New Jersey Clean Water Council
Recommendations on Water Infrastructure Financing
Adopted 10 February 2009

The Clean Water Council's research, discussions and public hearing testimony have highlighted critical issues regarding the financing of infrastructure for water supply, wastewater and stormwater ("water infrastructure") services in New Jersey. In consideration of those issues, the Council makes several key recommendations for implementation by the State. New Jersey has taken a number of valuable regulatory and financing steps to ensure proper management of water infrastructure. However, the Council believes strongly that New Jersey's current approach to infrastructure financing will, in the long run, be inadequate to the task of achieving statewide, sustainable progress in environmental protection, social equity and economic health, the three components of a sustainable society. In short, lack of attention to these issues will damage New Jersey's quality of life and its competitive position within the region, the country and the world.

To be successful as a sustainable state, New Jersey should:

1. **Eliminate Disincentives for Proper Infrastructure Management**: State laws and regulations should be modified so that all infrastructure owners face the same requirements for infrastructure management and financing, so that there is an even playing field and no incentives to artificially depress current rates by deferring operation and investment needs. Use of utility revenues to fund municipal general operations and other non-utility purposes should be prohibited.
2. **Mandate Proper Asset Management**: All water infrastructure should be managed according to modern principles of asset management. Regulatory requirements should ensure that objectives are attained for environmental standards, infrastructure reliability and cost-effectiveness using life-cycle cost accounting practices.
3. **Full Cost Pricing**: The operation, maintenance and debt servicing of all water infrastructure systems should be financed based on the full anticipated costs using proper asset management approaches, including the creation and maintenance of capital reserves to address routine maintenance and replacement costs. Rates should be controlled by competent management, not deferral of costs.
4. **Municipal Assistance**: The first three recommendations should be implemented even where existing municipal fiscal distress is a concern, as many utility users in such municipalities are readily able to pay rates based on proper management and full cost pricing. However, the State should provide assistance to low-income users analogous to our energy programs, and should assist water utilities in using proper asset management to avoid future rate shocks. Where the interests of the State benefit from infrastructure financing for capital improvements to create development capacity, that financing should be targeted to those areas most able to support center-based growth, particularly urban areas.

In the final analysis, the true financial challenge regarding New Jersey's water infrastructure will not be met through a single funding source or approach. Rather, it will be met through improved management practices that direct available funds to asset management, rather than emergency repairs, and that couple good management with rates that reflect the full costs of water infrastructure. There are sufficient examples of well-managed utilities to know that these recommendations, if implemented by the State, will result in significant benefits statewide.

Critical Issues

1. **Unacknowledged Costs**: Those benefiting from infrastructure for water supply, wastewater and stormwater are rarely subject to user charges that reflect the full cost of creating, operating, maintaining and replacing the infrastructure. Federal grants for wastewater treatment facilities, federal and State subsidized loans for wastewater and water supply infrastructure, developer payment for distribution and collection systems (usually capitalized into real estate sales and rental prices), use of general tax revenue (especially for stormwater infrastructure), reliance on investments from generations ago, and deferred maintenance all have hidden the true costs of infrastructure from users. Replacement, rehabilitation and structural maintenance costs are rarely built into rates (and in some cases this practice has been discouraged by State agencies), and therefore proper infrastructure management can create rate shocks. As one example, water, wastewater and stormwater infrastructure built into developments from the 1950's and 1960's will require major repair and rehabilitation, but the developers who initially paid for those systems will not be available to cover the new costs. Statewide, no rate-based stormwater utility has been established by municipalities, even though the authority to do so exists. The lack of municipal action speaks to inadequate attention to stormwater management and to a lack of State support for use of this financing technique. Further, no statutory authority exists for stormwater management by municipal, regional or county authorities.

2. **Aging Infrastructure**: Most of our water infrastructure is aging in place, has exceeded its economic life, and requires routine investment in repair and rehabilitation to remain viable into the future. Relatively few systems have included such investment into their programs, and therefore are "coasting" on expenditures from 40 to 100 or more years ago. The older the infrastructure, the more deferred maintenance costs have accrued and must be addressed soon. Urban areas, the focus of State policies for smart growth and redevelopment, are therefore in precarious shape regarding water infrastructure management. The presumed capacity for growth in such areas may be compromised or even not exist.

3. **Deferred Maintenance**: Asset management using modern national and international standards, where utility providers use detailed knowledge of infrastructure age, quality and risk of failure to schedule maintenance, rehabilitation and replacement of infrastructure, is not commonly practiced in New Jersey. Regulatory controls on utility costs and reserves and short-term concerns about user rates currently do not encourage and often thwart proper asset management. There are examples of asset management in New Jersey that have improved infrastructure while reducing user rates; the savings from better operations exceeded the costs of infrastructure rehabilitation. Not all systems will be able to achieve such striking results, but it is reasonable to expect that life-cycle costs will be reduced by improved asset management.

4. **Disjointed Regulations**: State laws and regulations create an uneven playing field for water infrastructure financing and management. Utility authorities, municipal utilities, investor-owned utilities and private utilities are regulated in distinctly different ways regarding rates, reserves and cost accounting practices. State regulations for drinking water quality and wastewater treatment are the same regardless of the type of utility, and so cost implications are similar. However, few regulations exist regarding asset management practices, and therefore there is little attention to financing for this work. As a stark example of how this disjointed regulatory system leads to poor management practices, utility authorities have been dissolved or sold for no better reason than to allow the municipality or county to divert a utility's capital reserves for general revenue, a "one shot" financing approach that is to the detriment of both infrastructure and the users. Likewise, municipal utilities have been sold to generate one-shot

revenue from the acquiring entity. Finally, some municipalities still deliberately use their utility rates as a source of ongoing general revenue, diverting utility funds to reduce their ad valorem property tax rate and then requiring the utilities to bond for even minor infrastructure projects. In all of these cases, there is little concern given to long-term rate implications or infrastructure asset management. Local officials may embrace options that provide short-term benefits but long-term costs, or may choose an option to avoid complex management or financing issues.

5. **Excessive Reliance on Bonding**: The current crisis in the bonding and credit market highlights the cost of relying on bonding for routine infrastructure repairs. Infrastructure maintenance is a constant requirement in a well run system. However, many utilities routinely bond rather than including such annual costs in the normal rate structure; they do not reserve the use of bonding for costs that are entirely disproportionate to normal maintenance, such as major upgrades or replacements to treatment plants, or one-time initiatives to overcome deferred maintenance. Over time, such routine bonding eats into bonding capacity, increases rates, and creates further pressures to curtail infrastructure maintenance as a method to artificially reduce current expenses.

6. **Inadequate Supporting Systems**: Every management system requires the right information at the right time, which is used in operating decisions geared to effective and equitable results. Asset management, proper capitalization of funding systems (such as the Environmental Infrastructure Financing Program), and regulatory decisions all demand quality information, trained personnel, and effective decision support systems. Many aspects of this process are inadequately funded, at risk, or poorly used in New Jersey.

<u>Key Recommendations</u>

1. **Eliminate Disincentives for Proper Infrastructure Management**: State laws and regulations should be modified so that all infrastructure owners face the same minimum requirements for infrastructure management, so that there is an even playing field and no incentives to reduce costs by avoiding operation and routine investment needs. The resulting regulatory system should ensure that there is no potential for use of "one shot" revenue to bias decisions regarding the utility ownership chosen: utility authority, municipal utility or BPU-regulated entity. Reserve requirements should be equivalent for all types of utility ownership and management, and should be based on sound financial management principles. Use of utility rates and reserves to fund municipal general operations and non-utility functions should be prohibited. However, utilities should also be guided regarding appropriate reserve amounts, and prohibited from building reserves to excessive levels.

2. **Mandate Proper Asset Management**: All water infrastructure should be managed according to modern principles of asset management, based on detailed understanding of the systems and the potential for and risks of component failure. Regulatory requirements should ensure that objectives are attained for both effectiveness, such as meeting environmental standards, and for cost-effectiveness using life-cycle costs rather than short-term rate objectives. New regulatory requirements should be adopted regarding infrastructure reliability, analogous to those for energy utilities. There should be no incentive for choosing an approach with high life-cycle costs but artificially low current rates (the utility equivalent of sub-prime mortgages). The ultimate goal is to reduce total life-cycle costs through better management, by reducing emergency repair and replacement costs and operating costs through infrastructure improvements. Recent New Jersey examples show the rate benefits of this approach.

3. **Full Cost Pricing**: The operation, maintenance and debt servicing of all water infrastructure systems should be financed based on the full anticipated costs of using proper asset management approaches. Full cost pricing should include the creation and maintenance of capital reserves to address routine maintenance, rehabilitation and replacement costs. Bonding should be reserved for major infrastructure projects, such as creating, expanding or replacing treatment systems or for short-term projects that address major deferred maintenance needs. In this manner, the gap between anticipated Environmental Infrastructure Financing Program funding and local needs can be reduced. Finally, full cost pricing includes permit costs, which should include data acquisition needs to ensure that regulatory decisions are based on a sound understanding of environmental and asset management needs. Recognizing that many systems have not been operated in this manner, there may be a need for phasing in of such practices over a reasonable period of time to ensure that the proper management data and practices are put in place, in support of appropriate rate and reserve structures.
4. **Municipal Assistance**: Many municipalities are already experiencing significant fiscal distress, and full cost pricing for water infrastructure may exacerbate the effects of this distress on residents and businesses of these municipalities, at least in the short term. However, this fact should not be the basis for avoiding full cost pricing for two critical reasons. First, municipalities with poorly managed water infrastructure and high levels of deferred maintenance are sacrificing their future and will likely incur high costs from emergency repairs. All of New Jersey will suffer from such short-sighted management. Second, utility rates apply to all utility service users, while property taxes do not. Therefore, full cost utility pricing spreads costs more equitably across all who benefit from utility services, and also helps support the future viability of the municipality. Rather than sacrificing full cost pricing, State programs should provide assistance to low-income users similar to the energy assistance programs, for water conservation to avoid charges and for financial assistance to offset utility costs. In addition, State agencies should work with water utilities in these areas to identify ways in which proper asset management can reduce or contain rates, as discussed above.

   The Council recognizes that there may be situations where infrastructure capital investment by the State to create development capacity will be in society's best interests for growth management, by deliberately improving the market for redevelopment and urban densities. Where the State will benefit from such infrastructure financing, such financing should be targeted to those areas most able to support center-based growth, particularly urban areas. However, the life-cycle costs for maintaining and replacing such capital investments should be built into the utility rates. Otherwise, in a generation the urban areas will face the same infrastructure problems they currently suffer, but for an even larger population.

   The Council also recognizes that achieving certain environmental and water resource objectives may not be cost-effective without financial support, due to the costs of emerging technologies or other factors. As with financing for smart growth in urban centers, State subsidization may be appropriate, as long as life-cycle costs are built into the utility rates.