Reporting and Public Notification Regarding Sewage Overflows or Bypasses in Maryland
Testimony to the Subcommittee on Water Resources and Environment
Regarding The Raw Sewage Overflow Community Right to Know Act
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The Problem and Maryland's Solution

Today, I would like to share with you Maryland's experience with a significantly improved reporting and public notification requirement for sewage spills that took effect in 2001. Maryland's experience also demonstrates the critical importance of federal funding for upgrading older sewer systems.

Sewage overflows are a significant public health and environmental concern in Maryland and throughout the United States. Contaminants likely to be found in sewage overflows include pathogens, suspended solids, oxygen-demanding substances, nutrients, toxic constituents and floatable materials. There are over 100 different groups of human viruses potentially present in untreated discharges of sewage that can cause diarrhea, skin rashes, hepatitis and more serious illnesses such as meningitis and encephalitis. Bacteria such as cholera, salmonella, *E. coli*, *campylobacter*, *H. pylori* and many others are present in human waste. Protozoa including giardia, cryptosporidium and others can also cause severe illness. Sewage overflows cause a variety of negative impacts on receiving waters such as contamination with pathogenic organisms and associated risks to public health requiring the closure of waters to fishing and swimming, contamination of drinking water supplies, fish kills, and overall degradation of water quality.

In Maryland, with our strong commitment to the restoration of Chesapeake Bay and its tributaries, citizens are particularly focused on correcting this and other water quality problems that are impacting the waters of our State. Since issuing the State's initial guidance on the reporting and public notification of sewage spills in October 2000, the Maryland Department of the Environment (MDE), the State's environmental regulatory agency, has received thousands of reports of sewage overflows documenting discharges of many millions of gallons of wastewater. Local wastewater system owners and operators in Maryland have responded very positively to the requirements and have been doing a good job with their reporting. The proactive reporting requirements have resulted in a decrease in citizen complaints and urgent press inquiries about spills. MDE and many local officials have found that the reporting of sewage spills to the public is critical to the protection of public health and is an invaluable public education tool that has built public support for improvements to the sanitary sewer systems (and the sewer rate increases) that are needed across the State. Out of sight, out of mind no longer applies to sewage

systems in Maryland and the Chesapeake Bay and all of the waters of the State are benefiting significantly from the increased attention.

Background

In response to growing public concerns and following several large sewage spills in October 2000, MDE issued a memorandum advising all owners and operators of sewerage systems in Maryland that they were obligated under general provisions in Maryland environmental law to report overflows to MDE. At the same time, MDE initiated a cooperative effort with local environmental health directors, public works officials, and others to develop detailed guidance for owners and operators of sanitary sewer systems regarding reporting of overflows and notification of the public when spills have occurred.

In December of that same year, Governor Parris N. Glendening issued an Executive Order establishing a special Task Force on Upgrading Sewage Systems to identify costs by county and municipality of upgrading aging sewerage systems and separating combined sewerage systems to reduce the occurrence of sewage overflows. With this action, Maryland became one of the first states in the nation to recognize and attack the problems associated with aging sewerage systems.

The Executive Order establishing the Task Force on Upgrading Sewerage Systems identified the high costs of addressing the problems with aging infrastructure (currently estimated at over $1.5 billion) and the members of the Task Force quickly identified the critical need to engage and educate the citizens of the State regarding the importance of the issue. To further strengthen the guidance previously issued by MDE, in 2001 Maryland enacted legislation (Annotated Code of Maryland Environment Article, Section 9-331.1) requiring all owners and operators of sanitary sewer systems and combined sewer systems in Maryland to report overflows to MDE via telephone within 24 hours and provide written notification within five days of the incident. The law also required MDE in consultation with the Maryland Department of Health and Mental Hygiene, the State's health agency, to develop procedures for public notification of sewage overflows.

The Regulations

Following extensive discussions with environmental groups, wastewater system owners and operators and State and local health officials, detailed regulations related to reporting and public notification of sewage discharges became effective on March 28, 2005. Code of Maryland Regulations (COMAR 26.08.10, "Overflows or Bypasses") was issued under authority of Environment Article, §9-331.1, Annotated Code of Maryland. The regulation defines an "Overflow" as "any loss of wastewater or discharge from a sanitary sewer system, combined sewer system, or wastewater treatment plant bypass which results in the direct or potential discharge of raw, partially treated or diluted sewage into waters of the State as defined in Environment Article, §9-101(l) Annotated Code of Maryland."

Overflows are classified into one of three categories: combined sewer overflows (CSOs), sanitary sewer overflows (SSOs) and bypasses. Combined sewer systems are typically present in older cities and are designed to capture stormwater in the same pipes that carry sewage. When stormwater volumes exceed the carrying capacity of the collection system, CSOs occur at

specific points designed into the system. Sewer systems designed to carry sewage only are subject to SSOs that typically occur as a result of heavy precipitation that adds stormwater to sewer systems through inflow or infiltration. Grease and root blockages, pipe and manhole cracks and other physical defects, undersized pipes, and pump failures can also result in overflows. Bypasses occur at the sewage treatment plant when components of the treatment system are overwhelmed by sewage and/or runoff flows or when power or equipment failures occur. In addition to over 300 separate sanitary sewer systems in Maryland there are eight combined sewer systems (Allegany County, Baltimore City, Cambridge, Cumberland, Frostburg, LaVale, Salisbury, Westernport).

The owner or operator of any sanitary sewer system, combined sewer system, or wastewater treatment plant is required to report to MDE and the local health department any overflow that results in the direct or potential discharge of raw, partially treated, or diluted sewage into waters of the State. The owner of a separate sanitary sewer system, pumping station, or grease trap that is connected to a public sewer system is responsible for providing reports to MDE and local health department. Telephone reports must be made as soon as practicable to the telephone number designated by MDE, but not later than 24 hours after the time that the owner/operator becomes aware of the event.

Telephone reports must include the location of the overflow, the name of the owner and operator of the sanitary sewer system or treatment plant; the name of the receiving water and whether the receiving water is designated as shellfish waters or for a public drinking water supply. Reports must also include the volume discharged based on actual measurement or as an estimate using best professional judgment, a description of the component of the sewer system or plant from which the overflow was released, and whether the overflow is a CSO (combined sewer overflow), SSO (separate sanitary sewer overflow) or treatment plant bypass. In addition, the report needs to have a detailed description of visual observations and a preliminary assessment of the overflow's potential or actual impact upon State waters. The cause or suspected cause of the overflow, the date and time when the overflow began and stopped, or is expected to be stopped must be reported. The report needs to also describe the steps taken or planned to reduce, eliminate and prevent recurrence of the overflow and a time schedule for completion of the steps and the measures taken or planned to mitigate the adverse impact with a time schedule for implementation. Finally, the report must say whether the public has been notified, who performed the notification, the media used, and the content of the message.

Within five (5) calendar days after the telephone notification of the event, the owner/operator is required to provide MDE and the local health department with a written report that includes, at a minimum, the information listed above for the telephone report, unless MDE waives the requirement for submission of a written report due to the small volume of the overflow. The written report must be directed to the mailing address specified by MDE.

The owner/operator is required, for at least 5 years from the date of the overflow or backup, to maintain copies of all overflow records and reports, including any backups of sewage into houses or businesses, work orders associated with investigation of overflows, a list and description of complaints from customers or others related to overflows, and documentation of

performance and implementation measures to address overflows. The owner/operator must make this information available to MDE for review upon request.

Public Notification Requirements

The new regulation requires the Department of Health and Mental Hygiene, the local health officer, or the local environmental health director to make all decisions and determinations as to public health issues resulting from an overflow. The Department of Health and Mental Hygiene, the local health officer, or the local environmental health director may require that reports to the public concerning an overflow include specific information regarding public health.

Unless advised by the health department on a case by case basis that public notification is not necessary, the owner/operator must notify the public as soon as practicable, but not later than 24 hours after the time that the owner or operator becomes aware of the event. Notification is required for all overflows greater than 10,000 gallons (equivalent of the daily sewage flow from 100 people) and for overflows of any size that enter shellfish harvesting waters, waters protected as drinking water sources, waters used as public bathing beaches where people may swim, or waters used for public recreation where people may boat, fish or swim, and any situation where the health department has reason to believe there is a public health risk.

Public notification must be made by a public service announcement or paid advertising in a daily newspaper, radio station, or television station serving the immediate area where the overflow occurred and any other areas where the overflow is likely to have an adverse impact. Affected areas must also be posted with signs, if the health department determines that: there is an immediate threat of human contact with contaminated water or ground where the overflow occurred; the size and flow rate of the water body into which the discharge entered are such that the discharge constitutes a significant portion of the flow; the potential for dilution and dispersal of the overflow into the receiving waters is minimal due to the season of the year; the period of time of the actual discharge, or the receiving water already being listed as impaired due to nonattainment of State bacteriological water quality standards; or the concentration of the effluent increases the risk to public health. Signs posted following an overflow may be removed only as directed by the health department.

Any public notification about overflows must state the approximate number of gallons of overflow, when the overflow occurred, where the overflow occurred, the name of the receiving water, that swimming or other direct contact should be avoided in the receiving water from a specific point upstream to a specific point downstream until a specific date that is to be determined by the health department, and a telephone number for additional information. If there are schools, day care centers, hospitals, or similar establishments or locations with potentially sensitive populations that may be subject to exposure in the immediate area of the overflow, the owner/operator of the system or plant or a representative is required to personally notify each establishment of the overflow as soon as possible.

If the total volume of the overflow is less than 10,000 gallons, and the health department determines that immediate public notification is not required, general public notification must

still be provided in quarterly or annual reports, reports of incidents included with water bills, or information about incidents available on a web site in conjunction with a written notification. The information must state that due to various causes, such as accidents and equipment failures, the specific sewer system experienced occasional sewage overflows, the time period being reported, the number of overflows that occurred, and the total number of gallons released.

The owner/operator is required to make any local policies or procedures related to the requirements of this regulation available to the public upon request. The owner or operator must perform sampling of State surface waters that have received an overflow as directed and under the guidance of the health department. The owner/operator must provide data collected after an overflow or bypass event and information about any permanent posting or health advisories to MDE within 14 days of the event.

MDE posts tables listing information about overflows and bypasses on line at: http://www.mde.state.md.us/Programs/WaterPrograms/cso_sso.asp

Enforcement

MDE reviews the circumstances related to all overflows and bypasses and takes enforcement action in cases where adequate caution or preventive measures could have prevented unauthorized discharges. MDE has joined with EPA and the U.S. Department of Justice in the pursuit of several enforcement cases in Maryland involving large municipal systems that have reported many hundreds of overflow events. Several of these systems have only a small part that is "combined." MDE has entered orders with all eight municipalities with combined sewer systems. The agreements address development and completion of Long Term Control Plans that will eventually eliminate or significantly reduce overflows in accordance with federal regulations. The total cost for improvements necessary to repair or replace infrastructure to completely eliminate overflows in Maryland has been estimated to be over $1.5 billion.