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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Testimony of

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Public Hearing to discuss Municipal Separate Storm Sewer System (MS4) Requirements

Senate Environmental Resources and Energy Committee

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Good afternoon, Chairman Yaw, Chairman Yudichak, and members of the committee. On behalf of the Department of Environmental Protection, I would like to thank you for the opportunity to discuss the Municipal Separate Storm Sewer System program, which is commonly known by its acronym MS4.

Stormwater runoff is generated from rain and snowmelt events that flow over land or impervious surfaces – such as paved streets, parking lots, and building rooftops – which prevent the water from soaking into the ground. The runoff picks up pollutants like trash, chemicals, oils, and dirt/sediment that can harm our streams, rivers, and lakes. To protect these resources, communities use stormwater controls known as best management practices or BMPs. These BMPs filter out pollutants and/or prevent pollution by controlling it at its source.

The federal National Pollutant Discharge Elimination System, or NPDES, program regulates stormwater discharges from three sources: municipal separate storm sewer systems, commonly called MS4s; construction activities; and industrial activities. Certain operators of these sources are required to obtain an NPDES permit before they can discharge stormwater. These permitting mechanisms are designed to reduce stormwater runoff pollution. DEP

implements the NPDES program on behalf of the United States Environmental Protection Agency (EPA) in Pennsylvania. We are here today to discuss the first of those permit programs: MS4.

Population growth and the development of urban and suburban areas are major contributors to pollutants in runoff as well as negative impacts to waterways caused by increased volumes and rates of runoff from impervious surfaces. Increasing the extent of areas covered with impervious surfaces in a watershed can cause changes in hydrology and water quality. The MS4 permit program seeks to address those problems.

The MS4 program was created by federal regulations in the 1990s. The first MS4 permits in Pennsylvania were issued in 1997 to Allentown and Philadelphia as Large MS4s under "Phase I" of EPA's program. "Phase II" permits for Small MS4s were issued beginning in 2003; the current number of Pennsylvania MS4 permits is 1,061. Not all Pennsylvania municipalities have been issued MS4 permits. The regulatory trigger for permit responsibilities is whether a municipality has an "Urbanized Area" as determined by the federal Census Bureau.

The basic requirements in the MS4 permit are largely unchanged since 2003. Permittees are required to have a Stormwater Management Program that employs six Minimum Control Measures, or MCMs. The MCMs are:

1. Public Education and Outreach on Stormwater Impacts,
2. Public Involvement/Participation,
3. Illicit Discharge Detection and Elimination,
4. Construction Site Stormwater Runoff Control,
5. Post-Construction Stormwater Management, and
6. Pollution Prevention/Good Housekeeping.

The MCMs are activities that help control preventable pollution. The MCMs have not, however, been sufficient to eliminate our urban-related stream impairments and reduce pollutants to local waterways and to regional aquatic resources like the Chesapeake Bay. To help address this shortcoming, the federal EPA was a driving force behind the 2018 Pennsylvania MS4 permit requirement intended to reduce the current pollution load. The requirement is for MS4s to prepare Pollutant Reduction Plans that calculate the current pollutant load and plan for specific BMPs that will be designed to capture nutrients and sediment.

MS4-permitted municipalities can use any scientifically defensible method to calculate

their current pollution load. DEP provides a simple method, but more sophisticated methods can be applied at permittee discretion. Sediment pollution is used as an indicator of the many impacts urban areas have on water quality, including aquatic habitat destruction, highly variable flows, temperature variation, and – of course – sediment accumulation. For example, if an MS4-permitted municipality's current pollution load is calculated to be 1,000 pounds of sediment, and a 10% reduction is required, BMPs have to be planned, designed, and constructed to accomplish a 100-pound sediment reduction within five years after the Pollutant Reduction Plan is approved.

Municipalities with MS4 permits can select from a wide variety of BMPs depending on local cost-effective opportunities. Most BMPs infiltrate stormwater into the ground, filtering out pollutants and slowing down stormwater discharge to streams, which reduces erosion. For example, a common BMP choice is the conversion of an older flood control pond that was not designed to capture sediment into one that that does capture sediment. BMPs can be on public lands or private property. Pollutant Reduction Plans can be updated at permittee discretion anytime to alter the selected BMPs.

DEP strongly encourages municipalities to work together to address their pollutant reduction requirements. Unfortunately, the new requirements are an unfunded federal mandate, but municipalities that work together can share the costs and credits associated with individual BMPs, participate in a joint Pollutant Reduction Plan, or be joint permittees. They can also form a stormwater authority, which can serve either a single municipality or multiple municipalities. DEP routinely attends meetings to encourage such partnerships. DEP also encourages collaborative arrangements to address stormwater pollution between municipalities and PennDOT and the Turnpike Commission. Collaboration is an efficient, cost-effective way to reduce pollution and meet requirements.

To fund BMP installation, operation, and maintenance, municipalities can use tax-based revenue sources; municipalities and authorities can also use fee-based revenue sources. DEP encourages the use of fee systems because they assign costs based on the amount of stormwater runoff generated by each parcel of property. However, DEP does not have the authority to require stormwater fee systems nor does DEP have a standard for the creation of stormwater fee systems.

Thank you again for inviting DEP to testify before the committee on this important topic. I am available to respond to any questions you may have.