
Nutrient Trading Pilot Project



Conestoga River Watershed, Pennsylvania

In partnership with:

Pennsylvania Environmental Council

Chesapeake Bay Foundation

The Conservation Fund

Environmental Defense

CH2M HILL

EPA Region III

GOALS OF PRESENTATION

- ◆ Provide an update on the status of Pennsylvania's project
- ◆ Ask for comments (suggestions, critiques, what's missing, etc.)

PA's Nutrient Trading Pilot Project:

- ◆ **Two focuses: related and parallel efforts**
 - Draft Framework and Guidelines
 - Conestoga Watershed Pilot Project

“Nutrients” include:
*Nitrogen and Phosphorus
compounds dissolved
in water.*

**These compounds are
essential to plants and
animals but too much can act
as pollutants and lead to
unwanted consequences -
mainly algae
blooms.**

What is Nutrient Trading?

- ◆ **Exchange of pollutant reduction credits between sources to meet regulatory objectives or water quality goals**
- ◆ **In layman's terms**
 - As a buyer, you pay or otherwise arrange for someone else to meet or exceed your environmental obligation
 - As a seller, you exceed your own environmental obligation and benefit from it
- ◆ **Supplement to regulation (trading is voluntary)**
 - Works within existing statutory and regulatory framework
 - Encourages implementation of the most cost-effective nutrient reductions within a watershed

National and Regional Framework for Trading

- ◆ 1996 - EPA's *Draft Framework for Watershed-Based Trading* guidance document and companion policy
- ◆ 1998-2001 - Five trading demonstration projects funded by EPA and the Water Environment Research Foundation: CO, CT, MD, MI, WI
- ◆ 2001 - Chesapeake Bay Program's *Nutrient Trading Fundamental Principles and Guidelines*
- ◆ 2003 - EPA updates Water Quality Trading Policy

PA Nutrient Trading Project Origin

- ◆ **Concept Development: Fall 2000**
- ◆ **Enforcement Action Funds: Fall 2000**
- ◆ **Pennsylvania Environment Council and Enterprising Environmental Solutions submitted a proposal to PADEP: Fall 2000**
- ◆ **Early project planning: Winter-Summer 2001**
- ◆ **Project sponsors launched pilot: Fall 2001**

Timely

- ◆ **Chesapeake Bay Nutrient Trading Principles and Guidelines were being finalized (2000-2001)**
- ◆ **PA House/Senate Joint Committee hearing on Water Quality Credits and Trading (Report Published February 2001)**
- ◆ **PA DEP tackling Total Maximum Daily Loads**
- ◆ **PA DEP will be developing nutrient criteria**
- ◆ **Bay watersheds will be updating Tributary Strategies following establishment of new regional goals**

Pilot Project Sponsors

- ◆ PA Department of Environmental Protection
- ◆ Pennsylvania Environmental Council
- ◆ Chesapeake Bay Foundation
- ◆ The Conservation Fund
- ◆ Environmental Defense
- ◆ U.S. EPA Region 3
- ◆ CH2M HILL

Project Goals

- ◆ **Reduce nutrient loadings**
- ◆ **Increase community involvement**
- ◆ **Conduct pilot program**
- ◆ **Develop statewide trading program framework**
- ◆ **Determine future trading opportunities**

Recent Related Events

- ◆ EPA published their *Water Quality Trading Policy* on January 13, 2003
- ◆ Bay States agreed to total nutrient loading goals to the Bay on March 21, 2003

Update on Pilot

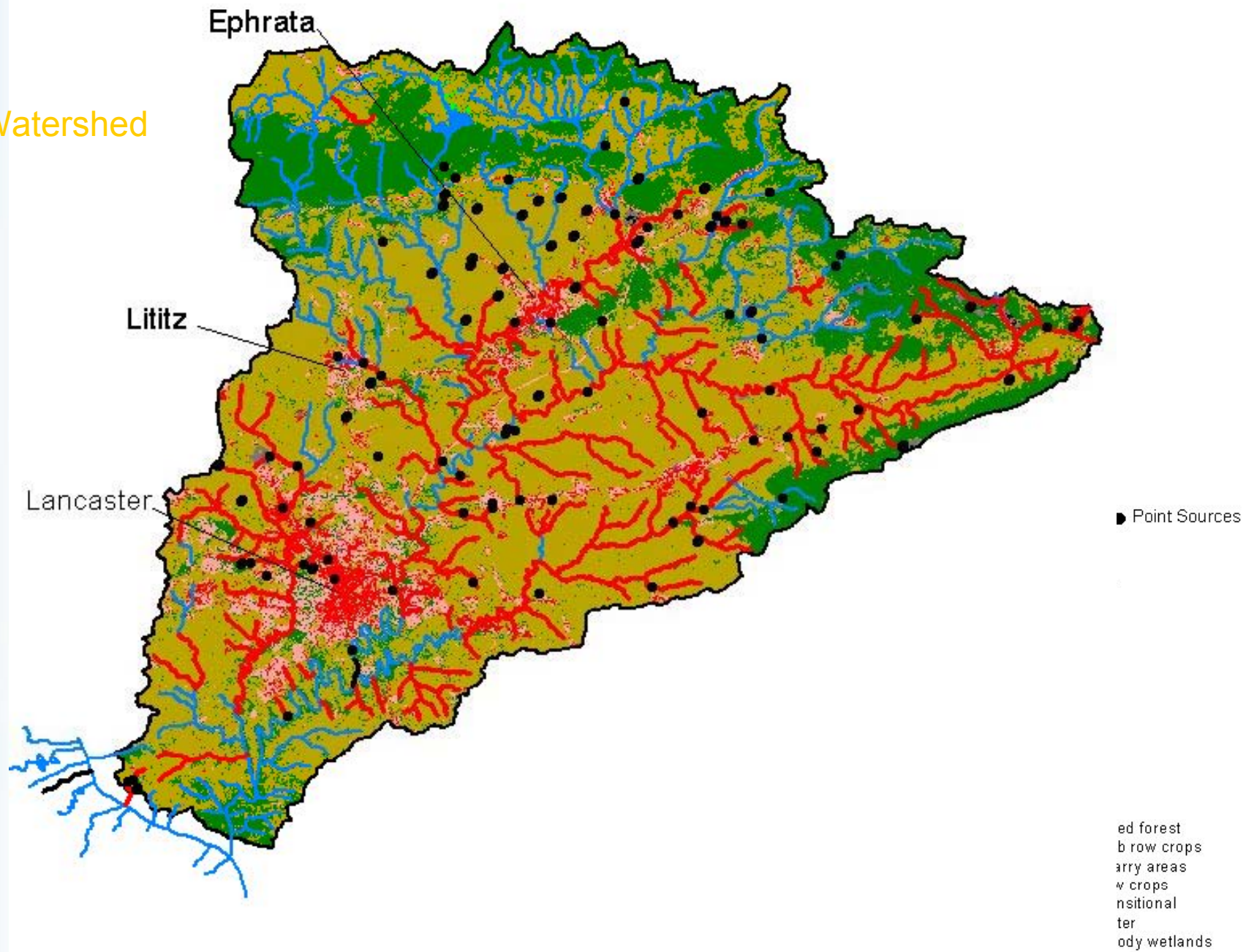
◆ Why the Conestoga Watershed was selected

- Within Chesapeake Bay Watershed
- Good mix of point and nonpoint sources
- Potential for significant community involvement
- Point sources have Phosphorus limits
- Voluntary nitrogen targets under Bay Agreement
- TMDL (Phosphorous) not yet started

◆ Nitrogen load modeling underway



Conestoga Watershed



Pilot Activities (continued)

- ◆ **Outreach drives program development**
- ◆ **Meetings (examples)**
 - Stakeholder meeting at Farm and Home Center, Lancaster
 - Businesses for the Bay
 - Ag Issues Forum
 - Advisory Committees
 - Outreach Team
 - Informal meetings
- ◆ **Goal - Demonstration Trade**

Update on Framework

- ◆ **Group has reviewed Bay Trading Guidelines and EPA Policy**
- ◆ **Discussion paper has been drafted**
- ◆ **Presenting at DEP Advisory Committees**
- ◆ **Goal – Utilize draft discussion paper and comments received to construct a draft framework document for formal public review this fall**
- ◆ **Additional Technical Guidance Document would be needed**

Draft PA Trading Discussion Paper

- ◆ **Fundamental issues identified in EPA's Policy and the Bay Trading Principles and Guidelines**
- ◆ **Intent is to:**
 - Help structure discussions
 - Help gather options for a PA trading program
- ◆ **Goal: Use input to develop a draft framework for a PA trading program**

Discussion Paper - Sections

◆ PURPOSE

◆ APPLICABILITY

◆ DEFINITIONS

- Identify terms that need defined
- Work with staff to determine which exist in other areas, ensure consistency

Discussion Paper - Sections (continued)

◆ FUNDAMENTALS

- Consistent with applicable or related laws, regulations and policies
- Part of a Watershed Approach
- Cannot produce negative water quality effects (“hotspots”, drinking water supply impacts, etc.)

Discussion Paper - Sections (continued)

◆ WATER QUALITY BENEFITS

- Use of credits
- Anti-Backsliding
- Antidegradation
- Different situations where trading may occur

Discussion Paper - Sections (continued)

◆ INSTITUTIONAL FRAMEWORK AND STRUCTURE

- Who will carry out activities?
- How would the program be aligned with current activities?

Discussion Paper - Sections (continued)

- ◆ **STAKEHOLDER INVOLVEMENT AND PUBLIC INFORMATION ACCESS**
- ◆ **WHO MAY TRADE?**
- ◆ **WHERE TRADING MAY OCCUR**

Discussion Paper - Sections (continued)

◆ WHAT MAY BE TRADED

- Nutrients (TP, TN)
- Sediment

◆ UNIT OF TRADE

◆ CREDIT CALCULATIONS

Discussion Paper - Sections (continued)

- ◆ **TRADING BASELINES FOR CREDIT CREATION AND APPLICATION**
- ◆ **ACCOUNTABILITY AND COMPLIANCE WITH TRADING AGREEMENTS**
- ◆ **BANKING**
- ◆ **ASSESSING PROGRESS : TRACKING AND REPORTING**

Possible discussion questions

- ◆ Are there significant issues missing or not discussed in the draft discussion paper?
- ◆ What types of groups could be delegated responsibility to oversee trades? Would new organizations need to be formed?
- ◆ Are there additional opportunities for public participation?
- ◆ How do we integrate market-based credits, pollution prevention and regulatory goals to obtain nutrient goals?
- ◆ Are there additional items that need to be considered regarding baselines?

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