

# Nutrient Trading Programs in the Chesapeake Bay:

## Legal Issues and Challenges



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## Water Quality (Nutrient) Trading

- ✿ Market-based instruments that create a market for the buying and selling of “pollution” credits.
  - ✿ Primarily nitrogen and phosphorus.
- ✿ Water Quality Trading Red Flags:
  - ✿ No clear statutory authority
  - ✿ Unregulated sources generating majority of credits
  - ✿ Technically challenging



## CWA Basics

- ✿ CWA goal is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”
- ✿ Discharge of pollutant from a point source into waters of the U.S without a permit is prohibited.
- ✿ Points sources are required to met:
  - ✿ Technology-based effluent limitations
  - ✿ Water quality-based effluent limitations, where necessary to achieve water quality standards.



## **Role of the States**

- ✿ Establish water quality standards (WQS) that include designated uses for each waterbody in the state and water quality criteria (WQC).
- ✿ Identify waters which are not meeting WQS on an impaired waters list
  - ✿ For such waters, states must establish a Total Maximum Daily Load [TMDL] for each pollutant.
    - ✿ Set “load” (max. amount of pollutant waterbody can receive) and allocate among existing sources.



# **CWA & THE CHESAPEAKE BAY**

## ✿ Chesapeake 2000 Agreement

- ✿ Partners agreed to clean up Bay by 2010 so it could be removed from “impaired waters” list.

## ✿ Water Quality Standards

- ✿ Water Quality Criteria and designated uses set
- ✿ States incorporate new WQC into WQS

## ✿ Load Allocations

- ✿ Nitrogen, phosphorus, and sediment reduction goals.
- ✿ Target loads allocated by basin
- ✿ Tributary strategies developed by states



## PA's Tributary Strategy


- ✿ In December 2006, Pennsylvania approve a policy to allow point sources of pollution to offset pollution discharges by purchasing “credits” from other facilities or farmers.
- ✿ Necessary reductions allocated between point and nonpoint sources within each major basin.
  - ✿ 27,000 lb phosphorus shortfall would be made up by POTWs through trading program.
- ✿ Concerns:
  - ✿ Trading Ratio 1:1
  - ✿ Generation of credits via land use conversion.
- ✿ Legal Challenge: Borough of Bedford v. PA DEP
  - ✿ Summary judgment denied on Apr. 14, 2009. Case ongoing.





# MD's Policy for Nutrient Cap Management and Trading - Phase I

- ✱ Finalized April 17, 2008
- ✱ Trading between point sources and trading involving removal of septic tanks.
  - ✱ Phase II (currently under development) will address point source to nonpoint source trading.
- ✱ Unique Aspects:
  - ✱ All wastewater treatment plants must upgrade to technology capable of reducing wastewater concentrations to 4 milligrams per liter total N and .3 milligrams per liter total P.
  - ✱ 5% retirement ratio applied to each point source generated credit.
  - ✱ Credit for retiring septic systems.



# VA's General Permit for Nutrient Trading

- ✱ Effective Aug. 7, 2008
- ✱ New and expanding facilities discharging 40,000 gallons or more per day must offset.
- ✱ Trading ratio for point/nonpoint trades of 1:2 (two pounds reduced for every pound discharged).
  - ✱ Must achieve reductions beyond those already required or funded under federal or state law.
- ✱ Credits can be obtained through payments made to Virginia Water Quality Improvement Fund, if facility unable to acquire sufficient credits from other facilities in same tributary.
  - ✱ \$11.06 for lb. N and \$5.04 lb. P





## **Does the CWA allow Offsets?**

- ✿ 44 C.F.R. 122.4(i) prohibits the issuance of a permit “to a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards.”
- ✿ Further prohibits discharges into waters not meeting WQS unless:
  - ✿ There are sufficient remaining pollutant load allocations to allow for the discharge; and
  - ✿ The existing dischargers into that segment are subject to compliance schedules designed to bring the segment into compliance with applicable water quality standards.



## ***In re City of Annandale***

- ✿ Minnesota Supreme Court upheld permit issued to new wastewater treatment.
  - ✿ MPCA determined would not “contribute” to violation of WQS because another plant in area would be upgrading facility and reducing discharge.
  - ✿ “The phrase ‘cause or contribute to the violation of water quality standards’ leaves leeway for MPCA to make a range of policy judgments based on MPCA’s scientific and technical knowledge.”
  - ✿ “Nothing in the language of the regulation or the structure of the CWA prohibits the MPCA from considering offsets in this situation.”



## **Friends of Pinto Creek v. EPA**

- ✿ EPA issued permit authorizing discharges of copper into an impaired water.
- ✿ Ninth Circuit vacated permit.
  - ✿ “Nothing in the CWA or the regulation [] provides an exception for an offset when the waters remain impaired and the new source is discharging pollution into that impaired water.”
  - ✿ 122.4(i)(2) exception does not apply unless new source can demonstrate how water quality standard will be met if discharge is allowed.
- ✿ U.S. Supreme Court denied cert Jan. 12, 2009.



## **Other Concerns**

### ✿ Anti-backsliding

- ✿ CWA “bars the renewal, reissuance or modification of a permit which contains an effluent limitation that is less stringent than those contained in the previous permit.”

### ✿ Addressing Uncertainty

- ✿ Uncertainty ratios
- ✿ Monitoring
- ✿ Reserve Credit Pools

### ✿ Enforcement and Compliance



## Risk Allocation

- ✿ Contracts can be used to shift some legal responsibility to nonpoint sources.
  - ✿ Terms and conditions;
  - ✿ Monitoring and verification procedures;
  - ✿ Penalties for noncompliance.
  
- ✿ Remedies for Breach of Contract
  - ✿ Money damages
  - ✿ Specific Performance - Rare
    - ✿ “Special or unique nature”
    - ✿ Protect public interest
    - ✿ Public nuisance



## Questions????

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