



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SECRETARY

APR 09 2010

April 9, 2010

The Honorable Michael W. Brubaker, Chairman
Senate Agriculture & Rural Affairs Committee
Senate of Pennsylvania
Senate Post Office Box 203036
Harrisburg, PA 17120-3036

The Honorable Mary Jo White, Chairman
Senate Environmental Resources
& Energy Committee
Senate of Pennsylvania
Senate Post Office Box 203021
Harrisburg, PA 17120-3021

Dear Senators Brubaker and White:

As follow-up to the joint hearing that was held on March 17, 2010, I am pleased to provide you with an update on our Nutrient Trading Program. This update includes information on the rulemaking package and exchange system which are currently under development, as well as an update on certified credits and contracts. There is also a summary included on a few upcoming outreach discussions that will take place surrounding the topic of Nutrient Trading.

The Department of Environmental Protection (DEP) has proposed a rulemaking that seeks to amend *25 Pa Code*, Chapter 96 in order to codify into regulation DEP's existing Nutrient Credit Trading Policy. The rulemaking was initiated at the request of interested stakeholders who wanted clear and concise rules to govern how nutrient and sediment reduction credits would be traded in Pennsylvania.

This rulemaking addresses the needs of stakeholders by establishing definitions for terms widely used in nutrient and sediment reduction trading transactions; specifying the location for where trading may occur; outlining the methodology to be used to calculate nutrient reduction credits and offsets; and identifying eligibility requirements related to the generation of credits and offsets. The rulemaking also identifies certification, verification, and registration requirements, identifies the requirements for use of credits and offsets to meet National Pollution Discharge Elimination Systems (NPDES) permit requirements, specifies how the use of credits and offsets can occur within defined Total Maximum Daily Loads (TMDLs), and outlines the process for public participation. The rulemaking also includes a section for use of credits and offsets in areas other than those identified for the restoration, protection, and maintenance of the water quality of the Chesapeake Bay.

The rulemaking was published for a 30-day comment period on February 13, 2010, and 10 sets of comments were submitted. The final rulemaking will likely be presented to the Environmental Quality Board (EQB) at the July 20, 2010, meeting.

PENNVEST is in the process of defining and establishing an Exchange in which they can be the buyer and seller of credits. PENNVEST will be entering into credit sale and purchase agreements by either participating in bilateral agreements developed between credit buyers and sellers or by bringing buyers and sellers together in an auction setting. In preparation for the

latter approach, a mock auction will be conducted by PENNVEST this spring in order to test the systems that will be used when the process goes "live." In addition to testing the auction process itself, PENNVEST must also ensure that various account structures are established to receive and disburse funds, as well as to track credit contracts on both sides of the market. Based on survey results, summarized by Chicago Climate Exchange, it is now anticipated that the first real auction will be held in the Fall of 2010. Currently a rulebook is being developed that walks through the various components of the Exchange and outlines what is needed for both a buyer and a seller of credits. Other supporting documents, such as an auction bid form, a credit program enrollment form, buy and sell contracts, and general instructions for auction participation are also being developed at this time.

DEP has received 87 proposals to generate nutrient reduction credits in the Chesapeake Bay Watershed, of which 83 were for nonpoint source activities. Of those 83, 56 have been approved for nonpoint source activities, one has been withdrawn, and the remaining need additional clarification prior to qualifying for certification. Currently there are 2,772,353 nitrogen and 202,599 phosphorous credits certified. This is a cumulative total since the release of the interim final policy in 2005. After subtracting the credits that have already been purchased or those that were generated in a previous compliance year, a total of 2,611,342 nitrogen credits and 196,910 phosphorus credits are available for sale for compliance year 2009-2010.

Eight contracts have been entered into for the purchase of credits to be used towards permit compliance. Five of the contracts have been for new developments that will need to offset their discharge to achieve the net-zero limit and two of the contracts have been for existing facilities. A summary table of the contracts has been enclosed.

Another important update related to the use of credits towards compliance is the Harrisburg Authority. The Harrisburg Authority, a Phase I facility, was the first treatment facility to go out for bid for the purchase of credits to be used as part of their compliance plan. The permit, issued in December 2009, requires the Authority to beginning purchasing nutrient credits in 2011 which will be in combination with a facility upgrade to ensure the treatment plant complies with new Chesapeake Bay nutrient discharge limits. The Authority has estimated a \$28 million savings over the next 20 years by participating in the program. These savings would save ratepayers an estimated \$48 per year on sewer service charges.

Trading will not be the silver bullet that restores the bay, but it will be a cost-effective solution for those that wish to explore it and an opportunity to spur technology advances for those interested in selling credits. DEP is working with a number of companies that are looking to install varying technologies such as co-generation, combustion etc. on dairy, poultry, and hog operations. Many of these technologies seek to produce electricity, soil amendments, reduce methane emissions, and generate renewable energy, nutrient reduction, and carbon credits that can be sold. A few of these technologies include the Cove Area Regional Digester (CARD), EnergyWorks, and ElectroCell.

As described by the project partners, the CARD project is the first of its kind as being a regional methane digester (servicing 2 counties covering 10-12 square miles) that through its patented water treatment process, can successfully remove nutrients and discharge nearly potable water back into the watershed. This project can also generate additional value added products, such as nutrient reduction credits, electricity generation, biosolid collection, and possibly carbon credits. EnergyWorks has stated that their Energy and Nutrient Recovery Facility (ENRF) will receive and process egg layer manure within a fully enclosed building. The recovered energy is converted to electricity to power processing equipment and the surplus will be sold to power purchasers through the public grid interconnection. Water quality benefits are derived by capturing and converting compounds of nitrogen and by recycling ash by-products that contain phosphorous and other minerals.

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ElectroCell has a patented process that passes electricity through conductive liquids. The patented process mimics the process of composting, by activating the biology in the manure making the nutrients more available for plant uptake and reducing the nutrient content of the stored manure. This process also has a substantial odor reduction component, as well.

In an effort to showcase the benefit of technologies and the generation of nutrient reductions, the DEP and the Pennsylvania Department of Agriculture will be hosting a nutrient trading event entitled, "Nutrient Trading in PA Positively Impacting the Chesapeake Bay," to be held on April 16, 2010. The day will include an explanation of Pennsylvania's nutrient trading program, along with a discussion on pioneering agricultural technologies and the importance these innovations have on the agricultural community. A panel of conservation district representatives will explore conservation district involvement and the positive impacts districts have at the local level working one-on-one with the agricultural community. And, after a discussion relating Pennsylvania's programs to the Chesapeake Bay Restoration efforts, a roundtable discussion will be held. Following the morning session, participants will be escorted to three sites in Lancaster County to view actual on the ground innovation.

Thank you for the opportunity to provide you an update on the Nutrient Trading Program. If you would like to discuss the program in greater detail please do not hesitate to contact John Hines, Deputy Secretary, Water Management, by e-mail at johines@state.pa.us or by telephone at 717.783.4693 or Robert Maiden, Director of Legislative Affairs, by e-mail at rmaiden@state.pa.us or by telephone at 717.783.8303.

Sincerely,

A handwritten signature in black ink that reads "John Hanger". The signature is written in a cursive style with a long horizontal flourish extending to the right.

John Hanger
Secretary

Enclosure

Nutrient Trading Program Contract Information

Buyer - Seller	Activity generating the Credits	Length of Agreement	N Credits*	Price	P Credits*	Price
Mount Joy Borough Authority - Brubaker Farms	No-till	3 years	11,718	\$3.81		
Dunn Lake - Red Barn Trading Company	Manure Export	5 years	223	\$9	3	\$4
Hamm Equities LLC - Red Barn Trading Company	Manure Export	5 years	1592	\$9	73	\$4
Fairview Township, York County - Red Barn Trading Company	Manure Export	15 years	20,000	Starts @ \$5/N in 2010 and escalates up to the highest amount of \$7.56/N in year 2024		
Quail Creek Homeowner's Association - Chesapeake Nutrient Management, LLC	Manure Export	20 years	538	See note #1.	40	See note #1.
Airy View Heights- Red Barn Trading Company	Manure Export	5 years	635	\$10	48	\$5
Camp Iroquoia- Red Barn Trading Company	Manure Export	5 years	8	\$15	11	\$10
Tamarack Mobile Home Park- Chesapeake Nutrient Management, LLC	Manure Export	20 years			21.5	\$4.50

Note#1: The per credit price was not included in the agreement information that was submitted.