Maryland Water Quality Nutrient Trading Policy Statement

Introduction

The Chesapeake Bay is the nation's largest estuary and a complex ecosystem. The Bay's vast watershed stretches across some 64,000 square miles and encompasses parts of six states and the entire District of Columbia. The cumulative impact of human activities throughout the watershed has caused increasing pollution from an overabundance of nutrients, primarily nitrogen and phosphorus, resulting in serious degradation of the waters of the Bay and the many rivers, streams, and creeks that flow into it.

Nutrients come from a variety of sources, including agriculture, wastewater treatment plants, septic systems, urban stormwater run-off, and atmospheric deposition. Although agriculture contributes the largest amount of nutrients, population growth and related development have made stormwater runoff the fastest growing source of Bay pollution. Despite extensive restoration efforts by the Bay states, the lack of significant progress prompted the U.S. Environmental Protection Agency to establish the Chesapeake Bay Total Maximum Daily Load, or TMDL, setting annual limits for nutrient and sediment loads and providing accountability through individual state Watershed Implementation Plans detailing targeted reductions from all sectors.

Achieving these reductions and maintaining the loading caps while accommodating continuing economic and population growth will be both challenging and expensive. Total cost estimates for adopting best management practices and/or installing controls to reduce nutrient discharges are enormous and vary widely from sector to sector. Since the costs of meeting the TMDL will be borne by all segments of society and all levels of government, it is imperative to identify and implement strategies to lower those costs.

Nutrient trading has emerged as a promising strategy for introducing cost-effectiveness and market-driven efficiency to the realization of nutrient reductions. Under this approach, sectors are given the flexibility to meet their load limits by purchasing credits or offsets generated from load reductions elsewhere. The likelihood that this option will be selected increases if the credit purchase is less expensive than other alternatives and the purchased reduction is deemed credible and verifiable.

Accordingly, attention has shifted to the agricultural community and other sources where compliance may be accomplished and exceeded at a much lower cost per pound than pollution reduction on site. The Maryland Departments of Agriculture (MDA) and the Environment (MDE) have been working collaboratively to establish a voluntary, market-based program to promote the use of trading as a viable option for achieving the State's nutrient reduction goals. This program envisions trading not only between sectors ("cross-sector trading") within Maryland, but ultimately between Maryland and the other Bay states ("interstate trading").

Guiding Principles

The State of Maryland is committed to a new cross-sector water quality nutrient trading program that

- Accelerates the restoration of the Chesapeake Bay while reducing the costs of implementation
- Maintains consistency with the federal Clean Water Act, Maryland law and regulation, and any other applicable requirements
- Offers competitive alternatives for accomplishing both regulatory and environmental goals
- Protects local water quality
- Uses the best available science and appropriate metrics to estimate and/or measure pollution reductions, manage risk, and ensure the validity of credits
- Provides accountability, transparency, and accessibility for all interested parties
- Includes necessary compliance and enforcement provisions
- Creates incentives for investment, innovation, and job creation
- Fosters collaborative partnerships between public and private entities and among diverse stakeholders
- Positions Maryland to participate in interstate trading activities

Cross-Sector Trading: The Time is Now

Maryland recognizes that the primary drivers for water quality trading are the regulatory programs that require pollutant reductions. MDE opened the door to trading, offsets, and the generation of nutrient credits in the point source sector under the auspices of the Policy for Nutrient Cap Management and Trading in Maryland's Chesapeake Bay Watershed adopted in 2008. Given the advances made by MDA in developing a web-based suite of tools to support trading, it is time for the State to implement policies that will broaden the availability of trading among sectors.

A number of studies have shown that the potential cost savings from trading increase substantially when regulated stormwater sources can participate and the scope and scale of trading expand. Under Maryland's new cross-sector trading program, trades may occur between point sources, including for the first time, Municipal Separate Storm Sewer System (MS4) permit holders, and between point sources and nonpoint sources, such as between MS4s and agricultural operations. Maryland's new policy will also allow MS4 jurisdictions to enter into cross-sector trading to meet a portion of their Bay TMDL requirements.

The trading framework for Maryland will facilitate trading by point and nonpoint sources for total nitrogen, total phosphorus, and suspended solids. Cross-sector trading will be permitted in Maryland within three geographic areas: (1) the Potomac River Basin; (2) the Patuxent River Basin; and (3) the combination of the remainder of the Western Shore, the Eastern Shore, and the Susquehanna River Basin. Interstate trading will be developed incrementally to build capacity within Maryland and ensure reciprocity between Bay state programs.

Private Sector Role

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.

Next Steps

To put a cohesive, credible, and transparent Water Quality Trading Program into place, Maryland plans to take the following steps:

- Develop a comprehensive Water Quality Trading document that builds on previous MDE Point Source Cap Management Policy and MDA's "Maryland Guidelines for the Generation of Agricultural Nonpoint Nutrient Credits in the Chesapeake Bay Watershed" and Credit Certification regulations.

- Reconstitute and convene the existing, stakeholder trading advisory group to review and refine the draft materials. The initial tasks of this group will be to finalize a guidance document and identify any needed amendments to State law or regulation and any other necessary actions to implement trading. The group's final report will be issued by spring 2016 and will be used to initiate trades within Maryland at the earliest possible date. This group also will continue as an ongoing advisory committee to provide direction to the overall trading program and oversee any further development or enhancement of the trading infrastructure.

- Hold a conference in mid-2016 to familiarize all interested parties with the guidance document and begin an exploration of interstate trading opportunities.

Conclusion

Nutrient trading offers an attractive alternative to more traditional approaches for reducing water quality prob**e**ms and can often achieve results faster and at a lower cost. Maryland's new trading program provides expanded opportunities for all point and nonpoint sources to access the water quality marketplace as a means to secure for every Marylander the health, economic, and recreational benefits that come from the protection and restoration of the State's water resources.