

UPPER SOUTHAMPTON TOWNSHIP

PUBLIC MEETING PRESENTATION

STORMWATER

JUNE 16, 2026

Presented by:

Tri-State Engineers and Land Surveyors, Inc

What is Stormwater

Stormwater is water from rain and snow that can **pick up pollutants as it flows** over surfaces such as roads, sidewalks, buildings, and landscapes.



Why Care About Stormwater



MS4

Municipal Separate Storm
Sewer System

MS4 communities such as ours are required to implement a program that continually **improves stormwater** management.

Costs to the Community if We Don't Manage Stormwater Better



- Increased flooding
- Infrastructure and property damage
- Polluted waterways
- Permit non-compliance

PERMITTING

- Currently Upper Southampton operates the stormwater system under **NPDES PERMIT NO. PAI130051**
 - This was approved on **MARCH 1, 2021**
 - It expired on **FEBRUARY 28, 2026**, conditions of the 2021 permit are to be met by then.
 - The permit was renewed on **JANUARY 1, 2026**
 - The main condition of the permit involves removal of sediment, nitrogen and phosphorus among other pollutants from impaired streams
-

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
INDIVIDUAL PERMIT TO DISCHARGE STORMWATER FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)**

NPDES PERMIT NO. PAI130051

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq. ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et seq.,

Upper Southampton Township Bucks County
939 Street Road
Southampton, PA 18966-4728

is authorized to discharge from a regulated small municipal separate storm sewer system (MS4) located in Upper Southampton Township, Bucks County to Unnamed Tributary to Mill Creek (WWF, MF) and Unnamed Tributary to Southampton Creek (TSF, MF) in Watershed(s) 2-F and 3-J in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

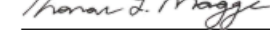
THIS PERMIT SHALL BECOME EFFECTIVE ON JANUARY 1, 2026

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON DECEMBER 31, 2030

The authority granted by coverage under this Permit is subject to the following further qualifications:

1. The permittee shall comply with the effluent limitations and reporting requirements contained in this permit.
2. The application and its supporting documents are incorporated into this permit. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.
3. Failure to comply with the terms, conditions or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (40 CFR 122.41(a))
4. A complete application for renewal of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form (40 CFR 122.41(b), 122.21(d)). In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Annual MS4 Status Reports, will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. (25 Pa. Code §§ 92a.7(b), (c))

DATE PERMIT ISSUED December 1, 2025

ISSUED BY 
Thomas L. Magge
Environmental Program Manager
Southeast Regional Office

Stormwater Permitting Requirements

There are 6 Minimum Control Measures that are addressed:

- MCM #1 – Public Education
- MCM #2 – Public Involvement
- MCM #3 – Illicit Discharges
- MCM #4 – Construction Stormwater
- MCM #5 – Post Construction Stormwater
- MCM #6 – Municipal Operations
- Pollutant Reductions – Sedimentation, Nitrogen and Phosphorus

IMPAIRED STREAM IN UPPER SOUTHAMPTON TOWNSHIP

MS4 Requirements

Tom Wolf, Governor

patrick pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION Patrick McDonnell, Acting Secretary

MS4 Requirements

BACKGROUND

Municipalities and other entities such as universities and prisons that meet certain standards must obtain NPDES permit coverage for discharges of stormwater from their municipal separate storm sewer systems (MS4s).

A municipal separate storm sewer is any conveyance or system of conveyances (including but not limited to streets, ditches, and pipes) that is: owned by a municipality or other public body (created under state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater or other wastes; designed or used for collecting or conveying stormwater; not a combined sewer (i.e., not intended for both sewage and stormwater); AND not part of a publicly owned treatment works (POTW).

Additional information regarding permitting requirements can be found at the [Pennsylvania Municipal Stormwater Homepage](#).

Help is available by clicking the question mark icon in the header.

Select a County
BUCKS

Select a Municipality
UPPER SOUTHAMPTON TWP

Click to View Features

MS4_STREAMS

- Impaired Stream
- Unimpaired Streams

MS4_URBAN_AREAS

HUC12

MCD

UPPER SOUTHAMPTON TWP

LOWER MORELAND

LOWER SOUTHAMPTON

Ironworks Creek-Mill Creek

PADEP REQUIREMENTS

MS4 Name	NPDES ID	Individual Permit Required?	Reason	Impaired Downstream Waters or Applicable TMDL Name	Requirement(s)	Other Cause(s) of Impairment
Bucks County						
SELLERSVILLE BORO	PAG130155	No		Unnamed Tributaries to East Branch Perkiomen Creek	Appendix E-Sitation (5)	Flow Alterations, Water/Flow Variability (4c)
				Mil Creek	Appendix E-Sitation (5)	
				Unnamed Tributaries to Mil Creek		Water/Flow Variability (4c)
SILVERDALE BORO	PAG130160	No		Pleasant Spring Creek	Appendix E-Sitation (5)	Flow Alterations, Water/Flow Variability (4c)
SOLEBURY TWP	PAI130506	Yes	SP, IP	Unnamed Tributaries to Jericho Creek	Appendix E-Sitation (5)	Flow Alterations, Other Habitat Alterations (4c)
				Delaware River		Mercury (5)
SPRINGFIELD TWP	PAI130001*	Yes	WI	Tohickon Creek	Appendix E-Nutrients, Sitation (5)	
				Saucon Creek	Appendix B-Pathogens (5), Appendix E-Sitation (5)	
				Laurel Run	Appendix E-Sitation (5)	Flow Alterations (4c)
TELFORD BORO	PAG130133	Yes	TMDL Plan	Indian Creek TMDL	TMDL Plan-Nutrients (4a), TMDL Plan-Nutrients (4a)	
TRUMBAUERSVILLE BORO	PAI130540	Yes	IP	Morgan Creek	Appendix E-Nutrients, Sitation (5)	
				Delmont Lake		Exotic Species (5)
				Tohickon Creek	Appendix E-Nutrients, Sitation (5)	
				Unnamed Tributaries to Unami Creek	Appendix E-Sitation (5)	Water/Flow Variability (4c)
TULLYTOWN BORO	PAG130161	No		Unnamed Tributaries to Delaware River		Cause Unknown (5), Other Habitat Alterations, Water/Flow Variability (4c)
				Delaware River	Appendix C-PCB (4a)	
				Martins Creek	Appendix C-PCB (4a), Appendix E-Sitation (5)	Flow Alterations (4c)
UPPER MAKEFIELD TWP	PAG130010	No		Jericho Creek	Appendix E-Sitation (5)	
				Delaware River		Mercury (5)
UPPER SOUTHAMPTON TWP	PAG130029	Yes	TMDL Plan	Southampton Creek		Flow Alterations, Other Habitat Alterations, Water/Flow Variability (4c)
				Neshaminy Creek	Appendix E-Sitation (4a), Appendix B-Pathogens (5), Appendix E-Nutrients, Organic Enrichment/Low D.O. (5)	
				Mil Creek	Appendix E-Sitation (4a)	Other Habitat Alterations, Water/Flow Variability (4c)
				Pennypack Creek	Appendix E-Sitation (5)	Cause Unknown (5)
				Unnamed Tributaries to Southampton Creek	Appendix B-Pathogens (4a)	
				Unnamed Tributaries to Neshaminy Creek		Water/Flow Variability (4c)
Southampton Creek TMDL	TMDL Plan-Nutrients, Organic Enrichment/Low D.O., Sitation (4a)					

PADEP MS4 REGULATIONS

Overview of Pollutant Reduction Plans (PRPs)

PRPs are regulatory tools developed by the Pennsylvania Department of Environmental Protection (PADEP) to reduce pollutant loads from stormwater discharges. They are required for MS4s discharging to impaired waters or within the Chesapeake Bay watershed. The plans focus on **non-point source pollutants**, primarily **sediment, nitrogen, and phosphorus**, which are washed from urban and suburban areas into streams and rivers

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Required Pollutant Load Reductions

- **Chesapeake Bay PRPs (Appendix D):**

- Sediment: **10% reduction**
- Total Phosphorus (TP): **5% reduction**
- Total Nitrogen (TN): **3% reduction**

Achieving the 10% sediment reduction is expected to also meet the TP and TN goals within the Bay watershed state.pa.us .

- **Impaired Waters PRPs (Appendix E):**

- If impairment is **siltation only**: minimum **10% sediment reduction**
- If impairment is **nutrients only**: minimum **5% TP reduction**
- If impairment is due to **both siltation and nutrients**: both **10% sediment** and **5% TP reductions** are required

A **presumptive approach** may be used where a 10% sediment reduction is assumed to achieve a 5% TP reduction, but nutrient reductions cannot be presumed to reduce sediment state.pa.us .

ESTIMATE OF CONTRIBUTION OF STREAMBANK EROSION

SEDIMENT IN SOUTHAMPTON CREEK WATERSHED

FROM EPA TMDL REPORT (2008)

	ACRES	LBS. TSS/ACRE/YR	LBS/YR
HAY/PASTURE	40.03	93	3,723
CROPLAND	16.90	758	12,810
FOREST	160.12	7	1,121
TRANSITION	0.00	2708	0
LOW INTENSITY DEVELOPMENT	757.92	98	74,276
HI INTENSITY DEVELOPMENT	246.41	56	13,799
ESTIMATED STREAMBANK (a)			415,100
TOTAL	1,221.38		520,829

(a) Streambank estimates based on 1,216,589 lbs/yr times 34.12% (Upper Southampton's load allocation)

WIKIWATERSHED AREAS

A	B	C	D	E	F	G	H
ID	ha	ACRES	S.F. IN TWP	ACRES IN TWP	% IN TWP	PARSED ACRES	NET ACRES
CALCS		B*2.47	From Mapping	D/43560	E/C	From Mapping	E-G
MILL CREEK WATERSHED							
4851	245	605	13,755,203	316	52%	7.09	309
4852	54	132	1,408,043	32	24%	4.33	28
4853	422	1,042	39,746,126	912	88%	79.99	832
4854	754	1,862	69,794,326	1,602	86%	31.54	1,571
4855	198	489	7,750,517	178	36%	1.77	176
TOTALS		4,131	132,454,215	3,041	74%	124.72	2,916
SOUTHAMPTON CREEK WATERSHED							
13036	1,020	2,519	53,476,620	1,228	49%	62	1,166

POLLUTANT LOADING CALCULATIONS

ID	Total N (kg/ha)	Total N (lbs/ac)	Total P (kg/ha)	Total P (lbs/ac)	Total SS (kg/ha)	Total SS (lbs/ac)	TOTAL N (LBS)	TOTAL P (LBS)	TOTAL SS (LBS)
CALCS	Wikiwatershed	I*2.20432/2.47	Wikiwatershed	K*2.20432/2.47	Wikiwatershed	M*2.40462/2.47	J*H	L*H	N*H
MILL CREEK WATERSHED									
4851	5.46	4.87	0.26	0.23	317	283	1,504	72	87,340
4852	6.91	6.17	0.33	0.29	548	489	173	8	13,693
4853	6.62	5.91	0.34	0.30	487	435	4,919	253	361,849
4854	5.82	5.19	0.25	0.22	199	178	8,159	350	278,990
4855	7.11	6.35	0.31	0.28	252	225	1,118	49	39,622
						TOTAL	15,873	732	781,493
						10% REMOVAL			78,149
SOUTHAMPTON CREEK WATERSHED									
13036	7.03	6.28	1.30	1.16	503	449	7,318	1,356	523,834
						WLA (2008 REPORT)			288,119
						10% REMOVAL OF TOTAL LOAD			52,383

STREAM RESTORATION LENGTHS

MILL CREEK									680
SOUTHAMPTON CREEK									456
WIKIWATERSHED REMOVAL VALUE @				115	LBS/FT				
UNIT CONVERSIONS									
1 ha = 2.47 ac									
1 kg = 2.20462 lbs								total length (ft)	1,135

QUESTIONS

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