

[Attachment A](#)

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[p. 1189]

**Title 26**  
**DEPARTMENT OF THE ENVIRONMENT**  
**Subtitle 08 WATER POLLUTION**

**26.08.11 Maryland Water Quality Trading Program**

*Authority: Agriculture Article, §§8-901 and 8-904; Environment Article, §§9-313, 9-315, 9-319, and 9-325; Annotated Code of Maryland*

**Notice of Proposed Action**

[17-284-P]

The Secretary of the Environment proposes to adopt new Regulations .01 — .14 under a new chapter, COMAR 26.08.11 Maryland Water Quality Trading Program.

**Statement of Purpose**

The purpose of this action is to establish a trading program that provides greater flexibility and reduces the cost of achieving the total maximum daily loads (TMDLs) established for the Chesapeake Bay while being protective of local water quality. In 2010, the U.S. Environmental Protection Agency (EPA) established the Chesapeake Bay TMDL, as well as annual pollution load limits and allocations for the State of Maryland and other states within the Chesapeake Bay watershed for the sources of three pollutants — nitrogen, phosphorus, and sediment. The framework for achieving the Chesapeake Bay TMDL was the development of a watershed implementation plan by the State that identifies strategies to be implemented by the State and local jurisdictions. Trading is a strategy that allows a source to reduce a pollutant load below baseline at a comparatively lower cost and sell the resulting reduction as “credits” to another source that is not able to reduce pollutants as cost-effectively.

**Comparison to Federal Standards**

There is no corresponding federal standard to this proposed action.

**Estimate of Economic Impact**

**I. Summary of Economic Impact.** The proposed action is expected to have a positive economic impact. In Maryland, efforts through 2017 to meet the Chesapeake Bay TMDL have shown that the cost of managing urban stormwater runoff and reducing septic loads can be greater than the cost of achieving nutrient reduction through improved agricultural practices or other nonpoint source best management practices. Water quality trading allow a source to reduce a pollutant load below baseline at a comparatively lower cost and sell the resulting reduction as “credits” to another source that is not able to reduce pollutants as cost-effectively. EPA has encouraged such activity by recognizing water quality trading as options for compliance with a water quality-based effluent limitation in a NPDES permit. Given the billions of dollars in costs projected to meet the Chesapeake Bay TMDL by 2025, this program is intended to encourage cost efficiency, engage the private sector, and stimulate a restoration economy. No specific projections have been done to quantify the economic benefit to Maryland from a trading program, [p.1190] but experience in other states indicates significant savings potential, especially in urban stormwater if a regulatory program is put in place that facilitates the creation of a credible and robust marketplace.

**II. Types of Economic Impact.**

Revenue (R+/R-)	
Expenditure (E+/E-)	Magnitude

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A. On issuing agency: NONE

B. On other State agencies:	(E-)	Indeterminable
C. On local governments:	(E-)	Indeterminable

Benefit (+)	
Cost (-)	Magnitude

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D. On regulated industries or trade groups:	(+)	Indeterminable
E. On other industries or trade groups:	(+)	Indeterminable
F. Direct and indirect effects on public:	(+)	Indeterminable

**III. Assumptions.** (Identified by Impact Letter and Number from Section II.)

B. This action will create opportunities for public and private entities that are subject to discharge permits to achieve pollutant reductions more cost-effectively than they would otherwise be able to.

C. This action will create opportunities for local governments that are subject to discharge permits to achieve pollutant reductions more cost-effectively than they would otherwise be able to.

D. This action will allow sellers of credits to derive economic benefits from the installation of best management practices. This action will allow buyers of credits to achieve pollutant reductions more cost-effectively than they would otherwise be able to.

E. This action will create business opportunities for service providers to credit buyers and sellers, such as engineers, consultants, and construction companies. This may incentivize these service providers to invest in workforce training, hiring new personnel, and capital equipment to meet the growing needs of a “green” economy.

F. This action may incentivize private parties to install best management practices not otherwise required, which will generate credits having economic value.

**Economic Impact on Small Businesses**

The proposed action has a meaningful economic impact on small business. An analysis of this economic impact follows.

The proposed action is expected to have a positive economic impact on small businesses. Besides the potential of supplemental income for the agricultural community, the development of a public marketplace for nutrient and sediment credit trading and offsets provides new employment opportunities for individuals and organizations offering services to support an emerging environmental restoration economy. The design and installation of structures and systems, the assessment and verification of credits, the need for annual inspections, and the acquisition, management, and resale of credits are expected to be sources of revenue for consultants, technical advisors, engineers, contractors, aggregators, and brokers.

**Impact on Individuals with Disabilities**

The proposed action has no impact on individuals with disabilities.

**Opportunity for Public Comment**

Comments may be sent to Gary Setzer, Senior Advisor, Maryland Department of the Environment, 1800 Washington Blvd., Baltimore, MD 21230, or call 410-537-3744, or email to [gary.setzer@maryland.gov](mailto:gary.setzer@maryland.gov), or fax to 41-537-3888. Comments will be accepted through January 8, 2018. A public hearing will be held on December 18, 2017, 4 — 6 p.m. at the Maryland Department of the Environment (Montgomery Park), 1800 Washington Blvd., Baltimore, MD 21230.

**.01 Purpose.**

A. *The purpose of this chapter is to establish a Water Quality Trading Program between the agricultural, stormwater, wastewater, and on-site sewage disposal sectors that attracts public and private participation and enhances Maryland’s effort to protect and restore not only the water resources of the Chesapeake Bay and its tributaries, but also local waters. Trading may supplement the more traditional governmental approaches for improving water quality and has the potential to achieve results faster and at a lower cost, accelerating efforts to restore and improve water quality. The Program expands opportunities for point sources and nonpoint sources by creating a water quality marketplace that allows them to meet and maintain pollutant load limits through the acquisition of credits generated by pollutant load reductions elsewhere in Maryland’s portion of the Chesapeake Bay watershed as long as the trade does not cause or contribute to a violation of State water quality standards.*

**B. General Structure of Program.**

(1) *The Program is voluntary and relies on a market-based approach to offer economic incentives for pollutant reductions from point and nonpoint sources.*

(2) *The State provides the infrastructure to support trading through an online suite of tools that includes:*

(a) *The Maryland Nutrient Tracking Tool used by agricultural credit generators;*

- (b) The central Registry; and
- (c) The optional Marketplace.
- (3) The price of each credit is negotiated between the credit seller and the credit buyer.

**.02 Scope.**

This chapter establishes Maryland's Water Quality Trading Program and sets forth the criteria under which the Program will operate, including:

- A. Purpose;
- B. Definitions;
- C. Program framework;
- D. Baseline requirements;
- E. Calculation of credits;
- F. Procedure for certification;
- G. Trading requirements;
- H. Usage of credits by point sources;
- I. Registration of trades;
- J. Verification and reporting requirements;
- K. Public participation;
- L. Enforcement; and
- M. Appeal process.

**.03 Definitions.**

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) "303(d) list" means the list of impaired waters maintained by the State pursuant to 33 U.S.C. §1313(d).

[p.1191]

(2) "Aggregator" means a person that funds, generates, owns, or assembles credits resulting from a number of point or nonpoint sources to resell them.

(3) "Agricultural land" has the meaning stated in COMAR 15.20.12.02.

(4) "Agricultural nonpoint source" means a nonpoint source that is an agricultural operation.

(5) "Agricultural operation" has the meaning stated in COMAR 15.20.12.02.

(6) "Allocation" means the share of the total amount of pollutants that impaired waters can receive from a specific source discharger.

(7) "Baseline" means the practices, actions, or levels of nitrogen, phosphorus, or sediment reductions that must be achieved under any applicable federal, state or local law<sup>1</sup> before a credit seller becomes eligible to enter the trading market and trade credits.

(8) "Bay Restoration Fund (BRF)" means the fund established by Environment Article, §9-1605.2, Annotated Code of Maryland.

(9) Best Management Practice (BMP).

(a) "Best management practice (BMP)" means a practice, or combination of practices, that is determined by the Chesapeake Bay Program to be an effective and practicable method of preventing or reducing pollutants generated by point or nonpoint sources so as to minimize the movement of those pollutants into waters of the State or mitigate flooding.

(b) "Best management practice (BMP)" includes agricultural and urban structural and nonstructural pollution controls, operations, and maintenance procedures and practices that prevent or reduce pollutants.

(10) "Broker" means a person that connects a credit seller and a credit buyer and helps to negotiate a trade between them.

(11) "Cap" means a legally enforceable aggregate mass load limit contained in a discharge permit.

(12) "Certification" means the process in which credits are quantified by the Department or the Department of Agriculture and placed on the Registry, or the result of this process.

(13) "Chesapeake Bay Program (CBP)" means the regional partnership of federal and State agencies, local governments, nonprofit organizations, and academic institutions that leads and directs Chesapeake Bay restoration and protection.

(14) "Chesapeake Bay Watershed Model (CBWM)" means the latest model adopted by the Chesapeake Bay Program used to simulate loading and transport of nitrogen, phosphorus, and sediment from pollutant sources throughout the Chesapeake Bay watershed and provide estimates of watershed nitrogen, phosphorus, and sediment loads resulting from various management scenarios.

(15) "Credit" means a unit of pollution reduction of one pound of nitrogen, phosphorus, or sediment.

<sup>1</sup> This insert is essential to ensure compliance with any applicable law, which must be done before a credit can be generated.

(16) "Department" means the Maryland Department of the Environment.

(17) "Edge of tide (EoT) factor" means a numeric adjustment that reflects the rate at which pollutants are reduced through natural processes, such as hydrolysis, oxidation, and biodegradation, and manmade structures, such as dams, on their way through nontidal tributaries to the tidal waters of the Chesapeake Bay or its tidal tributaries.

(18) "Edge of tide (EoT) ratio" means a numeric adjustment applied to a trade to compensate for different EoT factors in the segmentshed where the credit is generated and the segmentshed where the credit is used.

(19) "Enhanced nutrient removal (ENR)" means a wastewater treatment technology that reduces the nitrogen and phosphorus concentrations in wastewater effluent to achieve permit limits equivalent to concentrations of no more than <sup>2</sup>3 milligrams per liter nitrogen and 0.3 milligrams per liter phosphorus, as calculated on an annually averaged basis.

(20) "Floating cap" means a permitted effluent limitation applicable to an ENR facility, funded by the Bay Restoration Fund, which is calculated at the end of each calendar year using the end of the calendar year annual cumulative flow for the facility, multiplied by the applicable nitrogen or phosphorus concentration, and then converted to units of pounds per year.

(21) "Generator" means the original source of pollution reductions embodied in a credit, regardless of subsequent buyers and sellers of the credit.

(22) "Impaired waters" means waters included on the 303(d) list for nitrogen, phosphorus, or sediment.

(23) "Industrial waste" has the meaning stated in COMAR 26.08.01.01.

(24) Load.

(a) "Load" means a pound or pounds of nitrogen or phosphorus or a pound, pounds, ton, or tons of sediment discharged by a point or nonpoint source per unit of time.

(b) "Load" is calculated or estimated using pollutant concentrations and flow and converting them to pounds or tons.

(25) "Load allocation (LA)" means the portion of a receiving water's loading capacity that is attributed to one of either its existing or future nonpoint sources.

(26) "Local water quality impairment" means conditions in a nontidal river, stream or impoundment that would cause the nontidal river, stream or impoundment to be listed on the 303(d) list for nitrogen, phosphorus, or sediment.

(27) "Marketplace" means an online system where information is exchanged between credit owners or their representatives and credit buyers.

(28) "Maryland Nutrient Tracking Tool (MNTT)" means an online performance-based calculation system that enables users to analyze agricultural parcels and their management to determine eligibility and credit generation potential for participation in the Maryland Water Quality Trading Program.

(29) "Maryland Water Quality Trading Program (Program)" means the Program under this chapter that establishes the policies and procedures to support market-based trading activities to enhance water quality and to certify, verify, and register nonagricultural point and nonpoint source nitrogen, phosphorus, and sediment credits.

(30) "MS4 Permittee" means a person that has been issued a Phase I MS4 permit or a Phase II MS4 permit as defined in 40 CFR §122.26.

(31) "Municipal Separate Storm Sewer System (MS4)" has the meaning stated in 40 CFR §122.26.

(32) "National Pollutant Discharge Elimination System (NPDES) permit program" means the national system for issuing permits as designated by 33 U.S.C. §1251 et seq., its amendments, and all regulations and rules adopted under the federal Clean Water Act and State law.

(33) "Nonregulated source" means a point source or nonpoint source that is not regulated under an NPDES or State discharge permit and that is not an agricultural operation.

(34) "Nonpoint source" means a source of pollution that is not from a discernible, confined, and discrete conveyance, or other point source, as point source is defined in 33 U.S.C. §1362.

(35) "On-site sewage disposal system" means a sewage system that discharges treated effluent into the ground, such as a septic system.

(36) "Performance-based benchmark" means a wastewater point source annual effluent load which is calculated at the end of each calendar year using the end of the calendar year annual cumulative flow for the facility, multiplied by the applicable assigned nitrogen or phosphorus performance concentration converted to **[p.1192]** units of pounds per year, where the assigned annual average effluent performance concentration basis is:

(a) Equal to or less than 3.0 mg/l for nitrogen or .3 mg/l for phosphorus; and

(b) If applicable, equal to or less than the concentration basis of the permit's required floating cap, or any more stringent limitation in the permit<sup>3</sup>.

(37) "Person" has the meaning stated in COMAR 26.08.01.01.

(38) "Point source" has the meaning stated in 33 U.S.C. §1362.

(39) "Pollutant reduction" means the difference between the baseline load established for each point or nonpoint source and the load discharged to either ground or surface water after installation of the BMP.

(40) "Public funding" means federal or State grant funding.

<sup>2</sup> This should read 3 mg/L, not 4 mg/L.

<sup>3</sup> This insert simply reflects the applicable Clean Water Act requirement.

(41) "Registration" means the recordation of a credit or trade in the Registry.

(42) "Registry" means a publicly accessible online database system used by the Department and the Department of Agriculture to administer the Water Quality Trading Program by tracking credit-generating BMPs, verification activities, credits, trades, and credit usage records.

(43) "Reserve pool" means a pool of certified credits created by the application of the reserve ratio that can be used by the State as stated in Regulation .08 of this chapter.

(44) "Reserve ratio" means a 5 percent reduction in the total number of generated credits, the result rounded down to the next whole number, placed in the reserve pool at the time of certification.

(45) "Sector" means each of the following groups of persons:

- (a) Agricultural dischargers;
- (b) Stormwater dischargers;
- (c) Sewage treatment and industrial waste dischargers;
- (d) Persons having on-site sewage disposal systems; and
- (e) Forests.

(46) "Segmentshed" means a discrete land area that drains into one of the Chesapeake Bay Program tidal segments for which a TMDL is established in the Chesapeake Bay TMDL.

(47) "Source discharger" means a:

(a) Point source regulated under an NPDES or State discharge permit that has received an individual or aggregate wasteload allocation; or

(b) Nonpoint source that is assigned a share of the aggregate load allocation for an entire sector.

(48) "Stormwater" has the meaning stated in COMAR 26.17.02.02.

(49) "Stormwater point source" means a regulated stormwater discharger such as a MS4 permittee, or a NPDES Industrial stormwater permittee.

(50) "Technology-based effluent limitation (TBEL)" means a permit limit for a pollutant that is based on the capability of a treatment method to reduce the pollutant to a certain concentration or loading.

(51) "Total maximum daily load (TMDL)" means a calculation for an impaired water body of the maximum amount of a pollutant the water body can receive and still meet applicable water quality standards in accordance with federal Clean Water Act requirements.

(52) "Trade" or "trading" means a transaction, sale, or other exchange of credit through a contractual agreement between a credit generator or owner and a credit buyer.

(53) "Uncertainty ratio" means a numeric adjustment to a trade to compensate for possible discrepancies in estimated pollutant reductions resulting from inaccuracy in credit estimation methodology or variability in project performance, or to provide a margin of safety in the achievement of water quality goals.

(54) "Wasteload allocation (WLA)" has the meaning stated in COMAR 26.08.01.01.

(55) "Wastewater point source" means a sewage treatment plant or an industrial waste discharger or any other point source<sup>4</sup> that has applied for and received a NPDES or other State discharge permit issued pursuant to COMAR 26.08.04.

(56) "Watershed" means an area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel.

#### **.04 Maryland Water Quality Trading Program Framework.**

A. Pollutants Eligible for Trading. Nitrogen, phosphorus, and sediment are the only pollutants eligible for credit trading and may be traded independently or in any combination.

##### **B. Maryland Trading Regions.**

(1) Any trade shall occur within the same trading region.

(2) The Department has established the following trading regions:

- (a) Potomac River Basin;
- (b) Patuxent River Basin; and
- (c) Eastern Shore and Western Shore River Basins, including the Maryland portion of the Susquehanna Basin.

##### **C. Program Participation.**

(1) A person may only use credits generated and sold within the State to:

(a) Comply with the applicable nitrogen, phosphorus, and sediment load or wasteload allocations of the Maryland portion of the Chesapeake Bay TMDL, local TMDLs, or NPDES permit requirements; or

(b) Improve water quality.

(2) Other than persons generating credits under the provisions of COMAR 15.20.12, a person generating credits under the Maryland Water Quality Trading Program shall:

(a) Meet appropriate baseline requirements in accordance with Regulation .05 of this chapter;

(b) Install a BMP approved by the Chesapeake Bay Program that is acceptable to the Department;

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<sup>4</sup> This phrase is added in the interest of completeness, to make sure that any NPDES point source is covered by this definition.

(c) Demonstrate a load reduction below the baseline requirements that is acceptable to the Department and calculate credits in accordance with Regulation .06 of this chapter; and

(d) Submit a Certification and Registration form to the Department for credit certification in accordance with Regulation .07 of this chapter.

**D. Limitations.**

(1) This chapter does not apply to wastewater point source to wastewater point source trading.

(2) No credit shall be offered for trade except in compliance with the provisions of this chapter.

(3) Except those BMPs implemented in conformance with Special Conditions III.A.1.f of General Permit No. 12SW, Stormwater Associated with Industrial Activities, any BMP implemented to satisfy regulatory requirements, including those related to new development and redevelopment, prior to the effective date of this chapter, may not be used to generate a credit.

(4) Credits may be traded only after they have been certified, verified, and registered in accordance with this chapter or, for agricultural credits, in accordance with COMAR 15.20.12.

(5) For the purposes of this chapter, public funding may not be used to generate a credit, except:

(a) A wastewater treatment plant upgraded to ENR that accepts BRF grant funding for operation and maintenance to achieve a nitrogen discharge of 3mg/l and a phosphorus discharge of 0.3 mg/l may generate credits for performance below 3mg/l of nitrogen and below 0.3mg/l of phosphorus; or

(b) Unless otherwise prohibited by the terms and conditions of the public funding, the credits generated by any other nonagricultural BMP funded in part by public funding shall be [p.1193] prorated based on the ratio of nonpublic funding used to generate the credit to the total cost incurred to generate the credit.

(6) The Department is not responsible or liable for the performance of a credit-generating project certified pursuant to the requirements of this chapter.

(7) The acquisition of credits for compliance purposes does not eliminate any requirement to comply with local water quality standards, permits, or other legal requirements.

**E. Water Quality Trading Program Registry.**

(1) The Department, in consultation with the Maryland Department of Agriculture, shall establish and maintain the Registry.

(2) Pursuant to this chapter and COMAR 15.20.12, all certified credits shall be posted on the Registry.

(3) The inclusion of credits on the Registry or the Marketplace is not a representation by the Department or the credit seller that the credits will satisfy the specific regulatory requirements of the credit buyer.

**.05 Baseline Requirements.**

A. All baselines shall be consistent with the 2010 Chesapeake Bay TMDL and any local TMDL, as may be amended from time to time.

B. The baseline for an agricultural nonpoint source shall be determined by the Department of Agriculture in accordance with COMAR 15.20.12.

C. The baseline for a wastewater point source shall be determined by the Department based on an annual loading limit wasteload allocation established in the wastewater point source's NPDES discharge permit, and any more stringent discharge limitation required under any applicable federal, state or local law.

D. The baseline for a stormwater point source is the restoration requirement of the stormwater point source's current NPDES discharge permit, and any other discharge limitation required under any applicable federal, state or local law.<sup>5</sup>

E. Except as may be revised by subsequent versions of the Chesapeake Bay Watershed Model, the baseline for a nonregulated source shall be the pollutant load generated under the conditions that existed prior to installation of the BMP, as calculated using assessment tools consistent with the Chesapeake Bay Program modeling tools and accepted by the Department.

F. Except as may be revised pursuant to ~~by~~ subsequent versions of the Chesapeake Bay Watershed Model, the baseline load per equivalent dwelling unit for an on-site sewage disposal system is:

(1) 18.56 pounds of nitrogen per year for a system located in the Critical Area for the Chesapeake and Atlantic Coastal Bays;

(2) 11.60 pounds of nitrogen per year for a system located within 1,000 feet of surface water; and

(3) 6.96 pounds of nitrogen per year for all other systems.

**.06 Calculation of Credits.**

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<sup>5</sup> The language proposed to be added to subsections C and D simply reflects requirements of the Clean Water Act, and is consistent with MDE's definition of "baseline" in Section .03.B(7).

A. Wastewater Point Sources. Credits generated by a wastewater point source shall be based on that wastewater point source's performance as follows:

(1) Credits shall be calculated and reported under the terms of the required wastewater discharge permit at the end of each calendar year as the load remaining after subtracting actual annual effluent nutrient load from the performance-based benchmark load; and

(2) The annual effluent nutrient load shall be calculated using the end of the calendar year annual cumulative flow for the facility, multiplied by the actual effluent nitrogen or phosphorus concentration converted to units of pounds per year.

B. Stormwater Point Sources and Nonregulated Sources. Stormwater point source and nonregulated source credits shall be calculated using assessment tools consistent with the Chesapeake Bay Program modeling tools and accepted by the Department.

C. Agricultural Nonpoint Sources. Nonpoint source credits generated on agricultural land shall be calculated using the Maryland Nutrient Tracking Tool in accordance with COMAR 15.20.12.

D. On-site Sewage Disposal Systems. Nitrogen credit for an on-site sewage disposal system upgraded with nutrient removal technology is calculated by subtracting the load remaining after upgrade of the system from the system's baseline load established in accordance with Regulation .05 of this chapter.

**.07 Procedure for Certification.**

A. Credits are not valid or tradable until placed on the Registry after certification as follows:

(1) Agricultural credits are certified by the Maryland Department of Agriculture in accordance with COMAR 15.20.12.07;

(2) Wastewater point source credits are certified by the Department through issuance of an NPDES permit or permit modification<sup>6</sup>; and

(3) All other credits are certified by the Department according to §B of this regulation.

B. A person who applies to the Department for certification of a credit shall complete and sign a Certification and Registration Form provided by the Department, including:

(1) Identification of the location and segments where the BMP is being~~was~~ implemented and a map identifying the location and boundaries of the BMP;

(2) Documentation that the generator either owns the property or has the permission of the landowner to install, access, and maintain the BMP and to apply for certification of credits;

(3) A description of the BMP, including:

(a) A description of any~~the~~ permits required for its installation and evidence establishing that it was installed in accordance with the laws, regulations, and programs of applicable local, state, and federal authorities;

(b) Verification in accordance with Regulation .11 of this chapter; and

(c) A plan for maintaining the BMP during the lifespan of the credit;

(4) Supporting documentation that explains:

(a) Which tool was selected to determine the requested number of credits;

(b) How the project satisfies the baseline requirements in Regulation .05 of this chapter; and

(c) How the credits were calculated to meet the nitrogen, phosphorus, and sediment reduction amounts claimed in the application; and

(5) Any other information the Department deems necessary to review the Certification and Registration Form, and certify the credits.

C. As a condition of the Department's certification of a credit, the applicant and landowner shall agree in writing to provide the Department, verifier, and their agents with access to the BMP at all reasonable times during the lifespan of the credit.

D. Promptly after a determination by MDE or MDA that an application for approval and registration of one or more credits, including the Certification and Registration Form, includes all of the documents and information specified in this Section 07, the Department (and MDA in the case of an application from an agricultural operation) shall post on its website an announcement of the application identifying a location where the application and related documents can be inspected and copied, and allowing a period for public comments on the application of not less than 30 days following the date of publication of the

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<sup>6</sup> We believe that MDE would allow trading through a permit modification, and wanted to make that clear.

announcement. In addition, not later than the date of publication, MDE or MDA, as appropriate, shall provide the other with a copy of the application and supporting information. Comments shall be reviewed by both MDE and MDA, who shall then confer on any decision to approve and certify the credits that are the subject of the application.

E. Following the agencies' review of any public comments on the credit application, MDE or MDA may request additional information from the applicant and identify any changes that should be made to the application before it can be approved, or may reject the application and state the reasons for doing so. Following a determination by MDE or MDA that an application is complete and has satisfied the applicable requirements, that Department

D. Upon review and approval of the information submitted in the Certification and Registration Form, the Department shall assign each credit or block of credits a unique registration number and place the certified credits on the Registry.

FE. If the Department denies the Certification and Registration Form, the Department shall provide the basis for the denial to the applicant.

GF. The credit owner shall update the credit registration, in writing within 30 days, to the Department and the credit buyer, if applicable, if there is a change in:

- (1) The BMP used to generate the credit that could reasonably be expected to affect its certification; or
- (2) The ownership of the property where the BMP is located.

GH. The BMP generates credits once it is certified.

I.H. Credit generators may create listings linked to their Marketplace accounts to display certified credits they have for sale and initiate trades with potential credit buyers.

[p.1194]

I. Credit buyers may post credit needs or solicit offers using the Marketplace.

#### **.08 Trading Requirements.**

A. Credit trades may occur with or without the participation of an aggregator or broker.

B. In the event of a default in a trade contract, expiration of a credit, or suspension or revocation of a credit, the buyer using the credit remains responsible for complying with any NPDES and State discharge permit or other regulatory requirement that the credit was intended to satisfy.

C. Ratios Applicable to All Trades.

(1) Uncertainty Ratio.

(a) An uncertainty ratio of ~~2~~<sup>1</sup>:1 shall be applied to trades involving credits generated by nonpoint sources and acquired by stormwater point sources or other nonregulated sources<sup>2</sup>.

(b) An uncertainty ratio of 1:1 shall be applied to trades involving implementation of BMPs for land conservation that includes protection through an irrevocable conservation easement or other instrument attached to the property deed and recorded with the local circuit court.

(c) An uncertainty ratio of 2:1 shall be applied to trades involving credits generated by nonpoint sources and acquired by wastewater point sources, unless the generator, seller, or buyer of the credit is able to demonstrate to the Department that ~~a~~<sup>the</sup> lower ratio is justified and protective of water quality standards.

(2) Edge of Tide Ratio.

(a) No EoT numeric adjustment factor shall be applied when a credit is generated in the same segmentshed in which the credit buyer uses it.

(b) An EoT numeric adjustment factor shall be applied to normalize loads based on delivery to the mainstem of the Chesapeake Bay when a credit seller and credit buyer are located in different segmentsheds of a Maryland watershed

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<sup>7</sup> The uncertainty regarding the water quality benefits generated by a BMP implemented at a nonpoint source is the same whether the credit is used by a stormwater point source under this subsection or a wastewater point source under subsection (c). Therefore the uncertainty ratio must be 2:1 in each case. This is EPA's "expectation" as set forth in its Technical Memorandum "Accounting for Uncertainty in Offset and Trading Programs" (Feb, 12, 2014) at p.10.

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that have different EoT factors. The appropriate factor shall be calculated using assessment tools consistent with the Chesapeake Bay Program modeling tools and accepted by the Department.

(c) EoT adjustment factors for credits from wastewater point sources shall be determined by the Department based on the latest Chesapeake Bay Model used by the Department in issuing permits with trades.

(3) Reserve Ratio. A reserve ratio shall be applied to each credit when it is certified to create a reserve pool of credits that may be used by the Department to:

(a) Cover the loss of certified credits from a BMP damaged by events arising from sudden and reasonably unforeseeable events beyond the control of the person responsible for the maintenance of the BMP, including acts of God;

(b) Replace purchased credits that become unavailable due to the failure or underperformance of a BMP;

(c) Address a lack of readily available credits; or

(d) Improve the overall water quality during a year when the credits in the reserve pool are not used to support other purposes detailed in this chapter.

D. Lifespan of Certified Credits.

(1) A BMP may only generate credits when it is installed and placed into operation and all operational and maintenance guidelines are followed.

(2) Credits may be certified for more than 1 year but shall be applied annually.

(3) The Department shall include the number of years a credit is generated as part of the credit certification.

E. Local Water Quality.

(1) The use of a credit may not cause nor contribute to local water quality impairments or prevent the attainment of local water quality standards.

(2) Credits used within any impaired waters must be generated within such impaired waters ~~under~~<sup>8</sup> upstream of the credit user's discharge.

F. Prohibitions. At its discretion, the Department may prohibit the following persons from generating credits:

(1) A permittee in noncompliance with permit terms;

(2) A nonregulated source or owner of an on-site sewage disposal system that is not in compliance with COMAR 26.04.03, 26.17.01, 26.17.02, 26.17.04, 26.23, or 26.24, if applicable;

(3) An agricultural operation that is not in compliance with COMAR 15.20.12; or

(4) A person who has previously violated any provision of the Environment Article or any regulation adopted under the Environment Article.

#### **.09 Usage of Credits by Point Sources.**

A. In order to use traded credits to fulfill permit requirements, a credit buyer shall select credits that meet the limitations in this chapter, including limitations relating to credit lifespan, trading, trading regions, and local water quality standards and requirements.

B. The use of a credit shall be consistent with the credit's certification.

C. The Department shall prorate the amount of certified credits generated from any BMP for use in the year the credits are certified, while the total amount of certified credits generated from any BMP are not valid for use until the following year starting January 1.

D. Credits may not be used for the purpose of complying with technology-based effluent limitations.

E. The use of certified credits by a point source shall be subject to the terms and conditions of the permit to which the certified credits apply.

F. Permits may contain conditions on the use of certified credits, including:

(1) The extent to which the requirement of the permit may be satisfied with certified credits; and

(2) When, and from what source, certified credits may be acquired by the permittee.

#### **.10 Registration of Trades.**

A. A credit buyer shall notify the Department about each trade by filing a form provided by the Department within 15 days after the trade.

B. Within 15 days after receipt of the notification form required by §A of this regulation, the Department shall update the Registry, including the registration number for the credit, its location, duration, and the intended use of the credit.

C. The Department shall update the Registry within 30 days after receiving notice from the credit buyer of a change in the intended use of the credit.

#### **.11 Verification and Reporting Requirements.**

A. In its certification of a credit, the Department shall state the frequency at which the credits shall be verified, which shall be in accordance with local, State, and federal law and permit requirements, but shall be no less frequently than every three years.

B. Verification Requirements.

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<sup>8</sup> [Both requirements are needed to protect local water quality, as explained in our cover letter.](#)

(1) Verification of credits generated by a wastewater point source shall include a report submitted to the Department annually for approval which includes certified discharge monitoring reports, appropriate annual reports, inspections, and any other reporting terms specified within the wastewater point source permit or required by the Department.

[p.1195]

(2) Verification of credits generated by any other source shall be performed by a:

- (a) A State or county inspector;
- (b) A professional engineer registered in Maryland; or
- (c) A Department-approved verifier.

(3) Before performing any verification under subsection (2), each verifier shall satisfy the Department that he or she meets the following requirements:<sup>9</sup> ~~##~~

- (i) Has the appropriate education, expertise, and training to perform the verification;
- (ii) Does not hold an interest in the operation or entity generating the credit; and
- (iii) Was not involved in the original application or qualification of the credits.

C. Each report prepared by an inspector or verifier in accordance with §B(2) of this regulation shall include:

(1) Documentation that the BMP implemented continues to meet baseline compliance and that the credit generating BMP continues to be operated and maintained in accordance with the terms of the trading contract and the requirements of this chapter; and

(2) Confirmation that no deficiencies exist and no corrective measures are needed or a detailed description of deficiencies and required corrective actions.

D. Based on the information obtained in the verification reports, the Department shall update the Registry as necessary.

#### **.12 Public Participation.**

A. The Department shall provide notice, and an opportunity for comment and a hearing, if requested, for NPDES permits that propose to allow trading under this chapter in accordance with the federal Clean Water Act and Code of Federal Regulations for new permits or modification of existing permits, as applicable.

B. The Department shall report all credit trades by a stormwater point source permittee annually, and make the report available to the public on the Registry.

#### **.13 Enforcement.**

A. If a BMP is not performing in conformance with its certification the Department may order:

(1) Repairs or other remedies to address or eliminate any deficiencies, within a time period determined by the Department;

(2) Additional inspections; and

(3) Written substantiations that corrective measures have been taken.

B. The Department may suspend or revoke certification of a credit if:

(1) There are any violations of this chapter;

(2) A BMP is not performing in conformance with its certification;

(3) The Department determines that misleading, false, or fraudulent information was provided in the application for certification of such credit or any other submission related to such credit; or

(4) Any other action or inaction by a credit seller or credit buyer that the Department determines provides good cause to suspend or revoke such certification.

C. Within 30 days of a determination to suspend or revoke a certification, the Department shall:

(1) Issue a notice of the suspension or revocation of credit certification, including an effective date thereof, to the credit seller ~~and~~ credit buyer<sup>10</sup>; and

(2) Update the Registry to reflect the suspension or revocation.

D. A corrective action order does not preclude the Department from exercising its enforcement authority. Suspension or revocation of credit certification does not preclude any other legal action that may be taken by the Department or another public or private entity.

#### **14 Appeal Process.**

Any person aggrieved by the suspension or revocation of a credit taken in accordance with this chapter shall have the right to review in accordance with the provisions of the Administrative Procedure Act, State Government Article, Title 10, Subtitle 2, Annotated Code of Maryland.

<sup>9</sup> Consider spelling out the education and training that will be needed, as MDA did in its Agricultural Certainty Regulations at COMAR 15.20-11.07.

<sup>10</sup> It is essential that both the buyer and seller receive this notice because each of them could be adversely affected by a suspension or revocation of a credit.

BENJAMIN H. GRUMBLES  
Secretary of the Environment