



CHESAPEAKE BAY COMMISSION

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Maryland's Nutrient Credit Trading Program – A Summary

Authority:

33 USCA, s. 1251 et seq; MD Code Ann., Envir. S. 4-101, et seq; Clean Water Act NPDES EPA implementing regs as delegated to MDE.

Who can trade? Any combination of point sources, non-point sources and third parties (such as a broker or aggregator). No policy yet for stormwater. Trading is voluntary.

What can be traded? Nitrogen for nitrogen, and phosphorus for phosphorus. One credit = one pound of nutrient. Trades must result in net decrease in load, so 5% retirement ratio is applied to each Pt. Source generated credit and 10% retirement ratio is applied to each Non-Pt. Source generated credit.

Credit Generation Options:

- Upgrade existing minor to BNR or ENR
- Retire existing WWTP after connecting flow to BNR or ENR facility
- Retire existing Septic Systems by connecting to ENR facility
- Land Application of wastewater with pre-treatment and nutrient management controls
- Implement non-point source practices like agricultural Best Management Practices. (AG BMP's)
- ENR facilities can generate point source discharge credits by
 - Optimizing treatment operation (going from 4mg/l to 3mg/l)
 - Maintaining flow at less than the design flow basis of it's nutrient wasteload allocation.

Where can trades occur? MD has three "trading regions" based on our three large watersheds:

- Potomac Tributary Basin
- Patuxent Tributary Basin
- Eastern Shore and Western Shore and Susquehanna Watershed

Eligibility:

Point Source and non-point sources that have met their baseline requirements can enter the trading markets to sell credits. Trades may not result in degradation of local water quality.

- Significant point source must be at ENR and meeting permit limits to create credits. MD's ENR/ Tributary Strategy Waste Load Allocations serve as baseline for point sources.
- Minor Point Sources can generate credits when baseline loads of 6,100 lbs./yr Nitrogen and 457 lbs./year Phosphorus, or less, are assigned as a permit limit.

- Ag operations can't generate credit by idling whole or substantial portions of farms. Ag operations must be in compliance with all applicable Fed., State and local laws and obtain necessary permits.
- Ag operations must have current Nutrient Management Plan, updated Soil and Water Conservation Plan and if applicable a Waste Management System Plan, and the farm must meet baseline reductions.
 - Baseline calculated by translating Tributary Strategy /TMDL goals into a numeric per acre annual loading rate for each watershed. (Page 8 Phase II Policy.)

Duration of Offsets:

New or Expanding facilities must secure credits for at least 10 years, with a plan for at least 10 additional years. At each NPDES permit renewal, the facility must demonstrate credit for at least the next two permit cycles (10 years).

Credits must be used as offsets in the year in which they are generated and cannot be banked for future use. For a 5 year practice generating 10 credits per year, only 10 credits can be applied in 5th year.

Process:

- 1) Certification: For Pt. Source- MDE certifies; for Non-Pt. Source - MDA farm visit to verify farm baseline is met, then verify BMP can be installed and how many credit can be generated.
- 2) After AG BMP is installed - MDA inspects to ensure BMP meets standards and specs. MDA certifies credits. Credits receive registration number and can be posted on Md. Trading Registry.
- 3) Contract between buyer and seller specifies third party who will verify annually for life of trade. (cover crop verified 2x year) If BMP fails contract requires parties to purchase more credits.
- 4) Registration of sale on State web site. (No web site for Pt-Pt trades; MDA has website for Ag trades)
- 5) MDA reserves right to perform spot checks. (10%) For trades ties to NPDES permit, MDE performs spot checks.

Maryland Trading/Cap Management Scenarios:

Significant Point Source

- Major WWTPs cannot trade in lieu of ENR upgrades
- All major WWTP's must upgrade to ENR (4mg/liter). Md. plans to upgrade all majors by 2017.
- Expanding Majors can hook up minor facility- it's load allocation will increase as a result of transferred loads
- If a major WWTPs must go beyond ENR to improve local water quality they can upgrade onsite to 3 mg/liter N or another WWTP could upgrade and sell the major WWTP their reductions.

Minor Point Sources

Expanding Minor Point Sources are capped at 6,100 lbs. Nitrogen per year; and 457lbs. Phosphorus per year.

- If a minor source needs to expand it can upgrade to lower mg/liter (ENR or BNR) to stay within cap
- If a minor point source needs to upgrade because of local water quality it can either:
 - upgrade onsite
 - buy credits from agriculture (none of these trades have occurred)
 - buy credits from another minor plant that upgraded. (minor WWTP's can upgrade and sell credits for offsets.)