Wastewater Reuse in New Jersey 2003

THINK

REUSE

NOT

DISPOSAL
REUSE HISTORY

• New Jersey

• Florida Reuse Program

• California
What is Reclaimed Water for Beneficial Reuse

Reclaimed Water for Beneficial Reuse involves taking what was once considered waste product, giving it a high degree of treatment and using the resulting high-quality reclaimed water for beneficial uses. In other words, the reclaimed water is used to replace or supplement a source of ground water or potable water consumption.
Types of Reuse

- PUBLIC ACCESS….In public access application the reuse water is used in areas that are intended to be accessible to the general public, such as residential lawns, golf courses, ball fields and parks. The water must meet very stringent requirements to ensure safety and protection for human health and the environment.

- RESTRICTED ACCESS…

- INDUSTRIAL & AGRICULTURAL
Specific Reuse Examples

- Bergen County UA supplied over 200 million gallons of reuse water for non-contact cooling to the PSE&Gs Ridgefield plant in 2002
- Evesham Township MUA delivered over 30 million gallons of reuse water to Indian Springs Golf course in 2002
# Current Permitted Beneficial Reuse Projects in New Jersey

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<th>REUSE FACILITY</th>
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<td>Medford Lakes CC</td>
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Reuse Permitting

• Included in NJPDES permit
• Module in Part IV of permit
• May be additional limits and conditions as well as submittal requirements for:
  * User/Supplier Agreement
  * Operations Protocol
  * Engineering Report
Encouraging Water Reuse
N NEW JERSEY
Reuse Tax Incentives for Industrial Processes

• January 2002 two bills passed in the NJ legislature to provide tax incentives for beneficial reuse in industrial processes through business tax credit and sales tax refunds.
Reuse Tax Incentives for Industrial Processes

N.J.S.A. 54:10A-5.31

• Provides for corporate business tax credit up to 50% of cost of treatment and/or conveyance equipment purchased and operated solely for the purpose of beneficially reusing wastewater effluent in an industrial process.
Reuse Tax Incentives for Industrial Processes

N.J.S.A. 54:32B-8.36

• Provides sales tax refund for treatment and/or conveyance equipment purchased and operated solely for the purpose of beneficially reusing wastewater effluent in an industrial process.
Reuse Tax Incentives for Industrial Processes

- Rules will be at N.J.A.C. 7:14D-1 et seq.
- Commissioner signed the rule adoption on December 26, 2002
- Adoption of Rules appeared in the NJ Register on January 21, 2003
- Joint effort with NJ Dept. of Treasury-Division of Taxation
- NJDEP will determine environmental benefit to water resources
Reuse Tax Incentives for Industrial Processes

• Applicants seeking tax relief must obtain a determination of environmental benefit from the Department which must then be submitted with its application for tax relief to the New Jersey Department of Taxation, who will make the decision whether to grant or deny the tax credit or exemption.
Reuse Tax Incentives for Industrial Processes

- Bergen County UA permitted. Supplied 191 million gallons of effluent for non-contact cooling to PSE&G’s Ridgefield plant in 2001
- GCUA approved for 10 mgd of effluent to PG&E Mantua Creek Generating Station
- Linden Roselle/PSEG-Linden: cooling tower make-up water
- Joint Meeting/PG&E
- Clement- Pappas Company
- Bristol Myers Squibb
New General Permit for RWBR for Restricted Access applications

Expected to be completed by June 2003

Authorization for Restricted Access applications only

Valid only until NJPDES permit is renewed and authorization is then placed in the NJPDES permit
Technical Manual for Reclaimed Water for Beneficial Reuse
January 2003

www.state.nj.us/dep/dwq/techmans/reuse.pdf

• Specific Treatment and Implementation Guidance

• Setback Distances
• Annual Reports
• Min Design Capacity

• New TSS Requirements
• Alternative Disinfection
• UV Disinfection
How else is New Jersey Encouraging Reuse?

• Low Interest Loans available to public facilities for reuse projects
  * 50% of loan at 0% and 50% at market rate
  * must prove a benefit to water quality

• No additional permit fees

• Outreach?
FUTURE & TODAY

- REUSE into BIG MAP?
- Tax Incentives for treatment and/or conveyance equipment for other commercial/industrial use aka golf courses?
- Changes to the NJ Statewide Water Supply Plan
- Reuse Feasibility Requirements
- Wastewater Mining Alternatives
Obstacles to REUSE

- $$$$$ MONEY $$$$$

- PUBLIC PERCEPTION
Obstacles to Reuse Implementation

- Regulatory:
  - minimum passing flow
  - interbasin transfer
  - program coordination
Obstacles to Reuse Implementation

**Regulatory**

- Minimum passing flow: Certain receiving waters have minimum flow requirement for water supply concerns. This may prevent treatment plants from reusing their effluent so that a minimum passing flow can be maintained.
Obstacles to Reuse Implementation

Regulatory

• Interbasin Transfer
  * low flow issue
  * pollutant load issue
Treated Wastewater for Reuse in Industrial Process(s)

Watershed #1
- STP Effluent (10 MGD)
  - Sewerage Treatment Plant
  - Industrial Wastewater

Watershed #2
- Reuse Water (4 MGD)
  - Industrial Facility
  - Treated Industrial Wastewater
Obstacles to Reuse Implementation

• Assigning costs to water
  – Match Water Quality to Water Use
NJDEP

REUSE IT, RATHER THAN DISPOSE OF IT!