



Nutrient Trading Chesapeake Bay Watershed

Introduction:

The Chesapeake Bay and many of its tidal tributaries have been listed as impaired by the federal Clean Water Act. The Susquehanna and Potomac watersheds in Pennsylvania are the largest sources of fresh water flowing into the bay, and carry a significant portion of the nutrients which are the cause of the pollution. Under federal and Pennsylvania law, the sources of these nutrients must be addressed. Pennsylvania has actively participated in a broader joint effort among states and EPA to restore the bay, including signing the *Chesapeake Bay 2000* agreement and development of a Compliance Plan approved by EPA.

Why Nutrient Trading?

There are two main types of sources of the nutrients discharged into the Chesapeake Bay from Pennsylvania - point sources such as sewage treatment plants, and nonpoint sources such as farms. Pennsylvania's Compliance Plan addresses both. However, it is significantly more expensive for point sources to reduce nutrient discharges than it is for nonpoint sources to do so. In response, Pennsylvania provides a cost-saving option to point sources in meeting their legal obligations under the law - nutrient trading.

Trading is a voluntary, market-driven program that helps to identify and finance cost-effective solutions that will reduce nutrient loadings to a watershed.

Trading allows a point source to purchase nutrient reduction credits from anyone who can generate them, typically farms. Credits are generated when a source reduces nutrient loadings to a greater extent than is required by law. Through a formal certification, verification and registration process, administered by the Department of Environmental Protection (DEP), these credits can be sold through private agreement and ultimately used to demonstrate legal compliance.

Credit trading has been used to meet clean air requirements for years, and is also being proposed to meet climate change goals. It is widely accepted as an efficient way to achieve environmental improvement.

Who can Trade?

Trading may take place between any combination of eligible point sources, nonpoint sources and third parties. Each trading entity must meet applicable eligibility criteria established by DEP. Typical purchasers of credits are sewage treatment plants receiving new nutrient cap loads in NPDES permits, and developers seeking approval of 537 plans for new or expanding discharges.

What can be Traded?

At this time, total nitrogen and total phosphorus reduction credits may be traded. Credits are the unit of compliance that correspond with a pound of reduction of nutrients, which when certified, verified and registered by the department, may be used in a trade.

What can be done to generate a credit?

Most credits will be generated by farms. These and other nonpoint source credit generators must first ensure that they are meeting baseline compliance, then that they are meeting additional requirements referred to as threshold requirements. Any additional measures taken to reduce nutrient loss will generate credits.

Technology and other improvements to sewage treatment plants or other point sources may also be used to generate credits. Point source dischargers must be able to document that they are providing treatment beyond their required limits through analysis and discharge monitoring reports.

What measures by nonpoint sources will be accepted?

A farmer could choose to implement any of the “best management practices (BMPs)” approved by the department. Other BMPs, including manure treatment systems, have also been considered for approval as a method to generate credits, although these require more documentation.

Structural BMPs or other potential credit-generating activities occurring after Jan. 1, 2005 may be submitted for review to determine credit eligibility. Non-structural BMPs (such as no-till practices, cover crops, advanced nutrient management) that were implemented prior to January 2005 and continue to be utilized and maintained on an annual basis are also eligible to earn credits.

Who will certify my credits and how do I prepare a proposal?

Currently, the department certifies all credits. Details on how to prepare a proposal submission have been included in the Trading of Nutrient and Sediment Reduction Credits, Policy and Guidelines as well as highlighted on the Nutrient Trading Web site. These details will provide an entity with the proper information to submit regarding the generation of credits, the review and approval process for the certification of credits, verification and registration requirements, as well as the trade of credits.

How can County Conservation Districts help?

There are a number of county conservation districts that will have a checklist for baseline requirements. They can also assist in calculating nutrient load reductions generated from BMPs to estimate the value of credits and they can explain the terms for selling credits.

Is there an online marketplace tool being developed?

NutrientNet is the online marketplace, created by World Resources Institute, that will allow entities to calculate credits, post credits for sale and trade credits.

Are there any credits available on the market today, if so where can that information be found?

Since June 2006, DEP has been approving proposals for entities looking to generate credits. Once a proposal has been approved, the submitting entity is able to sell those credits on the market. Information related to credits that have been approved can be found on DEP’s Nutrient Trading Web site and on *NutrientNet*.

Where can more information on Nutrient Trading be found?

You can contact your local county conservation district for additional information. DEP staff in the Water Planning Office, in consultation with DEP’s regional offices, can also help provide answers, and can be contacted at 717-772-4785.

For more information, visit www.depweb.state.pa.us, keyword: Nutrient Trading.