# 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 watershedbased 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 watershedbased permitting (WBP)

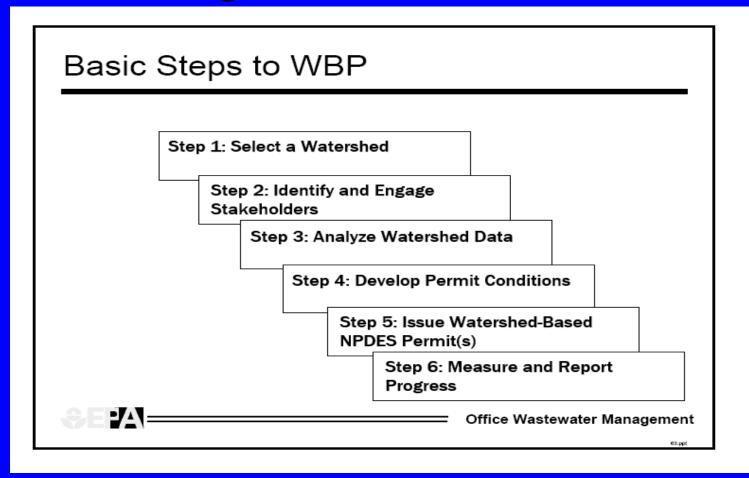
#### Advantages:

- 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



## 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