Chesapeake Bay
Fiscal 2017 Budget Overview

Department of Legislative Services
Office of Policy Analysis
Annapolis, Maryland

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Analysis in Brief

Major Trends

Maryland Not on Track for Calendar 2017 Progress Check: The U.S. Environmental Protection Agency's most recent evaluation of Maryland's progress and commitments indicates that the State is not on track to meet the calendar 2017 target for nitrogen due to agricultural production changes, including greater corn production and slower than anticipated stormwater load reductions. However, it is recognized that upgrades to wastewater treatment plants are in progress, and other efforts continue to accelerate implementation across all other sectors. The State is on track to meet the calendar 2017 target for phosphorus, but excess manure and fertilizer are causing worsening phosphorus trends on the Eastern Shore. Therefore, the level of effort to manage phosphorus may need to be increased. Finally, the State is also on track to meet the calendar 2017 target for sediment.

Issues

Overall Chesapeake Bay Restoration Funding: Major changes in Chesapeake Bay restoration funding between fiscal 2015 and 2016 include transit funding increases in the Maryland Department of Transportation and an overall funding increase for the the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund. Contingent appropriations are included in fiscal 2017 for land and conservation easement programs. **The Department of Legislative Services (DLS) recommends the addition of budget bill language to request that the Administration continue to publish the overall Chesapeake Bay restoration data and two-year milestones funding in the Governor's budget books.**

Stormwater Funding Changes: Chapter 124 of 2015 repealed the requirement to enact a fee and instead required the jurisdictions to file an annual financial assurance plan. Financing options for stormwater remediation remain a challenge but include funding soon to be available through the Bay Restoration Fund as well as public-private partnerships (P3) being pioneered by Prince George's County. **DLS recommends that the BayStat agencies comment on the impact of the Bay Restoration Fund being available for stormwater remediation in fiscal 2018, whether the regulated jurisdictions appear to have sufficient stormwater remediation financing plans in place, and on whether it makes sense to implement a statewide P3 for stormwater remediation financing.**

Nutrient Trading and Accounting for Growth: Maryland is in the midst of important discussions about how it will meet and maintain the nutrient and sediment load reductions required under the Chesapeake Bay Total Maximum Daily Load (TMDL). A nutrient trading policy, incorporating the intent to trade in order to meet the TMDL, has been released, and Accounting for Growth discussions are anticipated to begin again soon. Transparency and cost effectiveness are paramount considerations, which have been somewhat hindered by delays in submission of requested reports on historical and projected Chesapeake Bay restoration spending requested in both the fiscal 2015 and 2016 budgets. **DLS recommends that the BayStat agencies comment on the plans for nutrient trading and Accounting for Growth, especially as the plans relate to baseline regulatory programs and other**

policies that are intended to reduce the likelihood of local water quality degradation caused by nonpoint source pollution from unregulated entities. In addition, DLS recommends again that the BayStat agencies submit information on updated historical spending and projected Chesapeake Bay restoration spending and associated impacts and the overall framework to meet the calendar 2025 requirement of having all best management practices in place to meet water quality standards for restoring the Chesapeake Bay. Finally, DLS recommends that the BayStat agencies include an analysis of the costs and benefits of revitalizing the regional financing authority idea for financing Chesapeake Bay restoration.

Conowingo Dam Relicensing Complications: The Conowingo Dam has been described as the biggest best management practice on the Susquehanna River. However, the Conowingo Dam, owned by Exelon Corporation, and two other dams in the Lower Susquehanna River – Safe Harbor, owned by Brookfield Renewable, Inc., and Holtwood, owned by Pennsylvania Power and Light – have reached an end state in terms of sediment and nutrient storage capacity and are now up for relicensing by the Federal Energy Regulatory Commission (FERC). FERC has determined that licensing is warranted but awaits a Clean Water Act – Section 401 water quality certification from the Maryland Department of the Environment (MDE). MDE, the Department of Natural Resources, the U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency – Chesapeake Bay Program, and other state and federal partners continue to research the the impact of the Conowingo Dam on Chesapeake Bay health, while federal legislation may override MDE's authority to issue a water quality certification. **DLS recommends that the BayStat agencies comment on when the USACE is likely to approve and release the Lower Susquehanna River Watershed Assessment final report, the range of outcomes being explored in the report, and the possibility for obtaining some kind of compensation for issuing the water quality certification that could be used to reduce permanently nutrient and sediment loads upstream of Conowingo Dam.**

Recommended Actions

1. Add budget bill language on a Chesapeake Bay restoration framework.

2. Add budget bill language on two Chesapeake Bay restoration reports.

Updates

Poultry Litter Management Initiative: On October 23, 2015, the Maryland Environmental Service (MES) issued a request for information to develop innovative projects to remove excess poultry litter on the Eastern Shore. The intent is to complement the Phosphorus Management Tool regulations that went into effect on June 8, 2015, by providing options for poultry litter disposal as an alternative to land application as a crop fertilizer. MES indicates that the responses are currently under evaluation.

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Overview

Past efforts to restore the Chesapeake Bay watershed, which includes parts of Delaware, the District of Columbia, Maryland, New York, Pennsylvania, Virginia, and West Virginia, have resulted in insufficient progress and continued poor water quality. However, a regional restoration initiative, required by the federal government and characterized by accountability measures and shorter term program evaluation, is underway. The current bay restoration policy framework is described below.

The Overarching Goal: Chesapeake Bay Total Maximum Daily Load

In December 2010, the U.S. Environmental Protection Agency (EPA) established a Chesapeake Bay Total Maximum Daily Load (TMDL), as required under the federal Clean Water Act and in response to consent decrees in the District of Columbia and Virginia. This TMDL sets the maximum amount of nutrient and sediment pollution that the bay can receive and still attain water quality standards. It also identifies specific pollution reduction requirements; all reduction measures must be in place by calendar 2025, with measures in place to achieve at least 60% of pollution reductions by calendar 2017.

Achieving the Goal: An Accountability Framework for Jurisdictions in the Bay Watershed

Watershed Implementation Plans

As part of the Chesapeake Bay TMDL, bay jurisdictions must develop watershed implementation plans (WIP) that identify the measures being put in place to reduce pollution and restore the bay. WIPs are submitted to EPA for review and evaluation and (1) identify pollution load reductions to be achieved by various source sectors and in different geographic areas; and (2) help to provide "reasonable assurance" that sources of pollution will be cleaned up, which is a basic requirement of all TMDLs. In calendar 2010, each bay jurisdiction submitted a Phase I WIP that details how the jurisdiction plans to achieve its pollution reduction goals under the TMDL. In calendar 2012, the bay jurisdictions submitted Phase II WIPs that establish more detailed strategies to achieve the bay TMDL on a geographically smaller scale. A Phase III WIP, which must be submitted to EPA in calendar 2018, will ensure that all practices are in place by calendar 2025 so that restoration goals can be met.

Two-year Milestones

President Barack H. Obama issued an executive order in May 2009 that directed the federal government to lead a renewed effort to restore and protect the bay and its watershed. At the same time, the bay jurisdictions committed to achieving specific, short-term bay restoration "milestones" in order to assess progress toward achieving nitrogen, phosphorus, and sediment reduction goals. Generally,

milestones are goals to be reached in two-year increments; they include implementation actions – best management practices (BMP) – and program enhancement actions. As a part of this effort, bay jurisdictions must submit pollution reduction progress and program action information to EPA. Although the bay jurisdictions developed the milestones prior to the establishment of the TMDL, the milestones have been incorporated into the TMDL process as a series of checkpoints for assessing progress toward achieving the pollution reduction goals in the TMDL.

Federal Review and Contingency Actions

EPA reviews each jurisdiction's progress toward its two-year milestones. If a jurisdiction's plans are inadequate or if its progress is insufficient, EPA may take action to ensure pollution reductions, including increasing oversight of state-issued pollution permits, requiring additional pollution reductions, prohibiting new or expanded pollution discharges, redirecting federal grants, and revising water quality standards to better protect local and downstream waters.

Chesapeake Bay Watershed Agreement

In June 2014, a new Chesapeake Bay Watershed Agreement was signed by representatives from the bay jurisdictions, as well as the Chesapeake Bay Commission and EPA. This agreement sets forth a collaborative plan for restoring and protecting the bay watershed and its living resources. Among other things, the agreement sets a goal to reduce pollutants to the bay by meeting the calendar 2017 and 2025 restoration goals and improving the capacity for monitoring and assessing progress. The agreement indicated that strategies for implementing the agreement's goals should be developed by June 2015. On July 23, 2015, the 25 strategies were released at the Chesapeake Executive Council meeting. Each of the 25 strategies covered one or more of the 31 Watershed Agreement outcomes.

Reaching the Goal: Progress to Date

2014-2015 Milestone Assessment

EPA issued its Interim Evaluation of Maryland's 2014-2015 Milestones and WIP Progress on June 10, 2015. Maryland's current progress is as follows:

- **Nitrogen:** The State is not on track to meet the calendar 2017 target due to agricultural production changes, including greater corn production and slower than anticipated stormwater load reductions. However, it is recognized that upgrades to wastewater treatment plants (WWTP) are in progress, and other efforts continue to accelerate implementation across all other sectors.

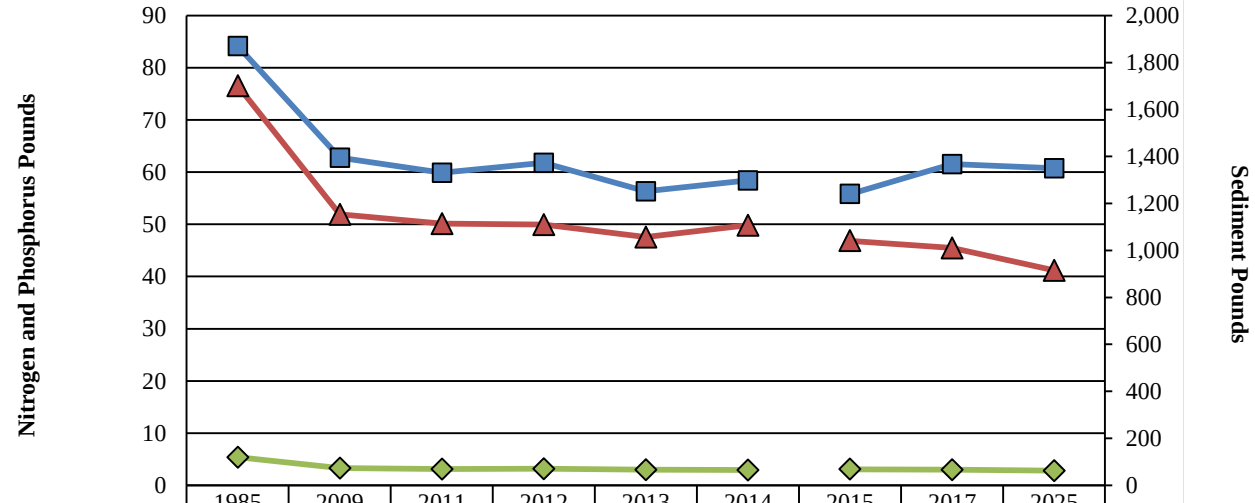
- **Phosphorus:** The State is on track to meet the calendar 2017 target, but excess manure and fertilizer are causing worsening phosphorus trends on the Eastern Shore. Therefore, the level of effort to manage phosphorus may need to be increased.

- **Sediment:** The State is on track to meet the calendar 2017 target.

Future Milestones and Targets

EPA primarily evaluates progress toward meeting the TMDL by reviewing a jurisdiction's combined pollution reductions among the various pollution sources. As shown in **Exhibit 1**, the State must establish pollution control measures by calendar 2025 that, based on calendar 2009 levels, will reduce nitrogen loads to the bay by 20.7%, phosphorus loads by 14.9%, and sediment loads by 3.3%. As noted above, Maryland's progress on nitrogen appears to have stagnated through calendar 2014, but should improve substantially due to WWTPs that will be upgraded in the next year or two.

Exhibit 1
Maryland's Pollution Reduction Goals in the Watershed Implementation Plan Phase II
(Million Pounds Per Year)



	1985 Baseline	2009 Baseline	2011 Progress	2012 Progress	2013 Progress	2014 Progress	2015 Milestone	2017 Target	2025 Target
Nitrogen	76.6	51.9	50.2	50.0	47.6	49.8	46.8	45.5	41.2
Phosphorus	5.4	3.3	3.1	3.2	3.0	2.9	3.1	3.0	2.8
Sediment	1,871.3	1,395.1	1,331.6	1,373.0	1,252.7	1,298.8	1,240.4	1,367.8	1,349.7

Source: Maryland Department of the Environment; U.S. Environmental Protection Agency

Recent Regulatory Highlights

Two recent sets of regulations have been adopted that are potentially critical to Maryland's Chesapeake Bay restoration efforts: the Phosphorus Management Tool (PMT) and nutrient trading. The PMT regulations incorporated the University of Maryland PMT into the State's existing nutrient management planning process effective June 8, 2015. The regulations also add recordkeeping and reporting requirements and establish the PMT Transition Advisory Committee within the Maryland Department of Agriculture (MDA). Developed by scientists at the University of Maryland, the PMT is used to identify agricultural lands where the soil is saturated with phosphorus and has a high risk of runoff. The PMT is a component in the State's WIP that will be used to reduce phosphorus loads.

On December 28, 2015, MDA published regulations in the *Maryland Register* that establish the requirements and standards for the generation and certification of nonpoint source nutrient and sediment credits on agricultural land under the Agricultural Nutrient and Sediment Certification Program. This is discussed further as an issue in this analysis.

Transportation Stormwater Management

Funding for stormwater management sector improvements associated with State transportation infrastructure represents $1.5 billion, or approximately 10%, of the total estimated WIP implementation cost. The State Highway Administration (SHA) owns more than 2,500 stormwater management facilities and nearly 17,000 lane miles of roadway located throughout the State. After many years of discussion regarding the lack of transportation funding for new infrastructure, Chapter 429 of 2013 (the Transportation Infrastructure Investment Act) was enacted. Chapter 429 increased transportation funding by increasing motor fuel taxes and transit fares. Chapter 429 also required that the Governor include specified annual appropriations in the budget bill (between fiscal 2015 and 2019) totaling $395.0 million for SHA to use to comply with the WIP. Chapter 489 of 2015 (Budget Reconciliation and Financing Act of 2015) authorized the Transportation Trust Fund to be used to fund the WIP in fiscal 2016 only, which reflects $65.0 million in funding. SHA has reported in the past that, as a result of Chapter 429, there will be sufficient funding available to meet its WIP obligations through fiscal 2020.

Exhibit 2 reflects the most recent SHA WIP funding estimate, which in the fiscal 2016 to 2021 *Consolidated Transportation Program* is $712.2 million, including $124.6 million expended prior to fiscal 2016, and $108.0 million added in fiscal 2021. Special funds, including the replacement of $65.0 million in general funds in fiscal 2016 and $74.0 million in fiscal 2017, comprise the largest share of the projected fund sources accounting for 57% of the planned funding followed by general funds (28%), federal funds (9%), and general obligation (GO) bonds (6%). **Exhibit 3** reflects the required annual general fund or GO appropriations through fiscal 2021.

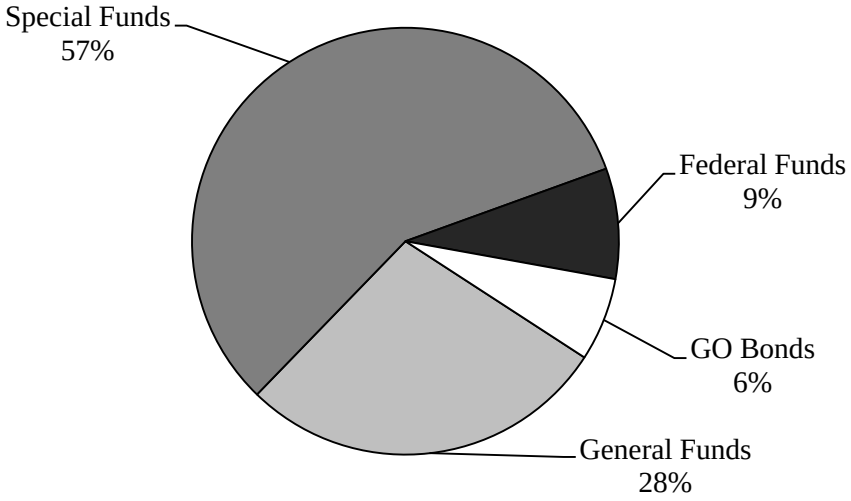
Exhibit 2
SHA Watershed Implementation Plan
Fiscal 2016-2021
($ in Thousands)

Source	Prior Auth.	2016	2017	2018	2019	2020	2021	Total
General Funds	$0	$0	$0	$100,000	$100,000	$0	$0	$200,000
Special Funds	28,806	64,400	74,000	23,200	9,700	108,100	99,400	407,606
Federal Funds	50,794	200	0	0	0	0	8,600	59,594
GO Bonds	45,000	0	0	0	0	0	0	45,000
Total	**$124,600**	**$64,600**	**$74,000**	**$123,200**	**$109,700**	**$108,100**	**$108,000**	**$712,200**

GO: general obligation
SHA: State Highway Administration

Source: Maryland Department of Transportation; Fiscal 2016 to 2021 *Consolidated Transportation Program*

Exhibit 3
SHA Watershed Implementation Plan
Total Program Funding Sources



GO: general obligation
SHA: State Highway Administration

Source: Maryland Department of Transportation; Fiscal 2016 to 2021 *Consolidated Transportation Program*

Issues

1. Overall Chesapeake Bay Restoration Funding

The current state of Chesapeake Bay restoration funding may be reviewed at three levels:

- **Overall Chesapeake Bay Restoration** – actions that include environmental education, land preservation, transit projects, and nutrient and sediment reduction among others;

- **Two-year Milestones** – actions for nutrient and sediment reduction only; and

- **Chesapeake and Atlantic Coastal Bays 2010 Trust Fund** – actions for nutrient and sediment reduction from nonpoint sources only using certain revenues. A review of the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund will be included in the Department of Natural Resources (DNR) operating budget analysis.

Overall Chesapeake Bay Restoration

Section 41 of the fiscal 2016 budget bill expressed the General Assembly's intent that DNR, the Department of Budget and Management (DBM), and the Maryland Department of the Environment (MDE) submit two reports on Chesapeake Bay restoration expenditures as follows:

- **Overall Chesapeake Restoration Spending** – operating and capital expenditures by agency, fund type, and particular fund source based on programs that have over 50% of their activities directly related to Chesapeake Bay restoration for the fiscal 2015 actual, fiscal 2016 working appropriation, and fiscal 2017 allowance; and

- **Two-year Milestones** – two-year milestones funding by agency, BMP, fund type, and particular fund source along with associated nutrient and sediment reductions for fiscal 2014 to 2017.

The overall Chesapeake Bay restoration expenditures exhibit was first included in the Governor's Budget Books in fiscal 2009. The purpose of the exhibit is to understand the overall scope of Chesapeake Bay restoration funding. The current version of overall Chesapeake Bay restoration funding is Appendix S of the *Maryland Budget Highlights* book and is shown in **Exhibit 4**.

Exhibit 4
Overview of Maryland's Funding for Chesapeake Bay Restoration
Fiscal 2013-2017

Total Funds

Agency/Program	2013 Actual	2014 Actual	2015 Actual	2016 Approp.	2017 Allowance		2016-2017 $ Change	2016-2017 % Change
Department of Natural Resources	$94,014,801	$101,327,759	$110,595,649	$87,838,689	$97,821,491		$9,982,802	11.4%
Program Open Space	14,657,379	27,065,000	15,072,000	24,602,750	19,618,428	[1]	-4,984,322	-20.3%
Rural Legacy	5,622,000	13,512,000	16,034,000	10,082,149	17,663,385	[2]	7,581,236	75.2%
Department of Planning	4,988,878	5,069,335	5,410,045	5,543,223	5,623,044		79,821	1.4%
Department of Agriculture	38,993,231	41,995,484	46,884,891	50,453,115	52,757,090		2,303,975	4.6%
Maryland Agricultural Land Preservation Foundation	12,889,412	35,712,218	22,850,007	31,293,545	22,968,422	[3]	-8,325,123	-26.6%
Maryland Department of the Environment	360,945,068	301,151,064	281,255,048	287,398,629	285,529,201		-1,869,428	-0.7%
Maryland State Department of Education	280,943	416,945	416,945	416,945	416,945		0	0.0%
Maryland Higher Education Institutions	19,345,005	20,387,021	35,136,275	35,358,299	31,428,202		-3,930,097	-11.1%
Maryland Department of Transportation	180,107,000	172,258,000	338,284,342	340,566,651	565,032,000		224,465,349	65.9%
Total	**$731,843,717**	**$718,894,826**	**$871,939,202**	**$873,553,995**	**$1,098,858,208**		**$225,304,213**	**25.8%**

Fund Type Summary

Fund Type	2013 Actual	2014 Actual	2015 Actual	2016 Approp.	2017 Allowance		2016-2017 $ Change	2016-2017 % Change
General Fund	$34,662,619	$31,983,477	$32,802,957	$34,383,463	$38,411,812		$4,028,349	11.7%
Special Fund	338,289,432	309,761,628	276,779,365	286,259,007	329,607,706	[4]	43,348,699	15.1%
Federal Fund	51,932,418	57,695,355	54,269,686	52,750,524	56,203,625		3,453,101	6.5%
Reimbursable Funds	8,258,635	7,985,344	25,226,577	33,336,301	32,082,863		-1,253,438	-3.8%
Current Unrestricted	8,742,157	11,573,308	23,733,937	25,700,177	27,501,635		1,801,458	7.0%
Current Restricted	10,602,848	8,813,713	11,402,338	9,658,122	3,926,568		-5,731,554	-59.3%
General Obligation Bonds	99,248,607	118,824,000	109,440,000	90,899,750	46,092,000		-44,807,750	-49.3%
Maryland Department of Transportation Funds	180,107,000	172,258,000	338,284,342	340,566,651	565,032,000		224,465,349	65.9%
Total	**$731,843,716**	**$718,894,826**	**$871,939,202**	**$873,553,995**	**$1,098,858,209**		**$225,304,214**	**25.8%**

Spending Category

Spending Category	2013 Actual	2014 Actual	2015 Actual	2016 Approp.	2017 Allowance		2016-2017 $ Change	2016-2017 % Change
Land Preservation	n/a	$77,321,632	$54,779,325	$67,316,610	$61,622,977	[4]	-$5,693,633	-8.5%
Septic Systems	n/a	29,249,269	21,445,045	21,043,223	21,123,044		79,821	0.4%
Wastewater Treatment	n/a	262,525,003	249,916,427	256,314,582	254,684,624		-1,629,958	-0.6%
Urban Stormwater	n/a	81,342,596	33,200,345	9,385,830	10,755,227		1,369,397	14.6%
Agricultural BMPs	n/a	41,995,484	46,884,891	50,273,372	52,610,954		2,337,582	4.6%
Oyster Restoration	n/a	15,179,640	11,888,853	13,085,172	8,280,610		-4,804,562	-36.7%
Transit and Sustainable Transportation	n/a	135,027,000	338,284,342	340,566,651	565,032,000		224,465,349	65.9%
Living Resources	n/a	43,871,479	66,250,974	66,619,297	79,599,841		12,980,544	19.5%
Education and Research	n/a	20,803,966	35,553,220	35,775,244	31,845,147		-3,930,097	-11.0%
Other	n/a	11,578,757	13,735,780	13,174,014	13,303,784		129,770	1.0%
Total		**$718,894,826**	**$871,939,202**	**$873,553,995**	**$1,098,858,208**		**$225,304,213**	**25.8%**

[1] Reflects $4.0 million in transfer tax special funds for Program Open Space Stateside in fiscal 2017 that is contingent upon separate legislation.
[2] Reflects $4.9 million in transfer tax special funds for the Rural Legacy Program in fiscal 2017 that is contingent upon separate legislation.
[3] Reflects $3.5 million in transfer tax special funds for the Maryland Agricultural Land Preservation Program in fiscal 2017 that is contingent upon separate legislation.
[4] Reflects $12.4 million in contingent transfer tax special funds noted above for the fiscal 2017 allowance.

Note: This presentation includes only State agency programs that have over 50% of their activities directly related to Chesapeake Bay restoration. In addition, funding related to salaries and fringe benefits does not reflect health insurance or increment adjustments.

Source: Department of Budget and Management; Department of Legislative Services

The major changes between the fiscal 2016 working appropriation and the fiscal 2017 allowance reflected in the overall Chesapeake Bay restoration spending are as follows:

- **DNR –** increases by $10.0 million, primarily due to an increase in the funding available through the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund ($13.4 million).

- **Program Open Space, Rural Legacy, Maryland Agricultural Land Preservation Foundation** – decreases by $5.7 million due to a reduction of $8.3 million for the Maryland Agricultural Land Preservation Foundation, and reduction of $5.0 million in Program Open Space (POS), which are offset partially by an increase of $7.6 million for the Rural Legacy Program. The funding for the Maryland Agricultural Land Preservation Foundation and POS decreases primarily as a result of GO bond reductions relative to what was provided in fiscal 2016. All three land preservation programs reflect the receipt of additional funding in fiscal 2017 contingent on legislation authorizing $4.0 million for POS Stateside, $4.9 million for the Rural Legacy Program, and $3.5 million for the Maryland Agricultural Land Preservation Foundation from funding made available by reducing the transfer of transfer tax funding to the General Fund.

- **MDA** – increases by $2.3 million, primarily due to an increase of $4.0 million in the allocation of GO bonds to the Maryland Agricultural Water Quality Cost-Share Program.

- **MDE** – decreases by $1.9 million, primarily due to a reduction of $1.5 million in GO bond authorization for the Biological Nutrient Removal program.

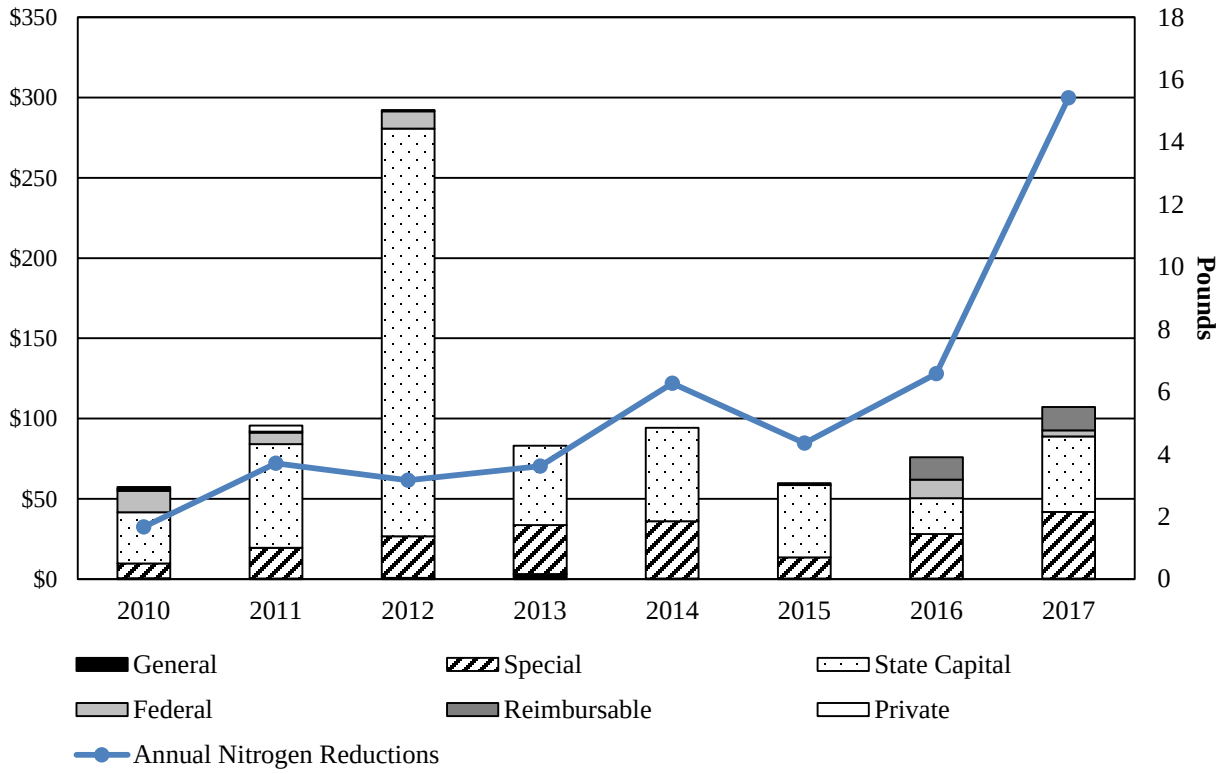
- **Maryland Higher Education** – decreases by $3.9 million primarily due to a reduction of $5.6 million for the University of Maryland Baltimore County (UMBC), and a decrease of $2.9 million for the University of Maryland Eastern Shore (UMES), which are offset partially by an increase of $4.2 million for the University of Maryland, College Park (UMCP). The UMBC funding reduction reflects federal and nonprofit funding no longer being budgeted from various sources that was used to study the Chesapeake Bay, regional climate variability, environmental remediation, green infrastructure for urban landscapes, and other topics. The UMES funding reduction also primarily reflects federal funding, in particular for an environmental science partnership with the National Oceanic and Atmospheric Administration and National Science Foundation funding for science, technology, engineering, and mathematics education. The UMCP funding increase appears to reflect the cancellation of fiscal 2016 funding for the one-time replacement of The Diner's roof with an environmentally friendly roof that is budgeted again at the same level in fiscal 2017.

- **Maryland Department of Transportation** – increases by $224.5 million, primarily due to the Maryland Transit Administration's Purple Line transit project ($226.7 million).

Two-year Milestones Funding

As noted earlier, Section 41 of the fiscal 2016 budget also expressed the intent that DNR, DBM, and MDE submit information about two-year milestones funding and nutrient reduction. **Exhibit 5** reflects the funding for fiscal 2010 to 2017. The major trends between fiscal 2016 and 2017 are an increase in special funds for Chesapeake and Atlantic Coastal Bays 2010 Trust Fund competitive solicited projects and an increase in State capital for the Back River WWTP upgrade. Reimbursable funds from the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund are reflected in fiscal 2016 and 2017 for cover crops in MDA. The nutrient reduction increase is due primarily to WWTP upgrades.

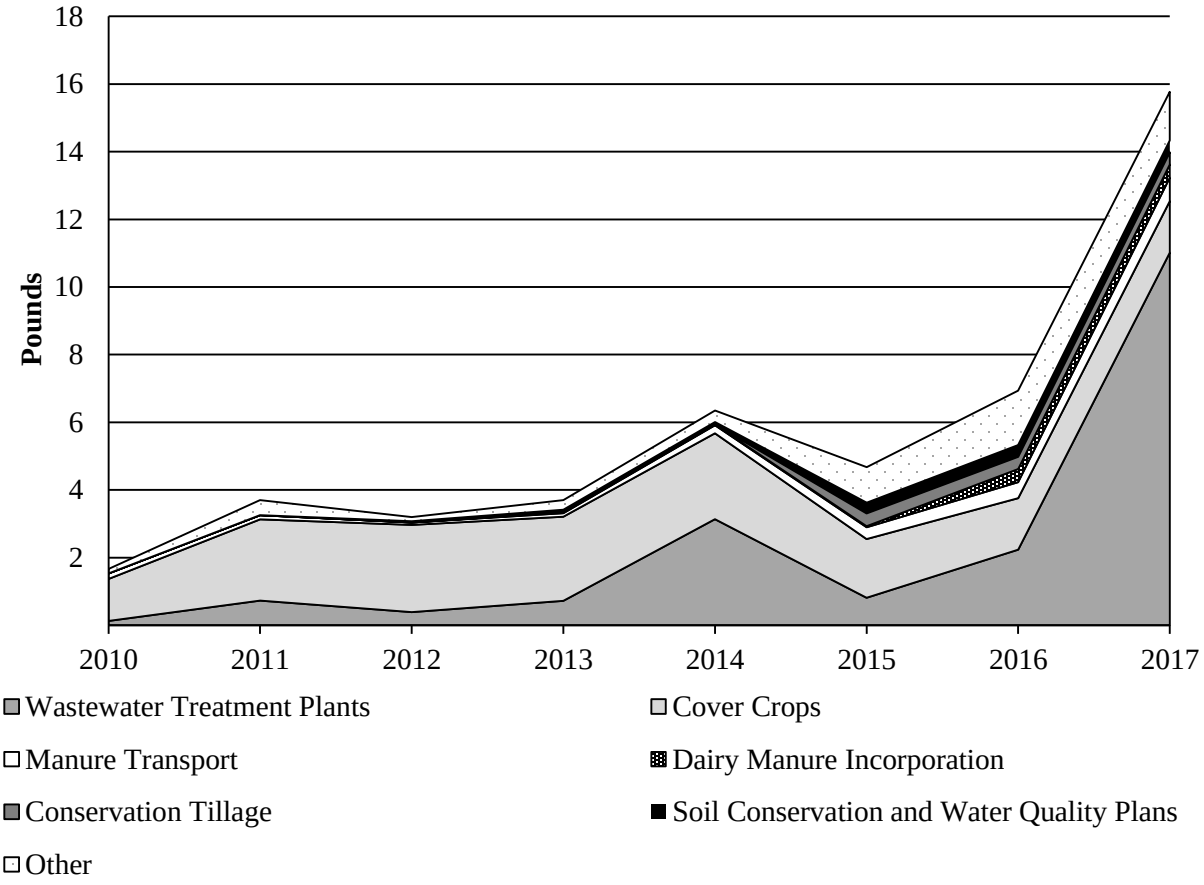
Exhibit 5
Two-year Milestones Funding and Nutrient Reduction
Fiscal 2010-2017
($ and Pounds in Millions)



Source: Department of Budget and Management

Exhibit 6 shows annual nitrogen reduction by best management practice. As can be seen, the cover crop BMP has provided the majority of nitrogen reductions through fiscal 2016. However, beginning in fiscal 2014, there are substantial increases in the nitrogen loading reduced by the following agricultural BMPs: manure transport, conservation tillage, and soil conservation and water quality plans. Beginning in fiscal 2015, there is an even more pronounced trend shown by the increase in nitrogen loading reductions by WWTPs, reflecting the upgrade of a number of the 67 major publicly owned WWTPs to enhanced nutrient technology.

Exhibit 6
Annual Nitrogen Reduction by Best Management Practice
Fiscal 2010-2017
(Pounds in Millions)



Note: The decrease in the amount of nitrogen reduced by cover crops in the fiscal 2015-2017 time period is due to a combination of conservative acreage estimates for fiscal 2016 and 2017 and a decrease in the pounds of nitrogen per acre reduced from 6.0 in the fiscal 2010-2014 time period to 3.65 in the fiscal 2015-2017 time period.

Source: Department of Budget and Management

The Department of Legislative Services recommends the addition of budget bill language to request that the Administration continue to publish the overall Chesapeake Bay restoration data and two-year milestones funding in the Governor's budget books.

2. Stormwater Funding Changes

The federal Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States. The National Pollutant Discharge Elimination System (NPDES), a component of the CWA, regulates stormwater discharges from municipal separate storm sewer systems (MS4). There are 10 jurisdictions in Maryland that hold NPDES Phase I MS4 permits (Anne Arundel, Baltimore, Carroll, Charles, Frederick, Harford, Howard, Montgomery, and Prince George's counties, and Baltimore City). In the 2012 legislative session, the General Assembly passed legislation, Chapter 151, which required these 10 jurisdictions to establish a local stormwater remediation fee to assist in financing the implementation of the local MS4 permits, including the requirement of each permit to meet the stormwater-related targets under the Chesapeake Bay TMDL. Subsequently, Chapter 124 of 2015 repealed the requirement to enact a fee and instead required the jurisdictions to file an annual financial assurance plan. Financing options for stormwater remediation remain a challenge but include funding soon to be available through the Bay Restoration Fund (BRF) as well as public-private partnerships (P3) being pioneered by Prince George's County.

Adoption and Implementation of Local Laws

Chapter 124 (Watershed Protection and Restoration Programs – Revisions) made various changes to provisions relating to Chapter 151 of 2012, which required a county or municipality that is subject to a specified federal stormwater permit to collect a stormwater remediation fee and establish a local watershed protection and restoration program and fund. Among other things, the bill repealed the requirement for such jurisdictions to collect a stormwater remediation fee, subject to several conditions. The bill exempted Montgomery County from these provisions but established separate provisions with similar requirements pertaining to Montgomery County. Among other things, the bill also authorized jurisdictions to charge a stormwater remediation fee to the State under specified conditions and required jurisdictions to file an annual financial assurance plan, which is subject to review and potential sanctions.

The fee status for jurisdictions has changed as a result of the repeal of the requirement to establish a local watershed protection and restoration program and fund. **Exhibit 7** shows the current fees being charged by the jurisdictions. As can be seen, a number of counties have made changes to their fees, ranging from a reduction of the fee in Charles County to the outright repeal of the fee in Harford County. Of note, Charles County offset the revenue lost by the fee reduction with revenue received from a new real property transfer tax. Several counties have noted that a fee is unnecessary because general funds are available to pay for stormwater remediation.

Regardless of whether a local jurisdiction decides to maintain or repeal its stormwater remediation fee under the bill, each jurisdiction, including Montgomery County, is required to file a financial assurance plan with MDE by July 1, 2016, and every two years thereafter on the anniversary

of the date that the permit was issued. The plan must identify all local actions that will be required for the jurisdiction to comply with its Phase I MS4 permit as well as the funding sources that will support those efforts, including a five-year projection of costs and revenues for permit compliance. The plan must also identify the specific actions and expenditures implemented in the previous fiscal years. For a first financial assurance plan filed by July 1, 2016, funding in the plan is sufficient if it includes dedicated revenues, funds, or sources of funds to meet 75% of the projected costs of compliance with the impervious surface restoration plan requirements of the MS4 permit for the following two years. A subsequent financial assurance plan may be deemed sufficient if it includes dedicated funds to meet 100% of the projected two-year costs of compliance with the impervious surface restoration plan requirements.

Exhibit 7
Local Stormwater Remediation Fees

Jurisdiction	Annual Residential Rate	ERU or IU Size	Annual Nonresidential Fee/ERU or IU	Nonresidential Fee Per Acre Equivalent	Status
Anne Arundel	$34.00, $85.00, or $170.00 annually depending on zoning district	ERU = 2,940 sq. ft.	Generally, $85.00 per ERU and capped at 25% of the property's base property tax. Fees vary for specified types of properties	$1,259.39	Unchanged in 2015 after multiple bills failed in the county council
Baltimore	$14.00 per unit (single-family attached); $22.00 per unit (condos); $26.00 (single-family detached and agricultural residential)	ERU = 2,000 sq. ft.	Generally, $46.00 per ERU for nonresidential properties; $14.00 per ERU for nonresidential institutional properties	$1,001.88	Reduced by the county to the amount shown here; county council phased out beginning in fiscal 2017 and fully in 2018. The fiscal 2017 rate is as follows: $9.00 per unit (single-family attached), $15.00 per unit (condos), and $17.00 (single-family detached and agricultural residential). The rate is $31.00 per ERU for non-residential, non-institutional properties, and $9.00 per ERU for non-residential, institutional properties. Therefore, the non-residential fee per acre equivalent is $675.18.
Baltimore City	$40.00, $60.00, or $120.00 depending on amount of impervious surface	ERU = 1,050 sq. ft.	Generally, $60.00 per ERU; $12.00 per ERU for religious nonprofits	$2,489.14	Unchanged
Carroll	None	n/a	None	None	Unchanged

Jurisdiction	Annual Residential Rate	ERU or IU Size	Annual Nonresidential Fee/ERU or IU	Nonresidential Fee Per Acre Equivalent	Status
Charles	$35.00 per property	n/a	$35.00 per property	n/a	Reduced by the county commissioners to the amount shown here for fiscal 2016; originally anticipated to increase from $43.00 to $47.00; the reduction was offset by revenue received from a new real property transfer tax
Frederick	$0.01 per property	n/a	$0.01 per property	n/a	Unchanged
Harford	None	n/a	None	None	County council repealed the fee effective July 1, 2015; fee was $125.00 per property with an IU of 500 sq. ft. and nonresidential fee of $7 per IU for a nonresidential fee per acre equivalent of $609.84
Howard	$15.00, $45.00, or $90.00 depending on type and size of property	IU = 500 sq. ft.	$15.00 per IU	$1,306.80	
Montgomery	Varies, ranges from $29.17 to $265.20 depending on home size	IU = 2,406 sq. ft.	$88.40 per IU	$1,600.46	County council changed the fee to an excise tax on November 17, 2015, in response to a lawsuit challenging the nexus between the fee and services rendered
Prince George's	$20.58 per property plus $20.90 per IU	IU = 2,456 sq. ft.	$20.90 per IU	$370.69 (plus $20.58 admin. fee), or $391.27	Unchanged

ERU: equivalent residential unit
IU: impervious unit

Note: This represents the fee as of January 17, 2016.

Source: Department of Legislative Services

Bay Restoration Fund Wastewater Program Projects

Chapter 153 of 2015 (Environment – Bay Restoration Fund – Use of Funds) added to the authorized uses of the BRF, beginning in fiscal 2016, funding for up to 87.5% of the cost of projects, as approved by MDE, relating to combined sewer overflows (CSO) abatement, rehabilitation of existing sewers, and upgrading conveyance systems, including pumping stations. (This funding authority previously existed between fiscal 2005 and 2009, capped at $5.0 million annually.) The bill also altered the priority of BRF funding beginning in fiscal 2018 by making grants for septic system upgrades, stormwater management, and CSO and sewer abatement projects of equal priority, with funding decisions made on a project-specific basis. Finally, the bill expanded the scope of local stormwater management projects eligible for BRF grants. As can be seen in **Exhibit 8**, the entirety of the $80.0 million in BRF Wastewater Program funding for fiscal 2017 has been allocated to sewer system projects, including $27.2 million for the Cumberland Combined Sewer Overflow Storage Facility, since stormwater management and the other additional BRF uses are not eligible until fiscal 2018.

Exhibit 8
Bay Restoration Fund Wastewater Program Projects
Fiscal 2017

Jurisdiction	Project	Amount
Allegany	Cumberland Combined Sewer Overflow Storage Facility	$27,241,372
Allegany	Evitts Creek Combined Sewer Overflow Upgrades, Phase 3 – Gravity Sewer through CSX Railyard	1,238,081
Allegany	Frostburg Combined Sewer Overflow Elimination, Phase VIII-B – Grant Street Corridor	2,135,875
Allegany	LaVale Sanitary Commission Manhole Rehab, Phase 2	999,250
Baltimore City	Gwynns Falls Sewershed (SC-921) Collection System Area B	14,175,000
Baltimore City	Herring Run Sewershed (SC-937) Sewer Improvements – Basin HR07A	3,257,734
Baltimore City	Herring Run Sewershed (SC-910) Sewer Improvements – Chinquapin Run	7,875,000
Baltimore City	High Level Sewershed (SC-940) Sewer Improvements, Phase I	5,752,688
Baltimore City	Low Level Sewershed (SC-914) Sewer Improvements, Phase I	7,481,250
Baltimore City	Patapsco Sewershed (SC-903) Sewer Improvements, Phase I	9,843,750
Total		**$80,000,000**

Source: Department of Budget and Management

Public-private Partnerships

Another financing method, available now for stormwater remediation, is the P3. P3s are typically long-term agreements involving State or local government assets, such as stormwater controls, that can provide benefits by allocating responsibilities and risks to the party – either public or private – that is best positioned to undertake the activity and does so most efficiently or cost effectively. Prince George's County's Clean Water Partnership is an example of the P3 model for stormwater remediation.

The Clean Water Partnership is a partnership between the county and Corvias Solutions, which will allow for a fixed profit to Corvias Solutions from the county's new stormwater fee and existing *ad valorem* tax in exchange for a design-build-finance-operate-maintain P3. The intent is to remediate 2,000 or more acres of urban street over a three-year period for $100 million. The Clean Water Partnership Agreement was signed on March 28, 2015.

Prince George's County notes that the Clean Water Partnership has several hundred acres of impervious area restoration in design with projects anticipated to be brought to the construction phase in fiscal 2016. An example project is a water quality restoration project for the Forestville New Redeemer Baptist Church through the Clean Water Partnership's Alternative Compliance Program. This project included the installation of pervious pavers to replace concrete walkways, three rain gardens, an infiltration trench, and a bioswale.

DLS recommends that the BayStat agencies comment on the impact of the BRF being available for stormwater remediation in fiscal 2018, whether the regulated jurisdictions appear to have sufficient stormwater remediation financing plans in place, and on whether it makes sense to implement a statewide P3 for stormwater remediation financing.

3. Nutrient Trading and Accounting for Growth

Maryland is in the midst of important discussions about how it will meet and maintain the nutrient and sediment load reductions required under the Chesapeake Bay TMDL. A nutrient trading policy, incorporating the intent to trade in order to meet the TMDL, has been released, and Accounting for Growth discussions are anticipated to begin again. Transparency and cost effectiveness are paramount considerations, which have been somewhat hindered by delays in submission of requested reports on historical and projected Chesapeake Bay restoration spending requested in both the fiscal 2015 and 2016 budgets.

Financing Strategy

Maryland's restoration cost for the Phase II WIP informs its overall financing strategy. The State's Phase II WIP included a $14.4 billion restoration cost estimate for the fiscal 2010 through 2025 time period. Budget bill language in the fiscal 2015 operating budget bill included the intent that a report be submitted including projected fiscal 2015 to 2025 annual spending for restoration (similar budget bill language was included in the fiscal 2016 operating budget bill with a December 1, 2015

submission date, which has not been met). In July 2015, the UMCP Environmental Finance Center released a financing strategy covering the intent of the fiscal 2015 budget bill language. The July 2015 report, *Maryland's Chesapeake Bay Restoration Financing Strategy Final Report*, included estimated costs and revenues, as shown in **Exhibit 9**. Overall, the Environmental Finance Center estimated a $7.8 billion financing gap, primarily in the areas of onsite wastewater (septic systems) and urban stormwater.

Exhibit 9
Watershed Implementation Plan Financing Gap
($ in Billions)

Sector	Estimated Costs	Estimated Revenue Flows	Financing Gap
Point Source Wastewater	$2,430	$2,430	$0
Onsite Wastewater	3,700	297	3,403
Agriculture	928	738	190
Urban Stormwater	7,388	3,203	4,185
Total	**$14,446**	**$6,668**	**$7,778**

Source: Environmental Finance Center

The financing strategy made two major points about Maryland's prognosis for Chesapeake Bay restoration: (1) the restoration can be either regulated by the State (others have to pay) or financed by the State; and (2) the ultimate success of the restoration is dependent on how Maryland maintains nutrient and sediment loads into the future. The financing strategy noted that the nutrient and sediment loads can be reduced through market systems and that the reductions can be maintained by both market mechanisms and long-term financing strategies for conservation of forests, agricultural lands, and open space.

Nutrient Trading

One way to finance bay restoration is through nutrient trading, which some argue is a more efficient and cost-effective process than government regulation. Nutrient trading is a market-based approach that involves the exchange (buying and selling) of nutrient reduction credits (*i.e.*, pollution allocations) between sources in order to protect and improve water quality. These credits have a monetary value that may be paid to the seller for installing BMPs to reduce nitrogen or phosphorus. As a result, compliance entities with low-cost pollution reduction options have an incentive to reduce nutrient loadings beyond what is required of them and to sell the excess credits to sources with higher control costs.

The Administration released a nutrient trading policy statement on October 23, 2015. The statement indicates a timeline for implementation of nutrient trading and some parameters for how it

will work. The intent is as follows: hold a nutrient trading symposium in December 2015 (actually held on January 8, 2016); reconvene a modified nutrient trading workgroup (the Nutrient Trading Stakeholder Advisory group) to discuss particulars; participate in an environmental finance symposium in calendar 2016 convened by EPA and the bay states; hold a conference in mid-calendar 2016 at which a guidance document addressing EPA's nine elements of trading programs common to all bay jurisdictions will be released; and explore aquaculture nutrient credit generation ideas in the summer of calendar 2016.

MDE notes that aquaculture nutrient credit generation is an opportunity to generate reductions, but needs to be done scientifically. Therefore, the Chesapeake Bay partners formed an Oyster Best Management Practice Panel to identify oyster BMPs, develop a pollutant removal crediting framework, and determine pollutant removal effectiveness. The panel's report is expected to be completed in summer 2016.

Two of the main nutrient trading policy parameters are as follows:

- **Purpose:** The option has been maintained of trading between the four major sectors (WWTPs, septic systems, agriculture, and stormwater) in order to meet the nutrient and sediment load reductions under TMDL, which appears to be an expansion of the original intent to use nutrient trading only to maintain the nutrient and load reductions in the face of population growth once TMDL has been met, and otherwise to use BMPs to meet the TMDL.

- **Geography:** The geographic areas within which trading will occur are (1) the Potomac River Basin; (2) the Patuxent River Basin; (3) the combination of the remaining Western Shore, Eastern Shore, and Susquehanna River Basin; and the option is maintained to expand to interstate trading. DLS notes that interstate trading opens the door to the possible revival of a regional financing authority model for Chesapeake Bay restoration, whereby funding can be pooled in order to pay for the most cost-effective reductions regardless of jurisdictional boundaries.

In terms of trading models, Virginia has a nutrient trading program as an option under its Chesapeake Bay Watershed General Permit; the permit requires that new or expanding point sources acquire allocations or credits to offset the entirety of their nutrient load. During calendar 2014, 117 of the 136 actively reporting point source facilities under the general permit met their waste load allocations without trading. The remaining 19 facilities that exceeded nitrogen and/or phosphorus load allocations acquired enough credits to meet their compliance needs.

In the near term, Maryland could use the idea of "trading in time" to meet its TMDL obligations. "Trading in time" is the idea of using WWTP and agriculture sector load reductions now to meet, temporarily, the urban stormwater and septic system sector loads. This is possible because it is anticipated that WWTPs will reduce nitrogen loads well below the sector goal and because agricultural sector BMPs are relatively inexpensive. In the long term, however, there will likely be growth in the WWTP sector as the population increases. Therefore, the WWTP growth capacity will be used and will no longer be available to defray stormwater and septic sector loads. The Administration notes that

for meeting the 2017 WIP requirements, Maryland is evaluating progress in aggregate, which assumes that cross-sector trading will be implemented. Policies and procedures are being developed through an advisory group process.

Accounting for Growth

In order to comply with TMDL, Maryland must not only reduce existing pollution loads, but also *maintain* reduced pollution loads as population growth and new development occurs. Maryland has discussed this requirement as part of its Accounting for Growth policy, which has yet to be finalized. In fact, EPA noted in its June 2015 evaluation that it expected additional information on Accounting for Growth regulations or an alternative milestone commitment to account for growth if the regulations do not move forward. The Administration intends to discuss Accounting for Growth among the bay cabinet agencies and then reconvene some form of the Accounting for Growth workgroup that met in January through July 2013 with the objective of having more information available by December 2015.

As noted above, nutrient trading is one way that Accounting for Growth may be implemented, but there is still a major hurdle to implementation: how to treat agricultural land converted to developed land. Currently, when agricultural land is developed, loading is reduced and the agricultural sector is credited with the load reduction. The development industry would like to credit the load reduction to the urban stormwater sector since the conversion of land use is in a sense a BMP that reduces nutrient and sediment loading. However, crediting load reductions to the urban stormwater sector creates an incentive to develop agricultural land and thus contravenes other State policy that seeks to maintain agricultural land. This hurdle will need to be addressed in any final Accounting for Growth policy.

Policy Implications

Maryland is in the midst of important discussions about how it will meet and maintain the nutrient and sediment load reductions required under TMDL. The nutrient trading policy statement released on October 23, 2015, conveys a strong statement that the Administration intends to use nutrient trading both to meet and maintain its nutrient and sediment load reductions. The key question will be whether a nutrient trading policy is developed and implemented that is sufficiently transparent and efficient to allow for independent verification of progress toward meeting TMDL and cost effective for both the State and compliance entities to implement. In addition, it remains to be seen how a final Accounting for Growth policy will maintain nutrient and sediment load reductions and address the issue of which sector receives credit for agricultural land converted to developed land without incentivizing the development of agricultural land.

DLS recommends that the BayStat agencies comment on the plans for nutrient trading and Accounting for Growth, especially as the plans relate to baseline regulatory programs and other policies that are intended to reduce the likelihood of local water quality degradation caused by nonpoint source pollution from unregulated entities. In addition, DLS recommends again that the BayStat agencies submit information on updated historical spending and projected Chesapeake Bay restoration spending and associated impacts and the overall framework to meet the calendar 2025 requirement of having all BMPs in place to meet water quality standards for

restoring the Chesapeake Bay. Finally, DLS recommends that the BayStat agencies include an analysis of the costs and benefits of revitalizing the regional financing authority idea for financing Chesapeake Bay restoration.

4. Conowingo Dam Relicensing Complications

The Conowingo Dam – a peaking hydroelectric facility that uses reservoir storage to generate electricity during peak electricity demand periods – has been described as the biggest BMP on the Susquehanna River. However, the Conowingo Dam, owned by Exelon Corporation, and two other dams in the Lower Susquehanna River – Safe Harbor, owned by Brookfield Renewable, Inc., and Holtwood, owned by Pennsylvania Power and Light – have reached an end state in terms of nutrient and sediment storage capacity. In addition, the Conowingo Dam is in the midst of relicensing by the Federal Energy Regulatory Commission (FERC); its license expired on September 1, 2014, and it will receive automatic one-year renewals until it is relicensed. While the licensing process is informed by the March 11, 2015 FERC Final Multi-Project Environmental Impact Statement for Hydropower Licenses, the Administration still holds an important regulatory power: the authority to grant or withhold a Clean Water Act – Section 401 water quality certification, which is required before FERC can act on an application for licensing. At this point, the water quality certification will be informed by the Chesapeake Bay 2017 Midpoint Assessment and the final Lower Susquehanna River Watershed Assessment report – jointly being drafted by the U.S. Army Corps of Engineers (USACE), Baltimore District, MDE, and the Department of Natural Resources – which was expected to be completed in summer 2015. In the meantime, legislation has been introduced in Congress – North American Energy Security and Infrastructure Act of 2015 – that appears to limit the State's involvement in the relicensing process by empowering FERC and thus reduces or eliminates the need for the State's water quality certification.

FERC Relicensing and Report

The March 11, 2015 FERC report recommends that the Conowingo Dam be licensed based on a combination of environmental mitigation measures proposed by Exelon and modified by FERC staff and new measures recommended by FERC staff. FERC made its decision to license based on the Conowingo Dam providing (1) a dependable source of electrical energy resources to the region; (2) electricity capacity from a renewable resource that does not contribute to atmospheric pollution; and (3) environmental measures that would adequately protect and enhance environmental resources affected by the Dam. However, as noted earlier, FERC cannot act on the licensing application until MDE awards a water quality certification.

USACE and MDE Lower Susquehanna Report

A more recent draft of the October 2014 *U.S. Army Corps of Engineers and MDE Lower Susquehanna* draft report is awaiting approval from USACE. The October 2014 draft report noted that the three hydroelectric dams in the Lower Susquehanna River – Safe Harbor, Holtwood, and Conowingo – have reached an end state in terms of sediment storage capacity. The dams have now

entered a dynamic equilibrium in which flooding events cause scouring – sediment removal – and then the sediment builds up again over inter-flood periods. Other report findings are as follows: (1) nutrients, not sediments, have the greatest impact on Chesapeake Bay aquatic life; (2) the watershed is the principal source of sediment; (3) sediment management strategies were considered to reduce sediment from future storm, or scour, events; and (4) before calendar 2017, future research is needed to quantify the full impact on Chesapeake Bay aquatic resources and water quality from the changed conditions in the Lower Susquehanna River's dams and reservoirs.

Water Quality Certification

MDE received an application for water quality certification on January 31, 2014. Exelon subsequently withdrew the application on December 4, 2014, with plans to refile its application within 90 days. Exelon resubmitted its application for the water quality certification in early March 2015, and thus the current application expires on March 4, 2016. MDE notes that Exelon has indicated its intent to continue to withdraw and resubmit its application for the water quality certificate until the scientific information is available to fully evaluate the project's impact. MDE further notes that there is insufficient information to determine whether the Conowingo Dam would contribute to a violation of Chesapeake Bay water quality standards.

DLS recommends that the BayStat agencies comment on when USACE is likely to approve and release the Lower Susquehanna River Watershed Assessment final report, the range of outcomes being explored in the report, and the possibility for obtaining some kind of compensation for issuing the water quality certification that could be used to reduce permanently nutrient and sediment loads upstream of Conowingo Dam.

Recommended Actions

1. Add the following section:

SECTION XX. AND BE IT FURTHER ENACTED, That it is the intent of the General Assembly that the Maryland Department of Planning, the Department of Natural Resources, the Maryland Department of Agriculture, the Maryland Department of the Environment, and the Department of Budget and Management provide a report to the budget committees by December 1, 2016, on Chesapeake Bay restoration spending. The report shall be drafted subject to the concurrence of the Department of Legislative Services (DLS) in terms of both electronic format to be used and data to be included. The report should include:

(1) fiscal 2016 annual spending by fund, fund source, program, and State government agency; associated nutrient and sediment reduction; and the impact on living resources and ambient water quality criteria for dissolved oxygen, water clarity, and "chlorophyll a" for the Chesapeake Bay and its tidal tributaries to be submitted electronically in disaggregated form to DLS;

(2) projected fiscal 2017 to 2025 annual spending by fund, fund source, program, and State government agency; associated nutrient and sediment reductions; and the impact on living resources and ambient water quality criteria for dissolved oxygen, water clarity, and "chlorophyll a" for the Chesapeake Bay and its tidal tributaries to be submitted electronically in disaggregated form to DLS;

(3) an overall framework discussing the needed regulations, revenues, laws, and administrative actions and their impacts on individuals, organizations, governments, and businesses by year from fiscal 2016 to 2025 in order to reach the calendar 2025 requirement of having all best management practices in place to meet water quality standards for restoring the Chesapeake Bay to be both written in narrative form and tabulated in spreadsheet form that is submitted electronically in disaggregated form to DLS; and

(4) an analysis of the various options for financing Chesapeake Bay restoration including public-private partnerships, a regional financing authority, nutrient trading, technological developments, and any other policy innovations that would improve the effectiveness of Maryland and other states' efforts toward Chesapeake Bay restoration.

Explanation: This language expresses the intent that the Maryland Department of Planning (MDP), the Department of Natural Resources (DNR), the Maryland Department of Agriculture (MDA), the Maryland Department of the Environment (MDE), and the Department of Budget and Management (DBM) provide a report by December 1, 2016, on recent and projected Chesapeake Bay restoration spending and associated impacts and the overall framework to

meet the calendar 2025 requirement of having all best management practices in place to meet water quality standards for restoring the Chesapeake Bay. In addition, the language expresses the interest that the report include information on policy innovations that improve the effectiveness of Maryland and other states' efforts toward Chesapeake Bay restoration.

Information Request	**Authors**	**Due Date**
Historical and projected Chesapeake Bay restoration spending	MDP DNR MDA MDE DBM	December 1, 2016

2. Add the following section:

SECTION XX. AND BE IT FURTHER ENACTED, That it is the intent of the General Assembly that the Department of Budget and Management, the Department of Natural Resources, and the Maryland Department of the Environment provide two reports on Chesapeake Bay restoration spending. The reports shall be drafted subject to the concurrence of the Department of Legislative Services (DLS) in terms of both electronic format to be used and data to be included. The scope of the reports is as follows:

(1) Chesapeake Bay restoration operating and capital expenditures by agency, fund type, and particular fund source based on programs that have over 50% of their activities directly related to Chesapeake Bay restoration for the fiscal 2016 actual, fiscal 2017 working appropriation, and fiscal 2018 allowance to be included as an appendix in the fiscal 2018 budget volumes and submitted electronically in disaggregated form to DLS; and

(2) two-year milestones funding by agency, best management practice, fund type, and particular fund source along with associated nutrient and sediment reductions for fiscal 2015, 2016, 2017, and 2018 to be submitted electronically in disaggregated form to DLS.

Explanation: This language expresses the intent that the Department of Budget and Management (DBM), the Department of Natural Resources (DNR), and the Maryland Department of the Environment (MDE) provide at the time of the fiscal 2018 budget submission information on (1) Chesapeake Bay restoration spending for programs that have over 50% of their activities directly related to Chesapeake Bay restoration; and (2) two-year milestones funding.

Information Request	Authors	Due Date
Summary of Chesapeake Bay restoration spending for programs that have over 50% of their activities directly related to Chesapeake Bay restoration, and two-year milestones expenditures	DBM DNR MDE	Fiscal 2018 State budget submission

Updates

1. Poultry Litter Management Initiative

On October 23, 2015, the Maryland Environmental Service (MES) issued a request for information to develop innovative projects to remove excess poultry on the Eastern Shore. The intent is to complement the PMT regulations that went into effect on June 8, 2015, by providing options for poultry litter disposal as an alternative to land application as a crop fertilizer. MES indicates that the responses are currently under evaluation.