

**Title 26**

**DEPARTMENT OF THE ENVIRONMENT**

**Subtitle 08 Water Pollution**

**Chapter 11 Maryland Water Quality ~~Nutrient and Sediment~~ Trading and Offset Program**

Authority: Environment Article, Title 16,

Authority: Environment Article, §§9-313, 9-315, 9-319 and 9-325, Annotated Code of Maryland<sup>1</sup>

Agriculture Article, §§8-901 and 8-904, Annotated Code of Maryland<sup>2</sup>

**Notice of Proposed Action**

The Secretary of the Environment proposes to adopt new Regulations .01 through .10 under COMAR 26.08.11 Maryland Water Quality Nutrient and Sediment Trading and Offset Program.

**Statement of Purpose**

The purpose of this action is to establish a trading and offset program to provide greater flexibility and reduce the cost of achieving the total maximum daily loads (TMDL) established by the Environmental Protection Agency (EPA) for the Chesapeake Bay. The federal Clean Water Act (CWA) sets a goal that all waters of the United States be "fishable" and "swimmable" and requires states to establish appropriate uses for their waters and to adopt water quality standards designed to protect those uses. The CWA also requires states to develop a list of waterways that are impaired by pollutants and do not meet water quality standards. For those

<sup>1</sup> Md. Code Ann., Envir. § 9-319 authorizes the Maryland Department of the Environment (MDE) to "develop comprehensive programs and plans for the prevention, control, and abatement of pollution of the waters of this State" and grants MDE the authority to adopt rules and regulations to carry this out. Md. Code Ann., Envir. §§ 9-313(a), 9-315. Additionally, Md. Code Ann., Envir. § 9-325 authorizes MDE to "adopt rules and regulations that relate to application for, issuance of, revocation of, or modification of discharge permits." So, to the extent that nutrient credits are part of discharge permits, MDE has the authority to adopt regulations to govern them.

<sup>2</sup> In Md. Code Ann., Agriculture § 8-901, the General Assembly "finds and declares that: (1) Voluntary nutrient trading and sediment trading programs provide an innovative and cost effective approach to enhance water quality and achieve additional water and air quality benefits . . ." Additionally, in § 8-904 the General Assembly acknowledges the "authority of the Department of the Environment to establish eligibility and other requirements for use of nutrient or sediment offset credits under any State or federal permit or other regulation program."

**Comment [SP1]:** I wonder if the nutrient and sediment part should be taken out so that when other pollutants are added, the name does not need to be changed over and over.

waterways placed on the impaired list, a TMDL is developed that identifies the maximum amount of a pollutant the waterway can receive and still meet the state's water quality standards. The framework for achieving the Chesapeake Bay TMDL is the development of a watershed implementation plan by the state that informs smaller-scale watershed implementation plans for jurisdictions throughout Maryland. Each jurisdiction's TMDL allocation was divided among three pollutant sources – nitrogen, phosphorus, and sediment. Jurisdictions then developed individual strategies to implement the allocations. Nutrient and sediment trading and offsets offer an attractive alternative to more traditional approaches for improving water quality and have the potential to achieve results faster and at a lower cost. The trading program addressed by these regulations expands opportunities for all point and nonpoint sources by giving them access to a water quality marketplace and flexibility in meeting and maintaining their load limits by acquiring credits and offsets generated from load reductions elsewhere.

#### **Comparison to Federal Standards**

There are no corresponding federal standard to this proposed action.

#### **Estimate of Economic Impact**

The proposed action has a positive economic impact.

#### **Economic Impact on Small Businesses**

The proposed action has a positive economic impact on small businesses. [The development of a public marketplace for nutrient trading provides new employment opportunities for individuals and organizations offering services to support an emerging environmental restoration economy. Beyond the benefit of retaining and creating agricultural jobs and generating supplemental farm income, the assessment and verification of credits, the need for annual inspections, the design and installation of structures and systems, and the acquisition, management, and re-sale 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.

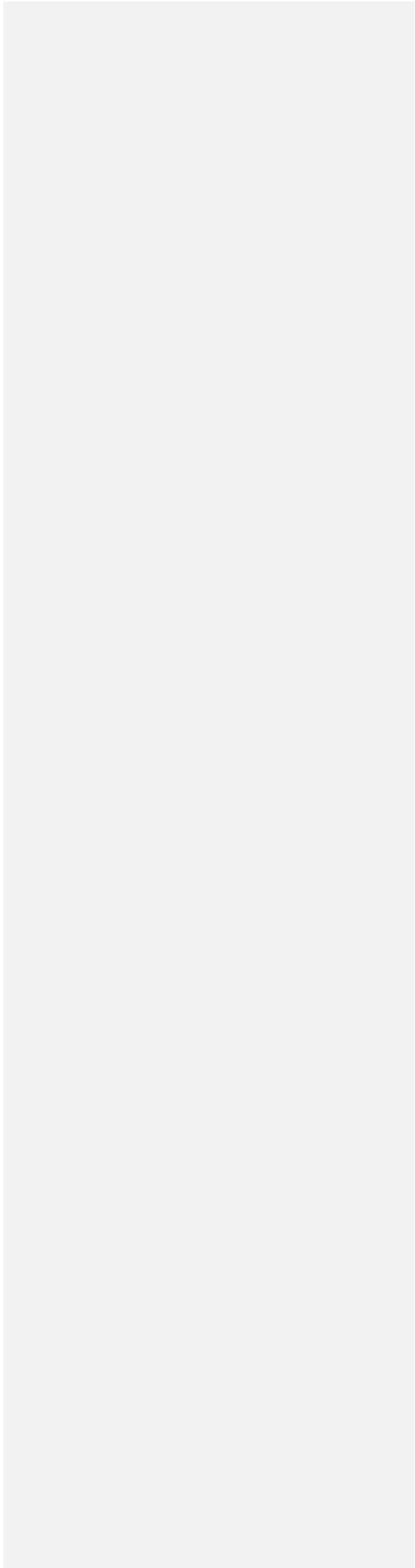
**Opportunity for Public Comment**

The Maryland Department of the Environment will hold a public hearing on the proposed regulations at 6:00 PM on \_\_\_\_\_, 2017 at its Montgomery Park Headquarters located at 1800 Washington Boulevard, Baltimore, Maryland 21230. Comments may be mailed to Gary Setzer, Office of the Secretary, Maryland Department of Environment, 1800 Washington Boulevard, Suite 745, Baltimore, MD 21230. Comments may also be provided by contacting Mr. Setzer by telephone at 410-537-3744 or by email at [gary.setzer@maryland.gov](mailto:gary.setzer@maryland.gov). Comments will be accepted through \_\_\_\_\_, 2017.

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1 26.08.11 New Material (06/07/17)

2 **.01 Purpose.**

3 A. The purpose of this chapter is to establish a Water Quality Nutrient and Sediment  
4 Trading and Offset Program that attracts the participation of the private sector and contributes  
5 to Maryland's effort to protect and restore the water resources of the Chesapeake Bay and its  
6 tributaries. Nutrient and sediment trading offers a promising alternative to more traditional  
7 approaches for improving water quality and has the potential to achieve results faster and at a  
8 lower cost. The program affords expanded opportunities for point source permittees by creating  
9 a water quality marketplace and providing flexibility to meet and maintain pollutant load limits  
10 by acquiring credits or offsets generated by pollutant load reductions elsewhere in the  
11 Chesapeake Bay watershed.

12 **.02 Scope.**

13 A. This chapter establishes Maryland's Water Quality Nutrient and Sediment Trading  
14 and Offset Program; defines the terms used in the program; describes the structure of the  
15 program; identifies the persons eligible to participate in the program; and sets forth establishes  
16 the criteria under which the program will operate, including the generation, certification and  
17 verification of credits, monitoring and reporting requirements, and compliance and enforcement  
18 procedures.

19 **.03 Definitions.**

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

21 B. Terms Defined.

22 (1) "Aggregator" or "Broker" means a person or entity that collects and compiles  
23 credits from individual point and nonpoint sources to resell them.

24 (2) "Agronomic Practice" has the meaning stated in COMAR 15.20.12.02.B.(2).

25 (3) "Agricultural Land" or "Farm" has the meaning stated in COMAR  
26 15.20.12.02.B.(3).

27 (4) "Agricultural operation" or "Operation" has the meaning stated in COMAR  
28 15.20.12.02.B.(4).

29 (5) "Animal Waste Management System Plan" has the meaning stated in COMAR  
30 15.20.12.02.B.(5).

1 (6) “Baseline” means the nutrient and sediment control requirements, practices,  
2 actions, loading rates, or levels of reductions that must be achieved before a credit seller  
3 becomes eligible to enter the trading market and sell credits.

4 (7) “Bay Restoration Fund (BRF)” means the fund created by Environment Article,  
5 §9-1605.2, Annotated Code of Maryland

6 (8) Best management practice (BMP).

7 (a) “Best management practice” means a practice, or combination of  
8 practices, that is determined to be an effective and practicable method of preventing or reducing  
9 the amount of pollution generated by point or nonpoint sources.

10 (b) BMPs include agricultural and urban structural and nonstructural  
11 pollution control, operation, and maintenance procedures and practices that prevent or reduce  
12 pollutants.

13 (9) “Cap” means a legally enforceable aggregate mass load limit contained in a  
14 discharge permit.

15 (10) “Capacity credits” means credits generated by a wastewater treatment plant by  
16 maintaining flow at less than the design flow basis on which the assigned nutrient wasteload  
17 allocation is based.

18 (11) “Capacity management plan” means the guidance document published by the  
19 Department to assist local governments and other community wastewater treatment plant owners  
20 determine plant capacity and to track the remaining available capacity for allocation.

21 (12) Chesapeake Bay Program (CBP).

22 (a) “Chesapeake Bay Program” means the regional partnership that leads  
23 and directs Chesapeake Bay restoration and protection.

24 (b) CBP partners include federal and State agencies, local governments, non-  
25 profit organizations, and academic institutions.

26 (13) “Chesapeake Bay watershed model (CBWM)” means the latest model adopted  
27 by the Chesapeake Bay Program used to simulate loading and transport of nitrogen,  
28 phosphorus, and sediment from pollutant sources throughout the Chesapeake Bay watershed and  
29 provide estimates of watershed nitrogen, phosphorus, and sediment loads resulting from various  
30 management scenarios.

1 (14) *Credit.*

2 (a) *“Credit” means a measured or estimated unit of pollutant reduction per*  
3 *unit of time at the discharge location that can be generated and sold or exchanged in a trade.*

4 (b) *The resulting credit is expressed in pounds per year for total nitrogen,*  
5 *pounds per year for total phosphorus, or tons per year for total suspended solids.*

6 *(c) A credit may be designated as “term” (having a duration of one to multiple*  
7 *years) or “permanent” (having a perpetual duration), depending of the practice used to generate*  
8 *the credit and its certification in accordance with the provisions of this chapter.*

9 (15) *“Delivered load” means the amount of a pollutant delivered to the tidal waters*  
10 *of the Chesapeake Bay or its tidal tributaries from an upstream point of discharge or runoff after*  
11 *accounting for permanent reductions in pollutant loads due to natural in-stream processes in*  
12 *nontidal rivers.*

13 (16) *Delivery ratio.*

14 (a) *“Delivery ratio” means a discount factor applied to point and nonpoint*  
15 *sources to compensate for a pollutant’s travel over land and in water.*

16 (b) *Delivery ratios account for the rate at which pollutants are reduced*  
17 *through natural processes, such as hydrolysis, oxidation, and biodegradation, on their way*  
18 *through tributaries to the water body of concern.*

19 (17) *“Department” or “MDE” means the Maryland Department of the Environment.*

20 (18) *“Edge of segment load” or “EOS load” means the amount of land-applied*  
21 *nutrients expected to reach the surface waters at the boundary of a Chesapeake Bay watershed*  
22 *model segment through surface runoff, groundwater flow, or atmospheric deposition.*

23 (19) *“Enhanced Nutrient Removal (ENR)” means a wastewater treatment*  
24 *technology that is capable of reducing the nitrogen and phosphorus concentrations in*  
25 *wastewater effluent to achieve permit limits equivalent to concentrations of no more than 4*  
26 *milligrams per liter total nitrogen and 0.3 milligrams per liter total phosphorus, as calculated*  
27 *on an annually averaged basis.*

28 (20) *“Expanding or Expanded Point Source” means a point source requiring a*  
29 *higher wasteload allocation than its existing wasteload allocation.*

30 (21) *“Floating Cap” means an effluent limitation applicable to an enhanced nutrient*  
31 *removal facility which is calculated at the end of each calendar year using the actual annual*

1 flow for the facility times a permit-based total nitrogen or total phosphorus concentration  
2 converted to units of pounds per year.

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4 (22) Generator.

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

7 (b) Generators may be facilities or operations with a point source discharge  
8 or a non-point discharge.

9 (23) "Impervious surface" means any surface that does not allow stormwater to  
10 infiltrate into the ground.

11 (24) "Includes" means includes or including by way of illustration and not by way of  
12 limitation.

13 (25) "Significant industrial discharger" means an industrial discharger with a  
14 minimum total nitrogen discharge of 75 pounds per day or a minimum total phosphorus  
15 discharge of 10 pounds per day and an annual wasteload allocation included in a discharge  
16 permit as an annual loading limit.

17 (26) "Minor or non-significant wastewater treatment plant" means a wastewater  
18 treatment plant treating domestic sewage with a design capacity of less than 500,000 gallons per  
19 day.

20 (27) "Minor permit modification" means a revision to a discharge permit issued to a  
21 major or minor facility that does not require a formal public participation process as part of the  
22 permit application review.

23 (28) "Municipal separate storm sewer system (MS4)" means a municipal separate  
24 storm sewer as defined in 40 C.F.R. § 122.26(b)(8).

25 (29) "National pollutant discharge elimination system (NPDES) permit program"  
26 means the national system for issuing permits as designated by 33 U.S.C. §1251 et seq., its  
27 amendments, and all regulations and rules adopted under the federal Act.

28 (30) "New point source" means a point source with no wasteload allocation in the  
29 2010 Chesapeake Bay Total Daily Maximum Loads.

30 (31) "Nonpoint source" means a source of pollution that is not a point source.

1           (32) “Offset” means load reductions that are acquired by a new or expanded point  
2 source or a nonpoint source from other point or nonpoint sources.

3           (33) “Onsite sewage disposal system (OSDS)” means a sewage system that  
4 discharges treated effluent into the ground, such as a septic system.

5           (34) Performance credits.

6           (a) “Performance credits” means credits based on the difference between the  
7 existing floating cap and:

8           (i) A floating cap based on actual or projected optimized annual  
9 average effluent concentrations; or

10           (ii) A concentration based annual loading benchmark based on the new  
11 projected optimized annual average effluent concentrations.

12           (b) Performance credits shall not be based on assumed improved  
13 performance beyond demonstrated historical performance levels unless data from a similar  
14 representative facility is available and relevant.

15           (35) “Person” has the meaning stated in COMAR 26.08.01.01.B.(62).

16           (36) “Phase I MS4” means a large or medium municipal separate storm sewer  
17 system as defined in 40 C.F.R. § 122.26(b)(4) and (7).

18           (37) “Phase II MS4” means a small municipal separate storm sewer system as  
19 defined in 40 C.F.R. § 122.26(b)(16) that is required to be regulated pursuant to 40 C.F.R. §  
20 122.32 or is designated to be regulated pursuant to 40 C.F.R. § 122.26(a)(9).

21           (38) Point source.

22           (a) “Point source” means any discernible, confined and discrete conveyance,  
23 from which pollutants are or may be discharged.

24           (b) Point source includes any pipe, ditch, channel, tunnel, conduit, well,  
25 discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or  
26 other floating craft.

27           (c) Point source does not include agricultural stormwater discharges and  
28 return flows from irrigated agriculture.

29           (39) “Pollutant reduction” means the difference in nutrient or sediment discharges  
30 to surface or ground water achieved by best management practices or technical upgrades,  
31 compared to the current load or the applicable baseline after meeting eligibility requirements.

1 (40) “Registry” means the publicly accessible online database that contains details  
2 about pollution reduction credits and trades.

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5 (41) “Reserve ratio” means the application of a specified percentage to the total  
6 number of credits in a trade to create a portion that is set aside into a pool or cache of credits.

7 (42) “Significant wastewater treatment plant” means a publicly owned treatment  
8 works or a federally- or privately-owned sewage treatment plant with a design capacity of  
9 500,000 gallons per day or greater, or an industrial point source with daily discharge loadings  
10 of nitrogen or phosphorus equivalent to a significant publicly owned secondary treatment works.

11 (43) “Stormwater” has the meaning stated in COMAR 26.17.02.02.

12 (44) “Stormwater point source” means a regulated MS4 stormwater discharger such  
13 as a Phase I MS4 or a Phase II MS4 entity.

14 (45) “Technology-based effluent limitation (TBEL)” means a permit limit for a  
15 pollutant that is based on the capability of a treatment method to reduce the pollutant to a  
16 certain concentration.

17 (46) “Third Party” means any entity or person that assists in facilitating credit  
18 exchanges or verifying best management practices.

19 (47) “Total Maximum Daily Load (TMDL)” means a calculation for an impaired  
20 waterbody of the maximum amount of a pollutant the waterbody can receive and still meet  
21 applicable water quality standards.

22 (48) “Trading” means a transaction, sale, or other exchange through a contractual  
23 agreement between a credit generator and a credit buyer. credit generators and credit buyers  
24 that have been authorized or certified by the appropriate State agency or its designee.

Comment [SP2]: Do we authorize or certify buyers and sellers? Trade approval process?

25 (49) Trading ratio.

26 (a) “Trading ratios” means numeric values used to address various forms of  
27 risk and uncertainty by adjusting the available credits for the seller or the credit obligation of  
28 the buyer.

29 (b) Trading ratios include delivery, reserve, retirement and uncertainty ratios.

30 (50) “Uncertainty ratio” means a ratio that is applied to compensate for possible  
31 discrepancies in estimated pollution reductions resulting from inaccuracy in credit estimation

1 methodology or variability in project performance, or to provide a margin of safety in the  
2 achievement of water quality goals.

3 (51) “Wasteload allocation (WLA)” means the portion of receiving water’s loading  
4 capacity that is allocated to one of its existing or future point sources of pollution.

5 (52) “Wastewater point source” means a sewage treatment or industrial facility that  
6 has applied for and received a National Pollutant Discharge Elimination System permit.

7 .04 Structure

8 A. The Maryland Water Quality Trading Program is voluntary and relies on a market-  
9 based approach to offer economic incentives for pollutant reductions from point and nonpoint  
10 sources.

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11 B. The State of Maryland does not transact trades but provides the infrastructure to  
12 support trading through an online suite of tools that includes the Maryland Nutrient Tracking  
13 Tool used by agricultural credit generators; the central Registry; and the optional Marketplace.

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14 C. Credit prices are not set by the State or any other entity not party to the trade, but  
15 will be determined through the forces of supply and demand and negotiations between the buyer  
16 and the seller

17 D. Although trading may take place directly between any combination of eligible  
18 persons, aggregators and brokers may function as intermediaries subject to bonding/insurance  
19 requirements: what???

Comment [SP3]: Should these be enumerated?

20 What about contracts, trade approval???

Comment [SP4]: Should some regulations about these be included? See Section 5 of the Manual

21 **.054 Eligibility.**

22 A. Any person within the State of Maryland, whether regulated or not regulated by the  
23 Department, may create, sell, purchase, retire, or otherwise acquire and use credits generated  
24 under the Maryland Water Quality Nutrient and Sediment Trading and Offset Program for the  
25 purpose of complying with TMDL allocations or NPDES permit requirements.

Comment [SP5]: What about corporations or NGOs that would buy credits solely to retire them?

26 B. The Department requires that regulated persons participating in the Maryland Water  
27 Quality Nutrient and Sediment Trading and Offset Program possess an effective discharge  
28 permit authorizing trading with point and nonpoint sources that allows:

29 (1) The purchase or acquisition of credits to meet and maintain wastewater point  
30 source TMDL wasteload allocation;

1           (2) *The purchase or acquisition of credits to meet a stormwater point source*  
2 *permit-specified portion of their Chesapeake Bay nutrient and sediment reduction requirement;*  
3 *or*

4           (3) *The generation and sale or exchange of credits to eligible point and nonpoint*  
5 *sources.*

6       C. *The Department requires that credits generated by non-regulated sources and septic*  
7 *sectors participating in the Maryland Water Quality Nutrient and Sediment Trading and Offset*  
8 *Program be certified in accordance with this chapter.*

9       D. *Eligible participants in the trading program include:*

10           (1) *Stormwater point sources;*

11           (2) *Industrial stormwater dischargers;*

12           (3) *Wastewater point sources;*

13           (4) *Non-regulated sources;*

14           (5) *Third parties;*

15           (6) *Persons engaged in a practice that is approved by the Chesapeake Bay*  
16 *Program and removes nutrients or sediment from the environment;*

17           (7) *Persons with certified credits approved by the Maryland Department of*  
18 *Agriculture under the Agricultural Nutrient and Sediment Credit Certification Program;*

19           (8) *Persons with certified credits from non-regulated sources in accordance with*  
20 *the provisions of this chapter;*

21           (9) *Persons with certified credits resulting from the hook-up of onsite septic systems*  
22 *to a wastewater treatment plant;*

23           (10) *Persons that aggregate certified agricultural, non-regulated, or onsite sewage*  
24 *disposal system credits or approved point source credits for future sale.*

25       E. *The Department may exclude the following persons from participation in the*  
26 *Maryland Water Quality Nutrient and Sediment Trading and Offset Program:*

27           (1) *Permittees in significant noncompliance with their permit;*

28           (2) *Non-regulated sources or onsite sewage disposal system owners that are in*  
29 *noncompliance with COMAR 26.17.02, 26.04.03, 26.23 or 26.24; or*

30           (3) *Agricultural operations that do not comply with COMAR 15.20.12.*

31 | **.065 General Policies.**

1 A. Total nitrogen, total phosphorus, and total suspended solids are the pollutants  
2 eligible for trading under the Maryland Water Quality Nutrient and Sediment Trading and Offset  
3 Program and may be traded independently or in any combination.

4 B. Trading may not cause nor contribute to local water quality impairments, prevent the  
5 attainment of local water quality standards, or violate water quality standards.

6 (1) Where necessary to ensure compliance with local water quality standards, the  
7 exchange of credits in an area within the Chesapeake Bay Watershed subject to an approved  
8 local TMDL for total nitrogen, total phosphorus, or total suspended solids with allocations more  
9 stringent than the Chesapeake Bay Watershed TMDL shall be limited to those credits generated  
10 upstream of where the discharge reaches impaired waters.

11 (2) The trading restriction established in B.(1) of this section shall not apply should  
12 it be demonstrated to the Department's satisfaction that the water quality impairment is not likely  
13 caused by nutrients or sediment.

14 C. Each source must satisfy the baseline established in accordance with this chapter or  
15 established in its permit before generating credits using a performance-based or practice-based  
16 method.

17 D. Federal, State, and local government grant funding may be used to meet the trading  
18 baseline.

19 E. Credits may be generated using practices that reduce total nitrogen, total  
20 phosphorus, or total suspended solids and are accepted by the Chesapeake Bay Program.

21 (1) Before a credit is available for purchase it must be certified by the:

22 (a) Department through the issuance of a permit;

23 (b) Department through its Water Quality Nutrient and Sediment Trading and  
24 Offset Program; or

25 (c) Department of Agriculture through its Nutrient and Sediment Credit  
26 Certification Program.

27 (2) Credits shall be quantified using methodologies consistent with appropriate  
28 assumptions and provisions of the Chesapeake Bay TMDL and the Chesapeake Bay Watershed  
29 Model.

30 (3) For NPDES and State discharge regulated permittees, loads discharged below  
31 the permit established baselines are considered a credit generating practice.

**Comment [SP6]:** Is this necessary if everyone has to meet a baseline or the more stringent of a State or Bay TMDL to be eligible to sell credits?

1 (4) Credits are generated from certified projects or practices and are valid for one  
2 calendar year (January through December) and cannot be banked for future years.

3 (a) Credits may be used only during the year they are generated.

4 (b) The total estimated annual credits generated from any practice installed  
5 within a given year will be considered to be generated the following year starting January 1.

6 (5) Permanent credits are available in perpetuity and, once verified upon project  
7 completion, do not require recertification, but may be verified annually, except:

8 (a) If credits are generated from converting on-site septic to a permanent  
9 hookup to a wastewater treatment plant; or

10 (b) If credits are generated from a change to the landscape that is  
11 permanently protected by an easement or other legal instrument that conveys with the land.

12 (6) Permittees are required to secure credits in perpetuity or the term of their  
13 permit and replace expired credits under approved trades with new credits to maintain load  
14 reductions achieved in previous years.

15 (7) The Department shall apply a reserve ratios ~~annually~~ to all trades of point or  
16 nonpoint sources at the time of sale to create a reserve with priority of use given to the sector  
17 that created the reserve.

18 (a) Reserve ratios can be used to:

19 (i) Address a lack of readily available term or permanent credits for  
20 new or expanded point sources in need of offsets at startup; or

21 (ii) Improve the overall water quality during a year when the reserve is  
22 not used ~~for the above purpose to support other situations~~.

23 (b) ~~Although r~~Reserve ratios may vary by sector and ~~may~~ be adjusted over  
24 time, at present a 5 percent reserve ratio shall be applied to each credit generated by all sectors.

25 (c) The cost of the additional credits to create the reserve shall be paid by the  
26 buyer/seller.

27 (8) ~~All c~~Credits will be documented, tracked, and reported, ~~and accessible~~ to the  
28 public through the Registry.

29 F. Trading Regions.  
30

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Comment [SP7]: Pick one!

1           (1) *The Department has establish the following trading regions necessary to attain*  
2 *the water quality standards for the tidal waters of the Chesapeake Bay, while also considering*  
3 *the potential effect on local water quality standards:*

- 4           (a) *Potomac River Basin;*
- 5           (b) *Patuxent River Basin; and*
- 6           (c) *Eastern Shore and Western Shore River Basins, including a portion of the*  
7 *Susquehanna watershed.*

8           (2) *The Department shall reevaluate the trading regions as necessary to reflect*  
9 *improvements in modeling or as monitoring data warrants, or as recommended by the*  
10 *Chesapeake Bay Program.*

11           G. *Compliance and enforcement of the Maryland Water Quality Nutrient and Sediment*  
12 *Trading and Offset Program shall be in accordance with the Environment Article, §§9-334*  
13 *through 9-344, Annotated Code of Maryland.*

14 **.076 Public Participation.**

15           A. *The Maryland Water Quality Nutrient and Sediment Trading and Offset Program has*  
16 *been integrated into the NPDES and State discharge permit process to ensure transparency and*  
17 *tracking of point source credits.*

18           (1) *The public notice procedures established for draft permits in the Environment*  
19 *Article, Title 1, Subtitle 6, Annotated Code of Maryland provide an opportunity to comment on*  
20 *tentative determinations to issue a permit, including any trading proposed by the applicant that*  
21 *may result in the sale or purchase of credits.*

22           (a) *The Department shall state in the public notice when any conditions*  
23 *allowing trading have been included in the draft permit.*

24           (b) *When a permit is being revised to incorporate trading, the public notice*  
25 *required for the permit renewal or major modification shall specify that trading is being*  
26 *proposed in the draft permit.*

27           (2) *NPDES or state discharge permits that specifically or conditionally authorize*  
28 *trading and have already been subject to public comment during the draft permit public process*  
29 *do not require additional public outreach.*

1 | B. *In addition to the information detailed on the public Registry, all credit acquisitions*  
2 | *and purchases by a MS4 permittee will be reported in annual reports and made available to the*  
3 | *public by posting them on the MS4 jurisdiction's website.*

Comment [SP8]: Or, just the Registry can be used.

4 | **.087 Wastewater Point Source Cap Management and Trading.**

5 | A. *Wastewater point source trades shall be implemented and enforced through permits*  
6 | *under the National Pollution Discharge Elimination System Permit Program and State*  
7 | *Discharge Permit Program.*

8 | (1) *A wastewater point source is not eligible to trade until:*

9 | (a) *Wasteload allocations, consistent with the local and 2010 Bay TMDL or*  
10 | *State TMDLs, are adopted in the facility's discharge permit; and*

11 | (b) *The facility is in compliance with its wasteload allocation and other*  
12 | *pertinent permit requirements as determined by the Department.*

13 | (2) *A wastewater point source seeking to sell credits shall:*

14 | (a) *Demonstrate that the sale of credits or trade is consistent with the*  
15 | *approved County Water and Sewerage Plan; and*

16 | (b) *Evaluate the impact of the sale or trade on current and projected sewer*  
17 | *allocations.*

18 | (3) *New or expanding wastewater treatment facilities.*

19 | (a) *A new or expanding wastewater treatment facility with no allocation in the*  
20 | *2010 Bay TMDL is required to either obtain an existing allocation through trading or otherwise*  
21 | *offset the loadings from the new facility or the increased loadings from the expanding facility.*

22 | (b) *A new or expanding wastewater treatment facility seeking to obtain credits*  
23 | *to offset a discharge shall:*

24 | (i) *Demonstrate that it has secured the contractual right to credits for at*  
25 | *least two full five year permit terms; and*

26 | (ii) *Submit a plan showing how it intends to acquire the necessary*  
27 | *credits for at least 10 years beyond the two permit terms for a total planning horizon of 20 years.*

28 | (4) *Multiple facilities within a watershed may be covered by a bubble or overlay*  
29 | *permit that is issued with one nutrient loading cap to:*

30 | (a) *An owner with multiple facilities operated in the watershed; or*

1 (b) Multiple owners in a watershed electing to form an association and obtain  
2 a single permit as co-permittees.

3 ~~(5) A 5 percent reserve ratio shall be applied to each point source generated credit.~~

4 B. Baseline Calculations. The baseline for generating credits for wastewater point  
5 source trading is the annual loading limit wasteload allocation adopted in the discharge permit;  
6 except that wastewater point sources generating credits to be used by MS4 stormwater point  
7 sources will be restricted to performance-based credits, determined using concentration-based  
8 benchmarks.

9 (1) Significant municipal wastewater treatment plants.

10 (a) Significant municipal trading baselines are based on:

11 (i) A design flow capacity consistent with the approved local water and  
12 sewer plan as of April 30, 2003; and

13 (ii) A discharge with an annual average concentration of no more than  
14 4.0 mg/l TN and 0.3 mg/l TP achieved through ENR treatment.

15 (b) Local TMDLs requiring more stringent baselines are applied as  
16 additional limits in the discharge permit where applicable.

17 (2) Minor municipal wastewater treatment plants.

18 (a) A minor wastewater treatment plant is not:

19 (i) Considered to have a specific nutrient load allocation except where  
20 it has been included in a discharge permit as a wasteload allocation.

21 (ii) Eligible to participate in trading unless an applicable wasteload  
22 allocation is included in a discharge permit as a permit limitation.

23 (b) Minor dischargers that propose to generate credits shall modify their  
24 permit to include wasteload allocations, and implement nutrient upgrades to meet and comply  
25 with assigned permit requirements.

26 (c) Trading baselines for upgraded municipal minors shall be based on a  
27 design capacity at the time of the upgrade.

28 (d) Trading baselines for municipal minors that did not utilize the Bay  
29 Restoration Fund to upgrade their facility shall not exceed either:

30 (i) The previously assigned 2004 Point Source Tributary Strategy total  
31 nitrogen and total phosphorus loading goals for the facility; or

1 (ii) If greater than 6,100 pounds per year total nitrogen load cap and  
2 457 pounds per year total phosphorus load cap, then no more than 50 percent of the amount that  
3 is above 6,100 pounds per year total nitrogen load cap and 457 pounds per year total  
4 phosphorus load cap.

5 (iii) The remaining 50 percent that is in excess of 6,100 pounds per year  
6 of total nitrogen and 457 pounds per year of total phosphorus shall be deposited into the State's  
7 reserve pool to be reallocated by the Department on case-by-case basis.

8 (e) Trading baselines for municipal minors that utilized the Bay Restoration  
9 Fund to upgrade their facility may not exceed either:

10 (i) The previously assigned 2004 Point Source Tributary Strategy total  
11 nitrogen and total phosphorus loading goals for the facility; or

12 (ii) 6,100 pounds per year total nitrogen load cap and 457 pounds per  
13 year total phosphorus load cap, whichever is less.

14 (iii) The remaining allocation that is in excess of 6,100 pounds per year  
15 of total nitrogen and 457 pounds per year of total phosphorus will revert back to the State as a  
16 reserve and may be reallocated by the Department on case-by-case basis.

17 (3) Groundwater dischargers may participate in nitrogen trading with other point  
18 sources once a cap for nitrogen is included in the State groundwater permit as a wasteload  
19 allocation and a methodology has been established for the quantification of delivered load.

20 (4) Significant industrial dischargers. Trading baselines for significant industrial  
21 facilities are based on a combination of historical performance levels, the amount of loading  
22 reductions already achieved since the initial baselines established in 1985, and establishment on  
23 a case-by-case basis of additional potential loading reductions.

24 (5) Minor industrial dischargers may enter into trading upon inclusion of the  
25 appropriate baseline wasteload allocation as an effluent limit in their discharge permit.

26 C. Enforcement. Verification and enforcement of the trading provisions of the permit  
27 shall be in accordance with the Environment Article, §§ 9-334 through 9-344, Annotated Code of  
28 Maryland, and include a review of certified discharge monitoring reports, appropriate annual  
29 reports, inspections, and any other reporting terms specified within the permit.

30 **.098 MS4 Stormwater Point Source Trading.**

**Comment [SP9]:** If these lbs are treated as credits, they will need to be put into the system by assigning them registration numbers and they will need to be retired annually like the rest of the reserve credits.

**Comment [SP10]:** If these lbs are treated as an allocation, they do not necessarily need to be considered credits. Think about it.....

1           A. *MS4 stormwater point source trades shall be implemented and enforced through*  
2 *permits issued under the Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland*  
3 *and the Department's delegated authority under the Federal Act.*

4           (1) *MS4 permittees may only enter into a trade or purchase credits if the use of*  
5 *trading is specifically authorized under the terms of the MS4 permit.*

6           (a) *Permittees are eligible to acquire credits if no unaddressed permit*  
7 *violations exist that are considered by the Department to be significant non-compliance.*

8           (b) *Permittees may treat a permit-specified portion of their permit*  
9 *requirements through trading with wastewater point sources, agricultural nonpoint sources, or*  
10 *non-regulated sources.*

11           (i) *Permittees must acquire credits for total nitrogen, total phosphorus,*  
12 *and total suspended solids to meet Chesapeake Bay nutrient and sediment reduction*  
13 *requirements.*

14           (ii) *Credits may be acquired at any time during the permit term to*  
15 *contribute to a permittee's restoration requirement provided the credits conform to the schedule*  
16 *specified in the permittee's approved restoration plan.*

17           (iii) *Trading with wastewater point sources is restricted to wastewater*  
18 *performance credits only determined in accordance with this chapter.*

19           (iv) *Permittees may acquire wastewater point source capacity credits if*  
20 *trading market with other sources, including agriculture, does not reasonably meet the demand*  
21 *in a reliable and cost effective manner.*

22           (c) *Permittees must acquire credits in perpetuity or replace expired term*  
23 *credits under approved trades with new credits or eligible stormwater management best*  
24 *management practices of equivalent nutrient and sediment reductions to maintain the level of*  
25 *restoration achieved in previous years.*

26           (d) *In the event of a default in a trade contract or the invalidation of credits,*  
27 *the MS4 permittee using those credits remains responsible for complying with MS4 permit*  
28 *requirements that would apply if the trade had not occurred.*

29           (2) *Reporting.*

30           (a) *MS4 permittees shall report the number of acquired credits and the source*  
31 *of the credits in annual reports submitted to the Department.*

1 (b) Reports shall include credit transactions, including

2 (i) Proof of nonpoint source credit purchases, including the number of  
3 acquired credits and their registration numbers

4 (ii) Demonstration that the information is clearly posted on the web-  
5 based ~~R~~registry.

6 (c) Reports shall be available to the public by posting them on the  
7 jurisdiction's website.

8 ~~.1009~~ **Generation and Acquisition of Agricultural Credits.**

9 The requirements and standards for the generation and certification of nonpoint source nutrient  
10 and sediment credits on agricultural land are set forth in the Agricultural Nutrient and Sediment  
11 Credit Certification Program in COMAR 15.20.12. The credit certification program is designed  
12 to reduce the amount of nitrogen, phosphorus, and sediment entering the Chesapeake Bay and its  
13 tributaries through the support of a market-based, water quality strategy embodied in the  
14 Maryland Water Quality Nutrient and Sediment Trading and Offset Program implemented by the  
15 Department.

16 **.10 Generation and Acquisition of Credits by Non-Regulated Sources.**

17 A. Non-regulated sources include:

18 (1) Rural areas of the State that are not:

19 (a) Regulated by other NPDES point source discharge permits, or

20 (b) Determined to be agricultural land use by the Maryland Department of  
21 Agriculture.

22 (2) Small MS4s not regulated by the federal NPDES program.

23 (3) Onsite sewage disposal systems not regulated under COMAR 26.04.02.07.

24 B. Credit Generation.

25 (1) All best management practices implemented for the generation of nutrient and  
26 sediment credits by non-regulated sources shall:

27 (a) Be in conformance with the practices and criteria found in the most recent  
28 versions of:

29 (i) Maryland's Stormwater Design Manual, or

30 (ii) Maryland's Accounting for Stormwater Waste Load Allocations and

31 *Impervious Acres Treated.*

1 (b) Be approved by the appropriate review authority and inspected,  
2 maintained, and enforced in accordance with:

- 3 (i) COMAR 26.17.01 for erosion and sediment control;
- 4 (ii) COMAR 26.17.02 for stormwater management;
- 5 (iii) COMAR 26.17.04 for construction on nontidal waters and  
6 floodplains;
- 7 (iv) COMAR 26.23 for nontidal wetlands;
- 8 (v) COMAR 26.24 for tidal wetlands; or
- 9 (vi) COMAR 26.04.02.07 for onsite sewage disposal systems.

10 (2) Permanent nitrogen credits generated from converting on-site septic to a  
11 permanent hookup to an ENR wastewater treatment plant shall not exceed:

- 12 (a) 9.28 pound per year in Critical Area;
- 13 (b) 5.8 pound per year within 1,000 feet of any perennial surface water; or
- 14 (c) 3.48 pound per year in all other areas of the Chesapeake Bay

15 ~~watershed~~watershed.

16 C. Credit Determination and Verification. All total nitrogen, total phosphorus, and total  
17 suspended solid credits generated through the implementation of best management practices  
18 shall be determined and verified using:

19 (1) The latest version of Maryland's ~~BayFast~~BayFAST modeling program for  
20 calculating nutrient and sediment load reductions to the Bay;

21 (2) The latest version of the Maryland Nutrient Tracking Tool as specified in  
22 COMAR 15.20.12.05; or

23 (2) Any accounting methods and procedures as stipulated in the General Policies of  
24 COMAR 26.08.11.05.

25 D. Credit Acquisition and Reporting.

26 (1) Regulated MS4s. All nutrient and sediment credits generated by non-regulated  
27 sources shall be acquired and reported by a regulated MS4 in accordance with COMAR  
28 26.08.11.08 of this chapter.

29 (2) Non-Regulated Sources. Non-regulated sources may acquire credits for total  
30 nitrogen, total phosphorus, and total suspended solids to meet voluntary Chesapeake Bay  
31 nutrient and sediment reduction goals and be reported in accordance with COMAR 26.08.11.08.