts growth activity by the number of connections before and after an ENR upgrade. The starting point for each plant's reporting is the CY prior to the start of ENR funding; the year in which the ENR upgrade was completed and became operational is included. The number of connections before ENR funding and the current number of connections, which includes connections to new development on sewer as well as connections of existing septic systems to sewer, is summarized for each WWTP. Existing sewer service area boundaries are depicted as "S1" in Table 1 and are typically defined by counties as areas where a sewer system is existing, the system is under construction, or an area that is in the final planning stages and service is anticipated to begin within two years.

The table compares development in and outside PFAs (see Columns D, G, and K). BRF funding is not restricted to PFAs, but PFAs provide a useful geographic frame of reference for reviewing possible effects of BRF upgrades on growth as required by law.

Table 1 distinguishes new ENR upgrades since the last reporting period. Columns J and K in the table show the difference between last year's data and this year's data. This indicates how many improved parcels were connected within each sewershed and how many improved parcels within the PFA were connected in the sewershed within the last year.

MDP's analysis shows the Blue Plains WWTP has had the largest total increase of connections since conversion to ENR (completed in 2015), with an increase of 10,928

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as of April 30, 2003; (2) Planned capacity was either consistent with the MDE-approved County Water and Sewer Plan as of April 30, 2003, or shown in the locally-adopted Water and Sewer Plan Update or Amendment to the County Water and Sewer Plan, which was under review by MDE as of April 30, 2003 and subsequently approved by MDE.

connections (see Column I in Table 1). Overall, the Baltimore region had the largest regional increase of new connections since conversion of WWTPs to ENR with 39,844 total connections. Statewide, there was an increase of 10,866 additional improved parcels within “S1” (areas having existing sewerage) connected during this year’s reporting period. Overall, 82,809 improved parcels have been connected since WWTPs statewide have been upgraded to ENR.

Regarding connections to parcels within PFAs, MDP expresses concern about those WWTPs that have connected relatively few parcels within PFAs since being upgraded to ENR, compared to the majority of WWTPs. These WWTPs include: Western Branch in Prince George’s County (only 83.0 % of connected parcels within the PFA); Kent Island in Queen Anne’s County (85.1%), Talbot Region II in Talbot County (69.5%); Broadwater in Anne Arundel County (83.0%); and Chesapeake Beach in Calvert County (81.1%). The newly added WTTPs – Victor Cullen in Frederick County and Harbour View in Cecil County – both have zero parcels within PFAs.

State funding for WWTP improvements is not as effectively spent when it supports low density growth that consumes more farmland and forest land, compared to higher density growth supported by PFAs. It should be noted that, in some cases, connected parcels outside of a PFA may qualify under the requirements of the PFA law, but the local government may not have formally designated the area as a PFA. MDP notes that the Available Capacity table shows that design capacity will not increase for either the Victor Cullen or Harbour View WWTPs. This means that the ENR upgrade has not increased the potential for more dwelling units to be served by those facilities.

State-funded ENR upgrades did create the possibility for capacity expansion beyond their original design capacity at several WWTPs (Available Capacity table, Chapter 257 Implementation section). Some of those WWTPs that received a capacity expansion opportunity are serving a relatively low percentage of lots within Priority Funding Areas (PFAs). Although not currently required by law, MDP recommends that all lots receiving service from the new capacity obtained by those WWTPs be within PFAs, with the exception of existing homes previously served by septic systems.

According to MDP's State Data & Analysis Center, the state’s population is projected to grow by 1 million between 2020 and 2050. Optimizing the use of Maryland's land is critical as the population continues to grow while striving to minimize loss of remaining farm and forest lands. Land that qualifies as a PFA indicates that local planning and zoning support compact development and sustainable growth.

Although every effort is made to ensure data is current and correct, there can be significant increases or decreases of new connections from year-to-year. For example, the number of total improved parcels with existing sewer (Column F) may appear to decrease from one year to the next. However, the reason for the decrease may not be related to the number of improved parcels no longer having sewer connections, but rather adjustments in the MDProperty View data, the PFA layer, or the sewer layer. MDP evaluates many factors that play a part in source data and findings, and makes adjustments or corrections, where necessary. This year’s report used August 2025 Statewide Points and Polygons from MDProperty View data available on the MDP open data downloads site.

OSDS Upgrade Program

Program Implementation

The BRF Septic System Upgrade Program provides funding for the upgrade of OSDS to the BAT for nitrogen removal and for connecting properties to sewer for conveyance of flows to ENR/BNR WWTPs. The program is managed at the county level with MDE oversight and assistance, with day-to-day management performed mostly by county health departments, but in some counties the county environmental departments or a nonprofit consultant assists in managing the program. The Canaan Valley Institute (CVI), a nonprofit corporation based in West Virginia, provides program management for Allegany County, Carroll County, Frederick County, Howard County, Montgomery County, and Washington County.

The BRF statute (Annotated Code of Maryland under 9-1605.2) requires that funding priority for BAT installations be “first given to failing septic systems and holding tanks in the Chesapeake and Atlantic Coastal Bays Critical Areas and then to failing septic systems that the Department (MDE) determines are a threat to public health or water quality.” Chapter 280 (SB 554) Acts of 2009, requires new and replacement septic systems serving property in the Critical Areas to include the BAT for removing nitrogen. In addition, Code of Maryland Regulation (COMAR) 26.04.02.07 effective Jan. 1, 2013, requires all OSDS installed in the Chesapeake Bay and Coastal Bays watersheds for new construction to include BAT.

All BATs must be inspected and have the necessary operation and maintenance performed by a certified service provider at a minimum of once per year for the life of the system. The regulations also require that both individuals that install BATs and individuals that perform operation and maintenance complete a course of study approved by MDE to maintain professional certification.

On Nov. 14, 2016, MDE finalized a regulatory change to COMAR 26.04.02.07. This regulatory change has reformed the universal requirement that BAT units be installed outside of the Critical Area for all new construction, unless the local jurisdiction enacts a code in order to protect public health or waters of the state, or the system design is 5,000 gallons per day or greater.

Consistent with the above, MDE requires all new grant recipients to prioritize applications for financial assistance based on the following:

1. Failing OSDS or holding tanks in the Critical Areas
2. Failing OSDS or holding tanks not in the Critical Areas
3. Non-Conforming OSDS in the Critical Areas
4. Non-conforming OSDS outside the Critical Areas
5. Other OSDS in the Critical Areas, including new construction
6. Other OSDS outside the Critical Areas, including new construction

The program guidance and other information are available on MDE’s Onsite Disposal

Systems website.

During FY25, a total of 728 BAT upgrades were completed, including 424 within the Critical Area. In addition, BRF funds supported the connection of 64 homes to public sewer.

The Septic Stewardship Program was created to:

1. Allow nitrogen reduction from OSDS to be counted in the WIP only if the operation and maintenance of the systems are current;
2. Allow nitrogen reduction from pumping out of OSDS to be counted in the WIP if they are part of a local Septic Stewardship Plan;
3. Allow local jurisdictions to provide financial assistance (not to exceed 10% of their allocated funds) toward the pumping out of OSDS; and
4. Allow MDE to provide financial assistance to local jurisdictions in FY20 and FY21 to develop Septic Stewardship Plans.

The Septic Stewardship Program became effective October 2, 2018, which allows local jurisdictions the availability to develop plans with FY20 and FY21 funds. MDE introduced the program through regional workshops involving the WIP in June 2018. Conceptual septic stewardship plans have been provided to each county health department or local approving authority, acknowledging that each plan should be customized to address local goals. Despite efforts to promote the program and the availability of funding to develop plans, no counties have elected to participate in this voluntary program.

The BRF continues to promote sewer connections to BNR/ENR WWTPs. This includes working with counties on sewer planning activities, including ensuring adequate local wastewater treatment capacity and PFA compliance for areas where counties are looking to expand their sewer service and perform sewer connections.

OSDS Communities Connected to BNR or ENR Facilities:

As required by Environment Article § 9-1605.2(h)(9), the following describes each project funded in FY25 under paragraph (5)(iv)2 of this subsection, and a summary of any impacts that the funding used for these projects had on the overall funding for upgrading individual on–site sewage disposal systems with best available technology for nitrogen removal.

The Talbot County/Region II Sewer System Extension (Resolution 235) project will connect 355 properties (359 EDUs) consisting of residences and businesses, currently served by failing septic systems, to Region II WWTP (an ENR facility). The community is outside the PFA, and the Smart Growth and Neighborhood Conservation Coordinating Committee (SGCC) granted a Priority Funding Area (PFA) exception to allow state funding to be used to extend sewer services to this community to address the public health issues in the area due to failing OSDS.

This project has no impact on the BRF-Septic funds or the overall funding for upgrading individual on-site sewage disposal systems with best available technology for nitrogen

removal because the project is fully funded by the BRF-Wastewater fund and State Revolving Loan Fund.

BAT CLASSIFICATION DEFINITIONS

Effective on July 1, 2015, there are five different classifications of BAT. Each of these classifications works in conjunction with Regulation 26.04.02 for the reduction of nitrogen through OSDS. This classification is intended only to classify the use of BAT systems on domestic wastewater usage. Domestic wastewater is defined by the BAT Technical Review Committee (TRC) as having a TN influent concentration of 60 mg/L. Supporting documents that clearly and concisely define the methods in which each of these classifications can be used are on MDE's webpage for reference.

BAT Class I systems are standalone units that are approved through MDE protocols as BAT units capable of reducing TN to 30 mg/L or less. These units are currently on the approved BAT list and have successfully completed the field verification process. The flow chart for approval of BAT Class I units is available on MDE's website.

BAT Class II systems are standalone units that are undergoing field verification for BAT Class I. Upon successful completion of the field verification, they will become BAT Class I. All requirements and guidance for BAT Class I apply to BAT Class II technologies. Technologies that do not reduce the effluent nitrogen to 30 mg/l or less will be either removed from the BAT listing, enter a modified field verification process (contingent on prior approval from BAT TRC), or be classified as BAT Class III at the discretion of the BAT TRC and working with the manufacturer's representative.

BAT Class III systems are pretreatment technologies approved by MDE as capable of reducing nitrogen to 48 mg/L effluent. These technologies may only be installed as BAT when paired with a BAT Class IV soil disposal system. BAT Class III technologies must have one of the following certifications: National Sanitation Foundation (NSF) 245, NSF 40 Class I, CAN/BNQ 3680-600, CEN Standard 12566-3 or equivalent. Technologies proposed as BAT Class III, must first apply to MDE for BAT classification using the technology application found on the MDE website. The application needs to be accompanied by the final report of the verification organization. Once submitted to the BAT TRC, analysis of the data and the application will begin. The BAT TRC will analyze the TN reduction capabilities of the unit. If the analysis of data concludes, the unit will not reduce TN to 48 mg/L, the technology will be denied entry into the BAT program.

BAT Class IV systems are OSDS that are installed above, at, or just below (12-inch maximum depth) grade and are thus capable of reducing effluent TN by 30%. For inclusion as a BAT in Maryland, these units are to be paired with a BAT Class III, Class II, or Class I system. No modification of this is authorized unless applied for and approved by MDE on a case-by-case basis.

BAT Class IV systems, installed under the BAT classification, must be maintained on the

same frequency as any BAT in accordance with COMAR Regulation 26.04.02.07. Since no specific manufacturer is tied to this type of system, the operation and maintenance provider of the BAT Class III, II, or I unit must successfully complete the MDE-approved course for the Installation and Operation and Maintenance of the specific system.

Sand Mound, At Grade Systems, and Low-Pressure Dosing are addressed in COMAR 26.04.02.05. All practices and criteria listed in this regulation must be applied when installing these as BAT. All installation contractors of sand mounds must be certified by MDE. The MDE Design and Construction Manual for Sand Mound Systems and the Construction Manual for At Grade systems is to be utilized for the latest and best installation practices for these systems. Information sheets are available for each system type.

SAND MOUNDS – An elevated sand mound system is an OSDS that is elevated above the natural soil surface in a suitable sand fill material. Gravel-filled absorption trenches or beds are constructed in the sand fill, and the effluent is pumped into the absorption area through a pressure distribution network. Pretreatment of sewage occurs either in a septic tank or advanced pretreatment unit, and additional treatment occurs as the effluent moves downward through the sand fill and into the underlying natural soil. The sand mound must be installed over a natural surface, A or B horizon. No BAT credit is given to sand mounds installed over sand or loamy sand soils. Please refer to, “BAT Class IV: Sand Mound,” for exact details as to what is needed to qualify for BAT Classification.

AT-GRADE SYSTEMS – The at-grade system is an OSDS that utilizes a raised bed of gravel or stone over the natural soil surface with a pressure distribution system constructed to equally distribute the pre-treated effluent along the length of the gravel bed. The purpose of the design is to overcome site limitations that prohibit the use of conventional trench or seepage pit OSDS. Please refer to, “BAT Class IV: At-Grade Mound Systems,” for exact details as to what is needed to qualify for BAT Classification.

SHALLOW PLACED LOW-PRESSURE DISTRIBUTION – Shallow-placed pressure dosing allows for uniform distribution of effluent at a depth not to exceed 12 inches across the entire dispersal field. Dosing allows for the creation of fluctuating aerobic/anoxic environments, which sets up the conditions for nitrification and denitrification to occur. Please refer to, “BAT Class IV: Shallow-Placed Pressure-Dosed Dispersal,” for exact details as to what is needed to qualify for BAT Classification.

BAT Class V systems are technologies that mitigate the impact of TN on groundwater, but do not fit into any of the above BAT classifications. As systems are identified that will apply for classification as BAT Class V, the BAT TRC will develop a concise plan for the unit to enter the BAT classification. Examples include, but are not limited to, waterless toilets, and individually engineered peat systems.

Cover Crop Activities

Recent Program Streamlining and Targeting to Achieve Maximum Nutrient Reduction:

In FY25, MDA continued to implement a targeting strategy to maximize nutrient reduction effectiveness of cover crops. The 2025 program included incentives to:

1. Plant aerially into standing corn;
2. Plant cover crops as early as possible in the fall;
3. Use planting methods that maximize seed to soil contact to assure germination and early growth; and
4. Delay termination of the cover crop until May 1, 2025.

MDA has applied these criteria by structuring the incentive payments to reward farmers who adhered to one or more of these priorities. They are based both on historical surveys (Schaefer Center of Public Policy at the University of Baltimore) of farm operators' opinions to streamline and adapt the program to be responsive to participants while maximizing water quality benefits.

In addition, MDA continued to offer a multi-year contract option consistent with recommendations by the state's Soil Health Advisory Committee. This Cover Crop+ Program promotes soil health benefits associated with cover crop implementation. Management practices, such as, requiring at least 50% cereal grains and 25% legumes into the cover crop mix, maintaining year-round soil cover, and allowing livestock grazing on established cover crop fields, not only provide water quality benefits, but also improve soil health.

Status of Implementation of BRF for Cover Crop Activities:

MDA's cumulative portion of BRF is $183,880,303 as of June 30, 2025. Due to an overwhelming response by farmers, program expenditures for FY25 exceeded $32 million. Approximately $14 million in funding was provided by BRF, while the remaining was provided by the Chesapeake and Atlantic Coastal Bays Trust Fund and EPA – Most Effective Basins (CBRAP Grant), among other sources.

The Whole Watershed Act Implementation

Passed in the 2024 legislative session, The Whole Watershed Act (SB 969/HB 1165), established a highly collaborative, science-based approach to watershed restoration across the state, promoting targeted innovative solutions to waterway restoration efforts. In direct response to the Chesapeake Bay Program's Comprehensive Evaluation of System Response (CESR) Report, Maryland developed a locally driven, multi-faceted program with goals to include: pollution reduction, habitat creation, aquatic resource improvements, equitable public access, carbon sequestration, public health enhancements, outreach to overburdened and underserved communities, and more.

The Whole Watershed Program is overseen by a State Management Team (SMT) chaired by Maryland Department of Natural Resources and made up of restoration experts from six state agencies that help select and approve participating watersheds and projects, find efficiencies in project permitting and funding, and measure project results. As a member of the SMT, Maryland Department of Environment (MDE) participated in developing the request for proposals, reviewing proposals, selecting participants, and providing technical advice and oversight of FY 2026 project priorities. A full Request for Proposals was issued by October 1, 2024, and nine watersheds applied. The State Management Team selected five (5) watersheds for a concentrated five (5) year focus of technical and financial assistance. Each selected watershed and projects are managed by a local Project Sponsor and a multitude of partners, including community associations, local government(s), landowners, watershed organizations and other non-profit organizations, and private firms engaged in eligible watershed activities, among others.

The selected watersheds include: Antietam Creek, Baltimore Harbor, Upper Choptank River, Newport Bay and Severn River. Year 1 (FY2026) projects have been identified and approved by the State Management Team, with anticipated installation starting in fall 2025. The projects represent a diverse variety of initiatives, including stormwater management, stream restoration, resiliency efforts, tree planting, agricultural efforts, public access, aquatic resources, community engagement and more. These projects will meet the diverse goals and co-benefits listed above.

The legislation utilized existing state funds to create a new Whole Watershed Fund supporting a five (5)-year pilot program targeting five (5) Maryland watersheds that best represent the state's diverse land uses, geographies, and impairments. The Whole Watershed Fund consists of funding allocated from a variety of programs within the MD Department of Natural Resources (DNR), MD Department of the Environment (MDE), and MD Department of Agriculture (MDA) listed below.

- MD Department of Natural Resources:
    - Chesapeake and Atlantic Coastal Bays Trust Fund
    - Waterway Improvement Fund
- MD Department of the Environment:
    - **Bay Restoration Fund**
    - Clean Water Commerce Act
- MD Department of Agriculture:
    - MD Agricultural Land Preservation
    - MD Agricultural Cost Share Program

For FY 2026, major funding sources included the MD DNR Chesapeake and Atlantic Bays Trust Fund, Waterway Improvement Fund as well as the MDE Bay Restoration Fund and the Clean Water Commerce Act. For purposes of this report, we have included a project list of those activities funded by the Bay Restoration Fund specifically (see below) as well as a description of all the projects utilizing other fund sources to reflect the full breadth of the Whole Watershed Program scope and impact.

The table below outlines FY26 Whole Watershed Program projects funded by the MD Department of the Environment **Bay Restoration Fund (BRF**). The total BRF funding provided is $4,993,233.

Whole Watershed Program ~ FY2026 Projects ~ Funded by MDE Bay Restoration Fund		
Project Name	**Additional Partners**	**FY26 WW BRF $**
Baltimore Harbor Watershed: Project Sponsor: South Baltimore Gateway Partnership		
Medstar Hospital Tidal Wetland	GreenVest LLC	$500,000
Patapsco Delta West Stormwater Wetland Design	GreenVest LLC	$880,000
Cherry Hill Equitable Waterfront Access Design	Field Operations	$455,320
Reel Rewards Invasive Fish Bounty Program	Environmental Justice Journalism Initiative	$94,680
“Witness Trees” Urban Forestry Program	The Nature Conservancy	$50,000
Upper Choptank Watershed: Project Sponsor: Shore Rivers		
Poor House Run Stream Restoration	Shore Rivers	$1,033,233
Severn River Watershed: Project Sponsor: Resilience Authority of Annapolis and Anne Arundel County		
Key Point Giant Stormwater Management	Severn River Association & BayLand Consultants	$254,109
Wardour Stormwater Management	Severn River Association & BayLand Consultants	$147,000
Merryman Stream Restoration	City of Annapolis & Resilience Authority	$831,038
Brewer Hill Cemetery Step Pool Conveyance	City of Annapolis & Resilience Authority	$125,000
Rideout Creek Gully Prevention	Severn RiverKeeper & Underwood & Associates	$162,500
Build a Reef	Oyster Recovery Partnership	$25,000

Truxton Cove Submerged Wetland	Spa Creek Conservancy & Biohabitats	$340,000
Watershed Planning & Design	Full Partnership	$95,353
Total MDE BRF Funding for Whole Watershed Program FY2026		**$4,993,233**

There are an additional 23 projects funded by the MD Department of Natural Resources Atlantic and Coastal Bays Trust Fund, totaling $5,005,643. In addition, MD DNR's Waterway Improvement Fund provided $1,250,000 to the five selected watersheds for watershed monitoring efforts.

See below for a full list of Whole Watershed Program projects funded for FY2026 through all funding sources.

FY26 Whole Watershed Program Project List

Antietam Creek Watershed Catoctin Land Trust
Washington County

Hamilton Run; The Terrace at Northern Avenue
$1,051,406 to implement over 1,500 feet of stream restoration. The project will also include flood plain reconnection.

Beaver Creek Dam Removal & Stream Restoration Design
$150,000 to design the removal of obstructions from high quality wild brown trout streams, and creation of additional habitat.

Little Antietam Creek North Riparian Buffer Plantings
A total of $85,000 to plant 13 acres (3 acres at Jones property and 10 acres at Horst property) of riparian buffers. This project is in coordination with the DNR Forest Service's Woodland Stewardship Network.

Upper Antietam Creek Mainstem Riparian Buffer Plantings
$30,000 to plant 4.1 acres of riparian buffers (Crawford property). $20,000 to plant 2.2 acres of riparian buffers (Volcjak property). These projects are in coordination with the DNR Forest Service's Woodland Stewardship Network.

Antietam Watershed Wide Tree Plantings
$250,650 to plant an additional 37 acres of riparian buffers, in coordination with Western MD RC&D Council and MD Forest Service. Areas and acreage are to be determined.

Liberty Tree Planting Program
$75,000 to provide free trees for Washington County students and residents. The long term project goal is to plant 50 acres by 2030, in coordination with 150 property owners.

Antietam Boat Put-In
$85,000 to provide a boat put-in and increase recreational and equitable public access

opportunities for the community.

Biological Monitoring
$11,000 for monitoring at one Maryland Biological Stream Survey (MBSS) site (to be determined).

Whole Watershed Coordinator
$220,820 to provide community outreach and program management. Engagement efforts will be focused on underserved and overburdened communities in the Antietam watershed. Additional efforts will be made to increase agricultural conservation opportunities and collaboration with Pennsylvania.

Baltimore Harbor Watershed South Baltimore Gateway Partnership
Baltimore County

Medstar Hospital Tidal Wetland
$500,000 to improve flood resiliency by re-establishing an offshore tidal wetland; approximately 2,055 linear feet of living shoreline and up to 7.5 acres of aquatic habitat.

Patapsco Delta West Stormwater Wetland Design
$880,000 to design a stormwater wetland that will flow to the tidal wetland (see above). This comprehensive system will be designed to treat up to 28 impervious acres and replace up to 1.7 acres of asphalt parking.

Cherry Hill Equitable Waterfront Access Design
$455,320 to design a trail to reconnect Cherry Hill residents to their waterfront for recreational and transit purposes.

Reel Rewards Invasive Fish Bounty Program
$94,680 to educate the public about invasive species and reward anglers for their capture. The project will develop outreach materials and propose to remove 300 invasive fish from the watershed.

“Witness Trees” Urban Forestry Program
$50,000 to provide community outreach and planting of 50 trees within the Cherry Hill South Shoreline Restoration project area. There will be at least one art installation, which will be funded by outside funding.

Upper Choptank Watershed Shore Rivers
Caroline and Talbot Counties

Poor House Run Stream Restoration
$1,033,233 to implement stream restoration and culvert replacement. The project will install riffle and cascade weirs to improve water quality and habitat. Goals include: 544 linear feet of restored stream area, 404 new trees, and 4.44 acres of invasive species managed.

Pealiquor Road Stormwater Wetland

$500,000 for the installation of 1.88 acres of constructed stormwater wetlands. Results include 1312 square feet of bioretention, and 7379 square feet of wetland shelf planting.

Hannah Henry Way Stormwater Projects
$120,000 for design work, engineering, and hydraulic and hydrologic analysis of various stormwater measures. Projects will likely include: swales, conservation landscaping, rain gardens, and roadside drainage improvements.

Fish Passage
$140,000 to design and implement culvert and bridge enhancements, and barrier removal projects in order to enhance fish passage.

Producer-led Agricultural Projects
$105,00 to engage with the farming community and work towards selecting appropriate agricultural practices to reduce nutrients and sediment and improve habitat. Goals include working with at least 20 farmers. Potential future projects include: drainage water management, erosion control, grassed waterways and more.

Biological Monitoring
$6,767 to monitor stream health and collect macroinvertebrate data at an existing Maryland Biological Stream Survey (MBSS) site. Exact location is to be determined, but will likely be in the Kings Creek subwatershed.

Project Coordination $75,000 to facilitate program efforts in the Upper Choptank, provide community outreach, and coordinate partnership efforts. Deliverables include advancement of existing projects and development of new projects through steering committees, workgroups, partner meetings, etc. Specific efforts include supporting 4-8 Community Ambassadors and working with Hannah Henry Way landowners.

Newport Bay Watershed Maryland Coastal Bays Program
Worcester County

Town of Berlin Stormwater Management Upgrades at Westminster Drive, Abbey Lane, and Upshur Lane
$650,000 to replace antiquated stormwater management infrastructure with submerged gravel wetland facilities to improve water quality and reduce chronic flooding. This flood mitigation and stormwater management project is proposed to treat a total of 0.5 acres.

Hudson Branch Stream Restoration
$870,000 to restore approximately 1,900 linear feet of an incised stream to improve water quality, reconnect to the floodplain, provide upstream flood relief, and enhance natural habitat.

Horner & Bay Creek Marsh Restoration and Resilience
$199,650 to develop concept designs and final project submittals for marsh restoration in Horner (225 acres) and Bay Creek (473 acres) marshes. Both are impacted by sea level rise, snow goose predation, and extensive mosquito ditching. Future implementation will treat impacted ditches and create beneficial habitat.

Community Engagement Plan
$115,000 to develop and implement year one of this plan, to include listening sessions with underserved and overburdened community members, education at Title 1 schools, lecture series, and volunteer outreach. Other deliverables may include Public Drainage Associations, and establishment of Community Ambassadors.

Whole Watershed Coordinator
$80,350 to increase capacity. Employee responsibilities will include: partner coordination, project management, community engagement, development of a Finance and Implementation Plan, and more.

Biological Monitoring
$65,000 to monitor 5-6 stations for fish, benthos, and habitat. Indices of biotic integrity (IBI) will be developed to identify areas in need of habitat improvement and to track near field restoration.

Severn River Watershed Resilience Authority of Annapolis and Anne Arundel County

Anne Arundel County

Key Point Giant Stormwater Management
$254,109 to install two urban
micro-bioretention facilities with native vegetation to treat 1.04 acres, of which 70% is impervious.

Wardour Stormwater Management
$147,000 to provide stormwater management through a series of infiltration cells planted with native vegetation. This project will treat 11.98 acres, of which 27.2% is impervious.

Merryman Stream Restoration
$831,038 to implement approximately 800 linear feet of stream restoration and native plantings. Goals include re-establishment of a stream-wetland-floodplain complex to enhance nutrient cycling, restore habitat, and improve ecosystem health.

Brewer Hill Cemetery Step Pool Conveyance
$125,000 to complete approximately 240 linear feet of regenerative stormwater conveyance. This project also includes Environmental Justice outreach opportunities.

Rideout Creek Gully Prevention
$162,500 to complete 238 linear feet of regenerative stormwater conveyance, 0.48 acres of wetland creation, and 157 trees planted.

Build-a-Reef ~ Oyster Reef Construction
$25,000 to conduct pre-restoration surveys for reef construction in years 2 & 3 of the Whole Watershed Program. Deliverables include data on existing oyster habitat quality.

Truxton Cove Submerged Wetland
$340,000 in stormwater management efforts to complete a submerged gravel wetland and one bioretention area.

Watershed Planning and Design
$95,353 for a variety of community outreach and design efforts with the full SEVERN partnership. Components include supporting the Tree Ambassador Program, developing a protective Conservation Overlay Zone for the Jabez Branch, designing a trail and bridge for Mulberry Hills equitable access, and supporting watershed design efforts.

Attachment 1

Table 1: Connections to Wastewater Treatment Facilities Upgraded to ENR

			Connections Before ENR Funding					Total Connections Upgraded since Conversion to ENR				Upgraded Connections Since Last Reporting Period	
ENR WWTP	County	ENR Upgrade Completed and Operational (Month-Year)	Column A: Reporting Year before ENR Funding	Column B: Number of Improved Parcels in the Sewer-shed	Column C: Number of Improved Parcels in Existing Service Area ("S1")	Column D: Number of Improved Parcels in "S1" within PFA	Column E: % of Connections Located in "S1" & PFA (Column D ÷ C)	Column F: Total Improved Parcels in Existing Service Area ("S1")	Column G: Total Improved Parcels in S1 & PFA	Column H: % Total Improved Parcels Located in "S1" within PFA (Column G ÷ F)	Column I: Total Increase Improved Parcels in S1 (Total Number New Connections)	Column J: Difference in Improved Parcels in S1	Column K: Difference in Improved Parcels in S1 & PFA
Western Region													
North Branch	ALLE	Nov-06	2005	1,913	1,801	1,794	99.6%	1,855	1,838	99.1%	54	6	6
Boonsboro	WASH	Oct-09	2008	1,350	1,139	1,137	99.8%	1,178	1,176	99.8%	39	4	4
George's Creek	ALLE	Nov-10	2009	2,069	1,938	1,876	96.8%	2,009	1,945	96.8%	71	0	-4
City of Cumberland	ALLE	Feb-11	2010	17,656	16,412	16,243	99.0%	16,900	16,736	99.0%	488	58	50
City of Hagerstown	WASH	Dec-10	2009	21,975	18,825	17,769	94.4%	20,995	20,717	98.7%	2,170	105	103
Winebrenner	FRED/ WASH	Feb-17	2016	455	455	446	98.0%	468	459	98.1%	13	12	12
Conococheague	WASH	Mar-18	2017	6,550	5,980	5,980	100.0%	6,476	6,476	100.0%	496	66	66
Western Region Total				**51,968**	**46,550**	**45,245**	**97%**	**49,881**	**49,347**	**98.9%**	**3,331**	**251**	**237**

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ENR WWTP	County	ENR Upgrade Completed and Operational (Month-Year)	Column A: Reporting Year before ENR Funding	Column B: Number of Improved Parcels in the Sewer-shed	Column C: Number of Improved Parcels in Existing Service Area ("S1")	Column D: Number of Improved Parcels in "S1" within PFA	Column E: % of Connections Located in "S1" & PFA (Column D ÷ C)	Column F: Total Improved Parcels in Existing Service Area ("S1")	Column G: Total Improved Parcels in S1 & PFA	Column H: % Total Improved Parcels Located in "S1" within PFA (Column G ÷ F)	Column I: Total Increase Improved Parcels in S1 (Total Number New Connections)	Column J: Difference in Improved Parcels in S1	Column K: Difference in Improved Parcels in S1 & PFA
Washington Region													
City of Brunswick	FRED	Sep-08	2007	2,446	1,957	1,957	100.0%	2,298	2,298	100.0%	341	10	10
Town of Thurmont	FRED	Apr-13	2012	2,385	2,345	2,204	94.0%	2,433	2,306	94.8%	88	36	36
Town of Poolesville	MONT	Jul-10	2009	1,742	1,719	1,651	96.0%	2,028	1,957	96.5%	309	-1	-1
Damascus	MONT	Feb-13	2012	3,997	3,793	3,437	90.6%	3,823	3,462	90.6%	30	0	0
City of Bowie	PRIN	Feb-11	2010	20,712	20,559	20,269	98.6%	21,019	20,781	98.9%	460	124	122
Parkway	PRIN	Jul-13	2012	15,470	15,394	15,383	99.9%	15,995	15,912	99.5%	601	36	36
Piscataway	PRIN	May-13	2012	56,296	55,007	51,954	94.4%	59,438	54,430	91.6%	4,431	557	523
Western Branch (WSSC)	PRIN	Apr-16	2015	45,533	43,438	38,554	88.8%	49,810	41,367	83.0%	6,372	1,398	985

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Blue Plains	PRIN/ MONT	Apr-16	2015	330,121	327,437	319,529	97.6%	338,365	329,515	97.4%	10,928	758	731
Seneca (WSSC)	MONT	Apr-16	2015	60,161	57,387	56,911	99.2%	61,514	60,851	98.9%	4,127	226	226
Ballenger Creek	FRED	Apr-16	2015	21,554	17,110	17,105	100.0%	17,902	17,893	99.9%	792	330	326
Town of Emmitsburg	FRED	Mar-16	2015	927	824	791	96.0%	865	832	96.2%	41	1	1
Frederick	FRED	Jun-18	2017	24,627	22,666	22,666	100.0%	23,186	23,186	100.0%	520	114	114
Victor Cullen (New)	FRED	Jun-23	2022	3	3	0	0.0%	3	0	0.0%	0	NA	NA
Washington Region Total				**585,974**	**569,639**	**552,411**	**97%**	**598,679**	**574,790**	**96.0%**	**29,040**	**3,592**	**3,109**
Upper Eastern Shore Region													
Town of Elkton	CECI	Dec-09	2008	6,000	4,926	4,925	100.0%	5,172	5,169	99.9%	246	1	1

			Connections Before ENR Funding					Total Connections Upgraded since Conversion to ENR				Upgraded Connections Since Last Reporting Period	
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Town of Perryville	CECI	Dec-10	2009	1,704	1,508	1,508	100.0%	1,574	1,573	99.9%	66	5	5
Rising Sun	CECI	Apr-16	2015	1,052	856	846	98.8%	868	861	99.2%	12	-1	-1
Town of Chestertown	KENT	Jun-08	2007	1,772	1,742	1,562	89.7%	2,050	1,821	88.8%	308	98	82
Kent Island (KNSG)	QUEE	Aug-07	2006	6,590	6,401	5,974	93.3%	9,447	8,042	85.1%	3,046	920	879
Town of Denton	CARO	May-12	2011	1,508	1,097	1,095	99.8%	1,599	1,592	99.6%	502	2	2
Town of Federalsburg	CARO	Aug-10	2009	881	827	817	98.8%	905	895	98.9%	78	42	42
Town of Easton	TALB	Jun-07	2006	5,810	5,831	5,822	99.8%	6,828	6,771	99.2%	997	631	631
Talbot Region II	TALB	Oct-08	2007	2,289	2,214	1,981	89.5%	3,276	2,276	69.5%	1,062	115	93
Centreville	QUEE	Jul-13	2012	1,643	1,641	1,310	79.8%	1,845	1,845	100.0%	204	9	9

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Northeast River	CECI	Oct-16	2015	5,714	4,459	3,931	88.2%	5,211	5,123	98.3%	752	338	337
Town of Queenstown	QUEE	Oct-16	2015	333	300	299	99.7%	334	334	100.0%	34	0	0
Greensboro	CARO	Jun-17	2016	727	687	687	100.0%	854	825	96.6%	167	20	20
Sudlersville	QUEE	Mar-18	2017	187	186	186	100.0%	190	189	99.5%	4	1	0
Galena	KENT	Dec-18	2017	374	296	274	92.6%	347	314	90.5%	51	39	39
Oxford WWTP	TALB	Mar-21	2020	581	579	579	100.0%	581	581	100.0%	2	5	5
Betterton	KENT	Mar-21	2020	258	258	256	99.2%	268	256	95.5%	10	2	3
Preston	CARO	Oct-22	2021	383	321	311	96.9%	333	324	97.3%	12	2	2
Port Deposit	CECI	Oct-22	2021	579	321	321	100.0%	336	336	100.0%	15	5	5

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Harbour View (New)	CECI	Dec-23	2022	171	133	0	0.0%	133	0	0.0%	0	NA	NA
Chesapeake City (New)	CECI	Aug-23	2022	506	385	383	99.5%	387	385	99.5%	2	NA	NA
Upper Eastern Shore Total				**39,062**	**34,968**	**33,067**	**95%**	**42,538**	**39,512**	**93%**	**7,570**	**3,416**	**3,192**
Lower Eastern Shore Region													
City of Cambridge	DORC	Dec-13	2012	5,861	5,418	5,293	97.7%	5,721	5,702	99.7%	303	130	130
Town of Hurlock	DORC	May-06	2005	769	703	703	100.0%	812	810	99.8%	109	7	7
Town of Delmar	WICO	Sep-11	2010	1,107	932	824	88.4%	1,074	963	89.7%	142	1	8
City of Pocomoke	WORC	Oct-11	2010	1,893	1,607	1,585	98.6%	1,653	1,633	98.8%	46	3	3
City of Crisfield	SOME	Aug-10	2009	2,495	2,044	1,735	84.9%	2,104	1,992	94.7%	60	17	14

			Connections Before ENR Funding					Total Connections Upgraded since Conversion to ENR				Upgraded Connections Since Last Reporting Period	
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Town of Snow Hill	WORC	Jun-14	2013	900	930	882	94.8%	978	935	95.6%	48	2	2
City of Fruitland	WICO	Nov-16	2015	2,237	1,847	1,788	96.8%	2,102	1,953	92.9%	255	19	19
Salisbury	WICO	Jan-18	2017	10,794	10,705	10,500	98.1%	11,200	11,050	98.7%	495	56	117
Lower Eastern Shore Total				**26,056**	**24,186**	**23,310**	**96%**	**25,644**	**25,038**	**97.6%**	**1,458**	**235**	**300**
Baltimore Region													
Town of Mount Airy	CARR/ FRED	Nov-10	2009	3,336	3,145	3,145	100.0%	3,515	3,513	99.9%	370	87	87
Joppatowne/Sod Run	HARF	Nov-13	2012	51,174	48,459	48,195	99.5%	52,435	52,060	99.3%	3,976	39	37
City of Havre De Grace	HARF	May-10	2009	5,098	4,898	4,782	97.6%	6,020	6,017	100.0%	1,122	155	155
Little Patuxent	HOWA	Sep-12	2011	56,997	50,848	50,833	100.0%	59,831	59,723	99.8%	8,983	427	393

			Connections Before ENR Funding					Total Connections Upgraded since Conversion to ENR				Upgraded Connections Since Last Reporting Period	
ENR WWTP	County	ENR Upgrade Completed and Operational (Month-Year)	Column A: Reporting Year before ENR Funding	Column B: Number of Improved Parcels in the Sewer-shed	Column C: Number of Improved Parcels in Existing Service Area ("S1")	Column D: Number of Improved Parcels in "S1" within PFA	Column E: % of Connections Located in "S1" & PFA (Column D ÷ C)	Column F: Total Improved Parcels in Existing Service Area ("S1")	Column G: Total Improved Parcels in S1 & PFA	Column H: % Total Improved Parcels Located in "S1" within PFA (Column G ÷ F)	Column I: Total Increase Improved Parcels in S1 (Total Number New Connections)	Column J: Difference in Improved Parcels in S1	Column K: Difference in Improved Parcels in S1 & PFA
City of Aberdeen	HARF	Mar-15	2014	5,098	4,524	4,443	98.2%	4,966	4,885	98.4%	442	6	6
Broadneck	ANNE	May-15	2014	30,847	21,172	20,454	96.6%	23,072	22,021	95.4%	1,900	113	105
Maryland City	ANNE	Mar-15	2014	4,522	4,394	4,376	99.6%	4,958	4,933	99.5%	564	131	131
Patuxent	ANNE	Mar-15	2014	24,037	22,886	22,440	98.1%	28,669	27,924	97.4%	5,783	299	298
City of Annapolis	ANNE	Apr-16	2015	31,823	28,384	27,466	96.8%	29,382	28,488	97.0%	998	166	154
Broadwater	ANNE	Apr-16	2015	4,919	4,694	3,902	83.1%	4,823	4,004	83.0%	129	24	24
City of Taneytown	CARR	Jul-16	2015	2,647	2,486	2,485	100%	3,036	3,033	99.9%	550	380	380
Back River	BACI/ BACO	Sep-17	2016	313,624	311,468	309,249	99%	321,022	318,838	99.3%	9,554	1,073	1,026
Mayo	ANNE	Oct-17	2016	3,410	3,316	3,066	92%	3,499	3,189	91.1%	183	53	47

			Connections Before ENR Funding					Total Connections Upgraded since Conversion to ENR				Upgraded Connections Since Last Reporting Period	
ENR WWTP	County	ENR Upgrade Completed and Operational (Month-Year)	Column A: Reporting Year before ENR Funding	Column B: Number of Improved Parcels in the Sewer-shed	Column C: Number of Improved Parcels in Existing Service Area ("S1")	Column D: Number of Improved Parcels in "S1" within PFA	Column E: % of Connections Located in "S1" & PFA (Column D ÷ C)	Column F: Total Improved Parcels in Existing Service Area ("S1")	Column G: Total Improved Parcels in S1 & PFA	Column H: % Total Improved Parcels Located in "S1" within PFA (Column G ÷ F)	Column I: Total Increase Improved Parcels in S1 (Total Number New Connections)	Column J: Difference in Improved Parcels in S1	Column K: Difference in Improved Parcels in S1 & PFA
Cox Creek	ANNE	Jan-18	2017	48,105	42,688	41,792	98%	45,441	44,318	97.5%	2,753	138	134
Freedom District	CARR	Mar-18	2017	8,535	7,336	7,336	100%	7,743	7,721	99.7%	407	151	149
Patapsco	BACI/ BACO	Jan-20	2019	152,850	148,409	147,691	100%	150,366	149,495	99.4%	1,957	616	587
Hampstead	CARR	Apr-2022	2021	2,585	2,525	2,143	85%	2,534	2,523	99.6%	9	5	4
Westminster (New)	CARR	Jul-2023	2022	9,281	9,124	9,104	100%	9,288	9,265	99.8%	164	NA	NA
Baltimore Region Total				**758,888**	**720,756**	**712,902**	**99%**	**760,600**	**751,950**	**98.9%**	**39,844**	**3,242**	**3,126**
Southern Maryland Region													
Town of Indian Head	CHAR	Jan-09	2008	1,409	1,317	1,317	100.0%	1,565	1,565	100.0%	248	4	4
Town of La Plata	CHAR	Dec-14	2013	3,164	3,213	3,132	97.5%	3,884	3,883	100.0%	671	47	47

			Connections Before ENR Funding					Total Connections Upgraded since Conversion to ENR				Upgraded Connections Since Last Reporting Period	
ENR WWTP	County	ENR Upgrade Completed and Operational (Month-Year)	Column A: Reporting Year before ENR Funding	Column B: Number of Improved Parcels in the Sewer-shed	Column C: Number of Improved Parcels in Existing Service Area ("S1")	Column D: Number of Improved Parcels in "S1" within PFA	Column E: % of Connections Located in "S1" & PFA (Column D ÷ C)	Column F: Total Improved Parcels in Existing Service Area ("S1")	Column G: Total Improved Parcels in S1 & PFA	Column H: % Total Improved Parcels Located in "S1" within PFA (Column G ÷ F)	Column I: Total Increase Improved Parcels in S1 (Total Number New Connections)	Column J: Difference in Improved Parcels in S1	Column K: Difference in Improved Parcels in S1 & PFA
Marlay Taylor	STMA	Aug-16	2015	12,420	7,996	7,984	99.8%	8,606	8,595	99.9%	610	82	83
Chesapeake Beach	CALV	Nov-17	2016	4,041	3,320	2,694	81.1%	3,353	2,720	81.1%	33	5	2
Leonardtown	STMA	Aug-17	2016	1,640	1,089	936	86.0%	1,093	940	86.0%	4	-8	-7
Southern Maryland Total				**22,674**	**16,935**	**16,063**	**95%**	**18,501**	**17,703**	**95.7%**	**1,566**	**130**	**129**
Statewide													
New Facilities Upgraded During Reporting Period				9,961	9,645	9,487	98.4%	9,811	9,650	98.4%	166	N/A	N/A
Statewide Totals				**1,484,622**	**1,413,034**	**1,382,998**	**98%**	**1,495,843**	**1,458,340**	**97.5%**	**82,809**	**10,866**	**10,093**

Notes:
(new) = Facilities upgraded to ENR during the reporting period.
There are a few instances since reporting began in 2009 where the total number of improved parcels in Column C varied slightly due to service boundary discrepancies. MDP has worked diligently to resolve this issue.