Top Ten Water Quality Issues in New York State

Aging Wastewater Treatment Infrastructure

The Problem...
Across New York State over 600 wastewater treatment facilities serve more than 15 million people. These facilities range from New York City’s system of 14 plants which process 1.3 billion gallons of wastewater per day, to small village systems of 100,000 gallons per day. When the Clean Water Act was passed in 1972, it was accompanied by considerable federal funding to support the construction and upgrading of these facilities to insure that impacts from municipal wastewater would be controlled. These efforts were largely successful, as the period from the 1970s through the 1980s saw significant water quality improvement across the state. However, since then funding for maintaining and upgrading these facilities has been greatly reduced. As many of these plants that reach the end of their 30- to 40-year design lives, previous water quality gains are in danger of being lost.

In addition to the treatment plants themselves, sewer systems that convey wastewater to the plants for treatment are also deteriorating. More than 30% of these systems are in excess of 60 years old. Overflows of raw sewage from these sanitary systems – as well as from older combined sewer systems that capture both sanitary wastewater and storm runoff and are designed to overflow during heavy rain and runoff events – result in considerable water quality impacts across the state.

The Significance...
Discharges from municipal wastewater treatment plants and/or collection systems are identified as a major source in 24% of all waterbodies assessed as impaired in New York State. In another 12% of impaired waters, municipal sources are a contributing source (though not the most significant source). In addition, 19% of the waters with less severe minor impacts or threats note municipal wastewater as a major contributing source.

Specific Waters...
Not surprisingly, water quality impacts due to inadequate municipal wastewater treatment typically occur in the more populated areas of the state. Such impacts are of particular note in the metropolitan New York City/Long Island region of the state where municipal wastewater sources are cited as the cause of 54% of all impaired marine estuary acres. Other areas where such impacts occur include the large municipalities of Syracuse, Buffalo and Utica. However, a number of smaller municipalities across the state, where limited resources make infrastructure upgrades difficult without state or federal assistance, experience similar quality impairments and impacts.

What is Being Done...
During the 20 years from 1987 to 2008, federal Clean Water Act funding was reduced by 70%, from $2.4 billion to $687 million. To increase awareness of the problem and advocate for resources necessary to address the issue, NYSDEC undertook the Clean and Safe Water Infrastructure Initiative. This Initiative led to the Clean Water Collaborative which is a coalition of state and local governments, elected officials and environmental and business organizations. The collaborative identifies federal, state and local funding sources for a sustainable wastewater infrastructure program. Recent successes include $432 million from federal stimulus legislation for wastewater infrastructure projects and a three-fold increase ($232 million) in New York’s Clean Water State Revolving Fund (CWSRF) for wastewater projects.

But beyond recent progress, it is clear that a new comprehensive and sustainable approach is needed. To that end, the initiative promotes strategies that provide incentives for infrastructure maintenance and reinvestment, water conservation, energy efficiency and innovative technology, including green infrastructure. Clearly addressing our infrastructure needs is both a financial and technical challenge.

More Information
NYSDEC Wastewater Infrastructure Needs Report
http://www.dec.ny.gov/chemical/42383.html
NYS Environmental Facilities Corporation Funding
http://www.nysefc.org/home/index.asp?page=100