

## NUTRIENT TRADING IN MARYLAND: DECEMBER 2017 UPDATE

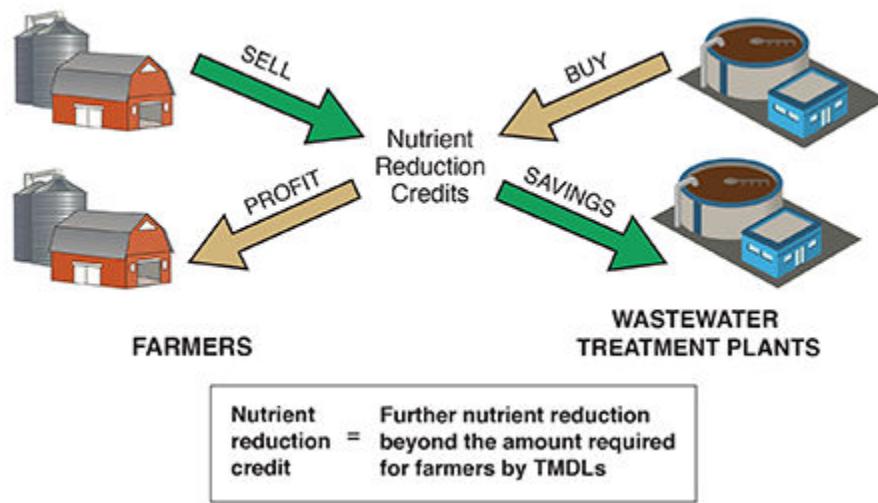
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This article originally appeared on the Choose Clean Water Coalition blog,  
<https://www.choosecleanwater.org/blog/2017/12/18/whats-going-on-with-nutrient-trading-in-maryland>

On December 8, the Maryland Department of the Environment published in the Maryland Register proposed regulations to establish a water quality trading program for nitrogen, phosphorus and sediment. A public hearing was held on December 18 and written comments must be submitted by January 8. The regulations were developed together with Maryland Department of Agriculture (MDA) and a broadly representative Water Quality Trading Advisory Committee (WQTAC).

### What is nutrient trading?

“Trading” allows an entity that can reduce one or more pollutants more cheaply than another to install pollution control measures that provide a greater reduction than required by law, and sell the excess reduction, or “credit”, to the other discharger for whom the cost of pollution reduction is greater. The result is that the credit generator makes money for the sale of credits, and the buyer saves money by using the credits to meet its discharge limitations less expensively, achieving the same overall reduction at a lower cost. In a time when funding is tight, this can result in a bigger bang for the buck in meeting the Bay TMDL goals.



Courtesy of Chesapeake Quarterly

## **How can trading work properly?**

To work properly, the program must ensure that a trade does not cause or contribute to a violation of any water quality standard or TMDL. A trade should also result in overall net pollution reduction - a feature known as “additionality.” When this happens, we not only get lower cost compliance, but an overall reduction in pollution.

Before a discharger can generate a credit, it must comply with all pollution reductions required by law, referred to as its “baseline.” Reductions beyond this generate the “credits.” Credits can also be purchased to “offset” a new or increased discharge, which is required for any new or increased discharge to a water body which is not meeting water quality standards.

To be sure that trading is carried out in compliance with the Clean Water Act (CWA), EPA issued series of Technical Memoranda (TMs) setting forth its “expectations” for key elements which any trading program in the Chesapeake Bay watershed must incorporate. These key elements include determining “baseline”, protecting local water quality, duration of credits, credit calculation, accounting for uncertainty of the water quality benefits delivered by a best management practice (BMP) installed by a non-point source discharger, representative sampling, and credit certification and verification. They also call for establishment of a publicly available “credit registry” on which each credit can be registered and tracked, and an opportunity for notice and comment at meaningful times in the process. MDE’s regulations must be evaluated under these criteria to determine how they will fare when reviewed by EPA for compliance with the CWA.

The proposed regulations cover baseline determinations plus calculation, certification and use of credits, and trading procedures. When a discharger buys a credit, the credit is incorporated into its NPDES permit. The buyer/user is liable for ensuring permit compliance, even if the BMP on which the credit is based fails. Any performance failure by the credit-generating practices should be addressed in a contract between the seller and buyer.

## **Tell me more about the online trading registry...**

The regulations provide for an online registry under which each credit, when certified by the agency, gets a number, and it will be tracked through its lifetime. Credits are expressed in terms of pounds of a pollutant. Procedures are established for inspection and “verification” that the credit practices are performing properly. The regulations also provide enforcement measures, including corrective action orders, suspension from the program, and other sanctions, as well as an appeal process.



Photo courtesy of Chesapeake Bay Foundation

Credits generated by farming operations are reviewed and certified by MDA under regulations that it issued in 2016, COMAR 15.20.12. Those regulations are designed to work together with the regulations recently proposed by MDE, on which both agencies collaborated.

While the credit registry will be publicly available, the only opportunity for public comment under the proposed regulations is when a credit buyer proposes to use a credit in its NPDES permit, not at the time of credit certification. Because credit certification is when the agency determines whether baseline has been met and whether the credits have been properly calculated using approved methods, some contend that the public should be allowed to comment at this earlier stage in order to effectively address key issues in the credit generation and calculation process.

### **What are some issues with the Maryland Nutrient Trading Program?**

As the regulations were being developed in consultation with the WQTAC, not surprisingly, there were disagreements over some of the provisions. Those disagreements provide a key to issues likely to be raised by commenters. They will likely include adequacy of protection for local water quality, clarity of the baseline requirements, adequacy of the uncertainty ratio, certification and verification procedures, and public participation. For example, on local water quality, the proposed regulations,

to their credit, provide that when the water body where the credit will be used is “within any impaired waters” (does not meet water quality standards), the credit must be generated in the same subwatershed. While the proposed regulation also appears to require that the credit should be generated upstream of the user, that is not clear in the text. Furthermore, outside of those circumstances, trades are allowed to take place within any of three broadly defined regions: the Potomac River basin, the Patuxent River basin, and the Eastern Shore and Western Shore river basins, including the Maryland portion of the Susquehanna River. While in theory a credit generated on the Eastern Shore and used on the Western Shore might result in no net adverse effects in the middle of the Chesapeake Bay, the credit will not protect the water quality in the place of use on the Western Shore.

Regarding the uncertainty ratio, EPA’s applicable TM provides that this should be presumptively 2:1 when a credit is generated by a non-point source, to account for the uncertainty in the pounds of pollutant reduction which a particular BMP will actually produce. MDE’s regulations prescribe this ratio where credits generated by a non-point source are used by a wastewater treatment plant, but fail to do so where the user is a stormwater point source discharger. The reason for this distinction is unclear.

MDE proposes creating a “reserve pool” by imposing a 5% reduction (a “reserve ratio”) in the number of credits generated in any transaction to be set aside for use in situations such as replacement of credits that underperform or a lack of available credits. If not used for these purposes any part of the “reserve pool” can be permanently retired so as to result in an improvement in water quality, but there is no obligation to do this. A “retirement ratio”, by contrast, would require the entire amount to be retired, thereby ensuring that each trade results in a net improvement in water quality (the “additionally” referred to above). The regulations do not include this.

EPA has been promoting trading for over 20 years, but only eleven other states in the country, including Pennsylvania and Virginia, have trading programs. They are still evolving and their effectiveness has yet to be determined. While the principles can be articulated, effective implementation has proven challenging. MDE’s proposed regulations will stimulate lively discussions of the issues facing any trading program, especially when the credits will be generated mostly if not entirely by nonpoint sources.



Photo courtesy of Chesapeake Bay Foundation

MDE leaders believe that, if a truly effective trading program can be put in place, the benefits will outweigh the risks that are inherent in a program where the water quality benefits of various BMPs may not be known until years after they are installed.

If you have any questions, please contact [Ridge Hall](#), board member for the [Chesapeake Legal Alliance](#).