

# 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

REUSE FACILITY	Type of REUSE SYSTEM & COMMENTS	
EVESHAM WWTP	Public Access	Spray Irrigation
ACUA	Restricted Access	Spray Irrigation/Sewer Jetting/Street Cleaning
PALMYRA STP	Restricted Access	Sewer Jetting/Street Cleaning
SECAUCUS	Restricted Access	Sewer Jetting/Street Cleaning
GCUA	Restricted Access	Non Contact Cooling water
BCUA	Restricted Access	Non Contact Cooling Water
LOWER TWP MUA	Public Access	Spray Irrigation
RIVERSIDE SA	Restricted Access	Sewer Jetting, Street Sweeping, Compost
MT LAUREL TWP MUA	Restricted Access	Spray Irrigation, Composting
CLINTON MUA	Restricted Access	Spray Irrigation
HIGHTSTOWN WTP	Restricted Access	Spray Irrigation, Vehicle Washing
Linden-Roselle SA	Restricted Access	Non Contact Cooling
Joint Meeting of Essex & Union	Restricted Access	Non Contact Cooling
Medford Lakes CC	Public Access	Spray Irrigation, Fire Hydrants *****

# 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 IN 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](http://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

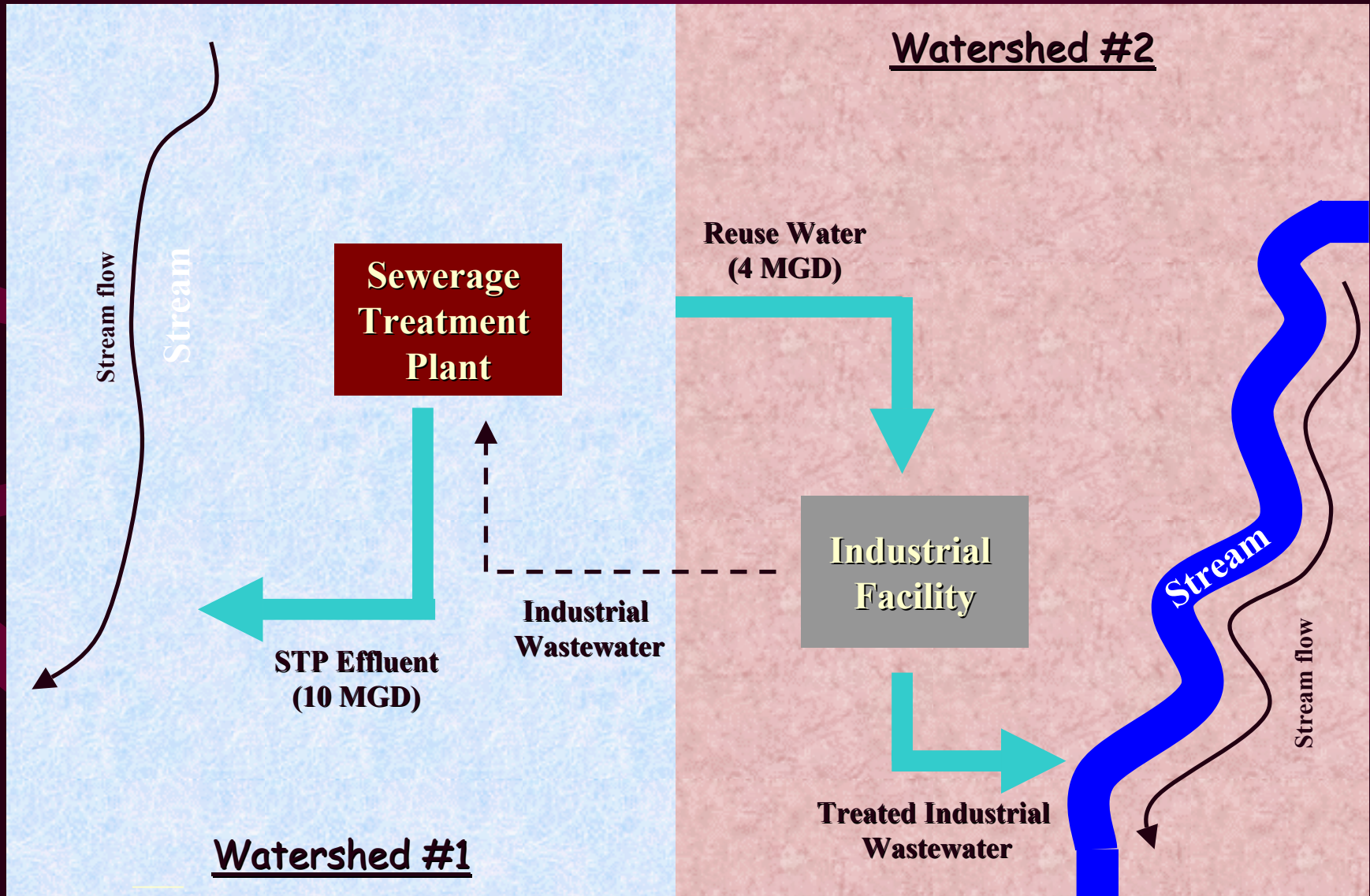
- Minimum passing flow: Certain receiving waters have minimum flow requirement for water supply concerns. This may prevent treatment plants from reusing their effluent so that a minimum passing flow can be maintained.

# Obstacles to Reuse Implementation

## Regulatory

- Interbasin Transfer
  - \* low flow issue
  - \* pollutant load issue

# Treated Wastewater for Reuse in Industrial Process(s)



# Obstacles to Reuse Implementation

- Assigning costs to water
  - Match Water Quality to Water Use

**NJDEP**

**REUSE IT, RATHER THAN  
DISPOSE OF IT!**