

**NEW BRITAIN TOWNSHIP**  
**NATIONAL POLLUTANT DISCHARGE & ELLIMINATION SYSTEM (NPDES) PERMIT**  
**STORMWATER MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)**

**EXECUTIVE SUMMARY**

**FEBRUARY 5, 2024**



The Township currently has an NPDES Individual Permit (#PAI130081) from DEP to discharge stormwater to the waters of the Commonwealth. The permit is valid for 5 years and expires on August 31, 2024. The Township is required to submit a Notice of Intent to renew their permit by February 29<sup>th</sup>, 2024 for the 2024-2029 Permit. As a reminder, as part of the Permit, the Township has a Stormwater Program addressing 6 minimum control measures (MCM's):

1. Public Education
2. Public Involvement
3. Illicit Discharge Detection/Elimination
4. Stormwater During/ Post Construction
5. Good Housekeeping/ Pollution Prevention

In addition, the Township is also responsible for reducing sediment from the Neshaminy Creek and its sub-watersheds. The NBT Pollutant Reduction Plan (PRP) map, attached, depicts the drainage areas making up the Township's MS4 Planning Area used in determining the sediment load. Based on the calculations within the Township's adopted combined TMDL/PRP Plan, the Township is required to reduce sediment by **235,815 lbs/yr**. The Planning Area includes all areas that drain to a Township-owned storm sewer, road, property, etc. except areas that have a separate Chapter 102 NPDES Permit, such as West Branch Park.

Background

- The Clean Water Act requires a Total Maximum Daily Loading (TMDL) Plan to be developed by municipalities with stream impairments. The Neshaminy Creek Watershed TMDL was approved by EPA on 12/9/03 for all municipalities within the watershed. On 4/5/08, the Nutrient (including organic enrichment, dissolved oxygen, etc.) portions of the TMDL were withdrawn by DEP, with EPA approval.
- Impaired waters classified with an "Appendix E" Impairment requires a Pollution Reduction Plan (PRP) which can be combined with the TMDL Plan.
- Based on biological assessments for the Neshaminy Creek, the creek and its sub-watersheds were listed as showing aquatic life use impairments such as sediment and nutrients because of agriculture, development, municipal point sources, pathogens (viruses, bacteria, fungi, parasites), PCBS (possibly from transformers) /PFOS (possibly from older consumer products such as leather products, textiles, carpets, upholstered furniture), etc.
- The Township received the Individual Permit for 2018-2023 term based on the combined TMDL/PRP Plan in August of 2019 which identifies conceptual BMPs, locations and possible funding sources for the BMPs.
- The Township is required to renew the Individual Permit for 2024-2029 term based on the previously approved TMDL/PRP Plan.

Impaired Downstream Waters or Applicable TMDL Name	Requirement(s)	Other Cause(s) of Impairment
North Branch Neshaminy Creek		Water/Flow Variability (4c)
Cooks Run	Appendix E-Nutrients (5)	
Little Neshaminy Creek	Appendix B-Pathogens (5), Appendix C-PCB (5), Appendix E-Nutrients, Organic Enrichment/Low D.O. (5)	Water/Flow Variability (4c)
Mill Creek	Appendix E-Nutrients (5)	
Neshaminy Creek TMDL	TMDL Plan-Siltation, Suspended Solids (4a)	
Pine Run	Appendix E-Excessive Algal Growth (5)	
Unnamed Tributaries to West Branch Neshaminy Creek		Flow Alterations (4c)
Warrington Lake	Appendix E-Nutrients (5)	Exotic Species (5)
West Branch Neshaminy Creek	Appendix E-Excessive Algal Growth, Nutrients, Organic Enrichment/Low D.O. (5)	Water/Flow Variability (4c)
Neshaminy Creek	Appendix B-Pathogens (5), Appendix E-Nutrients, Organic Enrichment/Low D.O. (5)	
Reading Creek	Appendix E-Excessive Algal Growth (5)	

The TMDL/PRP Plan shall propose a minimum 10% sediment reduction per each 5-year term until the sediment loading (Waste Load Allocation required by the Neshaminy Creek TMDL) is met. Conceptual BMPs were approved with the TMDL Plan as part of the Individual Permit in 2019 and the current status of these BMP projects is as follows:

### 2024-2029 Concept BMPs

#### **BMP 1 - New Basin at Cotton Park & Streambank Stabilization (West Branch)**

- Preliminary Cotton Park design completed; project is on hold. Streambank stabilization and riparian buffer management of unnamed tributary to Neshaminy Creek discussed.

#### **BMP 2 - Riparian Buffer & Streambank Stabilization at Brittany Farms Open Space (West Branch)**

- Design complete and permit approval from PADEP expected soon, with construction in 2024.

#### **BMP 3 - Basin Retrofit at Blackburn Drive (West Branch)**

- Basin retrofit design and construction, if needed.

#### **BMP 4 - Basin Retrofit at Crescent Drive (Reading Creek)**

- Facility is currently in line with the intermittent stream. Discussed separating the basin from the stream and modifying outlet structure. Survey would be needed.

#### **BMP 5 - Pine Run Streambank Restoration and Basin Retrofit at Sycamore Circle (Pine Run)**

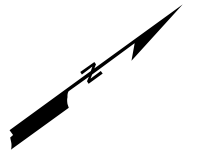
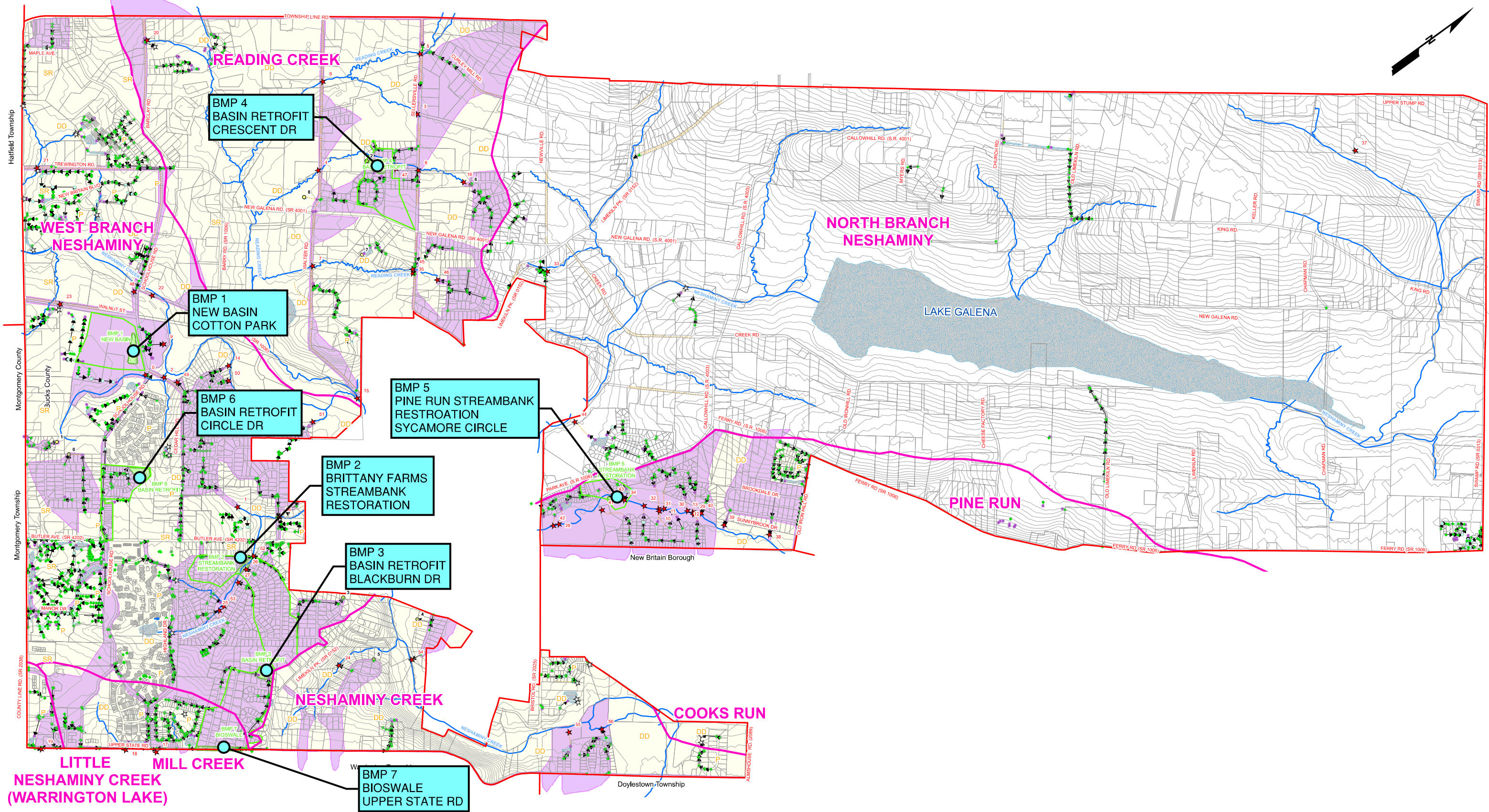
- Survey would be needed to determine basin retrofit and outlet structure modifications.

#### **BMP 6 - Basin Retrofit at Circle Drive (West Branch)**

- Trees have been obtained through grants and planted along with meadow mix in the existing basin. Tree planting provides a 20% sediment reduction and 15% Phosphorus reduction per 100 mature trees. Reductions will be calculated and provided in the annual MS4 report.

#### **BMP 7 - Bioswale along Upper State Road (Mill Creek)**

- Township Public Works installed inlet filters along Upper State Road which provides credit for Storm Sewer System Solids Removal based on the weight of material removed. Reductions to be calculated and provided in the annual MS4 report.
- Bioswale design and construction not completed to date. Survey would be needed.



**Legend**

	Municipal Boundary		Outfall
	Watershed Boundary		Inlet
	Surface Waters (DEP)		Private Outfall
	Planning Area		Endwall
	Urbanized Area		Manhole
	Parcels		Observation Point
	Stormwater Management		Swale
	BMP		Pipe
	BMP DA		Contours

**PARSING CLASSIFICATION LEGEND**

**DD = DIRECT DISCHARGE; AREA FLOWS DIRECTLY TO STREAM AND DOES NOT ENTER OR MIX WITH THE MUNICIPALITY'S MS4**

**P = PRIVATELY OWNED/MAINTAINED; AREA IS NOT MAINTAINED BY MUNICIPALITY AND IS A SEPARATE PRIVATE ENTITY. NO DRAINAGE ENTERS OR MIXES WITH THE MUNICIPALITY'S MS4**

**SR = STATE ROAD; AREA IS MAINTAINED BY PENNDOT & ALL DRAINAGE TO ROAD IS MAINTAINED BY PENNDOT**

**MS4 PRP/TMDL  
PLANNING AREA MAP  
NEW BRITAIN TOWNSHIP, BUCKS COUNTY, PA**

**GILMORE & ASSOCIATES, INC.**  
ENGINEERING & CONSULTING SERVICES  
65 E. BUTLER AVE., SUITE 100, NEW BRITAIN, PA 18901, (215) 345-4330  
www.gilmore-assoc.com

JOB NO: 06-03161    DATE: OCTOBER 2018    0 0.075 0.15 0.3 0.45 0.6 Miles