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DEPARTMENT OF NATURAL RESOURCES &
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Town of Middletown Phase II MS4 Permit Fact Sheet

NPDES Permit Number: DE0051209
State Permit Number: WPCC 3213/13
Effective Date: October 30, 2013

Applicant

The Town of Middletown has applied for a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of storm water from/through its portion of the municipal separate storm sewer system (MS4) within the area designated by the United States Census Bureau as the "Philadelphia, PA – NJ – DE - MD Urbanized Area", located in the Town of Middletown, New Castle County, Delaware to surface waters of the State within or adjacent to the Town of Middletown, specifically tributaries to and the main stem of the Appoquinimink River that ultimately discharges to the Delaware Bay and, on the western boundary, the tributaries to Bohemia Creek that ultimately discharge to the Chesapeake Bay.

Activity Description

The applicant owns or operates and maintains the municipal separate storm sewer system that is within the area designated by the United States Census Bureau as the "Philadelphia, PA – NJ – DE - MD Urbanized Area", located within the incorporated boundaries of the Town of Middletown, New Castle County, Delaware. Under federal regulations in 40 CFR Part 122, §122.32, operators of such "small municipal separate storm sewer systems", including those operated by federal, State, Tribal, and local governments, including State departments of transportation, located within an urbanized area are regulated by and must obtain NPDES permit coverage for any discharges from such systems.

Statutory and Regulatory Basis

The Delaware Department of Natural Resources and Environmental Control (DNREC) proposes to issue the Town of Middletown an NPDES permit authorizing the discharge of storm water from its portion of the municipal separate storm sewer system located in the area designated by the United States Census Bureau as the "Philadelphia, PA – NJ – DE - MD Urbanized Area", subject to the discharge limitations, terms and conditions outlined in the permit. Section 402 of the Federal Clean Water Act of 1977, as amended by the Water Quality Act of 1987 and as subsequently modified, and 7 Del. C., Chapter 60 provide the statutory authority for permit issuance. Regulations promulgated pursuant to these statutes are the regulatory basis for permit development and issuance.

Background Information

Section 402 of the federal Clean Water Act prohibits the discharge of any pollutant to waters of the United States from a point source, unless that discharge is sanctioned by an NPDES permit. (NPDES is the acronym for the National Pollutant Discharge Elimination System.) Similarly, 7 Del. C., Chapter 60, §6003(a)(2), prohibits the conduct of any activity "in a way which may cause or contribute to the discharge of a pollutant into any surface or ground water" without first having obtained a permit from the Secretary of the Department of Natural Resources and Environmental Control.

Efforts to improve water quality under the NPDES program have traditionally focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage. As pollution control measures have been implemented for these discharges, it has become evident that diffuse sources of water pollution (those occurring over a wide area) are also major contributors to water quality degradation. Numerous studies have shown that storm water runoff from urban and industrial areas typically contain the same general types of pollutants that are often found in industrial wastewater discharges, with similar impacts on surface water quality. Pollutants commonly found in storm water runoff include heavy metals, pesticides, herbicides, and synthetic organic compounds such as fuels, waste oils, solvents, lubricants and grease. These compounds can have damaging effects on both human health and aquatic ecosystems. In addition, the high volumes of storm water discharged from municipal storm sewer systems in areas of rapid urbanization have had significant impacts on aquatic ecosystems due to physical modifications such as bank erosion and widening of channels.

With the growing concern and realization that urban storm water runoff and storm runoff from industrial sites greatly contribute to surface water quality impairment, Congress added specific provisions to the federal Clean Water Act in 1987 (the Water Quality Act of 1987) to address storm water. Congress directed the United States Environmental Protection Agency (EPA) to develop regulations and require NPDES permits for discharges of storm water from sites of industrial activities and from urbanized areas.

EPA initially targeted storm water runoff from three sources: "medium" and "large" municipal separate storm sewer systems or "MS4s" (generally those serving populations of 100,000 or greater), sites of construction activity disturbing five acres or more of land and ten categories of industrial activity, under "Phase I" of its NPDES storm water program. The agency published its storm water regulations for "Phase I" in November, 1990. In December, 1999, EPA expanded its NPDES storm water program and adopted final regulations for "Phase II". EPA's "Phase II Rules" require additional operators of municipal separate storm sewer systems in urbanized areas (those operating "small MS4s") and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted storm water runoff.

Because the Town of Middletown owns and is responsible for maintaining a portion of the "municipal storm sewer system" ("MS4") within an urbanized area designated as such by the United States Census Bureau (the "Philadelphia, PA – NJ – DE - MD Urbanized Area"), the Town of Middletown must submit an application/seek NPDES permit coverage for any discharges of storm water from its portion of that MS4.

The statutory provisions governing discharges from municipal separate storm sewer systems ("MS4s") are contained in Section 402 (p)(3)(B) of the Clean Water Act, as amended. In general, Congress provided that permits for discharges from MS4s:

- May be issued on either a system-wide or jurisdiction-wide basis;
- Shall effectively prohibit any non-storm water discharges into the MS4s; and
- Shall require controls to reduce the discharge of pollutants from MS4s to the maximum extent practicable.

As with any dischargers subject to the NPDES program, dischargers of storm water from MS4s must meet the applicable technology-based requirements (in this case, the implementation of controls to reduce the discharge of pollutants from the MS4 to the "maximum extent practicable") as well as the applicable surface water quality standards

Description of Discharge(s)

The discharges to be covered or authorized by this permit include all existing or new point source discharges of storm water to State waters from those portions of the municipal separate storm sewer system owned, operated or maintained by the applicant. The discharge of storm water commingled with flows contributed by process wastewater, non-process wastewater or storm water associated with industrial activity are to be covered or authorized as well, provided such discharges are authorized under separate NPDES permits or covered under the Department's NPDES General Permit Program regulations.

In general, the discharges from the municipal separate storm sewer system in and serving the Town of Middletown, are to be composed only of storm water runoff. Some incidental non-storm water flows are allowed to enter the storm sewer system because these non-storm water flows aren't considered significant sources of pollutants to surface waters and don't significantly impact receiving water quality. These non-storm water flows are listed in the permit and include: water line flushing; landscape irrigation; diverted stream flows; rising groundwaters; uncontaminated groundwater infiltration to separate storm sewers; uncontaminated pumped groundwater; discharges from potable water sources; foundation drains; air conditioning condensate; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; individual residential vehicle washing; flows from riparian habitats and wetlands; dechlorinated swimming pool discharges; street wash waters; and discharges or flows from emergency fire fighting activities.

Receiving Waters and Stream Classification

The receiving waters for the storm water discharges to be sanctioned by this permit include all streams located in and neighboring the Town of Middletown, within the area designated by the United States Census Bureau as the "Philadelphia, PA – NJ – DE - MD Urbanized Area": tributaries to and the main stem of the Appoquinimink River that ultimately discharge to the Delaware Bay and, on the western boundary, the tributaries to Bohemia Creek that ultimately discharge to the Chesapeake Bay. The designated uses for these waters are identified in the State of Delaware Surface Water Quality Standards, as amended June 11, 2011, and include industrial water supply, primary contact recreation, secondary contact recreation, propagation of fish, aquatic life and wildlife, and agricultural water supply (freshwater segments only).

Proposed Discharge Limitations, Permit Terms and Conditions

DNREC has examined the application and proposes to issue this NPDES permit to the applicant as an interim authorization to discharge until such time that a Phase II MS4 General Permit is finalized within the State of Delaware. This authorization is, subject to the discharge limitations, monitoring and reporting requirements and other terms and conditions as outlined in the permit.

Basis for Discharge Limitations and Other Permit Conditions

A wide range of land uses and activities exist within the Town of Middletown. All of these generate or have the potential to generate pollutants that may become waterborne when exposed to precipitation, transported by storm runoff and discharged to the storm sewer system. With various levels and types of ongoing residential, commercial, industrial, institutional and construction activity, it is rather difficult to pinpoint the specific pollutants or pollutant levels expected for individual activities or locations. However, it has been shown that urban development and the subsequent storm water runoff from these areas represent a major cumulative source of pollution to surface waters.

The quality of the storm water discharged from/through the MS4 depends upon the sources of pollutants exposed to the elements and thereby available to be transported offsite via storm water runoff. Minimizing such pollutant sources and the potential for exposure reduces the pollutant impact of storm water discharges. With this in mind, DNREC and the EPA strongly support and promote a source reduction/pollution prevention approach for managing storm water runoff. On the local level, this type of management program may include a variety of strategies for minimizing the exposure and transport of pollutants in storm runoff. Examples are sedimentation and erosion control programs for construction and land disturbing activities, land use planning and ordinances in those areas subject to new development or redevelopment, municipal programs for recycling and hazardous waste collection, public education and training programs, spill response and cleanup programs, and programs to detect and eliminate unauthorized non-storm water discharges to the MS4. From a cost and management standpoint, such measures or practices are believed to be the most efficient and effective methods for managing and controlling pollutants in storm water discharges. In some situations, however, it must be recognized that the use of engineered storm water control structures may be warranted. MS4 operators must therefore evaluate the land uses and activities within their jurisdiction and determine which measures or practices are the most appropriate to manage and control storm water discharges to their MS4.

The discharge limitations, terms and conditions outlined in the permit were developed to further the policy and purposes of the State of Delaware's Water and Air Resources Act (Title 7, Delaware Code, Chapter 60) and to achieve the water quality protection goals of the federal Clean Water Act and the implementing regulations. The proposed provisions in the permit recognize the site-specific nature of the discharges to be controlled and the need for flexibility in developing and implementing a program that considers local conditions, land uses, activities and existing programs. The implementation of a comprehensive storm water management program that addresses each of the elements identified in federal regulations (40 CFR Part 122, §122.34 (b)) - storm water management through: education and outreach; public involvement and participation; the detection and removal of unauthorized non-storm water discharges; the implementation

of controls to reduce pollutants in storm water runoff from construction sites, during construction and post-construction; and the implementation of pollution prevention/good housekeeping measures for municipal operations - along with appropriate monitoring and reporting, i.e., continual program assessment and adjustment to ensure the storm water program meets its objectives, is believed to be the most efficient and effective method for managing and controlling pollutants in the storm water discharges from/through the MS4. These are therefore included in the permit as enforceable requirements. Such provisions are consistent with the federal statutory obligation to "require controls to reduce the discharge of pollutants from MS4s to the maximum extent practicable". In addition, the proposed storm water management plan submitted with the application is incorporated by reference.

The permit also includes provisions that require adequate legal authority be secured to control discharges to and from/through the MS4 and that require sufficient resources – financial, staff, equipment and support – be maintained to implement the storm water management program and administer it effectively. Appropriate monitoring and reporting are to be undertaken as well, to assess progress and overall program effectiveness. As appropriate, DNREC may specify additional requirements or compliance schedules for any and all components of the permittee's comprehensive storm water management program in order to meet the intent of the NPDES municipal storm water permit program and to achieve the level of implementation and progress deemed necessary to achieve water quality protection. This would include any area-specific or site-specific requirements identified through the Department's whole-basin or watershed assessment activities (i.e., the development of any applicable "total maximum daily loads" or "TMDLs" and/or pollution control strategies to address specific ambient water quality problems).

The permit does not include numeric effluent limitations or specific water quality-based controls. This exclusion is purposeful. The federal Clean Water Act and associated federal regulations currently do not require the inclusion of such strict provisions in NPDES permits that are developed for discharges from MS4s. In fact, the legislative and regulatory history of these requirements recognizes the differences in regulating or controlling discharges from MS4s and developing effluent limitations and permits for other point sources. NPDES permits for discharges from MS4s are to be structured to allow flexibility for developing site-specific programs for storm water management. The inherent episodic nature and variability of storm flows is such that developing meaningful, scientifically defensible numeric limits for each of the hundreds of storm water outfalls is a challenging, if not onerous, task. Even if numeric limitations were developed, the applicability of and the practicability of achieving and maintaining compliance with such limitations is questionable.

Instead of numeric effluent limitations or specific water quality-based controls, the permit outlines five (5) narrative discharge prohibitions:

1. No discharge of substances or materials in amounts that are toxic, or that would be toxic to humans, fish, aquatic life or wildlife;
2. No discharge of pollutants in quantities that would cause a violation of ambient surface water quality standards;
3. No discharge of floatable debris, oils, scum, foam, or grease in other than trace amounts;
4. No degradation or loss of State-designated beneficial uses of receiving waters as a result of storm water discharges from the municipal separate storm sewer system;

5. No discharge of non-storm water (except as provided in Part II.A.3. of the permit).

The first four (4) are consistent with effluent limitations established in other NPDES permits. They are based upon the narrative surface water quality criteria outlined in Section 4 of the State of Delaware's Surface Water Quality Standards, as amended June 11, 2011. The fifth is consistent with the federal statutory requirement that NPDES permits for discharges from MS4s effectively prohibit any non-storm water discharges to the MS4.

These are included to elaborate on the intent of the permit and to define a target for satisfying the water quality protection goals of both state and federal law. They are not to be directly interpreted as effluent limitations independent of the comprehensive storm water management program outlined in the permit.

Public Notice and Process for Reaching a Final Decision

The Department will notify the public and provided notice of receiving the Town of Middletown's NPDES permit application and reaching the tentative determinations outlined herein, through publication of a public notice in The News Journal and The Delaware State News on ***September 25, 2013.*** Interested persons are invited to submit their written views on the permit and the tentative determinations made with respect to this NPDES permit application. The Department will **not** hold a public hearing on this application unless the Department receives a meritorious request to do so or unless the notice of this proposal generates substantial public interest. A public hearing request shall be deemed meritorious if it exhibits a familiarity with the application and a reasoned statement of the permit's probable impact. The request for a public hearing shall be in writing and shall state the nature of the issues to be raised at the hearing. All comments received by the close of business on ***October 25, 2013*** will be considered by the Department in preparing the final permit.

Department Contact for Additional Information:

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