

New York City Department of Environmental Protection comments to the U.S. Environmental Protection Agency's Request for Stakeholder Input On Potential Rulemaking Related to Sanitary Sewer Systems/SSOs

Docket ID No. EPA-HQ-OW-2010-0464

The New York City Department of Environmental Protection (DEP) submits these comments in response to the U.S. Environmental Protection Agency's (EPA's) request for stakeholder input on NPDES permit requirements for municipal sanitary sewer collection systems, sanitary sewer overflows, and peak wet weather discharges from wastewater treatment plants serving separate sanitary sewer collection systems, which was published in the Federal Register on June 1, 2010 (75 Fed. Reg. 30395). DEP appreciates the opportunity to provide comments on these critical issues and the EPA's decision to begin collecting information in advance of proposing rules.

DEP provides 1.1 billion gallons of water to 8.4 million New York City residents, 1 million upstate New York residents, and millions of visitors every day. DEP also collects wastewater and stormwater, and treats an average of 1.3 billion gallons a day at our 14 wastewater treatment plants located within the City.¹ The additional amount of treated wastewater over supplied water is due to the fact that most of New York City's sewerage areas, and about half of New York City's overall area, are serviced by combined sewer systems that carry stormwater runoff to the treatment plants. However, the drainage area for one of DEP's plants is entirely serviced by a separate system, and other DEP plants have drainage areas that are serviced by a combination of separate and combined sewer systems. DEP maintains 7,400 miles of combined and sanitary sewer pipe serving different topographical, geographical and zoning districts, and the waters surrounding New York City have diverse uses and classifications.

Given this infrastructure, DEP is particularly interested in the interplay between EPA's two main wet weather policies for municipal discharges: combined sewer overflows (CSOs) and separate sewer overflows (SSOs). The CSO and SSO programs must not be considered in isolation from each other, just as municipal or utility treatment plant point source discharges should not be the sole or even main focus of regulation compared to other sources of impairment, which commonly include agricultural and suburban runoff, atmospheric deposition from major interstate air sources, and historically contaminated sediments. DEP urges the EPA to consider a comprehensive but flexible regulatory system that cuts across what are currently "siloe" water programs and allows cities and other entities to determine the most cost-effective ways to improve water quality given loadings from all sources and the characteristics of receiving waters. While DEP supports some uniform national requirements, as a general matter, a one-size-fits-all standard is particularly difficult to apply to a system on the scale of New York City's. We are particularly concerned about forcing collection systems that were designed with overflow structures to protect treatment plants (and, therefore, to promote water quality over the long term) to be retrofitted for completely different purposes such as meeting treatment and storage requirements that are far beyond design parameters.

¹ DEP operates seven additional POTWs outside the City of New York in the City's upstate New York watershed. Except as to the discussion on satellite systems in response to item 3, these comments focus on the in-City POTWs.

DEP's comments below are organized by the questions set forth in the Federal Register notice.

1. Should EPA propose to clarify its standard permit conditions for SSO reporting, recordkeeping and public notification?

DEP recognizes the importance of public notification of SSOs and other discharges to waterways that potentially affect public health and safety, and believes that such notifications should be focused on parties with a reasonable potential for exposure. DEP has developed narrowly tailored notification programs that have proven effective at preventing outbreaks of water-borne diseases, and absent compelling evidence to the contrary, EPA should not adopt broader or more general SSO public notification or recordkeeping programs, particularly if such programs are not designed to provide immediate notification to members of the public who are likely to be exposed to pathogens.

A core principle underlying the day-to-day functions of DEP and the numerous agencies of the City of New York is the protection of public health and safety. Moreover, the City of New York has been at the forefront of ensuring transparency of municipal government and dissemination of information to the public. At the heart of this initiative is the City's 311 Information Hotline, through which trained staff provide information to callers pertaining to virtually any topic, including water quality, beach advisories, and beach closures.

With regard to water quality, public safety concerns are the greatest where there is the greatest potential for contact with water. In New York City, this is at the 14 miles of public bathing beaches. The public is advised of beach advisories and closures through the 311 Information Hotline and postings on both the New York City Department of Health and Mental Hygiene (DOHMH) and New York City websites. In addition, during the swimming season the City posts preemptive Wet Weather Advisory information, and any issued Wet Weather Advisories, at the public bathing facilities.

While not specifically related to sanitary sewer systems or SSOs, DEP maintains signs at 422 CSO outfall locations that instruct the public to report any dry weather discharges to the 311 hotline, and it is updating those signs to warn against use of waters in wet weather.

DOHMH routinely samples water quality in beach areas at least weekly, with biweekly sampling at certain locations. Additional sampling may be conducted if routine samples exceed applicable standards, there are reported sewage spills or other pollution events, and following heavy rain events. DOHMH also monitors wet weather conditions daily during the bathing season and notifies the public, through the procedures discussed above, when rainfall intensities exceed the pre-emptive limit.

DEP, through its sentinel monitoring program, identifies unpermitted dry weather discharges by sampling water quality from eighty stations in local waters. All dry weather discharges and bypasses are reported to state authorities in accordance with the procedures set forth in the SPDES permit issued for DEP's fourteen wastewater treatment plants.

As noted above, these programs have proven effective at preventing outbreaks of water-borne diseases, and a broader notification program should not be required absent compelling evidence

that it is needed to protect public health. To the extent that EPA does clarify its reporting and notification procedures, any revised rules must retain the necessary flexibility to reflect those inherently local conditions and judgments, and should reflect the existing state and local requirements that have been developed with local and state health officials to reflect the specific circumstances under which discharges are likely to affect public health and welfare and notification will be effective at reducing those risks.

The EPA's request for stakeholder input suggests that SSOs include overflows that flow into basements or streets exclusively. DEP does not agree that SSOs, for the purposes of the proposed rulemaking, should be defined to include overflows or releases of wastewater that do not reach waters of the United States.

2. Should EPA propose to develop a standard permit condition with requirements for capacity, management, operations and maintenance programs based on asset management principles?

As EPA recognizes, collection systems come in a variety of engineered configurations. DEP strongly believes that any approach that adopts uniform permit conditions would fail to recognize and appropriately consider this diversity.

DEP does support the development of common principles for management, operation and maintenance programs, if those principles leave public and private and utility operators with the flexibility to exercise their best judgment about the areas of the sewer system that could benefit from a programmatic approach. It is challenging for operators of collection systems to make cost-effective decisions about maintenance when, as EPA acknowledges, sewer back-ups may be caused by tree roots, cooking grease accumulation, structural issues, or other problems. Indeed, when responding to sewer back-up complaints, it is common for DEP to determine that the City sewer in front of the residence functions as designed, but the lateral or internal plumbing, which is not part of the City system, is clogged. To manage under these variable conditions, DEP has found that complaints are a very effective method for determining constraints in the sewer system; New York City operates a robust complaint system through its 311 Information System and complaints help pinpoint locations for cleaning and obstruction removal as well as locations that might require rehabilitation.

DEP does not agree that management, operations or maintenance programs can be based upon standard asset management programs. The latter are designed to help utility managers prioritize system investments to meet regulatory requirements and deliver sewerage service to the community. For example, DEP is undertaking an extensive asset management program that has evaluated and scored over 100,000 individual assets. The asset scores will guide DEP's developing and prioritization of capital projects and programmatic maintenance needs. In developing the scored asset management program, DEP made a strategic decision to exclude the water and collection distribution networks. DEP already tracks information on pipe size, age, and complaint data to guide our management of the collection network and implement programmatic inspections and maintenance where needed. Based on its knowledge of the collection network and the level of performance, DEP has determined that assessing all 7,400 miles of sewer pipe within the City using a programmatic approach not tailored to specific areas

based on complaint data would not assist in making informed decisions about capital investment priorities and would waste limited resources.

System capacity is a distinct issue and should not be combined with management, operations, or maintenance principles. To address capacity needs requires long-term engineering, design and capital planning as well as significant capital investments that are on a much longer cycle than NPDES permits. Moreover, capacity needs and solutions are unique and cannot be addressed through standard permit conditions or principles. Accordingly, DEP does not believe that the EPA should develop standard permit conditions for collection system capacity.

3. Should EPA propose to require permit coverage for municipal satellite collection systems?

The term “municipal satellite collection system” as defined by EPA in the Federal Register Notice means “a collection system that is owned or operated by a municipality other than the municipality that provides treatment for wastewater added throughout the system.” The City of New York owns and, through DEP, operates seven Publicly Owned Treatment Works (POTW) treatment facilities outside its municipal boundaries, three of which have satellite collection systems owned and operated by another municipality. The three DEP POTWs that have satellite collection systems are located in upstate New York and include the Village of Mahopac in Putnam County, the City of Port Jervis in Orange County, and the Town of Roxbury in Delaware County, New York.²

DEP supports requiring a satellite collection system owned by another municipality and connected to a DEP POTW treatment facility to comply with the general conditions of the NPDES program or another regulatory process that allows sufficient flexibility to require the satellite system owner to operate and maintain the collection system sufficiently to protect the treatment facility’s operations. The NPDES permit for satellite systems should be separate from the treatment facility owner’s NPDES permit, which would streamline requirements and enforcement issues.

The NPDES permitted treatment facility owner is at a disadvantage in instances where another municipality owns and controls a satellite collection system that discharges wastewater to the treatment plant and where, as in DEP’s upstate facilities, the treatment plant owner has insufficient jurisdiction to control how the satellite system is operated. In such cases, the satellite system owner may have inadequate incentives to properly maintain their system. When a satellite system owner’s inactions result in violations of the treatment facility’s state NPDES (SPDES) permit, DEP can be held responsible. Contracts that exist between the City of New York and the local municipal satellite system owner are generally difficult to enforce in a timely fashion, and an overarching regulatory scheme that places the satellite collection system owner into the NPDES program would be more helpful in getting the compliance necessary to protect the treatment facility.

² The collection systems that discharge into the Mahopac and Port Jervis treatment facility are owned and operated by the Town of Carmel (Sewer Districts 1 and 3) and City of Port Jervis, respectively. A portion of the collection system serving the City’s Grand Gorge treatment facility is owned by the Town of Roxbury, the remaining portions are owned and operated by NYC.

While such permits should adopt flexible maintenance and operation principles, the owner of the satellite collection system should be responsible for its proper operation and maintenance, separate from the treatment facility's NPDES permit.

4. What is the appropriate role of NPDES permits in addressing unauthorized SSOs that are caused by exceptional circumstances?

DEP incorporates its response to question 5 for specific conditions that can give rise to exceptional circumstances in New York City. DEP believes that demonstrated compliance with a management, operation and maintenance program should serve as an affirmative defense to liability for SSOs.

5. How should EPA address peak flows at POTW treatment plants?

Regarding the Peak Flows Policy (Blending), the EPA should make clear that it only seeks to address peak flow issues from POTWs serving only separate sanitary sewer collection systems, and not those serving combined sewer areas (or both separate and combined areas). DEP's secondary treatment plants serving combined sewer areas were intentionally designed with sufficient primary settling and disinfection capability to handle two or more times the rated dry-weather capacity of these facilities. This clearly provides an environmental benefit, reducing the amount of untreated combined sewer overflows that otherwise would have occurred. The EPA should clarify that its blending policy is not intended to apply to the use of primary settling and disinfection in POTWS serving combined sewer systems.

In separate sanitary sewer drainage areas, DEP agrees with EPA's assessment that wet weather problems can occur due to a number of reasons. While storm flows should be conveyed by storm sewers in these separately-sewered drainage areas, flows into sanitary sewers do often increase during wet weather. While infiltration due to inadequate maintenance may contribute some of this flow, the primary causes – in New York City at least – are (1) homeowners pumping out their wet basements into the sanitary sewer lines and (2) residential storm drains that are illegally connected to sanitary sewers because there are no storm sewers fronting the properties. Periodically during extreme storms, the treatment capacity of a separately-sewered plant may be exceeded, causing the sewer system to surcharge. DEP believes that EPA's SSO policy should allow for some blending at the POTW as a first defense against system surcharge and, in extreme circumstances, SSO bypassing at the headworks of a treatment plant in extreme storm events in order to protect public health and prevent basement backups.

6. What are the costs and benefits of CMOM programs and asset management of sanitary sewers?

DEP incorporates its response to question 2.

7. Are there other considerations?

DEP believes that SSO program decisions, as well as CSO and other water program decisions, must be based upon public health data or projections rather than upon reducing discharges

without any reference to impacts. Unlike the EPA's air program, however, the public health impacts of investments in water quality are largely unknown. For example, the EPA has estimated that there are 23,000 to 75,000 SSO events a year nationally, totaling 3-10 billion gallons, with a similar number of basement backups, but this information does not provide information about public health impacts.

The EPA specifically sought information about environmental justice impacts of a proposed rule. DEP agrees that this is a significant concern. In New York City, unfunded mandates and other expense have necessitated repeated and substantial year-to-year water rate increases, including four consecutive double-digit increases from 2007 through 2010. These rate increases are a significant burden on environmental justice communities in urban areas, where shelter and food costs are higher than average. DEP has programs in place to ease the financial burden on low income communities. However, the EPA should consider the impact of its SSO rules on affordability in urban areas.