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Ken Kirk

August 21, 2003

G. Tracy Mehan, III  
Assistant Administrator  
Office of Water  
U.S. Environmental Protection Agency  
Ariel Rios Building, 4101 M  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

VIA FAX AND REGULAR MAIL

Dear Tracy:

At U.S. Environmental Protection Agency (EPA) stakeholder meetings over the past several months, representatives from your office have presented updates on, and preliminary conclusions from, the data collection effort associated with the development of the *Report to Congress on the Impacts and Controls of Combined Sewer Overflows (CSOs) and Sanitary Sewer Overflows (SSOs) (Report)*. Representatives of the Association of Metropolitan Sewerage Agencies (AMSA) attended both the Washington, D.C. (June 24-25), and Huntington Beach, California (July 8) meetings. AMSA appreciates the time and resources committed to date to compile the information for the *Report* and EPA's willingness to share and discuss that information with stakeholders. However, AMSA has a number of concerns with the quality of some of the data that were presented at the stakeholder meetings and the manner in which these data may be presented in the final *Report*. By sharing these concerns with you in advance of the *Report's* December deadline, it is our hope that these concerns can be addressed.

AMSA members are committed to protecting the communities they serve from waterborne illness and have been doing so for decades. In fact, in an effort to further the scientific understanding of pathogens in CSOs and SSOs, AMSA has recently undertaken a study to develop a risk characterization for pathogens in CSOs and

SSOs, something the *Report* is currently lacking. Given the *Report's* potential impact on congressional activities and regulatory actions, most notably the SSO Rule, we cannot overemphasize the importance of ensuring that the data, and the manner in which those data are contextualized and used, are both accurate and fair. I understand that the information presented during the stakeholder meetings was, as EPA has explained, only a sample of the information that ultimately will be presented in the final *Report to Congress*, but I believe it is incumbent on AMSA to respond at this key juncture to the data released thus far. This letter outlines a few of our major concerns with some of the information presented.

#### *Limited Data on Link to Human Health Impact*

EPA representatives at both stakeholder meetings noted that there is very limited data linking CSOs or SSOs to adverse human health impacts. This key point must be made clear in the final *Report*. Similarly, while there are pathogens in raw sewage, the *Report* must articulate what the risk to public health, if any, there may be from the exposure to those pathogens. The *Report* should not imply that a link can be made between CSOs and SSOs and public health impacts simply because CSOs and SSOs contain pathogens. To avoid making unsupported conclusions, the *Report* must clearly identify the expected levels of pathogens in CSOs and SSOs, the probability of pathogen viability and anticipated intensity of exposure, and the resulting probability of illness. Further, the public health risk from exposure to pathogens in CSOs and SSOs is inextricably connected to the magnitude of exposure, which is likely to vary substantially among different types of overflow events. As EPA acknowledges, these exposures are difficult to quantify. Critically, EPA has presented only two documented cases of waterborne illness caused by exposure to pathogens in SSOs, and none from CSOs, based on a historical record spanning over 30 years. This bears repeating – there have only been two documented cases in over 30 years. While EPA believes this shows a lack of data or underreporting of waterborne illness outbreaks, it more reasonably demonstrates that there is in fact no widespread public health problem.

Finally, EPA must acknowledge that the presence of toxic pollutants in SSOs and CSOs is not significant from a public health standpoint. It is widely known that health impacts from exposure to these constituents are from chronic not acute exposures, and thus are not relevant to CSO and SSO events.

Rather than concluding that there is a problem either nationally or locally, AMSA recommends that the *Report* highlight the uncertainties associated with assessing impacts and the lack of a definitive nexus between overflows and human health impacts. More specifically, AMSA strongly encourages EPA to include in the *Executive Summary* of the report a clear statement that due to a significant lack of both data and of a nexus to public health impacts, a final conclusion cannot be made that CSOs or SSOs pose a significant public health concern. AMSA recommends that the *Report* call for more studies and data gathering efforts to collect the information necessary to conduct an appropriate assessment of the human health impacts linked to CSOs and SSOs.

#### *Discussion of Relative Risk Lacking*

EPA's data on the number of waterborne disease outbreaks pointed out that many of the reported cases from 1985-2000 were from one event in Milwaukee, and that roughly two thirds of the recreational water outbreaks were related to swimming pools and hot tubs. The final *Report* must put the information that EPA has collected on human health impacts associated with CSOs and SSOs in the context of overall

waterborne illness outbreaks to demonstrate that overflows are far from significant causes of waterborne illness.

Furthermore, AMSA believes that the final *Report* must discuss the relative risk posed by SSOs and CSOs in the context of other sources of pollutants and pathogens, specifically urban runoff/storm water and other nonpoint sources. Without this relative risk comparison, the report will provide little more than an accounting of the limited CSO and SSO data.

#### *Errors Found in Key Data Sets*

In characterizing potential environmental impacts, EPA has cited Ohio pretreatment program data regarding inorganic pollutants found in untreated sewage. A review of the data, including a comparison of the data collected by EPA and the data actually reported by one wastewater agency, reveals a number of incorrectly entered data points. These erroneous data points include: incorrect values for cyanide either from erroneous reporting by the publicly owned treatment work (POTW) or erroneous data entry by Ohio EPA, and a questionable approach for handling non-detect values that greatly exaggerates the median value reported for cyanide. These errors call into question the quality of the other databases and information sources used in support of the *Report*. AMSA has provided details on these errors to EPA staff and will continue to review the data to ascertain where other errors have been made. We urge EPA to correct or to not rely on questionable data sources.

#### *CSO/SSO Characterization Data Insufficiently Robust*

EPA noted at the Washington, D.C. stakeholder meeting that its data on SSO events and volumes were at best incomplete. EPA indicated that in the final *Report*, the Agency will use information from 18 states that have compiled SSO event records electronically to extrapolate national estimates. EPA also indicated that it would attempt to account for non-reporting and un-reportable overflows. Given regional differences (including varying climates and waterbody types), variations in reporting requirements, and apparent inaccuracies in some state databases, AMSA cautions the Agency to avoid making national generalizations regarding SSOs based on limited data from 18 states. In addition, rather than extrapolating from limited data and making “professional guesses” at the number of unreported overflow events, AMSA recommends the Agency take the data at face value. Other issues related to data pulled from engineering texts and EPA’s assumed 75/25 split of storm water and sewage in CSOs also were questioned during the stakeholder meetings. AMSA urges EPA to revisit these areas as well.

#### *Given Regional Differences, National Estimates Are Not Appropriate*

AMSA is concerned that the *Report*’s combined discussion of CSOs and SSOs will not present an accurate national picture. In fact, given the differences between CSOs and SSOs and the regional differences across the nation (e.g., 98.5% of permitted CSOs are in the Eastern U.S.), AMSA does not believe that national estimates or conclusions regarding combined SSO and CSO impacts can even be made. Furthermore, dry weather and wet weather SSO events should not be examined together because they are significantly different in cause, volume, frequency and relative impact (e.g., EPA notes that most SSOs are attributable to blockage (i.e., dry weather), but that approximately 93% of SSO volume is attributable to wet weather events).

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Because CSO and SSO impacts are unique, and recommended solutions for CSO and SSO issues will likely be very different and vary greatly depending upon which region of the country is being examined, AMSA believes it is critical for EPA to separate the analyses for CSOs and SSOs and to further examine dry and wet weather SSO events independently.

AMSA understands that EPA has a very tight schedule for completing the *Report* but believes that, at a minimum, EPA must acknowledge in the *Report* the lack of evidence linking overflows to human health impacts and the inherent limitations of any national estimates presented to illustrate impacts.

Again, AMSA appreciates the open dialogue your office has established on this issue. If you have any questions or would like to discuss these issues further, do not hesitate to contact me at 202/833-4653. AMSA is also willing to meet with your staff to discuss any of our concerns in more detail.

Sincerely,

A handwritten signature in black ink, appearing to read 'K Kirk'.

Ken Kirk  
Executive Director

cc: Kevin DeBell, EPA