Page 1 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND THE LAWS OF THE STATE OF DELAWARE

In compliance with the provisions of the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 and the Water Quality Act of 1987 (33 U.S.C.§§ 1251 *et seq.*), hereinafter referred to as "the Act", and pursuant to the provisions of Title 7, Del.C., § 6003, the Delaware Department of Natural Resources and Environmental Control ("the Department") authorizes

New Castle County 187-A Old Churchmans Road New Castle, Delaware 19720

The Delaware Department of Transportation P.O. Box 778
Dover, Delaware 19903

And the following municipalities:

The towns of Bellefonte Elsmere, and Newport, and the cities of Delaware City, New Castle, and Wilmington (portions not covered under individual NPDES permit # DE0020320; State Permit No. WPCC 3074D/74)

collectively and severally, as permittees, to discharge storm water from all portions of the municipal separate storm sewer system located in New Castle County, Delaware that are owned, operated or maintained by any of the permittees listed above, to waters of the State located in New Castle County, in accordance with the comprehensive storm water pollution prevention and management program, the discharge limitations, monitoring requirements and other provisions set forth in Parts, I, II, III, IV, V, VI, and VII hereof.

This permit and the authorization to discharge under the National Pollutant Discharge Elimination System shall become effective May 7, 2013 and expire at midnight, on May 6, 2018.

Bryan Ashby

Date Signed

Program Manager II, Surface Water Discharges Section

Division of Water

Delaware Department of Natural Resources

and Environmental Control

Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Table of Contents

Pa	rt I.	Discharges Authorized By This Permit	4
A.		Area Covered	4
B.		Authorized Discharges	4
C.		Permittee Responsibilities	5
D.		Discharge Limitations	
E.		Permit Term	7
Pai	rt II	. Storm Water Pollution Prevention and Management Program (SWPP&MP) as	nd
		itoring	
A.		Storm Water Pollution Prevention and Management Program Requirements	
	1.	Public Education/Public Involvement.	
	2.	Illicit Discharge Detection and Elimination	. 11
	3.	Stormwater Management During Construction	. 14
	4.	Post Construction Stormwater Management	
	5.	Good Housekeeping	
	6.	Industrial Stormwater	
	7.	Watershed Priority List	. 18
	8.	Mapping	
B.		Monitoring Requirements as Part of the SWPP&MP	. 19
	1.	Pollutant Minimization Plan (PMP) for Polychlorinated Biphenyls (PCBs)	
		Total Maximum Daily Loads (TMDL) Waste Load Allocations (WLA) and	
		Applicable Water Quality Standards	. 20
	3.	Wet Weather Performance Monitoring Plan	. 21
		Dry Weather Screening Plan	
	5.	In-Stream Monitoring	. 23
C.		Modification to the SWPP&MP	. 23
Pa	rt II	II. Water Quality Improvement Plans	. 24
A.		Establishing a Watershed Priorities List	. 24
B.		Water Quality Improvement Plan Development	. 26
C.		Water Quality Improvement Plan Implementation	. 27
Pa	rt I	V. Evaluation of the SWPP&MP	
Pa	rt V	'. Sampling and Reporting Procedures	. 29
A.		Flow Measurement	. 29
B.		Test Procedures	. 29
C.		Penalties for Tampering	. 29
D.		Record Contents	. 29
E.		Retention of Records	. 29
F.		Annual Report Requirements	. 30
Pa	rt V	I. Standard Permit Conditions	. 31
A.		Legal Authority	. 31
B.		Duty to Comply	. 31
C.		Adverse Impact	. 31
D.		Facilities Operation	. 31

Page **3** of **45** State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071 Effective Date: May 7, 2013

Expiration Date: May 6, 2018

E.	Removed Substances	32
F.	Availability of Reports	
G.	Transfer of Permit	
H.	Reapplication for a Permit	32
I.	Permit Modification, Revocation and Reissuance, and Termination	33
J.	Right of Entry	34
K.	Signatory Requirements	34
L.	Civil and Criminal Liability	35
M.	Discharge of Pollutants	35
N.	Oil and Hazardous Substance Liability	35
O.	State Laws	35
P.	Property Rights	36
Q.	Construction Authorization	36
R.	Fiscal Resources	36
S.	Severability	36
Part V	VII. Definitions	37
Apper	ndix A. WLAs Assigned to the New Castle County/DelDOT MS4	41
Apper	ndix B. Annual Report Template	41
Apper	ndix C. MS4 Summary Report Form (attachment)	
Apper	ndix D. Timeline of tasks (attachment)	

Page 4 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Part I. Discharges Authorized By This Permit

A. Area Covered

This permit covers the portions of New Castle County, Delaware, served by or otherwise contributing to discharges from, the municipal separate storm sewer systems (MS4s) owned, operated or maintained by any of the principal permittees or co-permittees (collectively referred to as "the permittees").

The permittees covered by this permit include:

- Principal Permittees: New Castle County and Delaware Department of Transportation
- Co-Permittees: The towns of Bellefonte, Elsmere, and Newport, and the cities of Delaware City, New Castle, and Wilmington (portions not covered under individual NPDES permit # DE0020320; State Permit No. WPCC 3074D/74)
- This permit does not cover discharges from MS4s owned, operated or maintained by the towns and cities of Middletown, Arden, Ardencroft, Ardentown, Newark, Odessa, Townsend, or areas within the City of Wilmington covered by individual permit # DE0020320; State Permit No. WPCC 3074D/74. Discharges from portions of the MS4s located within the geographic boundaries of these municipalities but owned or operated by the Delaware Department of Transportation are covered by this permit.

B. Authorized Discharges

- 1. This permit authorizes all existing or new discharges of storm water to State waters from those portions of the MS4 owned, operated or maintained by each of the permittees identified herein, consistent with 33 U.S.C. §1342 (p)(3)(B)(iii).
- 2. Limitations on Coverage
 The following discharges, whether discharged separately or commingled with
 municipal storm water, are not authorized by this permit:
 - Non-storm water and Industrial Storm Water:
 Discharges of materials other than storm water, discharges of storm water associated with industrial activity or other storm water discharges required to obtain an NPDES permit, except where such discharges are:
 - (1) Regulated by a separate NPDES permit or the discharger has applied for such permit;
 - (2) Covered under the Department's NPDES General Permit Program regulations; or

Page **5** of **45**

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

(3) Identified by and in compliance with Part II.A.3.

b. Spills:

Where the discharge of materials resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittees shall require the responsible party to take all reasonable steps to prevent any adverse effects on human health or the environment, and follow up with any and all measures available to permittees that require responsible party(ies) to ensure public safety. (See also Part II.A.3). This permit does not transfer the liability for the spill itself from the party(ies) responsible for the spill nor relieve the party(ies) responsible for the spill from the reporting requirements under 7 Del.C. §6028.

- c. Discharges shall not cause, have the reasonable potential to cause, or contribute to an exceedance or violation of any applicable surface water quality standards, including but not limited to:
 - (1) Discharges of substances or materials in amounts that are toxic, or that would be toxic to humans, fish, aquatic life or wildlife as defined in the Delaware Water Quality Standards ("WQS");
 - (2) Discharges of floatable debris, oils, scum, foam, or grease in other than trace amounts; and
 - (3) Discharges that cause or contribute to degradation or loss of Statedesignated beneficial uses of the receiving waters.

C. Permittee Responsibilities

- 1. Each of the permittees is responsible for:
 - a. Compliance with permit conditions relating to discharges from those portions of the MS4 that the permittee operates or maintains;
 - b. Compliance with the annual reporting requirements specified in Part V.F;
 - c. Collection of representative wet weather monitoring data required by Part II.B.3, according to such agreements as may be established between or among permittees; and
 - d. Developing a plan of action to assume responsibility for implementation of storm water management and monitoring programs on their portions of the MS4 should inter-jurisdictional agreements allocating responsibility between or among permittees be dissolved or in default.

Page **6** of **45**

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

- 2. Permittees are jointly responsible for compliance with permit conditions relating to discharges from portions of the MS4 where operation or maintenance of the MS4 is shared, where implementation of the Storm Water Pollution Prevention and Management Program ("SWPP&MP") set forth herein is shared or where responsibility for either system operation or maintenance or storm water management program implementation is transferred from one permittee to another in accordance with legally binding agreements.
- 3. Tasks specifying the implementation of the SWPP&MP elements set forth herein shall be described, identifying parties responsible, within an Inter-jurisdictional Agreement. No later than six (6) months following the effective date of this permit, the principal permittees shall coordinate with all co-permittees to develop an inter-jurisdictional agreement that defines relative responsibilities for each of the activities required herein, with a final agreement due within 15 months of the effective date of this permit included within the SWPP&MP. The interjurisdictional agreement shall address, at a minimum, the following elements:
 - roles and responsibilities for each permittee, by SWPP&MP element
 - monitoring responsibilities
 - reporting responsibilities
 - financial arrangements between permittees (if any), and
 - communication/coordination between permittees

Permittees shall conduct an annual meeting of all permittees to coordinate the implementation of the SWPP&MP. Permittees shall prepare meeting notes from each annual meeting for inclusion in each Annual Report to the Department.

Co-permittees will remain individually responsible for fully complying with all requirements of the permit and terms as outlined within the SWPP&MP. Upon execution, the inter-jurisdictional agreement described herein shall be submitted to the Department and incorporated as an Appendix into the SWPP&MP described in Part II.

D. Discharge Limitations

- 1. The permittee must manage, implement and enforce a Storm Water Pollution Prevention and Management Program (SWPP&MP) in accordance with the Clean Water Act and corresponding stormwater NPDES regulations, 40 C.F.R. Part 122, to meet the following requirements:
 - a. Effectively prohibit pollutants in stormwater discharges or other unauthorized discharges into the MS4 as necessary to comply with existing Delaware WQS;

Page 7 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

b. Attain applicable wasteload allocations (WLAs) for each established or approved Total Maximum Daily Load (TMDL) for each receiving water body, consistent with 33 U.S.C. § 1342(p)(3)(B)(iii); 40 C.F.R. § 122.44(k)(2) and (3); and

c. Comply with all other provisions and requirements contained in this permit, and in plans and schedules developed in fulfillment of this permit.

Compliance with the provisions contained in Parts II through IV of this permit, including any measurable goals as contained within the SWPP&MP, shall constitute adequate progress toward compliance with Delaware Water Quality Standards and WLAs for this permit term.

- 2. If any permittee determines that, despite their best efforts to comply with Section D.1 above, any of the preceding discharges persist, notwithstanding implementation of the SWPP&MP and other requirements of this permit, the permittees, either singularly or collectively, shall notify the Department of the determination and thereafter, shall prepare and submit a report, herein referred to as the "Assessment Report", that shall be included within the Annual Report and:
 - a. Identify and describe all Best Management Practices (BMPs) currently being employed in that portion of the MS4 where the offending discharge(s) persist;
 - b. Assess the effectiveness of those existing BMPs by obtaining and analyzing all existing data necessary including acres being treated by BMP in order to assess existing BMP effectiveness;
 - c. Identify any improvements to be made or any additional BMPs or control measures to be employed to address the conditions noted, including a schedule for implementing those improvements or additional measures. Each such additional BMP or control measure shall be incorporated by reference into the SWPP&MP described in Part II and into this permit.

E. Permit Term

This permit shall remain effective for a period not to exceed five (5) years. The terms and conditions of an expired permit are automatically continued pending issuance of a new or reissued permit if:

1. The permittees have jointly submitted a timely and sufficient application for a new or reissued permit at least 180 days prior to the permit expiration date; unless permission for a later date has been granted by the Secretary as specified within

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Part VI.H. herein.

2. The Department is unable, through no fault of the permittees, to issue a new permit before the expiration date of the previous permit.

All content and timelines contained within this permit, the most recent Department-approved Water Quality Improvement Plans, and the SWPP&MP will remain enforceable under this permit beyond the expiration date if the permit is administratively extended.

Part II. Storm Water Pollution Prevention and Management Program (SWPP&MP) and Monitoring

Within 15 months from the effective date of this permit, the principal permittees shall submit a final comprehensive SWPP&MP as specified herein, which is designed to control the quality of the storm water discharged from the MS4 referenced herein. The principal permittees shall develop the SWPP&MP in conjunction with all co-permittees, with the following submission deadlines:

- SWPP&MP Structure Outline: submitted to the Department within 6 months from the effective date of this permit.
- SWPP&MP final draft for DNREC review: submitted to the Department within 12 months from the effective date of this permit.
- Final SWPP&MP: submitted to the Department within 15 months from the effective date of this permit.
- Month 15-16: DNREC review and EPA review
- Month 16-17: Plan modification per DNREC's requirements
- Month 17-18: DNREC approval and plan finalization
- Month 18: Finalization and implementation of the SWPP&MP

The Department will send the permittees comments, if any, within 30 days after plan submission to the Department. If the review and approval period by the Department or EPA is not met at months 15-18, implementation of the plan by permittees shall be adjusted accordingly.

The SWPP&MP shall include all requirements set forth in this Section and shall be consistent with Section 402(p)(3)(B) of the Act, the federal NPDES storm water regulations in 40 C.F.R. § 122.26, and Delaware Executive Order No. 61, "Green Infrastructure" (2004).

The SWPP&MP shall contain measurable goals and shall describe the controls necessary to effectively prohibit the discharge into the MS4 of any materials other than storm water. The SWPP&MP shall outline measures that will reduce the discharge of pollutants from

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

the MS4 and shall also include a schedule for implementation.

All BMPs, control measures, and other actions to be implemented as part of this permit shall be described in detail in the SWPP&MP. The SWPP&MP shall contain contact information for at least one person who will be responsible for implementing and/or coordinating the stormwater management program for each permittee. The SWPP&MP shall cover the term of this permit and shall be updated as necessary, or as required by the Department, to ensure compliance with the statutory requirements of Section 402(p)(3)(B) of the Act. Modifications to the SWPP&MP shall be made in accordance with this permit.

Implementation of the SWPP&MP shall be consistent with the inter-jurisdictional agreement described in Part I.C.3 above and may be achieved through participation with the other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part II in lieu of creating duplicate program elements for each individual permittee. The purpose of the SWPP&MP, taken as a whole, shall achieve the "effective prohibition of non-storm water discharges" and the compliance with water quality standards from section 301(b)(1)(C) of the Act through the implementation of "Maximum Extent Practicable" standards from Section 402(p)(3)(B) of the Act and 7 Del. Admin. C. §7201-9.1.1.3.3.

The City of Wilmington may submit an independent SWPP&MP that shall be consistent with the goals and expectations outlined herein. This will provide the city with the opportunity to manage water quality monitoring strategies required under this permit and under individual permit # DE0020320; State Permit No. WPCC 3074D/74. Should the City of Wilmington decide to submit an independent SWPP&MP, it will be due to the Department on the same schedule as the larger SWPP&MP, and will be subject to the same review process and timeframe. However, the City of Wilmington will be permitted to provide an independent SWPP&MP that selects management measures appropriate to the wet weather progress that it has already made and which are appropriate to its system size and programmatic needs. In addition, if the city decides to submit an independent SWPP&MP, it will be responsible for compliance with its independent SWPP&MP, and will not be responsible for compliance under the larger SWPP&MP.

The permittees shall continue to implement the existing SWPP&MP as described in their most recent annual report submitted to the Department until the new SWPP&MP is approved by the Department.

A. Storm Water Pollution Prevention and Management Program Requirements

The SWPP&MP shall be implemented in a manner consistent with the following requirements. Additionally, all permittee staff responsible for one or more program elements shall receive annual training that relates to the type of work

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

performed by the employee, to be quantified as a measureable standard within the SWPP&MP. Examples include: stormwater design and plan review; inspection of and maintenance of the MS4 system or BMPs; the proper location, design, maintenance of green technology practices; or spill prevention/clean-up.

1. Public Education/Public Involvement

The permittees shall develop and implement an education and outreach program utilizing available media of their choosing that is designed to: (1) Increase the knowledge of the target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; (2) Change the behavior of target communities to reduce pollutant releases to MS4s and the environment; and (3) Decrease the discharge of pollutants to the MS4 by engaging the public.

The public education and outreach program shall include the following:

- a. As part of the SWPP&MP, develop and implement a public outreach and education strategy that includes:
 - Clear goals and objectives
 - Identified target audiences
 - Message(s) specific to the target audiences
 - Packaging and distribution of the message(s)
 - Evaluation of the outreach plan

The education and outreach program shall be developed to promote, publicize and facilitate:

- (1) public reporting of the presence of illicit discharges or improper disposal of materials, including floatables, into the MS4;
- (2) the proper management and disposal of used motor vehicle fluids and household hazardous wastes;
- (3) the proper management and disposal of grass clippings, leaf litter and domestic animal wastes;
- (4) the proper use of water to limit excess pollutants from non-storm-water water discharges from activities such as washing cars and lawn irrigation, from entering the MS4;
- (5) the proper use, application, and disposal of pesticides, herbicides, and fertilizers by commercial and private applicators and distributors;
- (6) public participation events, such as stream clean-ups, drain stenciling, etc.;
- (7) the proper maintenance of BMPs directed toward private and commercial property owners, and state or municipal entities responsible for

Page 11 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

maintenance: and

- (8) opportunities for residential installation of LID practices, and the use of Green Technology BMPs that reduce runoff and mimic natural hydrology.
- b. The education and outreach program shall include at least two public workshops each year and shall ensure that a minimum of 250,000 impressions per year are made on the general public about storm water quality via print, local TV access, local radio, internet, or other appropriate media.
- c. A statistically-valid public education survey to evaluate the effectiveness of the education and outreach program in increasing public awareness and changing behaviors about storm water pollution. The permittees shall coordinate on conducting this public survey. A baseline survey (Public Education Survey #1) shall be conducted beginning within 18 months of the effective date of this permit with the results submitted to the Department 6 months after the survey starts. A second survey (Public Education Survey #2) will be conducted beginning within approximately 3.5 years of the effective date of this permit (2 years after Public Education Survey #1). Survey results shall be submitted to the Department 6 months after the survey begins. The two surveys shall be consistent so results are comparable. If upon comparison of the two surveys, no measurable difference in public awareness and behavior is evident, the permittees shall reevaluate their public education and outreach program in order to determine more effective methods of conveying their message.
- d. No later than 12 months from the effective date of this permit, develop and implement a process for the public to review and comment on the permittees' draft SWPP&MP. The permittees shall develop and implement a process for consideration of public comments on the SWPP&MP.
- e. The education and outreach program shall be updated as necessary to remain effective and relevant to current conditions.

2. Illicit Discharge Detection and Elimination

a. Prohibitions

(1) Within two years of issuance of this permit, each permittee shall develop a county or municipal statute or ordinance or similar means, to effectively prohibit the discharge of materials other than storm water to the MS4. Each permittee shall require the elimination of illicit discharges and improper disposal practices and abatement and clean up as expeditiously as reasonably possible. Where the prompt elimination of an illicit

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

discharge is not possible, an expeditious schedule for removal of the discharge shall be developed and required of the party responsible for the illicit discharge. In the interim, the permittees shall require the operator of the illicit discharge to take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4.

- (2) The discharge or disposal of used motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, and domestic animal wastes into the MS4 shall be prohibited. The permittees shall promote through education, public information and other appropriate measures the proper management and disposal of used motor vehicle fluids (at a minimum, oil and antifreeze) and household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials). The permittees shall coordinate such efforts with the Delaware Solid Waste Authority, the Department's Division of Air, the and the Department's Division of Waste and Hazardous Substances. The permittees shall explore opportunities to facilitate existing recycling and household hazardous waste collection programs and identify ways to encourage more participation.
- (3) Unless identified as a significant source of pollutants to waters of the State, the following non-storm water discharges are examples of activities allowed to enter the MS4. Other activities may apply if substantiated by permittees within the SWPP&MP:
 - (a) water line flushing;
 - (b) diverted stream flows;
 - (c) rising groundwaters;
 - (d) uncontaminated groundwater infiltration to separate storm sewers;
 - (e) uncontaminated pumped groundwater;
 - (f) discharges from potable water sources;
 - (g) foundation drains;
 - (h) air conditioning condensate;
 - (i) irrigation water;
 - (j) springs;
 - (k) water from crawl space pumps;
 - (1) footing drains;
 - (m) individual residential vehicle washing;
 - (n) flows from riparian habitats and wetlands;
 - (o) dechlorinated swimming pool discharges; and
 - (p) discharges or flows from emergency fire fighting activities.
- b. Illicit Discharge Detection Program

Page 13 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

- (1) The SWPP&MP shall include a program to detect illicit discharges and improper disposal into the MS4 and to require appropriate corrective action, either the elimination of the illicit discharge(s) or obtaining an NPDES permit for the continuance of the discharge. Each permittee's program shall include a system to prioritize and investigate complaints/reports or monitoring information that indicates potential illicit discharges, including a spill or illegal dumping. Permittees shall immediately respond to problems/violations judged by the permittee to be urgent, severe, or an emergency, including but not limited to discharges that may pose a hazard to human health or discharges that pose a substantial endangerment to aquatic life. Within two years of the effective date of this permit, each permittee shall provide a publicly-listed, water quality citizen complaints/reports telephone number.
- (2) As part of the SWPP&MP, permittees shall develop a screening program for illicit discharges. Each permittee's program shall include a schedule and methodology to evaluate at least 20% of their storm sewer system per year, using existing mapping and water quality data, to determine areas with high potential for illicit discharges and improper disposal. Dry weather screening and field inspection activities shall be conducted in these areas. The evaluation will consider, among other things, the following criteria:
 - Past dry weather flow
 - Past discharge complaints and reports
 - Age of development
 - Density of aging septic systems
 - Aging or failing sewer infrastructure
 - Density and age of industrial activities

c. Illicit Discharge Elimination Program

The SWPP&MP shall include a plan to eliminate, where possible, illicit discharges. The Illicit Discharge Elimination Program shall include the following elements:

- (1) As part of the SWPP&MP, each permittee shall implement a program to reduce the discharge of floatables (e.g., litter and other human-generated solid refuse) toward achieving compliance with water quality standards. The floatables control program shall include source controls and, where necessary, structural controls.
- (2) If at any time the permittee, DNREC, or EPA becomes aware of any illicit

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

discharge, the permittee must take appropriate actions to address this condition within 30 days, documenting measures that were used to correct the condition. Such permit requirements do not preclude any enforcement action that may be taken by either DNREC or EPA at any time.

3. Stormwater Management During Construction

- a. The SWPP&MP shall include a program to reduce the discharge of pollutants from active construction sites that are captured under the Delaware Sediment and Stormwater Regulations and NPDES General Permit requirements to address both sediment and pollutants other than sediment discharged during construction, such as those noted in (4) below. All permittees and copermittees will be responsible for implementing and enforcing a program to reduce the discharge of pollutants from construction sites, including:
 - 1) Requirements for the review and approval of Sediment and Stormwater Plans according to standards set within the current Delaware Sediment and Stormwater Regulations;
 - 2) Requirements for the use and maintenance of appropriate structural and nonstructural sediment and erosion controls and other BMPs to reduce polluted discharges to the MS4 during the time when construction is underway;
 - 3) Requirement and procedures for the inspection of construction sites and enforcement of control measures, and to notify operators if federal NPDES General Permit requirements are not being met (i.e., Weekly inspections), and enforcement if necessary;
 - 4) Requirements for construction site operators to control wastes such as discarded construction or building materials, concrete truck washout, chemicals, litter, oil, and sanitation waste;
 - 5) Inspection requirements to ensure that BMPs are properly constructed and installed according to requirements set forth according to the Delaware Sediment and Stormwater Regulations; and
 - 6) Development and adoption of a local regulatory mechanism for enforcing onsite compliance with numbers (1) through (5) above within three (3) years of the effective date of this permit.
- b. Any amendments to the foregoing State or Federal regulations that may become effective during the term of this permit shall apply.
- c. Title 7, <u>Delaware Code</u>, Chapter 40 and the Department's Sediment and Stormwater Regulations establish a statewide sediment and stormwater program designed to control the quantity and quality of storm water runoff during construction. The Department has delegated the authority to

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

administer the program to Delegated Agencies throughout the state. The following information will be used to evaluate compliance with this section of the permit:

- 1) Tri-enniel Delegation Review under the Delaware Sediment and Stormwater Program
- 2) Department and/or other inspection reviews
- d. Should DNREC's various Delegated Agencies fail to continue to implement their existing programs in compliance with the governing statute, then all permittees will continue to be responsible for the above conditions.

4. Post Construction Stormwater Management

- a. The SWPP&MP shall include a program to reduce the discharge of pollutants and reduce the quantity of water leaving post-development construction sites for new development, as prescribed under the Delaware Sediment and Stormwater Regulations.
- b. All permittees will be responsible for implementing and enforcing a program to address post construction stormwater runoff (quantity and quality) from new development and redevelopment projects. The program must include:
 - 1) Procedures to require adequate long-term operation and maintenance of any BMPs employed;
 - 2) Requirements to inspect privately-owned stormwater management BMPs installed after 1991, for private and commercial developments, not to include resident-owned micro-scale BMPs such as rain barrels and small resident-owned rain gardens. Inspections shall occur on an annual basis, except in instances after BMP repair, in which case BMPs shall be inspected within one year after repair. BMPs shall be inspected based on any standards and specifications provided by the Delaware Sediment and Stormwater Program;
 - 3) Requirements to update BMP inventories annually (see Mapping requirements below); and
 - 4) Development and adoption of a local regulatory mechanism addressing post-construction stormwater quantity and quality and limiting the discharge of pollutants via stormwater runoff within three (3) years of the effective date of this permit.
- c. Any amendments to the foregoing State or Federal regulations that may become effective during the term of this permit shall apply.
- d. Title 7, Delaware Code, Chapter 40 and the Department's Sediment and

Page 16 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Stormwater Regulations establish a statewide sediment and stormwater program designed to control the quantity and quality of storm water runoff post-construction. The Department has delegated the authority to administer the program to Delegated Agencies throughout the state. The following information will be used to evaluate compliance with this section of the permit:

- 1) Tri-enniel Delegation Review under the Delaware Sediment and Stormwater Program
- 2) Department and/or other inspection reviews
- e. Should DNREC's various Delegated Agencies fail to continue to implement their existing programs in compliance with the governing statute, then all permittees will continue to be responsible for the above conditions.

5. Good Housekeeping

The SWPP&MP shall include a good housekeeping program that is designed to prevent and/or reduce discharges of pollutants associated with the permittees' operations. The good housekeeping program must include:

- a. A plan to include the current inventory with provisions to update the inventory annually for all facilities owned or operated by any of the permittees located in the MS4 service area that either maintain coverage under the NPDES industrial stormwater general permit program or that have the potential to contribute polluted discharges as a result of stormwater. These facilities can include, but are not limited to, maintenance yards, municipally-owned parking lots, Del-DOT-operated parking lots, or municipally-owned parks. This list is to be submitted in the Annual Report package. All facilities on the list must be inspected annually.
- b. A street sweeping program. All permittees that own, operate, or maintain roads shall develop a street sweeping program which shall be described within the SWPP&MP. The SWPP&MP must prescribe a numeric measurable street sweeping regime. Permittees must demonstrate by research, modeling, or otherwise appropriate scientific literature that substantiates the adequacy for pollutant removal and improved water quality. The SWPP&MP shall also describe procedures for the proper disposal of street sweeping debris and waste. All street sweeping activities should be summarized in an annual report and include information about size, location, and frequency, of area swept.
- c. A program to reduce the contribution of pollutants associated with the application, storage and disposal of pesticides, herbicides, and fertilizers from

Page 17 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

permittees' areas and activities to the MS4. The program shall include, but not be limited to:

- 1) Educational programs for permittees' employees who work directly with pesticides, herbicides, and fertilizers;
- 2) A Nutrient Management Plan for all urbanized areas receiving nutrient applications according to requirements set forth by the Delaware Nutrient Management Law (Delaware Code Title 3, Chapter 22 §2201-§2290), with an exemption of construction sites where nutrients are applied to achieve either temporary or permanent stabilization;
- 3) Application by certified applicators and annual summary report of applications;
- 4) Integrated pest management measures that incorporate non-chemical solutions;
- 5) The use of native vegetation; and
- 6) The collection and proper disposal of unused pesticides, herbicides, and fertilizers.
- d. A program to manage snow and ice, including salt storage practices and alternative deicing practices.
- e. A program to control litter on streets and highways, including the proper disposal of collected material.

6. Industrial Stormwater

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, including DelDOT-owned facilities. The inventory shall include facilities subject to the Department's NPDES industrial storm water general permit program. The permittees shall assist the Department in annually updating the inventory. The updated inventory shall be submitted to the Department by February 1 of each year.

The inventory shall contain the following:

- a. Facility name and address
- b. Mailing address
- c. Operator name and contact information
- d. NPDES permit number
- e. SIC code or activity description

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

f. GPS coordinates/GIS point data layer (point file)

If at any time the State of Delaware's *Regulations Governing the Control of Water Pollution* (Section 9.0, Industrial Stormwater Program) are updated to include provisions which allow delegation of programmatic elements for industrial stormwater inspection and enforcement to local jurisdictions, within one (1) year of regulatory promulgation, the permittees shall implement an industrial stormwater inspection and enforcement program under the following guidelines:

- a. Within one (1) year of regulatory promulgation, the permittees shall conduct an inspection of each industrial facility in the inventory at least annually to determine compliance with the *Regulations Governing the Control of Water Pollution*. Permittees shall also inspect all onsite stormwater BMPs according to any standards and specifications provided by the Delaware Sediment and Stormwater Program. Permittees shall provide inspection reports to industrial site owners, along with a prescriptive corrective action letter if appropriate. If the facility is found to be out of compliance upon re-inspection, the permittees shall first attempt to resolve violations by issuance of a Notice of Violation or administer other penalties at the local level. If the violation persists and all local enforcement options are exhausted, the facility shall be referred to the Department, in writing, for compliance assistance and/or enforcement action. All inspection documentation and records are to be retained by permittees for at least five years. All inspection documentation shall be made available to the Department upon request.
- b. Within one (1) year of regulatory promulgation, the permittees shall develop and implement a program and tracking mechanism for the distribution of storm water educational materials to industrial facilities on the permittees' inventories. The educational materials shall describe potential water quality impacts and BMPs to prevent or mitigate those impacts for each industry type in the inventory. The permittees shall distribute the educational material to industrial facilities on the inventory by the end of the third permit year.
- c. Within two (2) years of regulatory promulgation, permittees that do not currently have adequate legal authority shall establish an ordinance to reduce the discharge of pollutants in stormwater runoff from all commercial and industrial areas, along with establishing associated enforcement authority.

7. Watershed Priority List

Part III.A below outlines the requirement for this portion of the SWPP&MP.

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

8. Mapping

At least once a year, the permittees shall revisit and update, as necessary, BMP GIS data layers and storm sewer data. The data layers shall show the location of all outfalls and drainage outlets and the names and location of all waters that receive discharges from those outfalls. Structural BMPs are to be included, along with other green technology BMPs, but smaller, residential-type dispersed BMPs such as rain barrels and rain gardens need not be included. Mapping may include all existing and readily available information including project plans, records, drainage maps and field surveys, and must be based on Global Positioning System (GPS) data that sufficiently identifies structures in terms of data accuracy.

B. Monitoring Requirements as Part of the SWPP&MP

1. Pollutant Minimization Plan (PMP) for Polychlorinated Biphenyls (PCBs)

Principal permittees and co-permittees shall jointly submit a PMP for addressing PCBs in the Delaware River watershed that may be conveyed from its MS4. The PMP shall be submitted with the SWPP&MP. In lieu of developing a new PMP for PCBs, the City of Wilmington may utilize the PMP developed as part of its NPDES permit #DE0020320 (State Permit WPCC 3074D/74) as a substitution for this requirement only if the PMP is found by the Department to adequately meet all relevant terms of this permit as well as permit #DE0020320 (State Permit WPCC 3074D/74). For this circumstance, PMP development shall follow all implementation schedules and terms as outlined in NPDES permit #DE0020320 (State Permit WPCC 3074D/74).

For the larger comprehensive PMP, all permittees shall begin implementation of the PMP immediately following adoption of the plan (18 months following the issuance of this permit). The PMP shall contain the following elements:

- a. The name and contact information for an individual who will serve as each permittee's contact for information concerning the PCB PMP.
- b. A description of all known and probable sources of PCBs including materials, equipment, processes, soil areas or facilities within the MS4 service area from which PCBs are known or suspected to be released, directly or indirectly, into the MS4, as well as a description of the pathways if known. Pollutant concentrations shall also be reported if known.
- c. A monitoring plan that defines the number of outfall samples that the permittees shall collect and analyze for PCBs, representative of areas in which PCBs are known to have elevated pollutant levels. The PMP shall include the

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

planned locations of monitoring, sampling techniques, analytical methods to be used, and a schedule for submittal of a sampling and analysis plan. Sampling shall commence following approval of the plan by the Department.

- d. A methodology for establishing a baseline loading of PCBs against which progress in reducing the loadings can be assessed.
- e. Inventory of all known PCB sources within the MS4 system that the permittees believe require control measures to reduce the sources' discharge of PCBs. The permittees shall then work with the Department, and other appropriate agencies, to develop a plan of action to control the discharge of PCBs from the sources listed.
- f. Evidence of implementing the PMP by reporting the number of known sites, the number of sites referred for joint inter agency action, the results of its sampling activity and any other actions taken in furtherance of the PMP. Reporting shall occur annually as part of the permittees' Annual Storm Water Report.

2. Total Maximum Daily Loads (TMDL) Waste Load Allocations (WLA) and Applicable Water Quality Standards

A number of TMDLs have been approved or established by the U.S. Environmental Protection Agency for waters located in New Castle County to which the permittees' MS4 discharges. These TMDLs listed in Appendix A assign specific numeric Waste Load Allocations (WLAs) to watersheds located within the MS4 permit area. The WLAs represent all pollutant sources including urban stormwater, industrial stormwater, agriculture, and septic.

This permit does not set numeric effluent limits. While permittees will not be required to meet the entire numeric allocation within this permit term, permittees shall address the TMDL WLAs for stormwater associated with the MS4, in addition to applicable water quality standards from 7 Del. Admin. C. §7201-9.1.1.3.3, 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 SWPP&MP and, for certain priority watersheds pursuant to Section III below, by developing and implementing a Water Quality Improvement Plan. Specific elements within the SWPP&MP which can be used to demonstrate load reductions are contained in the requirements for BMP monitoring and analysis. If any monitoring as part of the SWPP&MP reveals that additional or different BMPs are necessary, the SWPP&MP shall be modified appropriately.

Page 21 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Implementation of BMPs to address TMDLs and applicable water quality standards will be staged, with permittees implementing reductions over iterative stages of a long-term program. Additional information generated during each stage of BMP implementation will support future decisions regarding the feasibility of achieving existing criteria. For any bacteria TMDLs, permittees shall implement practicable, cost effective BMPs that have been identified as being effective at addressing the pollutant of concern.

In order to assist DNREC to further break down WLAs for urban stormwater, by year four (4) of the permit term, the permittees shall submit a GIS layer for all urbanized/impervious areas within the coverage area of this permit, which shall be accomplished by ground truthing currently available land use/land cover data and impervious surface data (urban stormwater, impervious surfaces, and industrial stormwater).

For TMDLs throughout the state, where WLAs are assigned specific to urban stormwater, the permittees shall be responsible for addressing reductions required by the TMDL as categorized as urban stormwater and shall establish reductions over iterative stages of a long-term program, which shall be outlined within the SWPP&MP. Approved TMDL reports for each waterbody are available at: www.dnrec.state.de.us/water2000/Sections/Watershed/TMDL/tmdlinfo.htm.

For the Chesapeake Bay TMDL, as established on December 29, 2010, permittees will be responsible for addressing reductions as categorized as urban stormwater and shall establish reductions over iterative stages of long-term program consistent with Delaware's Chesapeake Bay Watershed Implementation Plan, the Chesapeake Bay TMDL, and applicable Pollution Control Strategies.

For calculating TMDL load reductions for all TMDLs other than the Chesapeake Bay TMDL, all BMPs implemented after 1997 (baseline for establishment of TMDL WLAs) can be counted toward these reductions, which is based on the sampling timeframe in which TMDL data was collected (http://www.wr.dnrec.delaware.gov/Information/OtherInfo/Pages/WatershedAssessmentTMDLs.aspx). Annual loads, rather than daily loads, are to be used for all calculation and reporting purposes (Appendix A). For calculating TMDL load reductions for the Chesapeake Bay TMDL, all BMPs implemented after 2005 can be counted toward those reductions.

3. Wet Weather Performance Monitoring Plan

a. As part of the SWPP&MP, and consistent with 40 CFR 122.44(i), the permittees shall develop and implement a plan for monitoring and analyzing the expected pollutant load reductions using existing data on BMP

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

performance, establishing regular monitoring stations throughout the regulated area as described within this permit, and calculating load reductions on future development. The monitoring plan shall be designed to demonstrate any progress toward achieving applicable water quality standards. The analysis of the BMP performance standards data will be used in tandem with the water quality monitoring data to quantify the expected pollutant load reductions and provide an indicator of anticipated progress.

- b. As part of the SWPP&MP, the permittees shall develop and implement a statistically based wet-weather outfall monitoring program for the MS4 to provide the data necessary for the following tasks:
 - 1. To assess the effectiveness and adequacy of BMP implementation toward meeting TMDLs;
 - 2. To estimate the annual cumulative pollutant loadings from the MS4;
 - 3. To estimate the event mean concentrations and seasonal pollutants in discharges from major outfalls; and
 - 4. To identify and prioritize portions of the MS4 requiring additional controls.
 - c. The permittees shall submit their wet-weather monitoring program to the Department for approval as part of the SWPP&MP. Wet weather monitoring plan modifications (not to include changes in monitoring station locations) shall not be changed without notification to and approval from the Department.
 - d. If additional or modified BMPs are determined to be necessary, the permittees shall modify the SWPP&MP using the process described in Part II.C below to include additional BMPs and modifications, the expected additional pollutant load reductions associated with the BMPs and modifications, and the associated schedule for implementing the BMPs and modifications.
 - e. The City of Wilmington may submit an independent monitoring plan, which shall meet the terms and conditions herein, and must be consistent with the overall strategies set forth in the larger SWPP&MP to provide the permittee with the opportunity to manage water quality monitoring strategies required under this permit and under permit #DE0020320; State Permit WPCC 3074D/74.

Effective Date: May 7, 2013 Expiration Date: May 6, 2018

4. Dry Weather Screening Plan

Permittees shall develop a dry weather screening plan per the requirements described in Part II.A.2.b(2).

5. In-Stream Monitoring

This permit allows state 305(b) reports to be used as a substitute for in-stream monitoring; therefore, in-stream monitoring is not required herein.

C. Modification to the SWPP&MP

The SWPP&MP shall not be modified without the prior written approval of the Department, unless in accordance with items 1 through 4, below:

- 1. Changes adding (but not subtracting or replacing) components, controls, or requirements to the SWPP&MP may be made at any time without advance written notification to the Department.
- 2. Changes replacing an ineffective or infeasible BMP specifically identified in the SWPP&MP with an alternate must be approved by the Department in advance and may be requested at any time. Such requests shall include the following:
 - a. An analysis of why the BMP is ineffective or infeasible, or a description of why the newly proposed BMP would be more applicable (public participation, partnership opportunity, grant funding opportunity);
 - b. Expectations on the effectiveness of the replacement BMP; and
 - c. An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.
- 3. Any written requests to modify the SWPP&MP or changes made to the SWPP&MP shall include a certification signed by all permittees responsible for SWPP&MP implementation that all permittees were given an opportunity to comment on the proposed change(s) prior to its (their) submittal.
- 4. Changes or Updates Required by the Department:
 Upon notification from the Department that the SWPP&MP does not adequately address the requirements herein, the permittees shall modify the SWPP&MP and submit the proposed changes to the Department within the timeframe specified in the notice. If changes compromise any terms of the inter-jurisdictional agreement, a modified inter-jurisdictional agreement must be also executed.

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Part III. Water Quality Improvement Plans

In order to work toward meeting applicable water quality standards and TMDL requirements, the permittees shall generate a watershed priority list to assist in developing and implementing two Water Quality Improvement Plans for two selected watersheds, which shall be submitted to DNREC for review and approval by year four (4) of this permit.

A. Establishing a Watershed Priorities List

As part of the SWPP&MP, the permittees shall develop a priority list of watersheds, generated from the list provided in Table 1 below that identifies expected completion dates of Water Quality Improvement Plans for each associated watershed.

Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Table 1. Watersheds (portion or whole) located within New Castle County (from the 2010 Combined 305(b) Report and 303(d) List), also listing responsible agencies.

Watershed	Responsible Permittee(s)
Appoquinimink River	NCC, DelDOT
Army Creek	NCC, DelDOT, City of New Castle
Blackbird Creek	NCC, DelDOT
Bohemia Creek	NCC, DelDOT
Brandywine Creek	NCC, DelDOT, Wilmington
C&D Canal East	NCC, DelDOT, Delaware City
C&D Canal West	NCC, DelDOT
Chester River	NCC, DelDOT
Christina River	NCC, DelDOT, Elsmere, Newport Wilmington
Delaware Bay	NCC, DelDOT
Delaware River	NCC, DelDOT, City of New Castle, Wilmington, Delaware City
Dragon Run	NCC, DelDOT, Delaware City
Elk Creek	NCC, DelDOT
Naamans Creek	NCC, DelDOT
Perch Creek	NCC, DelDOT
Red Clay Creek	NCC, DelDOT
Red Lion Creek	NCC, DelDOT
Sassafras River	NCC, DelDOT
Shellpot Creek	NCC, DelDOT, Bellefonte, Wilmington
Smyrna River	NCC, DelDOT
White Clay Creek	NCC, DelDOT

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

The permittees shall consider, among other things, the following criteria in establishing the watershed priority list:

- Opportunity to leverage resources and funding; availability of data
- State of Delaware 2010 Combined 305(b) Report and 303(d) List
- Wild and Scenic River
- Relevant TMDLs
- Waters of Exceptional Recreational or Ecological Significance (ERES)
- Drinking water sources
- Flood prone areas
- Areas with CSO/SSO impacts
- Existing population and impervious cover
- Projected growth, development and impervious cover
- Other stream assessments (e.g., Revised Stream Assessment Technique, Unified Stream Assessment, Rapid Bio Assessment)

B. Water Quality Improvement Plan Development

The permittees shall develop two comprehensive Water Quality Improvement Plans based on the priority list to be submitted to DNREC for review and approval by year four (4) of this permit. The two watersheds chosen within this permit term must be located at least partially within the urbanized area boundary, according to the most recent U.S. Census data. Development and implementation of Water Quality Improvement Plans is to be completed in a coordinated and integrated manner by all appropriate permittees as listed in Table 1, based on watershed, where all applicable permittees will sign a Memorandum of Agreement, to be submitted along with the Water Quality Improvement Plans. The Memorandum of Agreement will identify responsible parties for tasks as assigned within the Water Quality Improvement Plans.

The Water Quality Improvement Plans shall identify potential projects, estimated costs, and potential funding sources for projects that aim toward meeting TMDL allocations and applicable WQS. Water Quality Improvement Plans will include a consideration of all available BMP options, and will propose at least a 3% decrease in untreated Effective Impervious Area (EIA) as defined within this permit. This shall be done through development and redevelopment in conjunction with revitalizing or retrofitting existing BMPs in need of repair and the introduction of new Green Technology BMPs. Improving stream segments for stream reaches determined to be contributing sediment as a result of stormwater runoff may be considered as part of this calculation; however, calculation methodology is subject to approval by the Department.

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Each Water Quality Improvement Plan shall also include a long-term schedule that demonstrates progress toward meeting that numeric standard of 3%. The schedule may extend beyond the five-year permit term, and may be revised upon DNREC's approval. Projects shall be ranked according to feasibility based on partnerships and funding, combined with the need for water quality improvements using the 303(d) lists as well as the criteria listed above used for establishing the watershed priority list, and BMP efficiency improvements.

In developing the Water Quality Improvement Plans, the permittees shall evaluate the storm sewer infrastructure conveyance system and identify needed structural repairs.

In addition to other reference material, the permittees may use the following references as guidance to provide a framework for choosing, designing and placing BMPs:

- 1. EPA's Office of Research and Development's EPA/600/R-04/121 September 2004 / Stormwater BMP / Design Guide / Volumes 1-3;
- 2. Center for Watershed Protection's Manual 3 Urban Stormwater Retrofit Practices:
- 3. Draft and/or Final Pollution Control Strategies for TMDL watersheds in New Castle County;
- 4. Delaware Urban Runoff Management Model (DURMM), DNREC Division of Soil and Water Conservation;
- 5. Delaware Erosion and Sediment Control Handbook, DNREC Division of Soil and Water Conservation;
- 6. Green Technologies Standards and Specifications, DNREC Division of Soil and Water Conservation; and
- 7. Pollution Control Strategies as developed through the State of Delaware.

C. Water Quality Improvement Plan Implementation

Implementation of the Water Quality Improvement Plans shall begin six (6) months following approval of the plans by DNREC and shall follow the approved schedule contained within the plans. Specific projects identified within the Water Quality Improvement Plans shall be implemented by all applicable municipalities and government bodies as indicated in Table 1 above.

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Part IV. Evaluation of the SWPP&MP

No later than four (4) years from the effective date of this permit, the permittees shall conduct a comprehensive effectiveness analysis of the SWPP&MP, with analysis measures to be described in the SWPP&MP monitoring plan. This analysis shall quantify the associated expected load reductions to estimate the anticipated progress toward meeting all applicable WLAs, and the progress toward meeting the program's goals and objectives as outlined within the SWPP&MP. The analysis shall further determine whether the implementation of the current and revised BMPs identified in the SWPP&MP are sufficient to make progress toward meeting WLAs or if implementation of additional BMPs beyond those selected are necessary.

The permittees shall assess the effectiveness of the SWPP&MP based on:

- 1. documentation of SWPP&MP activities;
- 2. surveys of public awareness and changing behavior;
- 3. estimates of change in loadings, that is:
 - a. added by development that occurs;
 - b. prevented or reduced by installation of BMPs associated with new development;
 - c. prevented or reduced by installation of BMPs associated with existing conditions (i.e., retrofits); and
- 4. available water quality sampling data, as sampled as part of the monitoring plan within the SWPP&MP.

For calculating TMDL load reductions for all TMDLs other than the Chesapeake Bay TMDL, all BMPs implemented after 1997 (baseline for establishment of TMDL WLAs) can be counted toward these reductions, which is based on the sampling timeframe in which TMDL data was collected

(http://www.wr.dnrec.delaware.gov/Information/OtherInfo/Pages/WatershedAssessment TMDLs.aspx). For calculating TMDL load reductions for the Chesapeake Bay TMDL, all BMPs implemented after 2005 can be counted toward those reductions.

Progress toward reducing the TMDL pollutant loads will be demonstrated through the implementation of BMPs under the SWPP&MP that are targeted at reducing discharges of TMDL-related pollutants.

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Part V. Sampling and Reporting Procedures

A. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device.

B. Test Procedures

Test procedures for the analysis of pollutants shall conform to the applicable test procedures identified in 40 C.F.R., Part 136, unless otherwise specified in this permit.

C. Penalties for Tampering

State law, 7 Del. C. §6013, provides that any person who falsifies or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine of not more than \$5,000 or by imprisonment for not more than 6 months, or by both.

D. Record Contents

For each measurement or sample taken pursuant to the requirements of this permit, the permittee taking such sample shall record the following information:

- 1. The date, exact place, time and method of sampling or measurements;
- 2. The individual(s) who performed the sampling or measurements;
- 3. The date(s) analyses were performed;
- 4. The individual(s) who performed each analysis;
- 5. The analytical techniques or methods used;
- 6. The results of such analyses; and
- 7. Any quality assurance information.

E. Retention of Records

All records and information resulting from the monitoring activities required by this permit, all records of analyses performed, records of calibration and maintenance of instrumentation, all original strip chart recordings from continuous monitoring instrumentation and copies of all reports required by this permit shall be retained for a period of five (5) years. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

regarding control standards applicable to the permittees. Records shall be made available to DNREC and to the public within a reasonable timeframe.

F. Annual Report Requirements

All permittees shall contribute to the preparation of an annual system-wide report. One comprehensive annual report shall be submitted by the principal permittees, with input from the remaining co-permittees, by July 1 of each year and shall cover all activities related to this permit during the preceding calendar year. The annual report is expected to include a summary of the data documenting their compliance with this permit (Appendix B), in addition to one MS4 Summary Report Form (Appendix C) per permittee. Annual report data should report quantifiable data and information whenever possible, as outlined in the SWPP&MP.

Preparation and submittal of the annual report shall be coordinated by New Castle County and DelDOT. The annual report shall indicate which, if any, permittees have failed to provide any required information (as identified in the Inter-jurisdictional Agreement) on the portions of the MS4 for which they are responsible. All permittees are jointly responsible for timely submittal of the system-wide annual report, and each section addressed within the annual report (using the annual report template) should identify the task, by jurisdiction. Each permittee is responsible for the content of the report relating to those portions of the MS4 for which it is responsible, as determined in the Inter-jurisdictional Agreement, and for failure to provide information for the system-wide annual report.

After issuance of this permit, the first annual report submission shall include reporting information from the existing SWPP&MP as described in the most recent annual report submitted to the Department until the final SWPP&MP is adopted (18 months after issuance of this permit). Once adopted, the annual report shall contain information relevant to the most recent SWPP&MP. Please refer to Appendix B for the proper reporting format.

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Part VI. Standard Permit Conditions

A. Legal Authority

Each permittee shall insure adequate legal authority as set forth in 40 C.F.R. 122.26(d)(2)(i) throughout the term of this permit. In the event that any provision of a permittee's legal authority is found to be invalid, the permittee shall make the necessary changes to maintain adequate legal authority.

B. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The violation of any effluent limitation or of any other condition specified in this permit shall be grounds for enforcement as provided in 7 Del. C. §6005; for loss of authorization to discharge pursuant to this permit; for permit revocation and reissuance or modification pursuant to this permit; or for denial of a permit renewal application. Pursuant to 7 Del.C. §6019, the Department may seek voluntary compliance by way of warning, notice or other educational means. However, the law does not require that such voluntary means be used before proceeding by way of compulsory enforcement.

C. Adverse Impact

The permittees shall take all reasonable steps to minimize any adverse impact on the environment resulting from noncompliance with this permit. This includes such accelerated or additional monitoring as necessary to determine the nature and extent of noncompliance and to assess its impact.

D. Facilities Operation

The permittees shall at all times maintain in good working order and operate as efficiently as possible all structural controls, collection and treatment facilities and systems (and related appurtenances) installed or used by the permittees to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to effective performance (based upon design), adequate funding, effective management, adequate operator staffing and training and adequate laboratory and process controls including appropriate quality control procedures.

Effective Date: May 7, 2013 Expiration Date: May 6, 2018

E. Removed Substances

Solids, sludges, filter backwash, or other similar substances removed in the course of collection or treatment of the discharges authorized herein shall be disposed of in a manner such as to prevent any pollutant from such materials from entering surface waters or groundwaters.

F. Availability of Reports

Except for data determined to be confidential under Section 308 of the Act and the Freedom of Information Act, all reports prepared in accordance with the terms and conditions of this permit shall be available for public inspection at the offices of the Department of Natural Resources and Environmental Control. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for under 7 Del.C. §6013.

G. Transfer of Permit

In the event of any change in ownership or control of facilities from which the authorized discharges emanate, this permit may be transferred to another person if:

- 1. The current permittee notifies the Department, in writing, of the proposed transfer at least 30 days in advance of the proposed transfer date;
- 2. The notice includes a written agreement between the transferor and the transferee, indicating a specific date for transfer of permit responsibility, coverage, and liability; and
- 3. The Department within thirty (30) days of receipt of the notification of the proposed transfer does not notify the current permittee and the new permittee of intent to modify, revoke and reissue, or terminate the permit and require that a new application be submitted.

H. Reapplication for a Permit

At least 180 days before the expiration date of this permit, the permittees shall submit a new application for a permit, unless permission for a later date has been granted by the Secretary. The Secretary shall not grant permission for applications to be submitted later than the expiration date of the expiring permit. Failure to submit an application for renewal 180 days before permit expiration may not only cause a lapse in permit coverage, but may also result in enforcement action. In the event that a timely and sufficient reapplication has been submitted and the Department is unable, through no fault of the permittees, to issue a new permit before the expiration date of

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

this permit, the terms and conditions of this permit are automatically continued and remain fully effective and enforceable.

I. Permit Modification, Revocation and Reissuance, and Termination

- 1. After notice and opportunity for a hearing, this permit may be modified, terminated, or revoked and reissued in whole or in part during its term for cause including, but not limited to, the following:
 - a. Violation of any terms or conditions of this permit;
 - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge(s);
 - d. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
- 2. In addition, this permit may be modified, revoked and reissued in whole or in part, but not terminated, after notice and opportunity for a hearing, for cause including, but not limited to, the following:
 - a. Facility modifications, additions, and/or expansions that are not otherwise sanctioned either by this permit or by the programs administered by the permittees in accordance with this permit;
 - b. Material and substantial changes or additions to the permittees' operation or activities which justify the application of permit conditions that are different or absent from this permit;
 - c. Information newly acquired by the Department, including but not limited to the results of the studies, planning, or monitoring described and/or required by this permit;
 - d. Revision, withdrawal or modification of State surface water quality standards or effluent limitations guidelines promulgated by the Department or the United States Environmental Protection Agency, but only when the permit term or condition requested to be modified or revoked was based on a State water quality standard or an effluent limitation guideline duly promulgated by the Department or the United States Environmental Protection Agency that was revised, withdrawn or modified;
 - e. Judicial remand of effluent limitation guidelines promulgated by the United States Environmental Protection Agency, if the remand concerns that portion of the guidelines on which the permit term or condition was based and the request is filed within ninety (90) days of the judicial remand;
 - f. Any modification or revocation and reissuance of permits specifically authorized by the Clean Water Act;

Page 34 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

g. To comply with any applicable standard or limitation promulgated or approved under sections 301, 304 and 307 of the Clean Water Act, if the effluent standard or limitation so issued or approved:

- (i) Contains different conditions or is otherwise more stringent than any effluent limitations in the permit; or
- (ii) Controls any pollutant not limited in the permit.

The permit as modified or reissued under this subparagraph shall also contain any other requirements of the Act then applicable;

- h. To contain a schedule of compliance leading to termination of the direct discharge by a date which is no later than the statutory deadline;
- i. To modify a schedule of compliance in an issued permit for good and valid cause by a date which is no later than the statutory deadline.
- j. To address new TMDL requirements, including relevant WLAs.
- 3. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

J. Right of Entry

The permittees shall allow the Secretary of the Department of Natural Resources and Environmental Control, the EPA Regional Administrator, and their authorized representatives, jointly and severally, upon the presentation of credentials and such other documents as may be required by law:

- 1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where any records are required to be kept under the terms and conditions of this permit; and
- 2. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; to inspect any structural controls, collection, treatment, pollution management, or discharge facilities required under this permit; and to sample any discharge of pollutants.

K. Signatory Requirements

All applications, monitoring reports, SWPP&MP reports, certifications or other information required by this permit, whether submitted to the Department or maintained by the permittees, shall be signed as follows:

- 1. By a principal executive officer or ranking elected official; or
- 2. A duly authorized representative of that person. A person is a duly authorized representative only if:

Page **35** of **45**

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

a. The authorization is made in writing by the person described above and is submitted to the Department.

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

For purposes of this paragraph, the principal executive officer of a federal, state, or public agency includes: (i) The chief executive officer of the agency (e.g., Cabinet Secretary); or (ii) A senior executive officer having responsibility for the overall operation of a principal geographic unit of the agency (e.g., the Regional Administrator of EPA).

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new notice satisfying the requirements of this paragraph must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

L. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittees from civil or criminal penalties for noncompliance.

M. Discharge of Pollutants

Any person who causes or contributes to the discharge of a pollutant into waters of the State or the United States either in excess of any conditions specified in this permit or in absence of a specific permit condition, shall report such an incident to the Department as required under 7 Del.C. §6028.

N. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittees from any responsibilities, liabilities, or penalties to which the permittees are or may be subject under 7 Del. C. Chapter 60.

O. State Laws

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittees from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation.

P. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

Q. Construction Authorization

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

R. Fiscal Resources

All permittees shall provide adequate finances, staff, equipment, and support capabilities to implement the SWPP&MP and the provisions within this permit. Each annual report shall include a demonstration of adequate fiscal capability from all permittees to meet the requirements of this permit.

S. Severability

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected.

Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Part VII. Definitions

"Act" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub.L. 95-217, Pub.L. 95-576, Pub.L. 96-483, Pub.L. 97-117, Pub. L. 100-4 (the Water Quality Act of 1987), Pub. L. 100-688, Pub. L. 100-581, Pub.L. 102-580, Pub. L. 102-240; 33 U.S.C. 1251 et.seq.

"Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs can be applied before, during or after pollution generating activities to reduce or eliminate the introduction of pollutants into receiving waters.

"C.F.R." is an acronym for the Code of Federal Regulations.

"Co-Permittee" refers to the towns of Bellefonte, Elsmere, and Newport, and the cities of Delaware City, New Castle, and Wilmington (portions not covered under individual NPDES permit # DE0020320; State Permit No. WPCC 3074D/74).

"Delegated Agency", means the Conservation District, county, municipality, or State agency that has accepted responsibility in a jurisdiction for implementation of one or more elements of the Sediment and Stormwater Program as part of the Delaware Sediment and Stormwater Regulations within that jurisdiction.

"Department" means the State of Delaware Department of Natural Resources and Environmental Control.

"Discharge" for the purpose of this permit, when used without qualification, refers to the discharge of a pollutant.

"Discharge of a pollutant" means any addition of any pollutant, or combination of pollutants, to State waters.

"Effective impervious area (EIA)" means square footage or other unit of area measurement that is directly connected to the drainage collection system and can include street surfaces, paved driveways, sidewalks connected to road curbing, rooftops which hydraulically connect to storm sewers, and parking lots.

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not

Page 38 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

composed entirely of storm water except those sanctioned by a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting and other activities referenced in Part II.A.3. of this permit.

"Maximum Extent Practicable" for the purpose of this permit, means using measures that are capable of being done after taking into consideration cost, feasibility, existing technology, and logistics in light of overall facility operations and project purposes.

"MS4" refers to a Municipal Separate Storm Sewer System.

"Municipal Separate Storm Sewer" means: (1) a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned or operated by a city, town, county, district, association, or other public body created by or pursuant to State law having jurisdiction over the disposal of sewage, industrial waste, storm water, or other wastes, storm water management, drainage or flood control, which is: (2) designed or used for collecting or conveying storm water; (3) is not a combined sewer; and (4) which is not part of a publicly owned treatment works as defined at 40 C.F.R. § 122.2.

"Permittees" refers to all of the entities listed on the title page of this permit, and include both principal permittees and co-permittees.

"Person" means any individual, trust, firm, corporation (including a government corporation), partnership, association, institution, enterprise, state, municipality, commission, agency, political subdivision of a state or an interstate body, or an agent or employee thereof.

"Principal Permittee" refers to either New Castle County or the Delaware Department of Transportation.

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Pollutant", for the purpose of this permit, means any substance, which causes or contributes to, or may cause or contribute to, the degradation of water, air, and soil resources or to the health of humans, animals, or aquatic life. Examples may include, but are not limited to excess nutrients, chemicals, toxic substances, industrial, municipal or agricultural wastes, etc.

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

"Pollution" or "water pollution" means the man-made or human-induced alteration of the physical, chemical, biological or radiological integrity of any State waters.

"Redevelopment", including brownfield development, means any construction, alteration or improvement, including but not limited to the demolition or building of structures, filling, grading, paving, or excavating, where existing land use is residential, commercial, industrial, or institutional. Ordinary maintenance activities, remodeling of existing buildings, resurfacing of paved areas, and exterior changes or improvements are not considered to be redevelopment activities for the purposes of this permit.

"SWPP&MP" is an acronym for Storm Water Pollution Prevention and Management Program.

"Secretary" means the Secretary of the State of Delaware Department of Natural Resources and Environmental Control.

"Storm Water" means storm water run-on or runoff, snow melt runoff, surface runoff and drainage.

"Structural controls" means installed or constructed curbs, dikes, berms, walls, sheds, impervious pads, ditches, diversions or other structures which limit the contribution or transport of significant materials and pollutants to storm water.

"Total Maximum Daily Load," or TMDL, is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards.

"Waters of the State" or "State waters" means all water, on the surface and under the ground, wholly or partially within, or bordering the State of Delaware, or within its jurisdiction including but not limited to:

- (a) Waters which are subject to the ebb and flow of the tide including, but not limited to, estuaries, bays and the Atlantic Ocean;
- (b) All interstate waters, including interstate wetlands;
- (c) All other waters of the State, such as lakes, rivers, streams, (including intermittent and ephemeral streams), drainage ditches, tax ditches, creeks, mudflats, sandflats, wetlands, sloughs, or natural or impounded ponds;
- (d) All impoundments of waters otherwise defined as waters of the State under this definition:
- (e) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in (a)-(d).

Waste and storm water treatment systems that would otherwise meet this definition are not "waters of the State" or "State waters".

Page 40 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

Effective Date: May 7, 2013

Expiration Date: May 6, 2018

"Watershed" means the land area that drains water to a particular stream, river, or lake.

"Water quality standards" means the Delaware Surface Water Quality Standards as amended on July 11, 2004 and as subsequently revised by incorporation by reference (7 Del. Admin. C. §7401).

Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Appendix A.

Table A.1 WLAs Assigned to the New Castle County/DelDOT MS4

			load Allocation Specified Approved TMDL	l in
Waterbody	Pollutant	Annual Baseline Load	Annual TMDL Load	Load Reduction
Appoquinimink River	Total N	131,326 lb/yr	70,251 lb/yr	60%
Dissolved Oxygen and	Total P	23,300 lb/yr	8,860 lb/yr	60%
Nutrients (updated Dec 2003)	Bacteria	7.52E+12 CFU/yr	6.32+12 CFU/yr	15% (1)
Bacteria (Dec 2006)		7.03E+10 CFU/yr	6.06+10 CFU/yr	73% (2)
Army Creek	Total N	14,782.5 lb/yr	8,833 lb/yr	40%
	Total P	1241 lb/yr	730 lb/yr	40%
TMDL Analysis for the Watersheds of Army Creek, Red Lion Creek, and Dragon Run Creek, Delaware (August 2006)	Bacteria	1.1E+13 CFU/yr	5.037E+12 CFU/yr	39%
Blackbird Creek	Total N	63,948 lb/yr	38,362 lb/yr	40%
	Total P	7,081 lb/yr	4,249 lb/yr	40%
Blackbird Creek Watershed Proposed TMDLs (August 2006)	Bacteria	8.54E+13 CFU/yr	4.7E + 13 CFU/yr	80%
Christina River Basin	Total N	180,639 lb/yr	173923 lb/yr	4%
Christina River Nutrient and Low Dissolved Oxygen	Total P	11,826 lb/yr	11,643.5 lb/yr	1%
High-flow TMDL (September 2006)	Bacteria	3.53+15 CFU/yr	8.19E+14 CFU/yr	79%
Christina River Bacteria and Sediment TMDL (September 2006)				
Delaware River	PCBs	255.5 lb/yr (estuary zone 5)	0.000476 lb/yr	99%
TMDLs for PCBs for Zones 2-5 of the Delaware Tidal River (December 2003)				
Dragon Run Creek	Total Nitrogen	48,435.5 lb/yr	29,054 lb/yr	40%
	Total Phosphorus	2,591.5 lb/yr	1,533 lb/yr	40%
TMDL Analysis for the Watersheds of Army Creek, Red Lion Creek, and Dragon Run Creek, Delaware (August 2006)	Bacteria	1.39E+13 CFU/yr	1.08E+13 CFU/yr	15%

Page **42** of **45** State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

Effective Date: May 7, 2013 Expiration Date: May 6, 2018

		MS4 Wasteload Allocation Specified in Approved TMDL											
Waterbody	Pollutant	Annual Baseline Load	Annual TMDL Load	Load Reduction									
Naamans Creek	Total Nitrogen	102,784 lb/yr	102,784 lb/yr	0%									
	Total Phosphorus	7,227 lb/yr	7,227 lb/yr	0%									
TMDLs Analysis for Naamans Creek (October	Bacteria (Average flows	7.1E+-09 CFU/day (1 st quartile)	4.1E+09 CFU/day (1 st quartile)	42%									
2005)	associated with each quartile	8.1E+10 CFU/day (2 nd quartile)	7.9E+09 (2 nd quartile)	90%									
	available in Table 5-2 on p. 27 of	3.1E+10 CFU/day (3 rd quartile)	1.5E+10 CFU/day (3 rd quartile)	54%									
	TMDL report)	6.3E+11 CFU/day (4 th quartile)	1.4E+11CFU/day (4 th quartile)	78%									
Red Lion Creek	Total Nitrogen	73,620.5 lb/yr	44,165 lb/yr	40 %									
	Total Phosphorus	2,263 lb/yr	1,350.5 lb/yr	40%									
TMDL Analysis for the Watersheds of Army Creek, Red Lion Creek, and Dragon Run Creek, Delaware (August 2006)	Bacteria	2.37E+13 CFU/yr	1.23E+13 CFU/yr	40%									
Smyrna River	Total Nitrogen	102,200 lb/yr	61,320 lb/yr	40%									
	Total Phosphorus	7,405.9 lb/yr	4,446 lb/yr	40%									
Smyrna River Watershed Proposed TMDLs (August 2006)	Bacteria	1.12E+14 CFU/yr	2.8E+13 CFU/yr	75%									
Shellpot Creek	Total Nitrogen	32,631 lb/yr	32,631 lb/yr	0%									
TMDLs Analysis for Shellpot Creek (October	(See Table 4-1 and 4-2 in TMDL report)	7,008 lb/yr	4,563 lb/yr	35%									
2005)	Total Phosphorus	2,080.5 lb/yr	2,080.5 lb/yr	0%									
	(See Table 4-1 and 4-2 in TMDL report)	730 lb/yr	475 lb/yr (load from upstream sub-watershed, reaches 1-3)	35%									
	Bacteria (Flow ranges	3.09E+09 CFU/day (1 st quartile)	2.3E+09 CFU/day (1 st quartile)	25%									
	(Flow ranges and average flows associated	3.5E+10 CFU/day (2 nd quartile)	4.4E+09 CFU/day (2 nd quartile)	88%									
	with each quartile available in	7.2E+10 CFU/day (3 rd quartile)	8.1E+09 CFU/day (3 rd quartile)	89%									
	Table 5-1 on p. 31 of TMDL report)	3.0E+11 CFU/day (4 th quartile)	4.0E+10 CFU/day (4 th quartile)	84%									
Chester River	Total Nitrogen	257,763 lb/yr	257,763 lb/yr	0%									

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

			load Allocation Specified Approved TMDL	l in
Waterbody	Pollutant	Annual Baseline Load	Annual TMDL Load	Load Reduction
TMDL Analysis for Chester,	Total Phosphorus	19,929 lb/yr	11,789.5 lb/yr	40%
Choptank, and Marshyhope Rivers (December 2005)	Bacteria	6.94E+13 CFU/yr	1.68E+13 CFU/yr	37%

^{1.} fresh water portion; 2. Saltwater portion

Table A.2 WLAs Assigned to the Regulated Stormwater Sector, of which the New Castle County/DelDOT MS4 is part, in the Chesapeake Bay TMDL

Waterbody	Pollutant	Regulated Stormwater Aggregate WLA Expressed as Annual TMDL Load, in lbs/yr (see Appendix Q of 2010 Chesapeake Bay TMDL)
Bohemia Creek (BOHOH)	Total Nitrogen	5,059
	Total Phosphorus	807
	TSS	65,521
C&D Canal (OH_DE)	Total Nitrogen	5,787.19
	Total Phosphorus	897.32
	TSS	140,065.64
C&D Canal (OH_MD)	Total Nitrogen	15,427.35
	Total Phosphorus	2,323.04
	TSS	336,975.20
Elk Creek (ELKOH)	Total Nitrogen	2,193.22
	Total Phosphorus	316.90
	TSS	31,853.92
Sassafras River (SASOH)	Total Nitrogen	265.63
	Total Phosphorus	41.82
	TSS	5,525.02

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

Appendix B.

Annual Report Template

The principal permittees, with cooperation from the co-permittees, shall submit an annual systemwide report based on the template below. In the first annual report, the permittees may propose changes to this template to better reflect actions taken in compliance with the permit.

The annual report shall address the following:

A. Permittee Updates

- 1. Copy of Appendix C for all permittees (Summary Report Form)
- 2. Status and summary of inter-jurisdictional agreement and associated meetings
- 3. Summary of activities completed during the reporting period. The summary should describe and quantify program activities, responsible parties, and achievement of permit requirements or measurable goals. Please use the format as described in *Municipal Stormwater Program Effectiveness Assessment Guidance* (California Stormwater Quality Association, May 2007).
- 4. Planned Activities and Changes. This section should described activities planned for the next year, highlighting any changes made to improve BMPs or program effectiveness.

B. SWPP&MP Category-Specific Content

- 1. Public education and involvement
 - a. Status of public outreach strategy and outreach activities
 - b. Status of public education surveys
 - c. Summary of public involvement activities
 - d. Summary of past annual meeting or mandated workshops
- 2. Illicit discharge detection and elimination
 - a. Summary of illicit discharges reported and description of how incident was addressed
 - b. Report on illicit discharge detection and elimination public information or other measures taken
 - c. Report on illicit discharge dry screening program results
- 3. Stormwater management during construction
 - a. Summary of activities, including number of plans reviewed, total inspections conducted, total number of sites, and enforcement actions taken
 - b. Statistics on how NPDES General Permit requirements have been met, in addition to requirements set by the Delaware Sediment and Stormwater Regulations
- 4. Post-construction stormwater management
 - a. Summary of number of maintenance inspections conducted

Page 45 of 45

State Permit Number: WPCC 3063A/96 NPDES Permit Number: DE 0051071

> Effective Date: May 7, 2013 Expiration Date: May 6, 2018

b. Total number of BMPs (reported by jurisdiction)

- 5. Good housekeeping
 - a. Updated inventory of all MS4 facilities
 - b. Inspection schedule of MS4 facilities
 - c. Summary of control measures taken to minimize the impacts of discharges from various sources as listed in permit.
 - d. Summary of all street sweeping operations, as specified in the SWPP&MP.
 - e. Summary of program to limit infiltration from sanitary sewers into MS4
 - f. Summary of pesticide, herbicide, and fertilizer program
 - g. Summary of snow/ice program
 - h. Summary of litter control program
- 6. Industrial stormwater
 - a. Updated inventory of industrial facilities
 - b. Summary of educational materials distributed
 - c. Summary of inspections conducted, and any referrals to the Department
- 7. Mapping
 - a. Summary and update of the storm sewer map
 - b. BMP data submitted
 - c. Updated maps submitted
- 8. Progress on Pollutant Minimization Plan and implementation
- 9. Wet weather monitoring plan
 - a. Summary of monitoring data for stormwater and ambient sampling collected during the reporting period
 - b. Analysis of the monitoring data, including a comparison to past monitoring data collected (including charts and graphs)
- 10. Watershed priority list
- 11. Summary of annual employee training as required by permit
- C. Water Quality Improvement Plans
 - 1. Status of watershed prioritization
 - 2. Status of plan development
 - 3. Status of implementation of plan if applicable
 - 4. Reporting on additional (non-mandated) retrofit projects (if implemented) should be contained within this section
- D. Fiscal Resources

Annual expenditures for the reporting period and anticipated budget for the following reporting period

- E. SWPP&MP Evaluation and Update
 - 1. Status of program evaluation to be conducted by year 4
 - 2. Status of any program modifications or updates

APPENDIX C

Delaware Department of Natural Resources and Environmental Control National Pollutant Discharge Elimination System MS4 Report Form (Phase I and II)

Information to be completed by permittees and other parties as identified in any existing memoranda of agreement as part of the most current permit.

MS	54 Information					
Nar	me of MS4					
Nar	me of Contact Person (First)	(Last)		(Title)		
Tel	ephone (including area code)	En	nail			
Mai	iling Address					
City	ÿ		State	ZIP code		
Wh	at size population does your MS4	serve?	<u></u>			
Wh	at is the reporting period for this r	eport? (mm/dd/yyyy)	From	to		
Fed	eral NPDES Permit Number		_			
Stat	te NPDES Permit Number		_			
1.	Public Education and Pu	ıblic Participation				
A.	Is your public education program	n targeting specific pollu	utants and sourc	es of those pollutants?] Yes	□ No
В.	If yes, what are the specific sour	ces and/or pollutants ad	dressed by your	public education program?		
C.	Note specific successful <u>outcom</u> or partially attributable to your p				publicati	ons) fully
D.	Do you have an advisory commistakeholders that provides regula	• •	-	olic and other] Yes	□No

2. Illicit Discharge Detection and Elimination

B. Do you have documented procedures, including frequency, for screening outfalls? C. How many outfalls were screened for dry weather discharges during this reporting period? D. How many outfalls have been screened for dry weather discharges at any time since you obtained M. E. What is your frequency for screening outfalls for illicit discharges? Describe any variation based on		□ No — it coverage?
D. How many outfalls have been screened for dry weather discharges at any time since you obtained M		_ it coverage?
		it coverage?
E. What is your frequency for screening outfalls for illicit discharges? Describe any variation based on	size/typ	
		e.
F. Do you have an ordinance or other regulatory mechanism that effectively prohibits illicit discharges?	Yes	□ No
5. Do you have an ordinance or other regulatory mechanism that provides authority for you to take enforcement action and/or recover costs for addressing illicit discharges?	Yes	□ No
I. During this reporting period, how many illicit discharges/illegal connections have you discovered?		
Of those illicit discharges/illegal connections that have been discovered or reported, how many have	been eli	minated?
How often do municipal employees receive training on the illicit discharge program?		
. Stormwater Management During Construction		
A. Other than the state Sediment and Stormwater Regulations, do you have an ordinance		
or other regulatory mechanism stipulating:		
Construction site stormwater requirements	☐ Yes	□ No
Other construction waste control requirements	☐ Yes	□No
Requirement to submit construction plans (stormwater quality/quantity) for review	☐ Yes	□No
Re-development	☐ Yes	□No
Enforcement authority	☐ Yes	□No
. Do you have written procedures for:		
Reviewing construction plans	☐ Yes	□ No
Performing inspections	☐ Yes	□No
Responding to violations	☐ Yes	□No
. Identify the number of active construction sites ≥ 1 acre in operation in your jurisdiction at any time		
during the reporting period.		
. How many of the sites identified above did you inspect during this reporting period?		
. Describe, on average, the frequency with which your program conducts construction site inspections	on each	site.
Describe, on average, the frequency with which Certified Construction Reviewers (CCRs) conduct co	nstructio	n site inspec
Do you prioritize certain construction sites for more frequent inspections?	☐ Yes	No

	If Yes, based	d on what criteria?				
H.				ent actions you used during the reporting period nich you do not have authority:	for constru	ction activities,
	☐ Yes	Notice of violation	#	No Authority □		
	☐ Yes	Administrative fines	#	No Authority □		
	☐ Yes	Stop Work Orders	#	No Authority □		
	☐ Yes	Civil penalties	#	No Authority □		
	☐ Yes	Criminal actions	#	No Authority □		
	☐ Yes	Administrative orders	#	No Authority □		
	☐ Yes	Other	#			
I. J.	inspection re	esults, and enforcement ac	tions of activ	spreadsheet) to track the locations, we construction sites in your jurisdiction? ocumented during this reporting period?	☐ Yes	□ No
	(e.g., all pro	jects, projects disturbing g	greater than o	re-development stormwater plans you will revie ne acre, etc.)		
	or by referen	nce to a state or other stand	dard, be met	ndards or performance standards, either directly for new development and re-development? hat pre-development hydrology be met for:	y ☐ Yes	□ No
	_	w volumes	1	1 7 5	☐ Yes	□ No
	Pea	k discharge rates			☐ Yes	□ No
	Disc	charge frequency			☐ Yes	□ No
	Flov	v duration			☐ Yes	□ No
N.		development and redevelopment		t plans were reviewed during the reporting peri	od to assess	impacts to water
O.	How many o	of the plans identified were	e approved?			
P.	How often d	lo municipal employees re	ceive training	g on the construction program?		
4.	Post Cons	struction Stormwate	er Manage	ement		
A.				Regulations, do you have an ordinance or n and maintenance of stormwater management	☐ Yes	□No
В.		ompleted a GIS layer of all	outfalls and	receiving waters of your storm sewer system?	☐ Yes	□No
C.	Have you co	-	l storm drain	pipes and other conveyances in the storm	☐ Yes	□No

	How many privately owned permanent stormwater practices/facilities exist within your jurisd How many privately owned permanent stormwater management practices/facilities were insperiod?		
F.	What percentage of the practices/facilities identified in were found to have inadequate mainte	nance?	
G.	How long do you give operators to remedy any operation and maintenance deficiencies identified to the control of the control o	fied during in	spections?
	Do you have authority to take enforcement action for failure to properly operate and maintain stormwater practices/facilities?	☐ Yes	□ No
5.	Good Housekeeping		
A.	Please list facility types in which stormwater pollution prevention plans (or an equivalent plans)	n) have been d	leveloped:
В.	Are stormwater inspections conducted at these facilities?		
C.	If Yes, at what frequency are inspections conducted?		
D.	List activities for which operating procedures or management practices specific to stormwate developed (e.g., road repairs, catch basin cleaning).	r management	have been
E.	Do you prioritize certain municipal activities and/or facilities for more frequent inspection?	□Yes	□ No
F.	If Yes, which activities and/or facilities receive most frequent inspections?		
G.	Do all municipal employees and contractors overseeing planning and implementation of storr receive comprehensive training on stormwater management?	nwater-related	l activities
H.	If yes, do you also provide regular updates and refreshers?	☐ Yes	☐ No
I.	If so, how frequently and/or under what circumstances?		
Се	ertification Statement and Signature		
acc	ertify that all information provided in this report is, to the best of my knowledge and belief, true curate and complete.	∐ Yes	□ No
	leral regulations require this application to be signed as follows: For a municipal, State, Federal, or other pu cutive or ranking elected official.	Duc facility: by	eitner a principa
 Na	me of Certifying Official, Title Dat	e (mm/dd/yyy	<u>-</u> yy)

	Appendix	D.																																													
	Timeline	of Task Due for Draft NPDES Permit																																										+		\top	+
																				1	Mon	ths F	rom	Ince	ptio	n of	New	Peri	mit															\top		\top	T
	Section	Task	1	2 3	3 4	5	6 7	8	9 1	0 11	12	13	14 15	5 16	17	18 1	9 20	21	22 2	3 24	25	26 2	7 28	29	30 3	1 32	33	34 3	5 36	37 3	8 39	40	41	12 43	44	45 4	6 47	48 4	9 50	51 !	52 53	3 54	55 5	6 5	7 58	8 59	60
1	II	Outline for SWPP&MP to Department																																													
2	I.C.3	Begin formation of Interjurisdictional Agreement																																												T	
3	II.A.1.c	Develop process to involve public participation on the SWPP&MP		1				Ħ	7						Ħ				7		T			Ħ			П															1			1		Т
4	II	SWPP&MP draft submitted to the Department		1				Ħ	7						Ħ				7		T			Ħ			П															1			1		Т
5	II	Final SWMP&PP and interjurisdictional Agreement submitted to DNREC																																										Ī		l	
6	II	SWMP&PP EPA and DNREC review and approval																																													
7	II.	Begin SWPP&MP plan implementation and PMP for PCBs													П																															T	
8	II.A.1.d	Annual Meeting of all co-permittees													П																															T	
9	II.A.1.b	Public Education Survey #1													П																															T	
10	II.A.2	Develop an ordinance to prohibit the discharge of materials																																												T	
11	II.A.2.b	Provide a publicly listed SW quality phone #																			П																									T	
12		Adopt local regulatory mechanism for enforcing onsite compliance for stormwater during construction and an ordinance for post construction maintenance																																													
13	II.A.1.b	Public Education Survey #2													П																													T		T	Г
14	II.C	Assess the effectiveness of the SWPP&MP and Modify for WLAs																																													
15	III	Submit 2 Water Quality Improvement Plans to the Department													П																													T		T	Г
16		Submit Memorandum of Agreement relative to Water Quality Improvement Plans																																													
17	II.B.2	Submit GIS layer of permitted area (urbanized)																	T																									T		Т	Г
18	III	Begin implementation of water quality improvement plans																	T																												
19	V.F	Submit annual report (by July 1 ea yr)																	T																										T	Т	Г
20	II.A.6	Provide DNREC with updated industrial facility list (by Feb 1 ea yr)																																												1	