NYC Environmental Protection

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July 13, 2012

Dr. Holly Stallworth
Science Advisory Board
U.S. Environmental Protection Agency
Mail Code 1400R
1300 Pennsylvania Ave., NW
Washington D.C. 20004

Re: Retrospective Cost Study

Dear Dr. Stallworth:

The New York City Department of Environmental Protection (DEP) appreciates the opportunity to provide comments in response to the Draft White Paper, "Retrospective Study of the Costs of EPA Regulations. An Interim Report of Five Case Studies" (Report) conducted by the Environmental Economics Advisory Committee of the Science Advisory Board (SAB) to the U.S. Environmental Protection Agency (EPA). DEP appreciates the challenges in estimating future costs and acknowledges EPA's goal to improve future benefit-cost analyses by better understanding how ex post costs compare to estimated, ex ante costs.

DEP, the country's largest water and wastewater utility, is significantly affected by cost of compliance with federal regulations and values the importance of accurate cost estimation when a rule is being considered for adoption. DEP manages a regional water supply system that serves New York City residents, commuters and visitors as well as one million persons who reside in nearby counties. DEP provides over 1 billion gallons of water each day from several watersheds that extend more than 125 miles from the City, through a network of 19 reservoirs, numerous aqueducts, and 6,600 miles of water mains and distribution pipes. DEP also collects and treats approximately 1.3 billion gallons of wastewater per day collected through 7,400 miles of sewers and 95 pumps stations to one of our 14 in-City treatment plants. In wet weather, our system can treat up to 3.5 billion gallons per day of combined storm and sanitary flow. In addition to the treatment plants, we also have four combined sewer overflow (CSO) storage facilities.

DEP has one of the largest capital budgets in the region, with $14 billion of work currently under construction or in design. DEP is funded almost exclusively through rates paid by our customers. Since 2002, DEP has spent more than $21 billion to build drinking and water quality systems, 69% of which was necessitated by federal mandates. State and federal grants have provided less than 2% of the capital costs for these projects. In these times of economic hardship, the imbalance between federal support and federal

mandates burdens local governments, especially when federal rules often fail to account for local conditions and needs.

Our experience is that compliance costs for mandated projects have been significantly underestimated, and we were surprised at the study's main findings that the cost of regulations is generally overestimated at the time of adoption. We note, initially, that the rules selected for case studies in the Report have little relevance to the costs borne over the last decade by large publicly operated water and wastewater utilities such as ours. The EPA should have selected less obscure examples. The one case study in the Report which does affect drinking utilities (although not DEP) is the arsenic rule, and that acknowledged that costs varys depending on size of municipal service area. While a large service area should allow costs to be spread across a wider population, the incremental cost could have a higher burden for areas with significant numbers of poor people. In New York City, for example, over 20 percent of New Yorkers live below the poverty line. Cost analyses must recognize the "wealth effects" within large urban areas with highly heterogenous income levels.

EPA attributes a number of reasons for lower implementation costs as compared to estimated costs. For example, in some cases lower implementation costs were attributed to the subsequent, often unforeseen, development of newer and cost efficient technologies that reduced compliance costs. Another factor cited was EPA's reliance on the industry for projected costs where such industries may have had an incentive to maximize the potential costs of a proposed rule.

In our own experience, actual costs for federally mandated projects have exceeded EPA's estimates at the time of rulemaking. For example, under the Surface Water Treatment Rule, after public comment, EPA estimated that the capital costs for unfiltered systems across the entire country to install or avoid filtration to be about $2.3 billion dollars, noting that site specific cost elements could increase the cost of filtration by an additional $695 million.[1] Since then, DEP alone has constructed a filtration plant for only part of our watershed, at a cost of $3 billion (this is the Croton Water Treatment plant to filter water from our oldest, smallest watershed, the Croton system). This plant alone has an annual household cost of $44 dollars per year. Our other two watersheds, the Delaware and Catskill systems, remain unfiltered and DEP has spent $1.5 billion to date on watershed protection programs to avoid filtration under the Surface Water Treatment Rule. To this cost we must add other Safe Drinking Water compliance costs. For example, DEP also has constructed a $1.6 billion dollar Ultraviolet Disinfection Facility as part of our Filtration Avoidance Determination and in compliance with the the 2005 Long Term 2 Enhanced Surface Water Treatment Rule (LT2). For compliance with LT2, EPA estimated the average annual household cost "to be $1.67 to $2.59 per year, with 96% to 98% of households experiencing annual costs of less than $12 per year."[2] DEP, however, estimates the annual household cost for our UV Disinfection facility to be $23 per year.

DEP has sought to understand the reasons behind higher ex-post costs. We have identified a number of root causes including the lack of flexibility in timing of constructing capital projects; increased costs for construction materials; rising energy costs; and higher chemical costs.

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[1] Surface Water Treatment Rule, 54 Fed Reg. 27486, 27518 (June 29, 1989) (codified at 40 C.F.R. 141-142).

[2] EPA Long Term 2 Enhanced Surface Water Treatment Rule: Basic Rule at Question "How much will this rule cost?" (March 06, 0212) http://water.epa.gov/lawsregs/sdwa/lt2/basicinformation.cfm

When a project is mandated and subject to enforceable milestones in a consent decree, DEP does not have the flexibility to time its project to favorable market conditions. Thus, we were compelled to bid out multi-million dollar mandated construction projects during the height of the building boom. For these projects, construction costs were signficantly higher due to lack of competition and skyrocketing costs of critical components (e.g. copper, steel). When these very high bids were received, we did not have the flexiblity to wait for more favorable market conditions, or even re-bid the work, without the imposition of penalties.

Another reason we have experienced higher ex-post costs is the increased operating costs of these mandated projects, a factor not well evaluated in the EPA's rulemakings. Our energy costs have nearly doubled over the past ten years from approximately $26 million/year in 2002 to $49 million in 2012. The cost of chemicals has also fluctuated during this period. We understand that EPA is looking to evaluate if unanticipated changes in market conditions, energy prices, or available technologies regularly result in an over or underestimate of costs. DEP feels that these costs should be better captured ex ante.

Another example of higher ex ante costs is DEP's investments in nitrogen removal facilities made pursuant to the federal Clean Water Act. From 2002 to 2011, DEP has had to invest $168.5 million in upgrading its plants for nitrogen removal and anticipates spending an additional $500 million to $1 billion to complete all mandated facilities. Operating costs are estimated to be $39.8 million annually when these facilities are fully completed in 2017. In contrast, in a 1995 report, "Biological Nutrient Removal Project, Demonstrating Practical Tools for Watershed Management Through the National Estuary Program, Long Island Sound, Connecticut and New York" EPA concluded that nitrogen reductions into Long Island Sound could be achieved "with little or no capital investment, and only minor modifications to existing processes". Clearly, DEP's experience does not align with the findings in that report.

DEP must also comply with federal requirements which never went through a rulemaking process. In such cases, cost estimates were not undertaken or subject to public scrutiny. For example, the 1994 CSO Control Policy was originally issued as a guidance document, and did not contain estimations of compliance costs. However, it now has the force of law and DEP has been compelled to invest significant resources to fund the required programs. While the CSO Control Policy included guidance on affordability, the use of Median Household Income as an affordability indicator has several limitations, particularly for a city like New York, where household incomes are not centered around the median and 20 percent of the population is living in poverty. Residential affordability analyses should consider income distribution, poverty, unemployment, and other economic burdens (e.g., the high shelter costs in urban areas).

EPA should also understand that complex utilities such as DEP must bear the cost of many rules at the same time. Viewing regulatory programs, and their related costs, in silos, masks the true burden on ratepayers. In the next decade, DEP must launch a multi-billion dollar program to address mandates for CSOs and treatment plant upgrades, and also for non-mandated but still critical programs to build storm sewers, replace storm and sanitary lines, and replace or maintain equipment according to a prudent asset management review. Completing non-federally mandated projects such as the full build-out of the storm and sanitary sewer system is an important priority for the City of New York, but such costs are not considered when rules are

analyzed in isolation and when these "discretionary" programs are undertaken. EPA should consider the cumulative costs of these various regulatory programs on utilities and their customers.

The importance of accurate cost estimating when considering new regulations cannot be overstated. Municipal agencies like DEP are struggling to maintain an affordable rate structure while making difficult choices as to which investments will produce the greatest benefits, and DEP's customers will be bearing the burden of debt service for mandated projects for many years. We appreciate the EPA's efforts to better understand the cost impacts of potential rule-making in addition to the benefits.

Very truly yours,

Carter H. Strickland, Jr.