

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 Maryland¹

Agriculture Article, §§8-901 and 8-904, Annotated Code of Maryland²

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

¹ 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.

² 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."

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.

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. 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 have 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; identifies the persons eligible to*
15 *participate in the program; and establishes the criteria under which the program will operate,*
16 *including the generation, certification and verification of credits, monitoring and reporting*
17 *requirements, and compliance and enforcement procedures.*

18 **.03 Definitions.**

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

20 B. *Terms Defined.*

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

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

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

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

28 (5) *"Animal Waste Management System Plan" has the meaning stated in COMAR*
29 *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.

31

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

10 (16) *Delivery ratio.*

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

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

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

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

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

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

27 (21) *“Floating Cap” means an effluent limitation applicable to an enhanced nutrient*
28 *removal facility which is calculated at the end of each calendar year using the actual annual*
29 *flow for the facility times a permit-based total nitrogen or total phosphorus concentration*
30 *converted to units of pounds per year.*

31

1 (22) *Generator.*

2 (a) *“Generator” means the original source of pollution reductions embodied*
3 *in a credit, regardless of subsequent buyers and sellers of the credit.*

4 (b) *Generators may be facilities or operations with a point source discharge*
5 *or a non-point discharge.*

6 (23) *“Impervious surface” means any surface that does not allow stormwater to*
7 *infiltrate into the ground.*

8 (24) *“Includes” means includes or including by way of illustration and not by way of*
9 *limitation.*

10 (25) *“Local Growth Plans” means adopted county and municipal comprehensive*
11 *plans, including mapped growth areas, planned density for development, and expected needs for*
12 *sewer capacity.”*

13 (26) *“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 credits and trades.

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

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

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

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

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

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

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

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

23 (49) Trading ratio.

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

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

28 (50) “Uncertainty ratio” means a ratio that is applied to compensate for possible
29 discrepancies in estimated pollution reductions resulting from inaccuracy in credit estimation
30 methodology or variability in project performance, or to provide a margin of safety in the
31 achievement of water quality goals.

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

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

5 **.04 Eligibility.**

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

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

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

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

18 (3) The generation and sale or exchange of credits to eligible point and nonpoint
19 sources.

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

23 D. Eligible participants in the trading program include:

- 24 (1) Stormwater point sources;
- 25 (2) Industrial stormwater dischargers;
- 26 (3) Wastewater point sources;
- 27 (4) Non-regulated sources;
- 28 (5) Third parties;
- 29 (6) Persons engaged in a practice that is approved by the Chesapeake Bay
30 Program and removes nutrients or sediment from the environment;

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

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

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

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

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

- 11 (1) Permittees in significant noncompliance with their permit;
12 (2) Non-regulated sources or onsite sewage disposal system owners that are in
13 noncompliance with COMAR 26.17.02, 26.04.03, 26.23 or 26.24; or
14 (3) Agricultural operations that do not comply with COMAR 15.20.12.

15 **.05 General Policies.**

16 A. Total nitrogen, total phosphorus, and total suspended solids are the pollutants
17 eligible for trading under the Maryland Water Quality Nutrient and Sediment Trading and Offset
18 Program.

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

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

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

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

1 D. *Federal, State, and local government grant funding may be used to meet the trading*
2 *baseline.*

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

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

6 (a) *Department through the issuance of a permit;*

7 (b) *Department through its Water Quality Nutrient and Sediment Trading and*
8 *Offset Program; or*

9 (c) *Department of Agriculture through its Nutrient and Sediment Credit*
10 *Certification Program.*

11 (2) *Credits shall be quantified using methodologies consistent with appropriate*
12 *assumptions and provisions of the Chesapeake Bay TMDL and the Chesapeake Bay Watershed*
13 *Model.*

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

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

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

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

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

23 (a) *If credits are generated from converting on-site septics to a permanent*
24 *hookup to a wastewater treatment plant; or*

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

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

1 (7) *The Department shall apply reserve ratios annually to trades of point or*
2 *nonpoint sources to create a reserve with priority of use given to the sector that created the*
3 *reserve.*

4
5 (a) *Reserve ratios can be used to:*

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

8 (ii) *Improve the overall water quality during a year when the reserve is*
9 *not used to support other situations.*

10 (b) *Reserve ratios may vary by sector and may be adjusted over time.*

11 (8) *Credits will be tracked, reported, and accessible to the public through the*
12 *Registry.*

13 F. *Trading Regions.*

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

17 (a) *Potomac River Basin;*

18 (b) *Patuxent River Basin; and*

19 (c) *Eastern Shore and Western Shore River Basins, including a portion of the*
20 *Susquehanna watershed.*

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

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

27 **.06 Public Participation.**

28 A. *The Maryland Water Quality Nutrient and Sediment Trading and Offset Program has*
29 *been integrated into the NPDES and State discharge permit processto ensure transparency and*
30 *tracking of point source credits.*

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

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

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

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

13 B. *All credit acquisitions and purchases by a MS4 permittee will be reported in annual*
14 *reports and made available to the public by posting them on the MS4 jurisdiction's website.*

15 **.07 Wastewater Point Source Cap Management and Trading.**

16 A. *Wastewater point source trades shall be implemented and enforced through permits*
17 *under the National Pollution Discharge Elimination System Permit Program and State*
18 *Discharge Permit Program.*

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

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

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

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

25 (a) *Demonstrate that the sale of credits or trade is consistent with Local*
26 *Growth Plans and the approved County Water and Sewerage Plan; and*

27 (b) *Evaluate the impact of the sale or trade on current and projected sewer*
28 *allocations.*

29 (3) *New or expanding wastewater treatment facilities.*

1 (a) A new or expanding wastewater treatment facility with no allocation in the
2 2010 Bay TMDL is required to either obtain an existing allocation through trading or otherwise
3 offset the loadings from the new facility or the increased loadings from the expanding facility.

4 (b) A new or expanding wastewater treatment facility seeking to obtain credits
5 to offset a discharge shall:

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

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

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

12 (a) An owner with multiple facilities operated in the watershed; or

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

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

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

21 (1) Significant municipal wastewater treatment plants.

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

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

25 (ii) A discharge with an annual average concentration of no more than
26 4.0 mg/l TN and 0.3 mg/l TP achieved through ENR treatment.

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

29 (2) Minor municipal wastewater treatment plants.

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

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

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

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

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

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

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

14 (ii) If greater than 6,100 pounds per year total nitrogen load cap and
15 457 pounds per year total phosphorus load cap, then no more than 50 percent of the amount that
16 is above 6,100 pounds per year total nitrogen load cap and 457 pounds per year total
17 phosphorus load cap.

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

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

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

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

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

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

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

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

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

14 **.08 MS4 Stormwater Point Source Trading.**

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

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

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

22 (b) Permittees may treat a permit-specified portion of their permit
23 requirements through trading with wastewater point sources, agricultural nonpoint sources, or
24 non-regulated sources.

25 (i) Permittees must acquire credits for total nitrogen, total phosphorus,
26 and total suspended solids to meet Chesapeake Bay nutrient and sediment reduction
27 requirements.

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

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

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

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

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

13 (2) Reporting.

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

16 (b) Reports shall include credit transactions, including

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

19 (ii) Demonstration that the information is clearly posted on the web-
20 based registry.

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

23 **.09 Generation and Acquisition of Agricultural Credits.**

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

31 **.10 Generation and Acquisition of Credits by Non-Regulated Sources.**

1 A. *Non-regulated sources include:*

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

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

4 (b) *Determined to be agricultural land use by the Maryland Department of*
5 *Agriculture.*

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

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

8 B. *Credit Generation.*

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

11 (a) *Be in conformance with the practices and criteria found in the most recent*
12 *versions of:*

13 (i) *Maryland's Stormwater Design Manual, or*

14 (ii) *Maryland's Accounting for Stormwater Waste Load Allocations and*
15 *Impervious Acres Treated.*

16 (b) *Be approved by the appropriate review authority and inspected,*
17 *maintained, and enforced in accordance with:*

18 (i) *COMAR 26.17.01 for erosion and sediment control;*

19 (ii) *COMAR 26.17.02 for stormwater management;*

20 (iii) *COMAR 26.17.04 for construction on nontidal waters and*
21 *floodplains;*

22 (iv) *COMAR 26.23 for nontidal wetlands;*

23 (v) *COMAR 26.24 for tidal wetlands; or*

24 (vi) *COMAR 26.04.02.07 for onsite sewage disposal systems.*

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

27 (a) *9.28 pound per year in Critical Area;*

28 (b) *5.8 pound per year within 1,000 feet of any perennial surface water; or*

29 (c) *3.48 pound per year in all other areas of the Chesapeake Bay watershed.*

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

4 (1) *The latest version of Maryland’s BayFast modeling program for calculating*
5 *nutrient and sediment load reductions to the Bay, or*

6 (2) *Any accounting methods and procedures as stipulated in the General Policies of*
7 *COMAR 26.08.11.05.*

8 D. *Credit Acquisition and Reporting.*

9 (1) *Regulated MS4s. All nutrient and sediment credits generated by non-regulated*
10 *sources shall be acquired and reported by a regulated MS4 in accordance with COMAR*
11 *26.08.11.08 of this chapter.*

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