Water Quality Trading in New Jersey

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2002 Integrated Water Quality Monitoring and Assessment Report

- 2,308 assessed non-tidal river miles
  - 1,913 miles (83%) did not meet SWQS
- Most frequently occurring impairments are fecal coliform and total phosphorus
  - 35% fecal coliform
  - 45% TP (0.1 mg/l criterion)
Draft 2004 Integrated List

- Approximately 450 segments assessed for “chemical” parameters
- Fecal coliform most common impairment
  - majority addressed by TMDLs established 2004
- Phosphorus remains key impairment
  - approximately 140 segments impaired for phosphorus
  - highest exceedances found in Passaic River basin
Category One Initiative

• Three rounds of Category One designations
  - April 2003
    • 82 miles (ecological significance)
  - November 2003
    • 14 miles (trout)
  - Proposal pending adoption
    • 500 miles (water supply)

• Stormwater Management Rule provides Special Water Resource Protection Area
  - 6,093 stream miles protected by 300 foot buffer
    • 3,307 Category One waters
    • 2,786 Tributaries to Category One waters
Phase II Stormwater

• Establishes two tiers of requirements:
  - Tier A
  - Tier B

• General Permits: basic requirements

• Water Quality Management Plan amendments: Additional Measures
Antidegradation

- If waterbody listed as impaired for a parameter AND
- TMDL not yet established for pollutant/waterbody combination; THEN
- Effluent limit for discharges of pollutant = criterion
- For phosphorus impairments: 0.1 mg/l end-of-pipe
- Reasonable potential to exceed will get a WQBEL
Phosphorus TMDLs

• 35 TMDLs for phosphorus in lakes established 2003
• Proposed April 2004:
  - Papakating Creek & Clove Acres Lake
  - Cooper River & Lakes
TMDL Schedule

• 2004
  - Passaic

• 2005
  - Raritan
  - Rancocas
  - Pennsauken

• 2006
  - Raritan
  - Saddle
  - Assunpink
  - Lakes

• 2007
  - Remainder of TP listings
Trading Opportunities

- Trading: meet regulatory obligations or protect high quality water at reduced cost
  - Improve Water Quality Pre-TMDL
  - Reduce Cost of Implementing TMDL
  - Maintain Water Quality Better than Standards
  - Ancillary benefits with Point/Nonpoint Trades
    - buffers
    - habitat
    - wetlands
Issues

• Accountability
• Verifiability
• Spatial and temporal equivalence
• NPS load variability and control efficiencies
• NPS quantification uncertainty
• Trades only for reductions beyond required reductions