

# What you need to know

AgricultureUpdate  
from Dauphin County Conservation District

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## Nutrient Trading Program Announcement Is Nutrient Trading Right for You?

Dauphin County Conservation District (District) has agreed to participate in a PA Department of Environmental Protection (PA DEP) two-year nutrient trading program. The purpose of the program is to reduce the amount of nitrogen reaching our local streams, the Susquehanna River and, ultimately, the Chesapeake Bay. The District will evaluate farm operations for existing credits, and provide technical assistance and funding to install Best Management Practices (BMPs) that reduce nitrogen discharges and generate nutrient credits.

### Why is there a Nutrient Trading Program?

The US Environmental Protection Agency (US EPA) has mandated that the water quality of the Chesapeake Bay be significantly improved by 2010. US EPA's remediation efforts focus on the Susquehanna and Potomac watersheds, which contribute the highest nutrient loads to the Chesapeake Bay and create impairment of its water quality. Specifically, Pennsylvania will need to reduce nitrogen by an additional 37 million pounds per year, phosphorus by an additional 1.1 million pounds per year and sediment by an additional 116,000 tons per year.

Pennsylvania's Chesapeake Bay Tributary Strategy provides the framework to develop new and innovative programs, such as Nutrient Trading, that will be needed as the state strives to meet these goals by 2010. US EPA and PA DEP have determined that agriculture and sewage

treatment plants are two principal sources of high nutrient loads reaching the Bay. Both agencies concur that nutrient reductions in our waterways must come primarily from these two sources of nutrient pollution. Failure to meet these goals may result in US EPA targeting agriculture and implementing stringent regulations to meet these requirements.

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In order to help meet this nutrient reduction goal, Pennsylvania will require approximately 140 larger waste water treatment plants to significantly reduce the amount of nitrogen and phosphorus they may discharge. These new requirements will become effective as each treatment plant's permits come up for renewal, and will apply to current levels of nutrients discharged, as well as the nutrient levels on any sewage generated from new development. Meeting these goals will involve more advanced nutrient reduction technology than is currently in place. As may be expected, this can become very costly.

Pennsylvania's Tributary Strategy strives to achieve the majority of its nutrient reductions from the most cost-effective sources. Agricultural BMPs are a more

cost-effective means of achieving nitrogen reductions than installing the technologies required at waste water treatment plants. Pennsylvania's proposed solution looks to nutrient trading to reduce costs while achieving more for the environment.

### What is trading?

*Trading is the transfer (buying and selling) of nutrient reduction credits. Credits are the amount of nutrients reduced below a given source's allowable discharge.*

Nutrient trading allows point source dischargers (in this case waste water treatment plants or developers) to obtain nutrient reduction credits and thus meet their permit requirements, from non-point source dischargers (farmers) who have reduced their nutrient discharge by the implementation of BMPs below a basic water quality protection threshold requirement. The additional reductions generated by the farmer are nutrient trading credits. These credits have a monetary value that may be paid to the farmer.

### What is required to participate?

Agricultural operations wishing to participate in the nutrient trading program must have a fully implemented erosion and sediment pollution control plan

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(that part of the conservation plan that relates to plowing and tilling operations) and a nutrient balance sheet/nutrient management plan for manure application that is being implemented. Both of these requirements are currently required by existing regulations for every farm that does tillage or applies manure. Meeting these two requirements establishes the farmer as being in baseline compliance, thereby making them eligible to participate in the nutrient trading program.

When a farmer has installed BMPs that reduce nitrogen discharge from their farm that are in excess of baseline requirements, those extra pounds of nitrogen can be made available for sale to buyers who need additional nutrient credits in order to meet the new standards.

## How does it work?

PA DEP has proposed an initial two-year program to assemble nutrient credits to sell to dischargers that need them now. It is expected that entrepreneurial trading or direct marketing between buyer and seller will replace this initial program.

When a farmer notifies us of their interest, their farm will be evaluated and placed in one of three categories.

- Category 1 - Farms that currently exceed baseline compliance requirements will be evaluated for potential credits that may exist for immediate potential sale. They will also be evaluated for new BMPs that will generate additional credits.
- Category 2 - Farms that currently meet but do not exceed baseline compliance will be evaluated for new BMPs that, if installed, would generate nutrient trading credits.
- Category 3 - Farms that do not meet baseline compliance requirements will be evaluated to determine the plans and BMPs that would be required to bring the farm into Category 2 or Category 1 status.

Category 1 and 2 farms will be eligible to apply for 100% paid BMPs from funds available through this program. Category 3 farms can request technical assistance as well as possible funding from other cost share programs to help achieve baseline compliance.

## Nutrient Credit Exchange Rate

The nutrient to be reduced is nitrogen, i.e. pounds of nitrogen discharge reduction per year. A credit is generated when the discharge of nitrogen from a farm is reduced below the established baseline. The baseline may be met by being in compliance with existing erosion control and manure management regulations. BMPs, existing or to be installed, over and above the baseline may generate nutrient credits.

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Some of the nutrient trading policies are still in development. For this program, the District anticipates that a reduction of two pounds of nitrogen will equate to one nutrient credit. Credits will be registered and sold on a first-come, first-served basis. Credits are renewable yearly, and farmers will be paid for each credit sold on a yearly basis. The cost of installing BMPs which generate nutrient credits will be deducted from the farmer's payment for nutrient credits sold. The payment amount for each nutrient credit will be established by market conditions.

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## Role of Dauphin County Conservation District

The Conservation District's roles in the initial two-year program include:

- Providing outreach and information to the farm community
- Completing a baseline checklist for interested farms
- Performing a calculation of pounds of nitrogen reduction
- Evaluating farms for eligibility
- Executing a landowner/District trading agreement
- Technical assistance and design of BMPs which generate trading credits
- Registering and certifying credits
- Payment to the landowner when the credits are sold

## How to apply for this program

This is a voluntary program. For more information about participating in the Nutrient Trading program, contact one of the District's Agriculture Specialists at 717-921-8100. ■

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