Promoting Environmental and Community Service Leadership as an Essential Best Practice for the Clean Water Utility of the Future

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You must be the change you wish to see in the world.

M. Gandhi
Clean Water Utilities can Make a Positive Difference by:

- Optimizing Water Quality
- Minimizing Odors
- Achieving Cost Efficiencies to Reduce Rates
- Reducing Carbon Footprint and implementing Green Energy Initiatives
- Implementing Green Infrastructure, Creating Parks & Rain Gardens
- Providing Environmental & Community Service Leadership for our ratepayers and the Clean Water Industry
Camden City, NJ

• One of the poorest cities in the nation
• One of the highest rates of violent crime in the nation
• Poor urban planning (little separation between residential community and industry)
• Aging infrastructure (combined sewer system is over 100 years old)
Camden County Municipal Utilities Authority, Camden, NJ

- Services 500,000 customers in Southern New Jersey
- Design Flow: 80 MGD
- Average Flow: 58 MGD
- Secondary, pure oxygen activated sludge treatment
- Discharges to Delaware River
Initial Conditions:

- Effluent Quality suboptimal, frequently non-compliant
- CCMUA obliged to raise rates by 22 1/2%, from $275 per household to $337
- Numerous odor complaints from neighboring residents
- Lawsuits from NJDEP and Community Groups
- Privatization considered
Implementation of Environmental Management System (EMS)

- Optimize Effluent Quality
- Optimize Odor Control
- Minimize Costs
- Environmental and Community Service Leadership
Current Camden County Programs
Optimizing Water Quality Performance

- Effluent Quality improves from 25ppm to 4ppm
- Solids capture increases from 44,000 tons per year to 60,000 tons per year
- Wet weather overflows eliminated at plant
- Netting systems installed at CSO’s for solids capture
Optimizing Odor Control Performance

- Replaced odorous sludge composting facilities with sludge drying facility
- Installed $50 million in new odor control systems
- Imposed zero tolerance policy with respect to odors from carelessness (doors left open; odor systems left off, etc)
- Increased supervision, especially on weekends
Economic Stewardship

• Operational optimization through EMS
• Replacement of capital using low interest State Revolving Fund
• Rates held for 17 years
• Rates 45% lower after interest adjustments ($337 in 1996; $342 in 2014)
• Host Community Rate Benefit given to Camden City residents
Green Energy Initiatives

• Reduced electricity usage through improved operational efficiency and more energy efficient equipment
• 2 MW solar panel system installed
• 3 MW digestion/CHP system being installed
• Sewage to Heat facility
Green Infrastructure & Flood Control

- Collaborative among NJDEP, NJ Tree Foundation, Rutgers, CCMUA, Camden City and Cooper’s Ferry Partnership to reduce flooding citywide
- 50 rain gardens, stream daylighting, depaving projects and 1000 trees planted
- Water conservation ordinance adopted
- Combined sewers replaced and rehabilitated
- Increased oversight of operations and maintenance
Collaboration among USEPA, NJDEP, CCMUA, Camden City and 25 other environmental and community agencies, to address environmental issues

Six working groups formed:
- Flooding
- Contaminated Sites
- Air Emissions
- Recycling
- Environmental Justice
- Environmental Education

Camden County Sustainability Initiative
Riverfront Access through Creation of New Parks

- Michael Doyle Riverfront Park (fishing pier)
- Phoenix Park (10 acre riverfront park created from an abandoned factory)
- Gateway Park (40 acre riverfront park)
Doing the Right Thing is also the Smart Thing

- Reduction of regulatory liability, fines, etc.
- Reduction of liability to litigation from residents
- Improvement in public perception
- Improved efficiencies not only allowed for improved environmental performance and community service initiatives but also significant cost savings
The Clean Water Utilities of the Future have the opportunity, and the obligation, to “become the change we seek” and do our part to help save the planet by providing environmental and community service leadership for our ratepayers and our industry.
If you would like more information, please contact:

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