

Trading Structure Options

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Outline

- Trading structure
 - What is it ?
 - What is it made of ?
 - Why does it matter ?
- Permit systems
- Potential trading structures for the Passaic

Trading Structures

- What is a trading structure?
 - The overall process for executing trades
 - How does a discharger buy or sell credits?
 - What is the role of the regulator in permitting or rejecting trades? How does the regulator evaluate compliance?
- Poorly planned structure is common pitfall in other trading programs
- Structure should have flexibility, accountability, enforceability

Components of a Trading Structure

Permit system

- Define compliance for PS
 - Maintain ability for Regulator to enforce against noncompliance
 - Define trading area boundaries
 - Define credits
 - Enable communication among credit buyers and sellers
 - Clear approval process for trades
 - Monitoring and reporting
- Ensure accountability and define liability for pollutant reductions
 - Ensure avoidance of hotspots
 - Track trades and progress towards WQ goals
 - Manage risk among parties to trades
 - Provide information to the public and other stakeholders
 - **NGO support**

Importance of Permit system

- Permit system → structure → likelihood of success
- Different permit systems → Different structures
 - Individual point source *or*
 - Watershed-based permitting system

Options for Passaic project

- 3 possible structures
 - Market-like trading
 - Direct trading for water treatment
 - Trading association
- *MS4s and WWTPs can have different trading structures*

Structure 1:

Market-like trading

- Original vision for WQT - market environment for trading
- Permit type
 - Each PS gets individual NJPDES permit for TP
 - TP limit based on TMDL WLA
- Buyers and sellers find each other and negotiate trades
- NJDEP may seek to approve each trade
 - Raises transaction costs; discourages potential traders
- Supposed to stimulate heavy trading, but has not succeeded in practice
 - Cumbersome approval process
 - Lack of regulatory or economic driver

Structure 2:

Direct trading for water treatment

- Permit type
 - Each PS gets individual NJPDES permit for TP
 - TP limit based on TMDL WLA
- PS that exceed TP limits compensate water purveyor for cost of added water treatment
- Compensation – negotiated or predetermined by unit price for TP load exceedance
- Which state authority can approve these trades?

Structure 3:

Trading associations

- Permit type
 - PS form an association, receive *watershed-based* permit for TP
 - Permit gives collective cap for association
 - Cap = sum of WLAs from PS
- PS in group permit can trade among themselves to meet collective cap
 - If association violates cap, receive penalty proportional to cap exceedance

Structure 3: Trading associations (contd.)

- Most flexible structure
- NJDEP retains right to inspect individual WWTPs and enforce as needed
- Monitoring and reporting requirements for TP specified in group permit
- PS continue to have NJPDES permits for other parameters
- Structure used successfully in Neuse and Tar-Pamlico (NC), and Long Island Sound trading programs

EPA supports watershed-based permitting (WBP)

- Advantages:
 - Better quality NPDES permits
 - Less contentious permit issuance
 - Mechanism to implement TMDLs
 - Foundation for water quality trading
 - Emphasis on environmental results due to watershed planning
 - Attainment of watershed goals.

Watershed-based permit for the Passaic

- Feasibility of WBP for Passaic watershed
 - WWTP association already in place: Passaic River Basin Alliance
 - EPA guidance: 6 steps to WBP
 - Steps 1-3 already complete
- Passaic WBP requires strong support and advance effort from NJDEP

EPA guidance on WBP

Basic Steps to WBP

Step 1: Select a Watershed

Step 2: Identify and Engage Stakeholders

Step 3: Analyze Watershed Data

Step 4: Develop Permit Conditions

Step 5: Issue Watershed-Based NPDES Permit(s)

Step 6: Measure and Report Progress



Office Wastewater Management

6/3.ppt

Structure 3: Added Benefits

- Protection for low income municipalities
 - As part of an association, not left alone to meet WWTP and MS4 allocations for TP
- MS4 group permit is potential catalyst for stormwater utilities in NJ

Fine tuning Structure 3

- Phase in the target cap
- Use water quality equivalence ratios
- Maintain individual accountability
 - Association member keeps individual TP allocation
 - If association exceeds cap, *and* member exceeds allocation, then member is noncompliant
- Account for growth
 - New or expanding WWTPs must purchase allocations from other PS, or make offset payments to specified NPS fund (e.g. wetland restoration fund)

Hot spot avoidance

- We need to develop a way of identifying and ranking hot spot or potential hot spot zones
 - Reaches upstream of drinking water reservoir
 - Reaches that are very low flow in summer
 - Severely impaired reaches
 - Reaches that affect low income or minority communities
- Options to restrict or adjust trading in those zones
 - Limit direction of trades (buyer must purchase credits from upstream)
 - PS must treat to certain level before buying
 - Limit number of credits in the hot spot zone
- Another strategy: Incentivize trading within subwatersheds

Environmental Justice

- Provide assistance to low income municipalities that need to buy credits
- Added protection of trading association structure

For more information:

www.water.rutgers.edu/Projects/trading/WQTrading.htm