

## Enclosure

EPA Region III's Evaluation of the Petition Submitted by American Rivers, NRDC and  
Clean Air Council dated September 17, 2015

### **I. OVERVIEW**

On September 17, 2015, the Natural Resources Defense Council, American Rivers, and Clean Air Council (hereinafter, the Petitioners) petitioned the Regional Administrator of EPA Region III pursuant to 40 CFR § 122.26(f) to make a determination, pursuant to 40 C.F.R. § 122.26(a)(9)(i)(D), that currently non-permitted stormwater discharges from commercial, industrial, and institutional (CII) sites are contributing to violations of water quality standards and therefore require National Pollutant Discharge Elimination System (NPDES) permits pursuant to section 402(p) of the Clean Water Act (CWA). The Petition cites nutrients (nitrogen and phosphorus) and sediment as the specific pollutants contributing to the impairment of Army Creek in New Castle County, Delaware. Additionally, the Petition asserts that stormwater discharges from impervious surfaces on commercial, industrial, and institutional sites consistently contain elevated levels of these pollutants.

The Petition seeks designation and permitting of all currently unpermitted CII sites that discharge stormwater to Army Creek and its tributaries, where nutrient and/or sediment impairments caused by urban runoff are present, as described in the state's Integrated Report submitted under sections 305(b) and 303(d) of the CWA. As stated in the Petition, "non-NPDES permitted stormwater discharges" includes any discharge from a private property, or from a portion of a property, that is not subject to post-construction stormwater pollution requirements under an NPDES permit. The Petitioners recognize that stormwater discharges associated with industrial activity, as defined by 40 C.F.R. § 122.26(b)(14), are already regulated. For these categories of industrial facilities, the Petitioners request permitting of those portions of a facility not already permitted (e.g., employee parking lots and office buildings). Petitioners have requested regulation of all described discharges, regardless of whether or not those CII sites discharge to municipal separate storm sewer systems (MS4s) with existing NPDES permits.

On December 23, 2015, Region III provided an interim response to the Petitioners indicating additional review time would be necessary and that a final determination on the Petition was anticipated by the summer of 2016. EPA also convened meetings with the Petitioners on April 20, 2016 and August 16, 2016 to discuss the Petition review progress.

### **NPDES Program Overview**

EPA Region III consists of five States (Delaware, Maryland, Pennsylvania, Virginia, and West Virginia) as well as the District of Columbia (DC). EPA's Regional Office is the permitting authority, and provides oversight for, the NPDES stormwater permitting program in

DC and for federal facilities in Delaware. For the subject area of the Petition, the Delaware Department of Natural Resources and Environmental Control (DNREC) is authorized to administer the NPDES permitting program, with ongoing EPA oversight. Consequently, EPA coordinated with DNREC extensively during the course of our analysis of the Petition.

### **2013 Petition for Designation**

On July 10, 2013, the Conservation Law Foundation, NRDC, American Rivers, together with a group of local Riverkeepers and Watershed Groups petitioned the Regional Administrator of EPA Region III to make a similar determination that CII facilities are contributing to violations of water quality standards in impaired waters throughout Region III, and therefore require NPDES permits. Region III declined to begin the designation process for stormwater discharges from CII sites throughout the Region, concluding that there was insufficient information on which to base such a broad categorical residual designation of currently unregulated stormwater discharges from such sites.<sup>1</sup> Additionally, Region III concluded that existing water quality protection programs were in place to address discharges from the majority of CII facilities in the Region.

## **II. STATUTORY AND REGULATORY BACKGROUND**

In 1987, Congress amended Section 402 of the Clean Water Act (CWA) and established a phased approach to regulating discharges “composed entirely of stormwater,” requiring some, but not all, point source discharges of stormwater to be regulated. Water Quality Act § 405, codified as CWA § 402(p). In the first phase, Congress required NPDES permits for discharges from municipal separate storm sewer systems (MS4s) serving a population greater than 100,000, and stormwater discharges associated with industrial activity, which, as defined in EPA regulations, includes construction sites greater than 5 acres<sup>2</sup>. CWA § 402(p)(1), (2), 33 U.S.C. § 1342(p)(1), (2). Additionally, the Act provides for NPDES permits for any stormwater discharge determined by EPA or an authorized state to contribute to a violation of water quality standards (WQS) or to be a significant contributor of pollutants to waters of the United States. CWA § 402(p)(2)(E), 33 U.S.C. § 1342(p)(2)(E).<sup>3</sup> In 1990, EPA promulgated permit application regulations for these discharges pursuant to § 402(p)(4), 33 U.S.C. § 1342(p)(4). 55 Fed. Reg. 47990 (Nov. 16, 1990) (“Phase I rule”). The Phase I rule included a provision allowing any person to petition EPA to require an NPDES permit for a stormwater discharge that contributes to a water quality standard violation or is a significant contributor of pollutants to waters of the United States. 40 C.F.R. § 122.26(f)(2).

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<sup>1</sup> Region III’s response is available at: [https://www3.epa.gov/reg3wapd/npdes/R3\\_RDA\\_Response-Enclosure.pdf](https://www3.epa.gov/reg3wapd/npdes/R3_RDA_Response-Enclosure.pdf)

<sup>2</sup> 40 C.F.R. § 122.26(b)(14)(x).

<sup>3</sup> This case-by-case authority to designate stormwater discharges for NPDES permits was codified at 40 C.F.R. § 122.26(a)(1)(v) in 1989. 54 Fed. Reg. 255 (Jan. 4, 1989). See also 55 Fed. Reg. 47990, 47993 (Nov. 16, 1990).

In the second phase, Congress required EPA, after conducting studies and reporting on the results to Congress, to issue regulations designating additional stormwater discharges to be regulated “to protect water quality.” CWA § 402(p)(5), (6), 33 U.S.C. § 1342(p)(5), (6). Stormwater discharges designated for regulation under § 402(p)(6) were not necessarily required to be regulated through NPDES permits. Rather, Congress required that EPA “establish a comprehensive program to regulate such designated sources.” *Id.* In 1995, EPA completed studies and submitted a report to Congress describing additional stormwater discharges under consideration for regulation. Based on this report, EPA promulgated regulations in 1999 (“Phase II rule”) designating two additional categories of stormwater discharges for regulation: certain small MS4s<sup>4</sup> and small construction sites (1-5 acres); and required NPDES permit coverage for these discharges. 64 Fed. Reg. 68722 (Dec. 8, 1999).

The Phase II rule also added a process to the regulations for designating additional stormwater discharges for NPDES permit coverage (“residual designation authority” or “RDA”) to allow designation of a category of discharges within a geographic area if the EPA Regional Administrator or the Director of an authorized state NPDES program determines that the discharge or category of discharges contribute to a violation of a water quality standard or significantly contribute pollutants to waters of the United States. 64 Fed. Reg. at 68781; 40 C.F.R. § 122.26(a)(9)(i)(D).<sup>5</sup> These residual designation provisions are based on the authority of both §§ 402(p)(2)(E) and 402(p)(6), recognizing the permitting authority’s potential need to regulate individual unregulated stormwater discharges on a case-by-case basis, as well as the potential need to regulate stormwater discharges on a categorical basis locally or regionally to address local concerns or to make progress in complying with water quality standards. *See* 64 Fed. Reg. at 68781. Any discharge or category of discharges designated under the RDA regulation is subject to NPDES permitting. 40 C.F.R. § 122.26(a)(9)(ii),(iii).

### **III. SUMMARY OF PETITION AND REGION III DETERMINATION**

In the Petition, the Petitioners assert the following: (1) portions of Army Creek are impaired by nitrogen, phosphorus and/or sediment; (2) stormwater runoff from impervious surfaces at CII sites convey those pollutants of concern and contribute to violations of water quality standards; and (3) ongoing programs are not adequately addressing the contributions from CII site discharges to impairments in the identified watershed. In support, the Petitioners cite guidance and reports in which data has shown that stormwater discharges are significant

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<sup>4</sup> Regulated small MS4s are primarily separate storm sewer systems serving municipal populations within “urbanized areas” as defined by the Census Bureau based on the latest census. 40 C.F.R. §122.32(a). This term also includes other publicly owned separate storm sewer systems similar to MS4s (e.g., military bases, large hospital or prison complexes, highways) and small MS4s outside urbanized areas based on criteria developed by the State; at minimum, municipal entities outside urbanized areas with a population greater than 10,000 must be considered for permitting. 40 C.F.R. §§ 122.26(b)(16); 40 C.F.R. § 123.35(b).

<sup>5</sup> The Phase II rule also allows for designating stormwater discharges for NPDES permit coverage if stormwater controls are needed for such discharges based on wasteload allocations in a TMDL. 40 C.F.R. § 122.26(a)(9)(i)(C). This basis for designating stormwater discharges was not raised in the petition.

sources of pollutants. Petitioners also cite to the National Stormwater Quality Database (NSQD), the National Resource Council, and EPA publications, along with various other studies pointing to a connection between increases in the amount of imperviousness and decreases in water quality. The Petition also cites Total Maximum Daily Loads (TMDLs) established by EPA and the States to illustrate the specific sources of pollutants leading to the impairments in Army Creek.

After reviewing the information provided by Petitioners as well as other sources of information, Region III declines to grant the petition to designate stormwater discharges from CII sites in the Army Creek watershed. While the data indicate that stormwater discharges from CII sites may contain the pollutants of concern that eventually reach Army Creek, EPA has concluded that existing water quality protection programs address the majority of CII stormwater discharges in the identified watershed. EPA also notes that information obtained from the regulated MS4 entities in the Army Creek watershed indicates that CII sites occupy less land area than stated in the Petition (16% based on local land use data vs 32% asserted in the Petition), signaling that CII sites contribute significantly less pollutant loading than estimated by the Petition. Moreover, in-stream water quality data provided by the state of Delaware show that water quality has improved in Army Creek, as indicated by a number of segments being removed from the 303(d) list for nutrients, dissolved oxygen, and bacteria. Considered together, these factors have led the Region to conclude that designating currently unregulated CII sites in the Army Creek watershed is not warranted at this time.

This response explains how Region III has been addressing urban stormwater pollution via the NPDES program and describes how the Region is using an array of tools and our ongoing oversight to continuously control stormwater pollution. EPA affirms that the use of RDA, while a valuable tool that we will continue to consider for the future, is not warranted at this time.

#### **IV. PETITION REVIEW CRITERIA**

As discussed in the 2013 petition response, EPA has identified a number of factors to consider in exercising its case-by-case and categorical designation authority. For a case-by-case determination under section 402(p)(2)(E), EPA described as relevant factors the available water quality and sampling data as well as “the location of the discharge with respect to waters of the United States; the size of the discharge, the quantity and nature of the pollutants reaching waters of the United States; and any other relevant factors.” 55 Fed. Reg. at 47993. As noted in early guidance with respect to designations under CWA § 402(p)(3)(E), State reports generated under CWA section 305(b) are critical sources of information for making designation determinations.<sup>6</sup>

In the development of the Phase II rule, EPA considered designation of additional categories of stormwater sources for regulation under the NPDES permit program, based on

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<sup>6</sup> *Designation of Stormwater Discharges for Immediate Permitting*, August 8, 1990, available at <http://www.epa.gov/npdes/pubs/owm0220.pdf> at 12.

three factors. 64 Fed. Reg. 68722, 68780 (December 8, 1999). EPA considered 1) the likelihood for exposure of pollutants to precipitation at sources included in that category, 2) whether sufficient data are available on which to make a determination of potential adverse water quality impacts for the category of sources, and 3) whether such sources were adequately addressed by other environmental programs. *Id.* The likelihood of exposure of pollutants to precipitation at industrial sources was also a factor in defining the scope of “stormwater discharges associated with industrial activity” in the Phase I rule. *See* 55 Fed. Reg. at 48008.<sup>7</sup> These basic factors are also relevant in evaluating the Petition.<sup>8</sup>

In a letter from the EPA Assistant Administrator for Water to the Vermont Agency of Natural Resources,<sup>9</sup> EPA elaborated on these factors. EPA noted that “[n]either the CWA nor implementing regulations impose a non-discretionary duty to designate sources” and that a decision to “exercise its discretion to designate sources (or not) should be based on available information and relevant considerations.” (Mehan letter at 1). Noting that sufficient information to determine causes of impairment or to identify stormwater sources of the impairment may not be available in some circumstances, EPA further stated that while it has not defined a threshold level of pollutant contribution that would trigger a finding that a source is contributing to a violation of a water quality standard (WQS) or is a significant contributor of pollutants to waters of the U.S., “it would be reasonable to require permits for discharges that contribute more than *de minimis* amounts of pollutants identified as the cause of impairment to a water body.” (Mehan letter at 2). However, EPA also noted that “other water quality protections that are already in place” are relevant to consider with respect to whether to designate a source or when to make such designation or permit application requirement effective. For example, in the final designation for discharges to Bartlett, Centennial, Englesby, Morehouse and Potash Brooks, the Vermont Department of Environmental Conservation determined that, “a designated discharge is defined as a storm water discharge from an impervious surface to either Bartlett, Centennial, Englesby, Morehouse or Potash Brook if such discharge is not covered under the NPDES municipal separate storm sewer system (MS4) permit or another NDPEs permit...” Additionally, the designation specified that non-municipal discharges into the MS4 system or discharges that commingle with the MS4 system would not be subject to designation.

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<sup>7</sup> The Phase I rule, which excluded from the definition, certain industrial stormwater discharges based on the assumption that there is little or no exposure of materials or activities to precipitation was remanded. *NRDC v. EPA*, 966 F.2d 1292, 1305 (9th Cir. 1992). However, the underlying rationale that exposure of industrial pollutants to precipitation is a relevant factor was not questioned. Rather, EPA’s exclusion was remanded for lack of record support for this assumption. To cure this defect, in the Phase II rule EPA promulgated a conditional exclusion for owners/operators of industrial activities to certify that the facility meets the “no exposure” requirements of the rule. 64 Fed. Reg. at 68782-87; 40 C.F.R. § 122.26(g).

<sup>8</sup> EPA’s use of these factors in deciding not to designate additional stormwater sources in the Phase II rule was upheld. *See Environmental Defense Center v. EPA*, 344 F.3d 832, 861 (9th Cir., 2003).

<sup>9</sup> Letter from G. Tracy Mehan, III to Elizabeth McLain, with attachment “Answers to Questions Raised,” dated Sept. 16, 2003. (“Mehan letter”)

Region III has evaluated the Petition in light of the factors discussed above. The Region has also taken into consideration administrative and policy factors. Further, the Region consulted DNREC, since they are the agency authorized to administer the NPDES program in Delaware and would be responsible for issuing and overseeing permits for any designated stormwater discharges. The state's concerns included factors such as resources, workload, and their preferred means of addressing stormwater-related pollution using programs currently in place.

In sum, the factors considered by the Region in evaluating the petition are:

- A. Likelihood of exposure of pollutants to precipitation at sites in the categories identified in the petition.
- B. Sufficiency of available data to evaluate the contribution of stormwater discharges to water quality impairment from the targeted categories.
  - a) Data to determine locations of unregulated CII sites
  - b) Data with respect to stream assessments and water quality
  - c) Data available from establishment of Total Maximum Daily Loads
- C. Whether other federal, state, or local programs adequately address the known stormwater discharge.

## V. ANALYSIS

### A. Likelihood of Exposure of Pollutant Sources at CII Sites

The Army Creek watershed drains approximately 12 square miles in east-central New Castle County. The 4-mile-long main stem flows east-northeast toward its outfall to the Delaware River just below the town of New Castle. The stream is free flowing, however, there is no tidal influence in the creek due to the installation of a tide gate at its confluence with the Delaware River. The land uses in the watershed are dominated by urban areas, which account for approximately 60% of the total land cover. Commercial, industrial and institutional land uses account for approximately 16% of the watershed, or roughly two square miles. Nearly 60% of the CII land use is considered impervious cover and totals 1.2 square miles.

### B. Analysis of Available Data

For purposes of this Petition, EPA accepts that CII sites in the Army Creek watershed have impervious surfaces, which are subjected to a variety of pollutants that may be discharged to surface waters upon exposure to precipitation. Moreover, EPA has recognized that "the level of imperviousness in an area strongly correlates with the quality of the nearby receiving water."

64 FR 68722, 68725 (December 8, 1999). However, this correlation alone is not sufficient for making a determination that as a category CII sites are contributing to water quality standard violations in the Army Creek watershed.

### **1. GIS Analysis to Determine the Location of Unregulated CII Sites and Existing Stormwater Management Facilities**

In order to assess the potential contribution of CII discharges to the water quality impairments listed in the petition, EPA assessed the location of the CII sites relative to the Army Creek. Therefore, Region III reached out to the local NPDES permitted jurisdictions to gather GIS mapping data in an effort to analyze the potential impact of impervious surface associated with CII sites and their location relative to the impaired waters.

New Castle County (NCC) and the Delaware Department of Transportation (DelDOT) are primary co-permittees for the Phase I MS4 permit that includes the Army Creek watershed. NCC provided land use data layers that represented where CII areas were located within the watershed. According to their most recent data, approximately 16% of the watershed is comprised of these land use types, compared to the 32% asserted by the Petitioners. The County also provided us with a comprehensive layer of their MS4 infrastructure, including inlets, pipes, outfalls and various types of best management practices (BMPs). When considering the area under the control of both NCC and DelDOT, the majority of all CII sites drain into the regulated MS4 or to a BMP that is inspected and maintained by the MS4 co-permittees.

The GIS analysis indicates that, because the stormwater discharges from identified CII sites are in an area where stormwater discharges are controlled by other CWA programs, it is unlikely that any additional water quality benefit would be realized by requiring permits for CII stormwater discharges. Specifically, the Army Creek watershed is located entirely within the MS4 service area covered by the Phase I MS4 permit, and the permit includes requirements that implement the total maximum daily load for the Army Creek.

### **2. Analysis of Water Quality Data and Total Maximum Daily Loads (TMDLs)**

CWA section 303(d) requires that states identify waters not complying with WQS, even with technology-based effluent limits in place. States must develop TMDLs for all such waters in accordance with a prioritized schedule developed by the state. In developing a TMDL, a quantitative assessment is made of the relative pollutant contributions from point sources, nonpoint sources, natural background, and the degree to which reductions in pollutant discharges are needed to attain compliance with WQS. TMDLs are the sum of wasteload allocations for point sources, load allocations for non-point sources and natural background along with a margin of safety sufficient to ensure compliance with WQS. Once a TMDL is approved or established by EPA, any NPDES permit covering sources discharging to the waterbody must include requirements consistent with wasteload allocations in the TMDL. 40 C.F.R. § 122.44(d)(1)(vii)(B).

a. Water Quality Analysis

Water quality data provided by DNREC to EPA for Army Creek from 1998 to 2015 suggests that the trends in water quality for some pollutants (including nitrogen and phosphorus) are improving. In fact, portions of Army Creek have been removed from the State of Delaware section 303(d) list for nutrients and bacteria. This indicates that the various programs in place are in fact having a positive effect on the quality of the creek.

The 2014 section 303(d) and draft 2016 section 303(d) lists confirm that water quality in the Army Creek watershed has improved. Lower Army Creek was initially placed on the section 303(d) list in 1996 as impaired because of elevated levels of nutrients and low dissolved oxygen (DO) concentrations. This segment was also listed as impaired for bacteria in 2002. Lower Army Creek was delisted for bacteria in 2010, and subsequently delisted for nutrients in 2012. The 2014 section 303(d) report lists the Lower Army Creek segment in Category 1 for nutrients and bacteria, which signifies that all designated uses are being met for those pollutants. Upper Army Creek, which was listed in 1998 for nutrients and low DO was delisted for both pollutants in 2012. This waterbody segment was listed in Category 1 on the 2014 section 303(d) for nutrients and DO, which signifies that all designated uses are being met for those pollutants as well. The unnamed tributary to Army Creek that was listed as impaired for nutrients, bacteria and low DO was also delisted for DO in 2008.

b. TMDL Analysis

As noted above, both Upper and Lower Army Creek and the unnamed tributary were listed as impaired by excess nutrients, bacteria and low DO concentrations. As a result, Delaware established and EPA approved a TMDL for those pollutants, and the source assessments that accompany the TMDL provide useful insights into determining whether stormwater from CII sites, or alternatively, urban runoff, is contributing to the impairment. EPA reviewed the Army Creek TMDL documentation and has determined that the TMDL source assessment does not provide sufficient information for EPA to exercise RDA for the stormwater discharges from CII sites to the waters addressed by the TMDL.

EPA approved the Army Creek TMDL in August 2006. The TMDL establishes pollutant loadings to address impairments from excess nutrients, low DO and bacteria.<sup>10</sup> The monitoring period for data collected to prepare the TMDL was 2002-2005. The TMDL analysis for Army Creek considered NPDES-permitted point sources; however, all of those facilities discharge to the Delaware River, not to Army Creek. Therefore, the only discharges to Army Creek were

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<sup>10</sup> *Total Maximum Daily Loads (TMDLs) Analysis for the Watersheds of Army Creek, Red Lion Creek, and Dragon Run Creek, Delaware*, August 2006, available at [http://www.dnrec.delaware.gov/swc/wa/Documents/TMDL\\_TechnicalAnalysisDocuments/3\\_ArmyRedLionDragonRunTMDLAnalyses.pdf](http://www.dnrec.delaware.gov/swc/wa/Documents/TMDL_TechnicalAnalysisDocuments/3_ArmyRedLionDragonRunTMDLAnalyses.pdf) (herein after "TMDL Analysis").



determined to be from stormwater outfalls. Discharges from stormwater outfalls are expected to occur during storm events and high flow conditions. TMDLs are established to protect water quality during the most critical periods. 40 C.F.R. § 130.7(c)(1). As the TMDL Analysis states, “Since discharges from stormwater outfalls are expected to only occur during storm events and high flow conditions, they are considered as a source during the nutrient-DO annual average scenarios and the bacteria wet condition analyses.”<sup>11</sup> Average annual flows and median water quality concentrations for headwater, tributary, and diffuse source inputs were used in the TMDL model calibration for the average scenario analysis. The TMDL document contains figures showing that both the modeled dissolved oxygen levels and total nitrogen and total phosphorus concentrations meet the State of Delaware standards in all portions of Army Creek on an annual average basis during existing conditions.

According to the 2006 Army Creek TMDL analysis, several non-point sources exist in the watershed, such as agriculture, septic systems and runoff from unregulated construction sites that could also be significant sources of pollution. Agriculture is the next largest land use in the watershed behind urban land use. Potential agricultural pollutants include fertilizer and pesticide/insecticide applications to cropland, animal waste/manure, and sediment runoff. Septic systems, when not properly installed and/or maintained, can become a source of nutrient and bacteria pollution. At the time the TMDL was developed, there were approximately 450 septic systems in the watershed. These practices are examples of the additional sources of nutrients and sediment, beyond CII sites, which could be contributing pollutants to Army Creek.

### **C. Stormwater from CII Sites Addressed by other Programs**

As noted above, one of the three principal factors EPA is using to evaluate whether to designate unregulated stormwater discharges for NPDES permitting is whether other federal, state, or local programs adequately address the discharges. Region III evaluated regulatory programs that are currently in place in the Army Creek watershed to determine how they address CII sites and whether those programs are adequate.

Region III agrees with the Petitioners that generally many CII sites have significant amounts of impervious surface, which are exposed to a variety of pollutants that can be discharged in stormwater from the sites. With respect to the Army Creek watershed, the data analysis performed by the Region in response to the Petition shows that while a portion of the identified watershed is defined as urban land use, stormwater discharges from the majority of that land is currently regulated directly or indirectly (e.g. by local ordinances that implement MS4 permit requirements) under NPDES stormwater permits, as well as under state regulation as described below.

#### **1. NPDES Municipal Separate Storm Sewer (MS4) Permit**

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<sup>11</sup> TMDL Analysis at 23.

Over the past three years, Region III has been working with its authorized state agencies to issue a new generation of MS4 permits that increase the focus on addressing water quality issues. For the first time these renewed permits have specific local TMDL commitments (such as the Army Creek TMDL) and these permits are a significant improvement over previous permits.

The jurisdiction where the Army Creek watershed is located (New Castle County, DE) is operating under a Phase I MS4 permit issued May 7, 2013. During the issuance of this permit, Region III used its review opportunity to ensure that DNREC used its NPDES authority to include conditions in the MS4 permit to meet TMDL allocations and address impaired waters, in addition to restoring impervious surface to reduce runoff from existing sources. In fact, Region III filed multiple objections to the NCC MS4 permit prior to its reissuance to ensure that applicable water quality requirements were addressed in the permit. Moreover, DNREC has included both TMDL implementation and retrofit requirements in its renewed permit, as explained in more detail below. These requirements provide opportunities for additional water quality improvements from CII discharges in those areas.

a. TMDL/Retrofit Provisions

The NCC MS4 permit describes a retrofit requirement to restore 3% of the effective impervious area in selected watersheds where a Water Quality Improvement Plan (WQIP) is developed and implemented. Due to the highly impervious nature of CII sites, and the applicability of the Phase I MS4 regulated area, these retrofits have the potential to be implemented on CII sites. However, even if retrofits are not implemented specifically on CII sites, the reductions in runoff from other sources should have a similar effect on water quality.

Part II.B.2 of Delaware's reissued 2013 New Castle County Phase I MS4 permit addresses reductions required by TMDLs.

“Permittees shall address the TMDL WLAs for stormwater associated with the MS4, through the iterative implementation of programmatic BMPs that will prevent, reduce, or remove the targeted pollutants. This will be accomplished for all watersheds located within the MS4 permit area by implementing all components within the Stormwater Pollution Prevention & Management Program (SWPP&MP) and, for certain priority watersheds, by developing and implementing a Water Quality Improvement Plan (WQIP).”

The permittee did not select Army Creek as a priority watershed for this permit cycle, selecting as higher priority the Dragon Run and Christina River watersheds. However, Region III expects NCC to select Army Creek in the next permit cycle for development of a WQIP, based on its rank as fourth in priority in its final 2014 SWPP&MP. Nevertheless, the permittee remains required to address all local TMDLs-including the Army Creek TMDL, regardless of WQIP preparation.

Part IV of the NCC permit also states that the permittees shall assess the effectiveness of the SWPP&MP based on a number of factors, including any estimates of changes in pollutant loadings that are prevented or reduced by the installation of BMPs associated with existing conditions (i.e. retrofits).

b. Industrial Stormwater Provisions

Federal regulations at 40 CFR § 122.26 (d)(2)(i)(A) and(iv)(C) require Phase I MS4 permittees to control stormwater discharges from industrial sites. Section 122.26(d)(2)(i)(A) requires adequate legal authority to control industrial stormwater discharges to the MS4 and §122.26(d)(2)(iv)(C) requires a stormwater management program to include a program to monitor and control pollutants from industrial facilities that the permittee determines are contributing a substantial pollutant loading to the MS4 system. The regulation further requires the permittee to identify priorities and procedures for inspections as well as a monitoring program. *Id.* The Phase I MS4 permit in Delaware includes the requirement to identify and inspect high risk facilities in industrial areas. See Part II.A.6. Therefore, a number of sites identified in the petition and located within the regulated Phase I MS4 are subject to oversight under this permit.

For example, Delaware's New Castle County Phase I MS4 permit requires, at Part II.A.6, under the heading of *Industrial Stormwater* that:

“The permittees shall continue to assist the Department with inspecting facilities considered by the Department to be “high risk”, and inspecting facilities according to guidance as provided by the Department. The permittees shall also assist the Department in the development and maintenance of the Department's inventory for all industrial facilities within this permit area...”

NCC performs site inspections for industrial facilities every year and has inspected every permitted industrial stormwater site discharging to Army Creek over the past three years. DNREC also performs inspections of NPDES-permitted industrial facilities every permit cycle to ensure compliance with NPDES permit and regulatory requirements. Results of industrial inspections are included as an appendix to the MS4 annual report that is submitted to DNREC each year.

c. Illicit Discharge Detection and Elimination (IDDE) Program

One essential component of the MS4 program is the Illicit Discharge Detection and Elimination (IDDE) element.

For the Army Creek watershed, NCC has a documented data summary of outfall inspections completed beginning in 2001 to comply with its MS4 permit. From 2001-2013, all outfalls in the watershed were screened in accordance with previous MS4 permit requirements.

From 2007-2014, an additional 64 outfalls were screened as part of MS4 inventory/inspection procedures. To comply with the 2013 permit, which requires the permittee to develop a program to prioritize outfalls for monitoring, all outfalls in the watershed were evaluated using a targeted approach based on guidelines from the Center for Watershed Protection. Of the 199 outfalls in the Army Creek watershed, 136 were targeted for field screening based upon selected criteria-including outfalls located within 300 feet of commercial and/or industrial land use. In 2014, all targeted outfalls were field screened. Evidence of illicit discharges and the action that was taken are reported to DNREC in the MS4 annual report and retained by NCC.

d. Institutional Facilities

Based upon data obtained from NCC, the institutional land use in the Army Creek watershed comprises approximately 0.23 square miles. This number represents 2% of the watershed's land cover.

In New Castle County, discharges from school buildings, whether public or privately owned, are regulated since the County regulates all establishments that discharge to the NCC storm sewer system. NCC is planning to implement a storm drain stopper program for carwash fundraisers with a focus on school and church groups as part of their Public Education and Involvement Plan<sup>12</sup>.

**2. New and Redevelopment Regulations Outside of Regulated MS4 Area**

In addition to the TMDL and MS4 programs described above, Delaware has established state-wide regulations which further address stormwater pollution from new development and redevelopment related to CII (and other) sources. These regulations apply throughout the entire state, not only within regulated MS4 boundaries.

Delaware's 2014 revised Sediment and Stormwater regulations<sup>13</sup> included criteria for new development and redevelopment, performance criteria for post-construction stormwater management, and an offset provision in the event that reduction standards could not be attained. The 2014 regulations were challenged and invalidated following a court decision citing a procedural flaw in the adoption of the regulations. Current emergency regulations were adopted as an interim measure on April 15, 2016 to provide certainty for the development community and to allow projects to continue through DNREC's approval process without a gap in sediment and stormwater regulation.<sup>14</sup> The Department will now be utilizing the 2016 emergency regulations

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<sup>12</sup> See <http://www.nccde.org/documentcenter/view/4603> at 6.

<sup>13</sup> <http://regulations.delaware.gov/AdminCode/title7/5000/5101.pdf>

<sup>14</sup> <http://regulations.delaware.gov/register/may2016/emergency/19%20DE%20Reg%20963%2005-01-16.pdf>

(which are essentially the 2014 regulations), along with new provisions in Senate Bill 253<sup>15</sup>, to review and approve stormwater management plans, pending promulgation of comprehensive new regulations currently being developed by DNREC.

Delaware is committed to implementing aggressive programs to prevent additional degradation of surface waters due to construction and development. In particular, the 2014 regulations were developed to reduce the amount of newly-created impervious surfaces and ensure the treatment of runoff from all categories of sites, including CII sites, which will only serve to aid in reducing the pollutants identified in the Petition. However, it will require time to determine if these practices are making a difference since these regulations were recently promulgated, faced legal challenges, and are now being rewritten.

***D. EPA Oversight of the Effectiveness of Existing State Stormwater Programs***

**1. Permitting**

Region III has made an ongoing substantial investment to address urban sector/stormwater issues in an effort to strengthen the performance of the core NPDES program. As noted above, nearly all CII sites within the Army Creek watershed are regulated by the NCC MS4 permit, making them subject to the local controls that implement the NPDES permit.

EPA recognizes that state and federal resources are limited, and best use of resources is another factor for consideration. After consultation with our state partners, Region III has concluded that available resources would be best focused on enhancing the effectiveness of the core MS4 permitting tools. These tools have a much wider coverage and impact on the existing built environment as opposed to capturing a small percentage of unregulated entities through the use of RDA.

Region III has focused on ensuring that the next generation of MS4 permits improve upon previous iterations. In July 2010, a document was issued that described our expectations for MS4 permits throughout the Region titled *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed*. Subsequently, Region III issued a number of permit objections to MS4 permits, with water quality issues being the basis for the majority of those actions. As a result of EPA's activities, as described above, the MS4 permit in Delaware has improved in that it includes provisions for addressing impaired waters through TMDL plan

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<sup>15</sup><http://www.dnrec.delaware.gov/swc/Drainage/Documents/Sediment%20and%20Stormwater%20Program/Reg%20Revisions%20SAN%202015-10/SB253%20SA2%20and%20HB194%20Handout%20071316%20RAC%20meeting%20Rev%201.pdf#search=SB%20253>

development and implementation. Moreover, DNREC includes restoration requirements for implementing BMPs to treat existing impervious surface in the MS4 Permit. It is anticipated that the next permit, to be issued in 2018, will continue to advance the MS4 program and improve water quality.

## **2. Enforcement**

In accordance with EPA's National Enforcement Initiative, Region III committed to perform audits on all Phase I MS4s within the Region by 2016. As stated above, there is one Phase I MS4 jurisdiction located within the Army Creek watershed. EPA performed an assessment of the permittee's compliance with the requirements of their MS4 permit April 17-18, 2013. As explained in more detail below, an EPA audit of NCC/DelDOT revealed that industrial and commercial prioritization and inspections were deficient.

NCC was cited by EPA during the inspection for failure to maintain an accurate list of "high risk" facilities to be inspected, as part of the MS4 permit condition to develop a program to identify, monitor, and control pollutants in stormwater discharges from industrial and commercial facilities. Consequently, the County developed a "hot spot" detection program (as described in the response above) and paid a penalty of \$17,400.

In addition to the monetary penalty assessed, recent MS4 inspections performed by Region III have resulted in improved industrial inspection procedures and increased awareness throughout the Region of the MS4 program as a whole.

## **3. State Program Assessments**

Between 2011 and 2013, Region III performed state-wide assessments of the entire stormwater program for each of the five states that are authorized to administer the NPDES program. Some common recommendations from those assessments related to CII sites include: (1) development of a process to identify non-filers and sites where permit coverage is required but not yet obtained; (2) increasing the number of inspections and enforcement to promote compliance; and (3) obtaining industrial permits for municipal facilities. Beginning in 2016, EPA is scheduling follow-up assessments with each of our states to determine the adequacy of the actions that the states have taken to address deficiencies identified during our initial review. To date, follow-up reviews have been conducted in Virginia and Pennsylvania. It is anticipated that Delaware's follow-up review will take place in the near future, pending availability of EPA resources and funding. Similar to the initial assessments, written reports will be prepared to convey the results of the secondary evaluations, so that Delaware can focus resources on continuing to improve its stormwater program.

#### **4. Chesapeake Bay Watershed Implementation Plan (WIP) Oversight**

In accordance with the Chesapeake Bay TMDL, states were required to map out strategies in their state WIPs to achieve nutrient and sediment reductions allocated to them. As part of this process, states are required to develop two year milestones and submit on the ground BMP statistics to show how nutrient and sediment reductions are being achieved. EPA is required to evaluate these milestones and state's progress toward meeting allocation goals through model runs of the input data. EPA has committed to taking federal actions against States where milestones are not met and/or progress toward meeting pollutant reductions is not realized.

As part of the milestone process, Delaware has committed to program enhancements, some of which apply state-wide (such as the reissuance of the general permit for stormwater associated with industrial activities) and could be implemented in watersheds, such as Army Creek, that do not drain to the Chesapeake Bay.

#### **VI. CONCLUSION**

Region III recognizes that there exists an observable link between urban water impairments and impervious surfaces and supports the need for constantly improving stormwater controls and stormwater pollution prevention. However, after reviewing the information provided by the Petitioners, as well as other sources of information, and considering the factors described above, Region III has concluded that it will not issue a categorical designation of all currently unregulated stormwater discharges from commercial, industrial and institutional sites in the Army Creek watershed. Our analysis in response to this petition indicates that water quality protection programs to address the impairments in Army Creek currently exist, are being implemented, and show progress toward water quality improvement. Under these circumstances, exercise of residual designation authority to require stormwater permits for unregulated CII stormwater discharges is not warranted and would be an inefficient use of already limited resources.

In sum, DNREC has issued a much-improved MS4 permit from the previous iteration that contains requirements to deal with impaired waters, and adopted state specific standards for new development and redevelopment. The implementation of these programs will require a significant resource commitment by the state, the Region, and the regulated community for many years to come. Region III is committed to providing proper oversight and working with Delaware to ensure that these programs and activities are implemented and meet their water quality objectives. If it becomes apparent that these programs are not meeting their objectives, then the Region will need to consider alternative tools, including RDA.

Region III agrees with the Petitioners that RDA is a viable tool, in appropriate circumstances, to address the concerns identified in the Petition. While Region III is not at this time proposing to perform wholesale designation of entire categories of land use as requested in

the Petition, the Region is prepared to evaluate the use of RDA to address impaired waters in a targeted manner where there is solid evidence and documentation of an entity's causing and contributing explicitly to water quality impairments and that designating additional sources will lead to significant reductions in pollutant loadings and water quality improvement.