MONTGOMERY TOWNSHIP
BOARD OF SUPERVISORS
1001 STUMP ROAD
MONTGOMERYVILLE, PA 18936-9605
Telephone: 215-393-6900 • Fax: 215-855-6656
www.montgomerytwp.org

September 13, 2012

VIA FEDERAL EXPRESS

Permit Coordinator
PA Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

Reference: MS-4 NPDES Permit NOI
Montgomery Township

To Whom It May Concern:

On behalf of Montgomery Township, Montgomery County, please find enclosed one copy of the Notice of Intent, Checklist, USGS Location Map, Storm Sewer Map, TMDL Strategy Plan and Application Fee.

If, upon your review of the above-mentioned documentation, you should have any questions, please feel free to contact me.

Sincerely,

Lawrence J. Gregan

Lawrence J. Gregan
Township Manager

Enclosures: As Referenced

cc: Karyn L. Hyland (w/ encl.)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT (PAG-13) FOR STORMWATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)

NOI CHECKLIST

You must complete the following list to confirm that all required information has been included. Place a check mark in the column provided for each item listed. Attach this checklist to the Notice of Intent (NOI) that you submit.

Failure to provide all of the requested information will delay the processing of the NOI and may result in the NOI being placed <u>ON HOLD</u> or <u>NO ACTION</u>, or it will be considered withdrawn and the file closed.

	Item	Check if Included	DEP USE
Notice of Intent			
1.	a. Multi-Municipal Joint Application information, if applicable.	☐	☐
	b. MS4 operator(s) information and contact person(s).	☒	☐
	c. Name(s) of Urbanized Area(s) and area number(s)	☒	☐
	d. Name(s) of Receiving Water(s) and Watershed(s), designated and existing use(s) as described in 25 Pa. Code Chapter 93, 303(d) designation, if applicable, and TMDL parameter(s), if applicable.	☒	☐
	e. Stormwater Management Program (SWMP), including contact information for responsible person(s), and including a checkmark in the appropriate box in E(4)-(5).	☒	☐
	f. Determine whether an MS4 TMDL Plan for Discharges to Impaired Waters with an approved TMDL is required.	☒	☐
	g. Information regarding whether or not any part of your regulated small MS4 is located in or discharging to any receiving watersheds that drain to the Chesapeake Bay?	☒	☐
	h. Information on regulated small MS4 outfalls that discharge to impaired waters without an approved TMDL.	☐	☐
	i. Stormwater Management Ordinance Information.	☒	☐
	j. Compliance History Review.	☒	☐
	k. Certification with signature of official or individual authorized by governing body. If applicable, include a copy of the written authorization to sign the NOI.	☒	☐
Attachments to Notice of Intent			
2.	Notice of intent filing fee. (Check for $500.00 dated within 10 days of NOI submittal date).	☒	☐
3.	Map: USGS topographical quadrangle showing the municipal boundaries for all permittees, the location of regulated MS4 outfalls, and all named Waters of the Commonwealth which receive discharges from regulated MS4 outfalls.	☒	☐
4.	MS4 Stormwater Management Ordinance Checklist, if applicable.	☐	☐
5.	A written MS4 TMDL Plan or written MS4 TMDL Strategy, if applicable, signed and sealed by a professional engineer holding a valid license in good standing from the Pennsylvania Department of State.	☒	☐
6.	Written MS4 TMDL Plan, if applicable, must show substantial measurable progress with physical pollutant control measures installed on-the-ground in time for their operation to be documented in the annual report or progress report submitted in the third year of coverage, plus additional progress in time to be reported with NOIs or applications for permit renewal.	☒	☐

3800-PM-BPNPSM0100d Rev. 6/2012
NOI

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

NOTICE OF INTENT (NOI)

FOR COVERAGE UNDER NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES (PAG-13) FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)

(1) ***Please read the attached instructions carefully before completing this application.***

(2) ***If any of your regulated small MS4 discharges into "special protection waters" (or if your MS4 is otherwise ineligible to use PAG-13) do not complete this NOI; you must use an Individual NPDES MS4 Permit application.***

(3) ***Check the appropriate box if you are submitting this NOI for a RENEWAL of your current permit, or if this NOI is for a NEW permit:***

Renewal Permit ☒ (if checked, please provide Permit Number) **PAG-130016**
OR
New Permit ☐

A. Multi-Municipal Joint Application	
1.	Is this application being made jointly with other municipalities? ☐ Yes ☒ No If "Yes", please complete the information below
2.	Attach a completed and signed "Applicant Information for a Joint NPDES MS4 Authorization" for each joint permittee. Enter the total number of joint permittees: _____ A completed "Applicant Information for a Joint NPDES MS4 Authorization" is attached for each joint permittee. ☐ Yes ☐ No
3.	Attach to this NOI a map (or maps) to show the locations of the regulated small MS4s, the urbanized area boundaries, and the municipal boundaries of each of the joint permittees. Are the required maps attached to this NOI? ☐ Yes ☐ No

B. MS4 Operator Information			
1.	Name of MS4 Operator: Montgomery Township		
2.	Contact Person: Lawrence J. Gregan		
3.	Title/Role: Township Manager		
4.	Division: Montgomery Township	Department: Administration	
5.	Phone Number: 215-393-6900	Fax: 215-855-6656	
6.	E-mail: lgregan@montgomerytwp.org		
7.	Mailing Address:	Address Line 1: 1001 Stump Road	
		Address Line 2:	
		City: Montgomeryville	State: PA
		Zip Code: 18976	

8.	☒	I have reviewed the conditions for General Permit Eligibility and I believe that the regulated MS4 included in this NOI satisfies the conditions.
9.	☒	Are all of the following map requirements met: USGS Topographical, or equivalent, maps that show municipal boundaries for all permittees listed in Sections A or B above are enclosed; and the maps marked to show the location of regulated MS4 outfalls; and the maps are marked to show and identify all named waters of the Commonwealth that receive discharges from each regulated MS4 outfalls.

C. Urbanized Area Information

Urbanized Area Name(s):	UA #(s):
Philadelphia (NE)	12

D. Description of Receiving Waters (refer to the NOI instructions for more information).

List water bodies into which the regulated small MS4(s) discharge, their classification(s), uses, impairments, TMDL status, and location of the most downstream outfall.

	1. Name of Waterbody	2.i. Designated Uses	2.ii. Existing Uses	3. 303(d) or 305(b) Listed? (Y/N)	4. TMDL ? (Y/N)	5. TMDL Parameter(s) List the Wasteload Allocation (WLA) and Load Allocation (LA) if applicable.	6. ID of Most Downstream Outfall - 3-digit number.	7. Latitude (º,',")	8. Longitude (º,',")
a.	Little Neshaminy HUC: 02040201	WWF, MF	WWF, MF	Y	Y	173,887 lb/yr	597.05	40,14,20	75,11,39
b.	Neshaminy West Branch Sub-Basin 2 HUC: 02040201	WWF, MF	WWF, MF	Y	Y	39,702 lb/yr	380.37	40,15,53	75,15,11
c.	Wissahickon Creek HUC: 02040203	TSF, MF	TSF, MF	Y	Y	21,089 lb/yr	390.18	40,14,13	75,15,37
d.									
e.									
f.									
g.									
h.									
i.									
j.									
k.									
l.									

E. Stormwater Management Program (SWMP)

MS4 operators must implement a written SWMP with BMPs to meet six minimum control measures (MCMs), including measurable goals and a schedule, as part of their NOI. The SWMP in Appendix A of the Authorization to Discharge meets this requirement and must be implemented to satisfy eligibility for PAG-13.

Check the boxes next to each Minimum Control Measure in the following table to confirm that the Stormwater Management Program contained in Appendix A of the General Permit will be followed. **If the Program in Appendix A of the General Permit cannot be followed, this NOI cannot be used and you must apply for and Individual Permit using the MS4 Individual Permit Application**. In the right-hand column, provide the names of the person(s) responsible for implementing the program for each Minimum Control Measure.

Minimum Control Measures	The MS4 Operator will implement the Minimum Control Measures as described in the ***SWMP in the General Permit***	**Name and telephone number of the principal person responsible for implementation.**
The permittee will implement the SWMP in Appendix A of the Authorization to Discharge. You must check the box in the center column, and provide the information in the right-hand column.	☒	Lawrence J. Gregan 215-393-6900
(1) Public Education and Outreach	☒	Lawrence J. Gregan 215-393-6900
(2) Public Participation and Involvement	☒	Lawrence J. Gregan 215-393-6900
(3) Illicit Discharge Detection and Elimination	☒	Lawrence J. Gregan 215-393-6900
(4) Construction Site Stormwater Runoff Control, and (5) BMPs #1, #2, and #3 of the MCM for Post-Construction Stormwater Management in New Development and Redevelopment **You must check one of the two boxes in the column to the right and fill-in the blanks as indicated.**	☒ MCM #4.A: The permittee will rely on DEP's statewide program for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under MCM #4 and all requirements under BMPs #1 through #3 of MCM #5. In this case, the permittee is not required as a condition of this permit to implement any of the BMPs listed under MCM #4 nor any of the first three (3) BMPs listed under MCM #5 in Appendix A of the Authorization to Discharge. Note: The permittee may not issue any final approvals for development or redevelopment projects that require NPDES permits for discharges of stormwater from construction sites until after DEP or a delegated County Conservation District issues the NPDES Permit for Stormwater Discharges Associated with Construction Activities.	

	☐ MCM #4.B: The permittee is not relying on DEP's program for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities; therefore, the permittee must implement all of the BMPs listed under MCM #4 and BMPs #1, #2, and #3 of MCM #5 in Appendix A of the Authorization to Discharge. Name of person responsible: Lawrence J. Gregan Telephone number: 215-393-6900	
(5) BMPs #4, #5, and #6 of the MCM for Post Construction Stormwater Management in New Development and Redevelopment	☒	Lawrence J. Gregan 215-393-6900
(6) Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance	☒	Lawrence J. Gregan 215-393-6900

F. MS4 TMDL Plan for Discharges to Impaired Waters with a TMDL

Additional Requirement to have a written MS4 TMDL Plan for Impaired Waters with an approved TMDL: If any of your regulated MS4s discharge stormwater into any portion of a receiving water with applicable wasteload allocations in an approved TMDL, you must develop, submit to DEP for approval, and ensure implementation of a written MS4 TMDL Plan that achieves the pollutant reductions consistent with the applicable TMDL. Refer to Section 2, Part C, of the Authorization to Discharge for the list of ten (10) components that shall be addressed in the MS4 TMDL Strategy component of the MS4 TMDL Plan, **which shall be submitted as a written attachment to this NOI.**

Are any of your regulated small MS4 discharges of stormwater to any portion of receiving waters with applicable waste load allocations in an approved TMDL. ☒ Yes ☐ No

If you answered yes above, then you must complete the remainder of this section.

Name and telephone number of the principal person responsible for preparation and implementation of the MS4 TMDL Plan.

Name: Lawrence J. Gregan

Phone: 215-393-6900

Check one of the following boxes to indicate how your MS4 TMDL Plan was developed:

☒ Your MS4 TMDL Plan implements and enforces the TMDL control measures from a watershed or regional TMDL Plan; or.

☐ You will develop, submit to DEP for approval, and ensure implementation of your own TMDL control measures for your MS4 TMDL Plan according to the guidance in Section II.F. of the NOI Instructions.

Signature and Seal by Professional Engineer for MS4 TMDL Plans

If an MS4 TMDL Plan is required, do the components submitted with this NOI include the signature and seal of a professional engineer with a valid license in good standing from the Pennsylvania Department of State as required?

☒ Yes ☐ No

G. Discharges to the Chesapeake Bay

Are any of your regulated small MS4s located in or discharging to any receiving watersheds that drain to the Chesapeake Bay? ☐ Yes ☒ No

If you answered yes above, then within 12 months of the effective date of your Approval of Coverage, you must develop and submit to DEP for approval a Chesapeake Bay Pollutant Reduction Plan;

Your Chesapeake Bay Pollutant Reduction Plan may incorporate portions of MS4 TMDL Plans that address applicable waste load allocations (WLAs) for sediment, nitrogen, or phosphorus associated with existing stormwater discharges to watersheds that drain to the Chesapeake Bay as described in Part C(1) of the Authorization to Discharge. Will your Chesapeake Bay Pollutant Reduction Plan incorporate portions of any MS4 TMDL Plans?

☐ Yes ☐ No

Signature and Seal by Professional Engineer for Chesapeake Bay Pollutant Reduction Plan

Indicate by checking the following box that your Chesapeake Bay Pollutant Reduction Plan will include the signature and seal of a professional engineer with a valid license in good standing from the Pennsylvania Department of State as required? ☐ Yes

H. Discharges to Impaired Waters without an approved TMDL

For each regulated small MS4 that discharges stormwater into any portion of a receiving water that is impaired, but does not have an approved TMDL, permittees shall ensure that new discharges from the permittee's regulated small MS4s do not cause or contribute to exceedances of water quality standards. Permittees must:

a. identify outfalls that discharge to impaired waters;

b. identify additional or modified BMPs in the SWMP to ensure that new discharges do not cause or contribute to the impairment; and

c. implement such BMPs and report on the status of each.

For each outfall that discharges to impaired waters, list the outfall, the impairment, and the BMPs that will be added or modified to the SWMP to ensure that new discharges from your regulated small MS4 will not cause or contribute to the identified impairments. For outfalls that discharge stormwater that reasonably cannot be a cause or contributor to the impairment of the receiving water, provide an explanation.

I. Stormwater Management Ordinance

Indicate by checking one of the boxes below whether you have an existing ordinance from an Act 167 Plan approved by DEP in 2005 or later; or you plan to adopt an MS4 Stormwater Management Ordinance that corresponds to the checked box in E(4)-(5); or you have completed and attached an MS4 Stormwater Management Ordinance Checklist that corresponds to checked box in E(4)-(5).

The applicant will satisfy, one of the following (Check one and fill-in blanks where indicated.):

F.1.		F.2.		F.3.
☒ By the end of the first year of coverage under this permit, you will enact and implement either: a) the MS4 Stormwater Management Ordinance corresponding to the checked box in E(4)-(5); or, b) an ordinance from an Act 167 Plan approved in 2005 or later; or, c) an ordinance that satisfies all applicable requirements on a completed and signed MS4 Stormwater Management Ordinance Checklist corresponding to the checked box in E(4)-(5).	**OR**	☐ Already have enacted and implemented an Act 167 Stormwater Management Ordinance from an Act 167 Plan approved in 2005 or later. Provide the enactment date and number of your stormwater management ordinance Number: ________________ Date:____________________	**OR**	☐ The MS4 Stormwater Management Ordinance Checklist is completed, signed, and attached, and all applicable requirements are satisfied. If your ordinance already is enacted, provide the enactment date and number of your stormwater management ordinance Number: _________________ Date: ____________________

Fill in the Name and Telephone number of the principal person responsible.

Lawrence J. Gregan, Township Manager
Name

215-215-393-6900
Telephone number

J. Compliance History Review

Has the applicant been in violation during the past 5 years of any permits issued by DEP, or any orders, regulations or schedules of compliance?

☐ Yes ☒ No

If yes, list each permit, order, regulation, or schedule that is/was in violation and provide compliance status of the permitted activity (use additional sheets to provide information on all permits).

Brief Description of Non-Compliance:

Steps Taken to Return to Compliance and Dates Compliance Achieved:

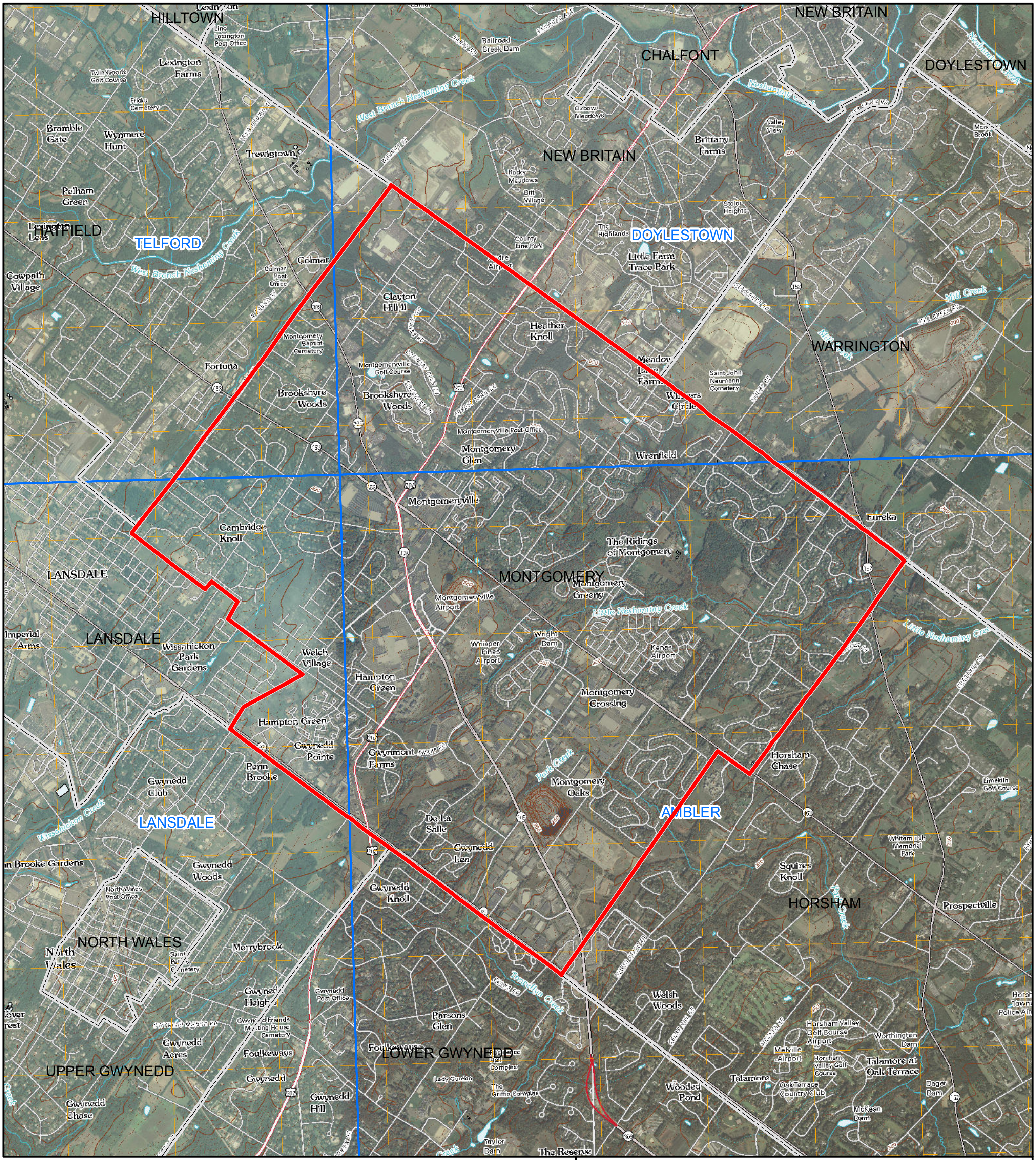
K. Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and official title: (Please Print or Type name and title. Use corporate or professional seal as appropriate)

Lawrence J. Gregan, Township Manager

Signature: Lawrence J. Gregan Date Signed: 9/13/12



USGS LOCATION MAP
QUADRANGLES:
AMBLER, DOYLESTOWN,
LANSDALE, TELFORD

N
W E
S

MONTGOMERY TOWNSHIP
MS4 LOCATION MAP

MONTGOMERY COUNTY, PENNSYLVANIA

Legend

USGS QUAD SHEETS

0 2,000 4,000 Ft

*ENTIRE MUNICIPALITY IS WITHIN URBANIZED AREA (US CENSUS 2000)

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
65 E BUTLER AVENUE, SUITE 100
NEW BRITAIN, PA 18901

JOB NO: 11-12055	DATE: SEPTEMBER, 2012	SCALE: 1" = 4000'


HATFIELD TOWNSHIP
BUCKS COUNTY


BUCKS COUNTY
LITTLE
NESHAMINY
CREEK
HORSHAM TOWNSHIP


UPPER GWYNEDD
LOWER GWYNEDD
HORSHAM TOWNSHIP

LANSDALE
UPPER GWYNEDD
KNAPP RD
NORTH WALES RD
DEKALB PIKE
UPPER STATE RD
STUMP RD

MS4 TMDL Strategy Plan

For

Montgomery Township
Montgomery County

September 2012

Prepared For:

Montgomery Township
1001 Stump Road
Montgomeryville, PA 18936
(215) 393-6900

Prepared By:
Gilmore & Associates, Inc..
Engineers ♦ Land Surveyors ♦ Planners ♦ GIS Consultants
65 East Butler Avenue, Suite 100
New Britain, PA 18901
215-345-4330

Table of Contents

I. **Introduction**

Montgomery Township, located within Montgomery County, is comprised of 10.7 square miles of land. All areas of the Township will drain to one of two distinct watersheds; Neshaminy Creek (Little Neshaminy Sub-basin and West Branch Sub-Basin #2), and Wissahickon Creek. The Wissahickon and Neshaminy Creeks both have approved TMDL plans that are the basis for this TMDL Strategy Plan. The intent of this "Strategy Plan" is to provide baseline calculations to quantify the sediment that is generated by Township owned and maintained property as well as to map out a plan to comply with the reduction factors (Wasteload Allocations) outlined in each watershed's specific TMDL plan.

II. **Baseline Sediment Calculations**

The sediment loading calculations outlined in this section are intended to provide a baseline by which to measure the Township's goal of achieving the total sediment removal outlined in the approved TMDL Plans for the Wissahickon and Neshaminy Creeks. For the baseline calculations, only the land that is owned and / or maintained by the Township is assumed to contribute sediment. These areas include; parks, open space, preserved areas, municipal buildings and maintenance yards, streets, rights-of-way, etc.

Baseline Calculation Methodology

To calculate the amount of sediment that is generated each year from the Township owned properties and rights-of-way, the pollutant load formula (Pollutant Load = EMC x Runoff Volume x 2.7) and TSS EMC values from Worksheet 12, taken from the *Pennsylvania Stormwater Best Management Practices Manual*, was utilized. The following sediment concentrations were assumed for each ground cover within the Township owned land:

- Forest (39 mg/l)
- Meadow (47 mg/l)
- Lawn, Low-Input (180 mg/l)
- Grassed Athletic Field (200 mg/l)
- Low Traffic Street (86 mg/l)
- Medium Traffic Street (113 mg/l)
- Low Traffic Parking Lot (58 mg/l)

In an attempt to simplify the calculations so that a detailed runoff analysis of each property was not required, the annual runoff depth for all areas was assumed to be 10 inches. The assumed annual runoff depth was suggested by the Temple Center for Sustainable Communities and is based on a water balance conducted by the USGS for the Pennypack Creek.

Neshaminy Creek Baseline Calculations

The entire portion of Montgomery Township that lies within the Neshaminy Creek Watershed is located within the Little Neshaminy Creek Sub-basin or the West Branch Sub-basin #2 as outlined in the *Total Maximum Daily Load (TMDL) Assessment for the Neshaminy Creek Watershed in Southeast Pennsylvania* (Approved TMDL Plan). According to Table C2.5 within the approved TMDL Plan the required reduction factor for the Little Neshaminy Creek Sub-basin is 17.1% and the required reduction factor for the West Branch Sub-basin #2 is 56%. The following table contains a summary of the baseline calculations and required reduction percentage for Township-owned property and rights-of-way within the Little Neshaminy Creek Sub-basin and West Branch Sub-basin #2. A comprehensive list of parcels and streets that are owned and maintained by Montgomery Township can be found in Appendix B of this report.

Sediment Loading Summary

	Area (Ac.)	Sediment Generated (lbs per year)	Required Reduction (%)**	Pounds To Be Removed Each Year	Waste Load Allocation
Neshaminy West Branch Sub-Basin 2					
Municipal Properties	82	13,411	56%	7,510	5,901
Roads	107	26,514		14,848	11,666
Subtotal	189	39,925		22,358	17,567
Little Neshaminy					
Municipal Properties	581	110,552	17%	18,904	91,647
Roads	257	63,634		10,881	52,752
Subtotal	839	174,185		29,786	144,400

Please refer to the *Montgomery Township Watershed Boundary Map*, included as Appendix A, for limits of the Neshaminy Creek Watershed within the Township.

Wissahickon Creek Baseline Calculations

A small area is located within the Wissahickon Creek watershed and requires baseline calculations to determine sediment loading as outlined in the approved *Nutrient and Siltation TMDL Development for Wissahickon Creek*. According to Table 4-12 in the approved TMDL Plan, the required sediment reduction factor for Montgomery Township is 31%, which includes a weighted average of both streambank erosion and overland load. The following table contains a summary of the baseline calculations and required reduction percentage for Township-owned property and rights-of-way within the Wissahickon Creek Watershed. A comprehensive list of parcels and streets that are owned and maintained by Montgomery Township can be found in Appendix C of this report.

Sediment Loading Summary

	Area (Ac.)	Sediment Generated (lbs per year)	Required Reduction (%)**	Pounds To Be Removed Each Year	Waste Load Allocation
Wissahickon					
Municipal Properties	52	5,246	31%	1,626	3,620
Roads	64	15,908		4,932	10,977
Subtotal	117	21,154		6,558	14,597

Please refer to the *Montgomery Township Watershed Boundary Map*, included as Appendix A, for limits of the Wissahickon Creek Watershed within the Township.

III. TMDL Compliance Strategy

The Township plans to systematically achieve the required sediment reduction in each watershed through the use of structural and non-structural BMPs intended to remove sediment from runoff that is generated by Township owned properties and rights-of-way. Due to a variety of factors and restrictions, it is unrealistic to achieve the required reduction percentages in the first permit term. Therefore, the Township has decided to implement the following schedule to achieve the reduction goal by year 25. Assuming that future permit cycles will run for 5 years, as is the current standard; the Township proposes to reduce sedimentation as follows:

Years 1-5: Achieve 10% of Total Sediment Reduction

Years 6-10: Achieve 40% of Total Sediment Reduction

Years 11-15: Achieve 60% of Total Sediment Reduction

Years 16-20: Achieve 80% of Total Sediment Reduction

Years 21-25: Achieve 100% of Total Sediment Reduction

The Township feels that by setting realistic goals that can be quantified by "measurable" success, the reduction percentages outlined in each approved TMDL Plan can be met and water quality in all waterways within the municipality will be positively impacted. The TMDL Strategy plan can be viewed as a "working" document that will need to be revised periodically in order to ensure that the BMPs implemented by the Township are effective in achieving the reduction goals set forth in this report. As funding or other opportunities become available the BMPs discussed below may need to be altered or new BMPs added to the strategy plan. The reason that the Township's goal for the first 5 years is to achieve only a 10% reduction is due to budgetary restrictions. Future budgeting will allow additional funds to accrue in order to "catch up" to the long term goal.

Neshaminy Creek TMDL BMPs

The Township owns and maintains roughly 839 Acres of land within the Little Neshaminy Creek Sub-basin watershed. The calculations provided as Appendix B of this report show that 174,185 lbs of sediment is generated from this area each year. The approved TMDL plan for the Neshaminy Creek requires that the Township reduce that sediment load by 17.1% or 29,786 lbs. The Township owns and maintains roughly 189 Acres of land within the West Branch Sub-basin #2 watershed. The calculations provided as Appendix B of this report show that 39,925 lbs of sediment is generated from this area each year. The approved TMDL plan for the Neshaminy Creek requires that the Township reduce that sediment load by 56% or 22,358 lbs. The total sediment generated from township-owned properties within the Neshaminy Creek Watershed is calculated to be 214,110 lbs per year and the total required sediment load reduction is 52,144 lbs per year.

According the Township's proposed sediment reduction goals, 10% (5,214 lbs) of the total reduction is to be achieved within the first permit cycle (years 1-5). The Township has chosen to try to meet this goal by increasing the frequency of the street sweeping and inlet and pipe cleaning programs as well as basin naturalization and tree planting programs. Street sweeping is listed in the PA DEP BMP manual as Non-Structural BMP 5.9.1 and has an assumed sediment removal efficiency of 85%. Over the first year of the new permit cycle the Township will be implementing a new internal documentation program that is intended to collect valuable data pertaining to the amount of sediment that is collected from each street and right-of-way within the Township. The information collected within year 1 will allow the Township to determine which streets and rights-of-way are producing the most sediment and the street sweeping program in subsequent years can be tailored to target the “hot spots”. The documentation program will also allow for the Township to distinguish between sediment that is collected from roadways and that which is removed from inlets and pipes.

Wissahickon Creek TMDL BMPs

The sediment generated by the Township owned property within the Wissahickon watershed is approximately 235,256 lbs per year. The required reduction percentage for Montgomery Township as described in the Wissahickon TMDL plan is 31% (58,702 lbs). The Township’s TMDL Strategy Plan calls for the removal of 10% (5,870 lbs) of the total required reduction within the first permit term (years 1-5). The Township will increase the frequency of street sweeping and inlet cleaning and document the results during the first year of the permit to determine the frequency of sweeping that is necessary to achieve the desired reduction.

IV. Conclusion

The Township is committed to implementing BMPs that will have a measurable impact to reduce the amount of sediment that reaches the Neshaminy and Wissahickon creeks from Township owned and maintained property. In subsequent permit cycles, structural BMPs (stream bank stabilization, additional tree planting programs, additional basin retrofits, etc.) will be analyzed to determine if there are viable locations within the Township where the implementation of these BMPs can have a measurable impact on the sediment load from Township properties.

APPENDIX A

Montgomery Township Watershed Boundary Map

Montgomery Township Watershed Map

Twp Boundary

Abc Neighborhoods

Streets

Features

Water Sheds

Streams

USGS Contours

Contour24K_1

Contour24K_1

Buildings

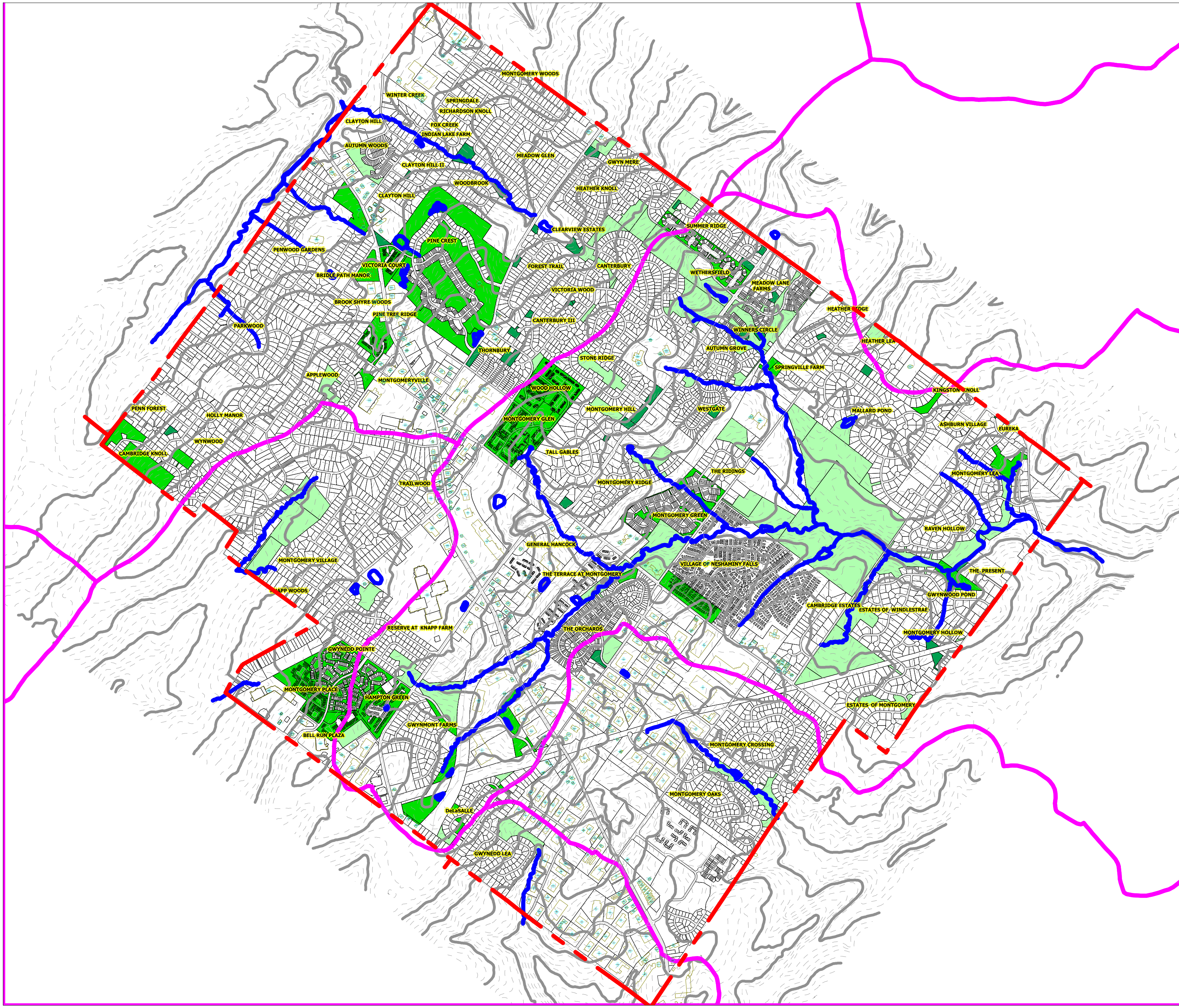
Parcels OverView

Open Space

OPEN SPACE-P...

OPEN SPACE-P...

OPEN SPACE-P...



APPENDIX B

Sediment Loading Calculations

G
&A

GILMORE & ASSOCIATES, INC.

TOWNSHIP PROPERTIES SEDIMENT LOADING

CLIENT:
MONTGOMERY TOWNSHIP
PROJECT NAME:
NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Little Neshaminy Watershed						Ground Cover					
Name	**Parcel ID**	**Prop. Addr**	**Zone**	**Watershed**	**AC**	**Woodlands**	**Lawn**	**Meadow**	**Impervious**	**Athletic Fields**	**Sediment Load (lbs)**
Ascot Court Open Space	460000001304	ASCOT CT	CA	Little Neshaminy	0.91	0	100	0	0	0	369
Bailey Dr Open Space	460000580004	COUNTY LINE RD	R1	Little Neshaminy	2.61	50	25	25	0	0	448
Bakers Place Open Space	460003487103	115 BAKER PL	R1	Little Neshaminy	2	75	15	0	10	0	279
Battalion One Stump Road Fire Station	460003460004	325 STUMP RD	LI	Little Neshaminy	0.59	0	5	0	95	0	85
Bethlehem Pike Open Space	460000079001	1083 BETHLEHEM PIKE	LI	Little Neshaminy	0.91	85	10	0	5	0	111
Buckingham Lane Open Space	460000533124	BUCKINGHAM LN	R1	Little Neshaminy	7.65	85	15	0	0	0	1,035
Chaps Way Detention Basin	460000543428	CHAPS WAY	R1	Little Neshaminy	0.66	0	0	100	0	0	70
Chaps Way Open Space	460000543464	CHAPS WAY	R1	Little Neshaminy	7.75	95	5	0	0	0	803
Claremont Dr Open Space	460000545489	CLAREMONT DR	CA	Little Neshaminy	2.54	100	0	0	0	0	223
Claremont Drive Open Space	460000545498	CLAREMONT DR	CA	Little Neshaminy	0.6	100	0	0	0	0	53
Clayton Court Open Space	460000545381	CLAYTON CT	R2	Little Neshaminy	1.24	65	25	0	10	0	212
Colwyn Ter Open Space	460000544373	COLWYN TER	R1	Little Neshaminy	1.37	100	0	0	0	0	120
Emerson Dr Open Space	460004153103	299 DEKALB PIKE	LI	Little Neshaminy	5.87	95	0	5	0	0	520
Estates at Windlestrea Open Space Along Knapp Road	460000700918	DAVIS DR	R1	Little Neshaminy	11	80	10	10	0	0	1,334
Fairacres Basin 2	460003889205	UPPER STATE RD	CA	Little Neshaminy	2.2	5	95	0	0	0	856
Friendship Park	460000082007	ENCLAVE BLVD	R3B	Little Neshaminy	19.42	15	5	75	5	0	2,316
Gift Circle Open Space	460002569067	0 GIFT CIR	R1	Little Neshaminy	0.91	100	0	0	0	0	80
Goodwin Lane Detention Basin	460000949112	GOODWIN LN	R2	Little Neshaminy	1.18	0	0	100	0	0	125
Green Spring Circle Basin 1	460001033055	GREEN SPRING CIR	R5	Little Neshaminy	0.64	5	0	95	0	0	67
Green Tavern Road Open Space	460003013207	GREEN TREE TAVERN RD	R2	Little Neshaminy	1.99	30	25	45	0	0	349
Green Tree Tavern Rd Open Space	460003013522	GREEN TREE TAVERN RD	R2	Little Neshaminy	4.34	40	25	35	0	0	752
Hartman Road Basin	460001069118	HARTMAN RD	R2	Little Neshaminy	2.79	0	100	0	0	0	1,130
Horsham Road Open Space	460001144007	0 HORSHAM RD	R1	Little Neshaminy	1.15	20	80	0	0	0	393
Horshoe Lane Detention Basin	460001681845	HORSESHOE LN	R5	Little Neshaminy	0.85	5	0	95	0	0	89
Hourglass Park	460003616505	S STONERIDGE DR	CA	Little Neshaminy	8.65	15	85	0	0	0	3,092
Kapp Road Open Space	460000316034	KNAPP RD	LI	Little Neshaminy	1.27	85	15	0	0	0	172
Kelsey Dr Open Space	460001689101	KELSEY DR	R1	Little Neshaminy	4.61	100	0	0	0	0	405
Kelsey Drive Detention Basin	460001689146	KELSEY DR	R1	Little Neshaminy	0.46	5	0	95	0	0	48
Longleat Drive Basin 1	460002517099	LONGLEAT DR	CA	Little Neshaminy	1.76	60	40	0	0	0	378
Longleat Drive Basin 2	460002517036	LONGLEAT DR	CA	Little Neshaminy	1.5	15	85	0	0	0	536
Lower State Road Open Space	460002530016	LOWER STATE RD	R2	Little Neshaminy	1.29	15	25	60	0	0	229
Major dr Open Space	460002581694	MAJOR DR	R1	Little Neshaminy	0.04	50	50	0	0	0	10
Mallard Dr Basin / Open Space	460002580065	MALLARD DR WEST	R1	Little Neshaminy	5.6	30	35	35	0	0	1,148
Memorial Grove	460001093328	HORSHAM RD	R1	Little Neshaminy	26.98	50	25	20	5	0	4,662
Montgomery Township Public Works	460000544283	90 DOMORAH DR	LI	Little Neshaminy	1.44	0	5	0	95	0	208
Natural Area DeKalb and Knapp	460000316124	KNAPP RD	LI	Little Neshaminy	14.99	60	5	30	5	0	1,666
Newport Lane Open Space	460004601375	NEWPORT LN	R2	Little Neshaminy	1.5	95	5	0	0	0	155
Open Spcae next to Memorial Grove	460001093319	KENAS RD	R1	Little Neshaminy	3	20	20	60	0	0	486
Orchard Dr Open Space	460003014108	ORCHARD DR	R3A	Little Neshaminy	4.79	10	80	0	10	0	1,657
Orchard Drive Open Space	460003014486	ORCHARD DR	R3A	Little Neshaminy	1.73	15	75	0	0	10	626
Orchards Stream Open Space	460003404402	STAYMAN DR	R3A	Little Neshaminy	8.17	95	0	5	0	0	724
PECO Basin	460003568004	STUMP RD	LI	Little Neshaminy	0.37	0	85	0	15	0	135

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GILMORE & ASSOCIATES, INC.

TOWNSHIP PROPERTIES SEDIMENT LOADING

CLIENT:
MONTGOMERY TOWNSHIP
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NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Pella Windows & Doors Open Space	460003571019	STUMP RD	LI	Little Neshaminy	1.87	70	5	5	20	0	211
Pimlico Way Open Space	460003083642	PIMLICO WAY	CA	Little Neshaminy	1.28	10	90	0	0	0	478
Proposed Community Center	460003589001	Horsham Road	BP	Little Neshaminy	12.89	5	20	55	20	0	2,187
Raven Hollow Open Space Area	460000700928	DAVIS DR	R1	Little Neshaminy	22	50	40	10	0	0	4,762
Regency Dr Open Space N	460003088991	REGENCY DR	R2	Little Neshaminy	3.89	70	30	0	0	0	712
Regency Drive Open Space S	460003088992	REGENCY DR	R2	Little Neshaminy	10.81	80	20	0	0	0	1,634
Rose Twig Ln Open Space	460003234401	ROSE TWIG LN	R1	Little Neshaminy	2.31	20	75	0	5	0	757
Saratoga Open Space / Parking	460003286961	SARATOGA WAY	CA	Little Neshaminy	0.09	0	30	0	70	0	19
Schreinder Drive Open Space	460003287357	SCHREINER DR	R1	Little Neshaminy	1.11	40	60	0	0	0	309
Schreinder Drive Open Space	460003287303	SCHREINER DR	R2	Little Neshaminy	0.57	85	15	0	0	0	77
Shelburne Drive Open Space	460003386105	SHELBURNE DR	CA	Little Neshaminy	6.75	80	15	5	0	0	920
Spring Valley Park	460000543977	CLAREMONT DR	CA	Little Neshaminy	26.73	15	35	10	5	35	8,808
Spring Valley Park South	460000542915	CANTERBURY LN	R2	Little Neshaminy	19.57	60	10	15	15	0	2,516
Stevers Mill Rd Open Space C	460003407192	STEVERS MILL RD	R2	Little Neshaminy	0.43	50	50	0	0	0	106
Stone Ridge Drive Open Space	460003889106	UPPER STATE RD	CA	Little Neshaminy	2.13	15	85	0	0	0	761
Stump Rd Open Space	460003490001	1237 STUMP RD	R1	Little Neshaminy	5.01	95	0	5	0	0	444
Stump Road Open Space	460000316043	STUMP RD	LI	Little Neshaminy	0.52	75	25	0	0	0	87
Summer Ridge Drive Basin	460003967271	SUMMER RIDGE DR	R5	Little Neshaminy	1.3	20	75	0	5	0	426
Sunrise Drive Open Space	460003617585	SUNRISE DR	R2	Little Neshaminy	6.51	95	5	0	0	0	675
Sunrise Drive Open Space	460003617243	SUNRISE DR	R2	Little Neshaminy	0.59	100	0	0	0	0	52
Township Building	460001126007	1001 STUMP RD	R2	Little Neshaminy	22.93	60	15	5	20	0	3,320
Vacant	460003942008	UPPER STATE RD	R1	Little Neshaminy	0.33	0	10	0	90	0	52
Vacant	460002557007	LOWER STATE RD	R2	Little Neshaminy	0.2	30	40	0	30	0	45
West Gate Drive Open Space	460004250121	WESTGATE DR	CA	Little Neshaminy	1.77	85	15	0	0	0	240
Westminster Drive Open Space N	460004250197	WESTMINSTER DR	R1	Little Neshaminy	2.84	50	5	45	0	0	317
Westminster Drive Open Space S	460004250181	WESTMINSTER DR	R1	Little Neshaminy	7.61	90	5	5	0	0	795
Wiesman Tract Stump Road N	460003595022	0 STUMP RD	R1	Little Neshaminy	5.93	50	50	0	0	0	1,461
Wiesman Tract Stump Road S	460003595013	KENAS RD	R1	Little Neshaminy	16	90	10	0	0	0	1,912
William Maul Park at Windlestrea	460001699001	1137 KENAS RD	R1	Little Neshaminy	122.14	50	0	10	15	25	22,782
Winner Circle Open Space South	460000545471	CLAREMONT DR	CA	Little Neshaminy	14.27	100	0	0	0	0	1,252
Zehr Estate 1	460003607001	1216 STUMP RD	LI	Little Neshaminy	31.52	30	30	30	10	0	6,071
Zehr Estate 2	460003602006	STUMP RD	LI	Little Neshaminy	19.76	75	5	20	0	0	2,119
Zehr Field Front	460003602105	0 STUMP RD	R5	Little Neshaminy	7.5	10	40	0	10	40	2,729
Zehr Field Rear	460001700504	KENAS RD	R1	Little Neshaminy	32.84	5	20	0	5	70	13,363
				Total	**581.32**	**3,630**	**2,105**	**1,110**	**575**	**180**	**110,554**

West Branch Sub-Watershed 2						**Ground Cover**					
Name	**Parcel ID**	**Prop. Addr**	**Zone**	**Watershed**	**AC**	**Woodlands**	**Lawn**	**Meadow**	**Impervious**	**Athletic Fields**	**Sediment Load (lbs)**
Access Easement to Fellowship Park	460002580128	MANOR DR	R2	West Branch Sub 2	0.02	90	10	0	0	0	2
Addison Lane Storm Drain	460000003006	ADDISON LN	R2	West Branch Sub 2	0.55	5	15	80	0	0	82
Andrew Lane Open Space	460000001763	131 ANDREW LN	R2	West Branch Sub 2	3.79	65	5	30	0	0	413
Bedford Lane Open Space	460000008135	BEDFORD LN	R5	West Branch Sub 2	1.41	25	75	0	0	0	459
Bellows Way Open Space	460000056177	BELLOWS WAY	R5	West Branch Sub 2	2.24	100	0	0	0	0	197
Bellows Way Open Space	460000057005	BELLOWS WAY	R5	West Branch Sub 2	5.72	100	0	0	0	0	502
Claremont Dr Open Space	460000545867	CLAREMONT DR	CA	West Branch Sub 2	5.7	100	0	0	0	0	500
Cricklewood Circle Open Space	460000666161	CRICKLEWOOD CIR	R3A	West Branch Sub 2	6.31	100	0	0	0	0	554
David Lane Open Space	460000700163	DAVID LN	R2	West Branch Sub 2	5.89	90	5	5	0	0	616

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GILMORE & ASSOCIATES, INC.

TOWNSHIP PROPERTIES SEDIMENT LOADING

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MONTGOMERY TOWNSHIP
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PROJECT NUMBER:
11-12055

Douglass Road Open Space	460000797138	DOUGLASS RD	R2	West Branch Sub 2	1.12	100	0	0	0	0	98
Doylestown Road Open Space	460000889109	DOYLESTOWN PIKE	R5	West Branch Sub 2	0.8	10	90	0	0	0	299
Fellowship Park	460002374001	N LINE ST	R2	West Branch Sub 2	13.62	50	15	0	15	20	2,917
Grays Lane Open Space	460001004345	GRAYS LN	R2	West Branch Sub 2	0.29	60	40	0	0	0	62
Gwynmore Open Space	460000546101	CLAREMONT DR	CA	West Branch Sub 2	1.53	10	90	0	0	0	571
Hampton Circle Open Space	460001036169	HAMPTON CIR	R5	West Branch Sub 2	5.97	100	0	0	0	0	524
Magdalena Lane Detention Basin	460002574124	MAGDALENA LN	R2	West Branch Sub 2	0.93	5	10	85	0	0	125
McLaughlin Rd Open Space	460000235106	BETHLEHEM PIKE	R3	West Branch Sub 2	3	30	60	10	0	0	840
Montgomery Ave Basin / Open Space	460003873338	TREE LINE DR	R5	West Branch Sub 2	2.6	15	85	0	0	0	929
Montgomery Glen Drive Open Space	460000868157	DOYLESTOWN PIKE	R3A	West Branch Sub 2	1.82	45	55	0	0	0	477
Montgomery Township Office	460000880001	441 DOYLESTOWN PIKE	R5	West Branch Sub 2	0.87	0	0	0	100	0	114
Pauline Circle Open Space	460003015809	PAULINE CIR	R5	West Branch Sub 2	0.63	10	90	0	0	0	235
Pioneer Drive Detention Basin	460003085443	PIONEER DR	R5	West Branch Sub 2	0.59	15	5	80	0	0	70
Summit Place Basin 3	460003616757	SUMMIT PL	R5	West Branch Sub 2	0.46	10	90	0	0	0	172
Summit Place Open space	460003616748	SUMMIT PL	R5	West Branch Sub 2	3.92	90	10	0	0	0	468
Torey Circle Basin	460003873752	TOREY CIR	R5	West Branch Sub 2	0.39	15	85	0	0	0	139
Torey Circle Open Space	460003873743	TOREY CIR	R5	West Branch Sub 2	0.11	50	50	0	0	0	27
Tree Line Detention Basin 1	460003873401	TREE LINE DR	R5	West Branch Sub 2	1.45	20	75	0	5	0	475
Tree Line Drive Open Space	460003873437	TREE LINE DR	R5	West Branch Sub 2	1	100	0	0	0	0	88
Twining Road Open Space A	460003874085	TWINING RD	R5	West Branch Sub 2	2.42	70	15	15	0	0	334
Twining Road Open Space B	460003874166	TWINING RD	R5	West Branch Sub 2	2.15	100	0	0	0	0	189
Vacant/Open Space	460000600101	0 COUNTY LINE RD	R5	West Branch Sub 2	2.86	25	15	60	0	0	418
Veronica Lane Basin	460003969044	VERONICA LN	R2	West Branch Sub 2	0.46	15	85	0	0	0	164
Walden Lane Open Space	460004141205	WALDEN LN	R5	West Branch Sub 2	1.19	35	65	0	0	0	350
				Total	**81.81**	**1,655**	**1,140**	**365**	**120**	**20**	**13,411**

Wissahickon Watersed						Ground Cover					
Name	**Parcel ID**	**Prop. Addr**	**Zone**	**Watershed**	**AC**	**Woodlands**	**Lawn**	**Meadow**	**Impervious**	**Athletic Fields**	**Sediment Load (lbs)**
Avondale Dr Open Space	460000470627	0 AVONDALE DR	R2	Wissahickon	6.17	80	5	15	0	0	656
Beechwood Drive Open Space	460000013031	0 BEECHWOOD DR	R2	Wissahickon	1.28	100	0	0	0	0	112
Gwynedd Lea Drive Open Space	460001033361	GWYNEDD LEA DR	R2	Wissahickon	8.02	70	20	10	0	0	1,227
Nature Area off Knapp Road	460001792007	KNAPP RD	R2	Wissahickon	24.72	100	0	0	0	0	2,169
Nature Area Pecan Drive	460003025007	PECAN DR	R2	Wissahickon	12.2	95	0	5	0	0	1,082
				Total	**52.39**	**445**	**25**	**30**	**0**	**0**	**5,246**

G **GILMORE & ASSOCIATES, INC.**
&A **TOWNSHIP ROW SEDIMENT LOADING**

CLIENT:
MONTGOMERY TOWNSHIP
PROJECT NAME:
NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Street Name	Classification	Sidewalks	Curb	Length (mi)	Length (ft)	ROW	Paved	Impervious Area (ft^2)	Grass Area (ft^2)	Sediment Load (lbs)
Aaron Way	Low Traffic	Yes	Yes	0.05	264	50	26	9,240	3,960	78
Abbey Lane	Low Traffic	Yes	Yes	0.77	4066	50	29	154,968	48,312	1,138
Acorn Place	Low Traffic	Yes	Yes	0.07	370	50	26	12,936	5,544	109
Addison Lane	Low Traffic	Yes	Yes	0.54	2851	50	28	105,494	37,066	813
Aileen Dr.	Low Traffic	Yes	Yes	0.34	1795	50	28	66,422	23,338	512
Amber Place	Low Traffic	Yes	Yes	0.06	317	50	30	12,355	3,485	87
Andrew Lane	Low Traffic	Yes	Yes	0.81	4277	50	28	158,242	55,598	1,220
Annabel Road	Low Traffic	Yes	Yes	0.38	2006	50	28	74,237	26,083	572
Applewood Lane	Low Traffic	Yes	Yes	0.33	1742	50	30	67,954	19,166	480
Arbor Lane	Low Traffic	Yes	Yes	0.07	370	50	32	15,154	3,326	98
Arbour Green Circle	Low Traffic	Yes	Yes	0.06	317	50	26	11,088	4,752	93
Armada Circle	Low Traffic	Yes	Yes	0.05	264	50	30	10,296	2,904	73
Arrowhead Circle	Low Traffic	Yes	Yes	0.06	317	50	26	11,088	4,752	93
Ashley Circle	Low Traffic	Yes	Yes	0.09	475	50	30	18,533	5,227	131
Aspen Place	Low Traffic	Yes	Yes	0.10	528	50	26	18,480	7,920	156
August Lane	Low Traffic	Yes	Yes	0.23	1214	50	26	42,504	18,216	358
Avondale Drive	Low Traffic	Yes	Yes	0.54	2851	50	26	99,792	42,768	841
Azalea Place	Low Traffic	Yes	Yes	0.08	422	50	26	14,784	6,336	125
Bailey Drive	Low Traffic	Yes	Yes	0.19	1003	50	26	35,112	15,048	296
Baker Place	Low Traffic	Yes	Yes	0.10	528	50	26	18,480	7,920	156
Banbury Avenue	Low Traffic	Yes	Yes	0.35	1848	50	30	72,072	20,328	509
Bartlett Drive	Low Traffic	Yes	Yes	0.09	475	50	32	19,483	4,277	126
Beaumont Terrace	Low Traffic	Yes	Yes	0.10	528	50	26	18,480	7,920	156
Bedford Lane	Low Traffic	Yes	Yes	0.36	1901	50	30	74,131	20,909	524
Beechwood Drive	Low Traffic	Yes	Yes	0.45	2376	40	16	59,400	35,640	595
Bell Run Boulevard	Low Traffic	Yes	Yes	0.53	2798	50	34	120,331	19,589	717
Bellows Way	Low Traffic	Yes	Yes	0.56	2957	50	30	115,315	32,525	815
Blue Jay Way	Low Traffic	Yes	Yes	0.17	898	50	24	29,621	15,259	273
Bonnie Lane	Low Traffic	Yes	Yes	0.39	2059	50	26	72,072	30,888	607
Bradford Court	Low Traffic	Yes	Yes	0.06	317	50	26	11,088	4,752	93
Bridlepath Ln	Low Traffic	Yes	Yes	0.14	739	50	26	25,872	11,088	218
Bridlepath Road	Low Traffic	Yes	Yes	0.15	792	50	26	27,720	11,880	234
Brighton Circle	Low Traffic	Yes	Yes	0.07	370	50	26	12,936	5,544	109
Brighton Place	Low Traffic	Yes	Yes	0.05	264	50	26	9,240	3,960	78
Brittany Place	Low Traffic	Yes	Yes	0.06	317	50	30	12,355	3,485	87
Broad Acres Road	Low Traffic	Yes	Yes	0.46	2429	50	27	86,909	34,531	707
Brook Circle	Low Traffic	Yes	Yes	0.06	317	50	30	12,355	3,485	87
Brookshyre Way	Low Traffic	Yes	Yes	0.17	898	50	32	36,802	8,078	239
Brookwood Road	Low Traffic	Yes	Yes	0.11	581	50	26	20,328	8,712	171

G **GILMORE & ASSOCIATES, INC.**
&A **TOWNSHIP ROW SEDIMENT LOADING**

CLIENT:
MONTGOMERY TOWNSHIP
PROJECT NAME:
NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Street Name	Classification	Sidewalks	Curb	Length (mi)	Length (ft)	ROW	Paved	Impervious Area (ft^2)	Grass Area (ft^2)	Sediment Load (lbs)
Browning Circle	Low Traffic	Yes	Yes	0.05	264	50	30	10,296	2,904	73
Bryan Way	Low Traffic	Yes	Yes	0.20	1056	50	30	41,184	11,616	291
Buckingham Lane	Low Traffic	Yes	Yes	0.30	1584	50	28	58,608	20,592	452
Cambridge Court	Low Traffic	Yes	Yes	0.07	370	50	26	12,936	5,544	109
Camp Drive	Low Traffic	Yes	Yes	0.07	370	50	36	16,632	1,848	91
Canterbury Lane	Low Traffic	Yes	Yes	0.62	3274	50	30	127,670	36,010	902
Carnaby Circle	Low Traffic	Yes	Yes	0.05	264	50	28	9,768	3,432	75
Carson Drive	Low Traffic	Yes	Yes	0.22	1162	50	26	40,656	17,424	343
Cathedral Dr.	Low Traffic	Yes	Yes	0.53	2798	50	30	109,138	30,782	771
Cedar Lane	Low Traffic	Yes	Yes	0.15	792	50	26	27,720	11,880	234
Chamberlain Circle	Low Traffic	Yes	Yes	0.05	264	50	30	10,296	2,904	73
Channel House Rd.	Low Traffic	Yes	Yes	0.06	317	50	28	11,722	4,118	90
Chaps Way	Low Traffic	Yes	Yes	0.10	528	50	30	20,592	5,808	145
Chatham Place	Low Traffic	Yes	Yes	0.55	2904	50	30	113,256	31,944	800
Chester Circle	Low Traffic	Yes	Yes	0.07	370	50	30	14,414	4,066	102
Cheswick Drive	Low Traffic	Yes	Yes	0.49	2587	50	26	90,552	38,808	763
Churchill Circle	Low Traffic	Yes	Yes	0.08	422	50	28	15,629	5,491	120
Citadel Court	Low Traffic	Yes	Yes	0.07	370	50	30	14,414	4,066	102
Claremont Drive	Low Traffic	Yes	Yes	1.49	7867	53	32	320,760	95,832	2,316
Clayton Court	Low Traffic	Yes	Yes	0.13	686	50	26	24,024	10,296	202
Cloverleaf Lane	Low Traffic	Yes	Yes	0.34	1795	50	26	62,832	26,928	529
Colt Circle	Low Traffic	Yes	Yes	0.10	528	50	30	20,592	5,808	145
Colwyn Terrace	Low Traffic	Yes	Yes	0.20	1056	50	26	36,960	15,840	311
Commerce Drive	Low Traffic	Yes	Yes	0.54	2851	50	26	99,792	42,768	841
Compton Court	Low Traffic	Yes	Yes	0.05	264	50	26	9,240	3,960	78
Conrad Lane	Low Traffic	Yes	Yes	0.17	898	50	26	31,416	13,464	265
Copperleaf Circle	Low Traffic	Yes	Yes	0.07	370	50	28	13,675	4,805	105
Corporate Drive	Low Traffic	Yes	Yes	0.39	2059	50	30	80,309	22,651	567
Country Club Drive	Low Traffic	Yes	Yes	1.08	5702	50	26	199,584	85,536	1,682
Country Lane	Low Traffic	Yes	Yes	0.16	845	33	26	29,568	-1,690	116
Cove Circle	Low Traffic	Yes	Yes	0.05	264	50	26	9,240	3,960	78
Coventry Circle	Low Traffic	Yes	Yes	0.09	475	50	30	18,533	5,227	131
Crestwood Circle	Low Traffic	Yes	Yes	0.04	211	50	30	8,237	2,323	58
Crestwood Drive	Low Traffic	Yes	Yes	0.29	1531	50	26	53,592	22,968	452
Cricklewood Circle	Low Traffic	Yes	Yes	0.32	1690	66	40	82,790	28,723	635
Damson Lane	Low Traffic	Yes	Yes	0.07	370	50	32	15,154	3,326	98
David Lane	Low Traffic	Yes	Yes	0.09	475	50	30	18,533	5,227	131
Davis Dr.	Low Traffic	Yes	Yes	0.66	3485	50	28	128,938	45,302	994
Dayton Drive South	Low Traffic	Yes	Yes	0.18	950	50	26	33,264	14,256	280

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GILMORE & ASSOCIATES, INC.
TOWNSHIP ROW SEDIMENT LOADING

CLIENT:
MONTGOMERY TOWNSHIP
PROJECT NAME:
NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Street Name	Classification	Sidewalks	Curb	Length (mi)	Length (ft)	ROW	Paved	Impervious Area (ft^2)	Grass Area (ft^2)	Sediment Load (lbs)
Deerpath Lane	Low Traffic	Yes	Yes	0.08	422	50	30	16,474	4,646	116
Devonshire Drive	Low Traffic	Yes	Yes	0.17	898	50	26	31,416	13,464	265
Dickens Court	Low Traffic	Yes	Yes	0.08	422	50	30	16,474	4,646	116
Domorah Drive	Low Traffic	Yes	Yes	0.31	1637	50	30	63,835	18,005	451
Dorter Ln	Low Traffic	Yes	Yes	0.13	686	50	28	25,397	8,923	196
Douglas Road	Low Traffic	Yes	Yes	0.51	2693	50	28	99,634	35,006	768
Drake Lane	Low Traffic	Yes	Yes	0.61	3221	50	30	125,611	35,429	887
Drayton Circle	Low Traffic	Yes	Yes	0.09	475	50	30	18,533	5,227	131
Duchess Place	Low Traffic	Yes	Yes	0.05	264	50	30	10,296	2,904	73
Durham Way	Low Traffic	Yes	Yes	0.18	950	50	30	37,066	10,454	262
Eagle Lane	Low Traffic	Yes	Yes	0.16	845	50	26	29,568	12,672	249
Eaton Drive	Low Traffic	Yes	Yes	0.15	792	50	26	27,720	11,880	234
Edgar Allen Circle	Low Traffic	Yes	Yes	0.08	422	50	28	15,629	5,491	120
Elberta Drive	Low Traffic	Yes	Yes	0.08	422	50	32	17,318	3,802	112
Embassy Drive	Low Traffic	Yes	Yes	0.21	1109	50	30	43,243	12,197	305
Enterprise Drive	Low Traffic	Yes	Yes	0.15	792	50	26	27,720	11,880	234
Fairacres Drive	Low Traffic	Yes	Yes	0.15	792	80	64	57,816	5,544	308
Fairview Drive	Low Traffic	Yes	Yes	0.21	1109	50	30	43,243	12,197	305
Falling Leaf Way	Low Traffic	Yes	Yes	0.06	317	50	26	11,088	4,752	93
Field Terrace	Low Traffic	Yes	Yes	0.10	528	50	26	18,480	7,920	156
Forest Trail Drive	Low Traffic	Yes	Yes	0.66	3485	58	26	121,968	79,728	1,283
Freedom Way	Low Traffic	Yes	Yes	0.23	1214	50	34	52,219	8,501	311
Gift Circle	Low Traffic	Yes	Yes	0.10	528	50	24	17,424	8,976	161
Glasgow Circle	Low Traffic	Yes	Yes	0.05	264	50	26	9,240	3,960	78
Glen Road	Low Traffic	Yes	Yes	0.28	1478	50	26	51,744	22,176	436
Goodwin Lane	Low Traffic	Yes	Yes	0.33	1742	50	28	64,469	22,651	497
Gordon Lane	Low Traffic	Yes	Yes	0.22	1162	50	24	38,333	19,747	354
Grays Lane	Low Traffic	Yes	Yes	0.77	4066	50	30	158,558	44,722	1,120
Green Spring Circle	Low Traffic	Yes	Yes	0.15	792	50	26	27,720	11,880	234
Green Tree Tavern	Low Traffic	Yes	Yes	0.82	4330	50	28	160,195	56,285	1,235
Greenbriar Road	Low Traffic	Yes	Yes	0.16	845	50	26	29,568	12,672	249
Grouse Court	Low Traffic	Yes	Yes	0.05	264	50	28	9,768	3,432	75
Guilford Court	Low Traffic	Yes	Yes	0.05	264	50	26	9,240	3,960	78
Guiness Lane	Low Traffic	Yes	Yes	0.16	845	50	30	32,947	9,293	233
Gwynedd Lea Drive	Low Traffic	Yes	Yes	0.42	2218	50	26	77,616	33,264	654
Gwynmont Circle	Low Traffic	Yes	Yes	0.26	1373	50	30	53,539	15,101	378
Gwynmont Drive	Low Traffic	Yes	Yes	0.39	2059	50	32	84,427	18,533	547
Halloway Circle	Low Traffic	Yes	Yes	0.07	370	50	30	14,414	4,066	102
Hampton Circle	Low Traffic	Yes	Yes	0.09	475	50	26	16,632	7,128	140

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GILMORE & ASSOCIATES, INC.
TOWNSHIP ROW SEDIMENT LOADING

CLIENT:
MONTGOMERY TOWNSHIP
PROJECT NAME:
NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Street Name	Classification	Sidewalks	Curb	Length (mi)	Length (ft)	ROW	Paved	Impervious Area (ft^2)	Grass Area (ft^2)	Sediment Load (lbs)
Hanover Avenue	Low Traffic	Yes	Yes	0.27	1426	50	30	55,598	15,682	393
Harbob Lane	Low Traffic	Yes	Yes	0.11	581	50	26	20,328	8,712	171
Hawthorne Circle	Low Traffic	Yes	Yes	0.46	2429	50	26	85,008	36,432	716
Hawthorne Drive	Low Traffic	Yes	Yes	0.54	2851	50	26	99,792	42,768	841
Heartwood Drive	Low Traffic	Yes	Yes	0.53	2798	50	26	97,944	41,976	825
Hedgegrow Place	Low Traffic	Yes	Yes	0.07	370	50	26	12,936	5,544	109
Hemlock Drive	Low Traffic	Yes	Yes	0.48	2534	50	26	88,704	38,016	747
Henning Drive	Low Traffic	Yes	Yes	0.11	581	50	32	23,813	5,227	154
Heritage Drive	Low Traffic	Yes	Yes	0.03	158	50	26	5,544	2,376	47
Heron Court	Low Traffic	Yes	Yes	0.09	475	50	28	17,582	6,178	136
Holl Court	Low Traffic	Yes	Yes	0.06	317	50	28	11,722	4,118	90
Holly Drive	Low Traffic	Yes	Yes	0.52	2746	50	26	96,096	41,184	810
Horseshoe Lane	Low Traffic	Yes	Yes	0.31	1637	50	30	63,835	18,005	451
Independence Dr.	Low Traffic	Yes	Yes	0.61	3221	50	26	112,728	48,312	950
Jason Place	Low Traffic	Yes	Yes	0.10	528	50	26	18,480	7,920	156
Jonathan Drive	Low Traffic	Yes	Yes	0.33	1742	50	32	71,438	15,682	463
Kelsey Drive	Low Traffic	Yes	Yes	0.32	1690	50	26	59,136	25,344	498
Kent Drive	Low Traffic	Yes	Yes	0.31	1637	50	26	57,288	24,552	483
Keystone Drive	Low Traffic	Yes	Yes	0.55	2904	50	30	113,256	31,944	800
Kingston Way	Low Traffic	Yes	Yes	0.34	1795	50	26	62,832	26,928	529
Knapp Road	Medium Traffic	Yes	Yes	1.23	6494	33	24	214,315	0	952
Knollwood Drive	Low Traffic	Yes	Yes	0.27	1426	50	26	49,896	21,384	420
Lantern Lane	Low Traffic	Yes	Yes	0.15	792	50	26	27,720	11,880	234
Lawn Avenue	Low Traffic	Yes	Yes	0.47	2482	50	26	86,856	37,224	732
Lea Drive	Low Traffic	Yes	Yes	0.17	898	50	33	37,699	7,181	234
Lenape Drive	Low Traffic	Yes	Yes	0.15	792	50	26	27,720	11,880	234
Lindsey Place	Low Traffic	Yes	Yes	0.05	264	50	30	10,296	2,904	73
Line Street	Low Traffic	Yes	Yes	0.84	4435	40	24	146,362	31,046	939
Longleat Drive	Low Traffic	Yes	Yes	0.34	1795	50	30	70,013	19,747	495
Lower State Road	Medium Traffic	Yes	Yes	0.61	3221	33	18	86,962	19,325	566
Macintosh Lane	Low Traffic	Yes	Yes	0.07	370	50	32	15,154	3,326	98
Madison Court	Low Traffic	Yes	Yes	0.07	370	50	26	12,936	5,544	109
Magdalena Lane	Low Traffic	Yes	Yes	0.27	1426	50	26	49,896	21,384	420
Magella Court	Low Traffic	Yes	Yes	0.08	422	50	28	15,629	5,491	120
Magnolia Place	Low Traffic	Yes	Yes	0.08	422	50	26	14,784	6,336	125
Major Drive	Low Traffic	Yes	Yes	0.17	898	50	28	33,211	11,669	256
Mallard Drive	Low Traffic	Yes	Yes	1.46	7709	50	28	285,226	100,214	2,199
Manor Drive	Low Traffic	Yes	Yes	0.19	1003	50	28	37,118	13,042	286
Matthew Drive	Low Traffic	Yes	Yes	0.28	1478	50	26	51,744	22,176	436

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GILMORE & ASSOCIATES, INC.

TOWNSHIP ROW SEDIMENT LOADING

CLIENT:
MONTGOMERY TOWNSHIP
PROJECT NAME:
NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Street Name	Classification	Sidewalks	Curb	Length (mi)	Length (ft)	ROW	Paved	Impervious Area (ft^2)	Grass Area (ft^2)	Sediment Load (lbs)
McLaughlin Road	Low Traffic	Yes	Yes	0.15	792	33	10	15,048	11,088	170
Meadow Glen Rd.	Low Traffic	Yes	Yes	0.34	1795	50	26	62,832	26,928	529
Meadowood Dr.	Low Traffic	Yes	Yes	0.40	2112	50	26	73,920	31,680	623
Mele Avenue	Low Traffic	Yes	Yes	0.20	1056	50	26	36,960	15,840	311
Merton Circle	Low Traffic	Yes	Yes	0.08	422	50	30	16,474	4,646	116
MontClair Drive	Low Traffic	Yes	Yes	0.06	317	50	26	11,088	4,752	93
Montg. Glen Drive	Low Traffic	Yes	Yes	0.66	3485	50	32	142,877	31,363	926
Morgan St.	Low Traffic	Yes	Yes	0.04	211	50	50	12,461	-1,901	38
Morningside Drive	Low Traffic	Yes	Yes	0.40	2112	50	22	65,472	40,128	664
Narcissus Place	Low Traffic	Yes	Yes	0.06	317	50	26	11,088	4,752	93
Nevermore Circle	Low Traffic	Yes	Yes	0.05	264	50	28	9,768	3,432	75
Newport Lane	Low Traffic	Yes	Yes	0.44	2323	50	30	90,605	25,555	640
Noble Court	Low Traffic	Yes	Yes	0.06	317	50	30	12,355	3,485	87
North Wales Road	Medium Traffic	Yes	Yes	0.77	4066	43	31	161,304	15,048	856
Notingham Way	Low Traffic	Yes	Yes	0.09	475	50	28	17,582	6,178	136
Old Oak Tree Road	Low Traffic	Yes	Yes	0.09	475	50	30	18,533	5,227	131
Orchard Drive	Low Traffic	Yes	Yes	0.42	2218	50	32	90,922	19,958	589
Oval Lane	Low Traffic	Yes	Yes	0.06	317	50	30	12,355	3,485	87
Oxford Lane	Low Traffic	Yes	Yes	0.33	1742	50	30	67,954	19,166	480
Park Drive	Low Traffic	Yes	Yes	0.43	2270	60	40	111,250	24,974	726
Parliament Drive	Low Traffic	Yes	Yes	0.05	264	50	28	9,768	3,432	75
Pauline Circle	Low Traffic	Yes	Yes	0.06	317	50	26	11,088	4,752	93
Pecan Drive	Low Traffic	Yes	Yes	0.38	2006	40	16	50,160	30,096	503
Pemberton Court	Low Traffic	Yes	Yes	0.11	581	50	26	20,328	8,712	171
Pendulum Way	Low Traffic	Yes	Yes	0.07	370	50	28	13,675	4,805	105
Pine Crest Lane	Low Traffic	Yes	Yes	0.68	3590	50	26	125,664	53,856	1,059
Pintail Court	Low Traffic	Yes	Yes	0.07	370	50	28	13,675	4,805	105
Pioneer Drive	Low Traffic	Yes	Yes	0.35	1848	50	28	68,270	24,130	528
Pioneer Spur	Low Traffic	Yes	Yes	0.13	686	50	30	26,770	7,550	189
Poe Court	Low Traffic	Yes	Yes	0.22	1162	50	28	42,979	15,101	331
Potters Way	Low Traffic	Yes	Yes	0.06	317	50	28	11,722	4,118	90
Preston Drive	Low Traffic	Yes	Yes	0.30	1584	50	30	61,776	17,424	436
Progress Drive	Low Traffic	Yes	Yes	0.23	1214	50	30	47,362	13,358	335
Quail Ct.	Low Traffic	Yes	Yes	0.09	475	50	28	17,582	6,178	136
Raven Hollow Drive	Low Traffic	Yes	Yes	0.72	3802	50	28	140,659	49,421	1,084
Ravenwood Place	Low Traffic	Yes	Yes	0.10	528	50	30	20,592	5,808	145
Red Haven Drive	Low Traffic	Yes	Yes	0.46	2429	50	32	99,581	21,859	646
Regency Drive	Low Traffic	Yes	Yes	1.07	5650	50	30	220,334	62,146	1,557
Richardson Road	Low Traffic	Yes	Yes	0.96	5069	33	18	136,858	30,413	891

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GILMORE & ASSOCIATES, INC.
TOWNSHIP ROW SEDIMENT LOADING

CLIENT:
MONTGOMERY TOWNSHIP
PROJECT NAME:
NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Street Name	Classification	Sidewalks	Curb	Length (mi)	Length (ft)	ROW	Paved	Impervious Area (ft^2)	Grass Area (ft^2)	Sediment Load (lbs)
Ridgeview Road	Low Traffic	Yes	Yes	0.21	1109	50	26	38,808	16,632	327
Rose Lane	Low Traffic	Yes	Yes	0.13	686	50	26	24,024	10,296	202
Rosetwig Ln	Low Traffic	Yes	Yes	0.32	1690	50	33	70,963	13,517	441
Rosewood Drive	Low Traffic	Yes	Yes	0.38	2006	50	26	70,224	30,096	592
Ross Court	Low Traffic	Yes	Yes	0.05	264	50	30	10,296	2,904	73
Royal Court	Low Traffic	Yes	Yes	0.10	528	50	30	20,592	5,808	145
Runnymede Drive	Low Traffic	Yes	Yes	0.25	1320	50	30	51,480	14,520	364
S. Buckingham Lane	Low Traffic	Yes	Yes	0.16	845	50	28	31,258	10,982	241
Samantha Lane	Low Traffic	Yes	Yes	0.16	845	50	30	32,947	9,293	233
Sassafras Drive	Low Traffic	Yes	Yes	0.17	898	50	26	31,416	13,464	265
Savory Lane	Low Traffic	Yes	Yes	0.32	1690	50	30	65,894	18,586	466
Schriener Drive	Low Traffic	Yes	Yes	0.52	2746	50	25	93,984	43,296	820
Scott Circle	Low Traffic	Yes	Yes	0.12	634	50	26	22,176	9,504	187
Shady Lane	Low Traffic	Yes	Yes	0.48	2534	50	26	88,704	38,016	747
Shelburne Drive	Low Traffic	Yes	Yes	0.31	1637	50	26	57,288	24,552	483
Simpson Court	Low Traffic	Yes	Yes	0.05	264	50	26	9,240	3,960	78
Society Circle	Low Traffic	Yes	Yes	0.07	370	50	30	14,414	4,066	102
South Drive	Low Traffic	Yes	Yes	0.10	528	50	22	16,368	10,032	166
Sparks Circle	Low Traffic	Yes	Yes	0.08	422	50	26	14,784	6,336	125
Spring Valley Drive	Low Traffic	Yes	Yes	0.36	1901	50	24	62,726	32,314	579
Springdale Lane	Low Traffic	Yes	Yes	0.24	1267	50	30	49,421	13,939	349
Spur Rd.	Low Traffic	Yes	Yes	0.35	1848	50	28	68,376	24,024	527
Stafford Circle	Low Traffic	Yes	Yes	0.09	475	50	30	18,533	5,227	131
Stayman Drive	Low Traffic	Yes	Yes	0.32	1690	50	32	69,274	15,206	449
Steeplechase Dr.	Low Traffic	Yes	Yes	0.48	2534	50	30	98,842	27,878	698
Sterling Drive	Low Traffic	Yes	Yes	0.24	1267	50	26	44,352	19,008	374
Stevers Mill Rd.	Low Traffic	Yes	Yes	0.47	2482	50	28	91,819	32,261	708
Stone Ridge Drive	Low Traffic	Yes	Yes	0.43	2270	50	29	86,117	27,403	637
Stoney Court	Low Traffic	Yes	Yes	0.06	317	50	26	11,088	4,752	93
Stump Road	Medium Traffic	Yes	Yes	3.20	16896	33	18	456,192	101,376	2,969
Summer Ridge Dr.	Low Traffic	Yes	Yes	0.45	2376	50	26	83,160	35,640	701
Summit Place	Low Traffic	Yes	Yes	0.07	370	50	26	12,936	5,544	109
Sunrise Drive	Low Traffic	Yes	Yes	0.44	2323	50	26	81,312	34,848	685
Sunset Drive	Low Traffic	Yes	Yes	0.30	1584	50	22	49,104	30,096	498
Swallow Court	Low Traffic	Yes	Yes	0.06	317	50	28	11,722	4,118	90
Swan Court	Low Traffic	Yes	Yes	0.10	528	50	28	19,536	6,864	151
Sycamore Drive	Low Traffic	Yes	Yes	0.21	1109	40	16	27,720	16,632	278
Tanglewood Drive	Low Traffic	Yes	Yes	0.11	581	50	26	20,328	8,712	171
Tennyson Lane	Low Traffic	Yes	Yes	0.32	1690	50	30	65,894	18,586	466

G **GILMORE & ASSOCIATES, INC.**
&A **TOWNSHIP ROW SEDIMENT LOADING**

CLIENT:
MONTGOMERY TOWNSHIP
PROJECT NAME:
NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Street Name	Classification	Sidewalks	Curb	Length (mi)	Length (ft)	ROW	Paved	Impervious Area (ft^2)	Grass Area (ft^2)	Sediment Load (lbs)
Thames Drive	Low Traffic	Yes	Yes	0.40	2112	50	30	82,368	23,232	582
Thatcher Court	Low Traffic	Yes	Yes	0.05	264	50	28	9,768	3,432	75
Torey Circle	Low Traffic	Yes	Yes	0.07	370	50	30	14,414	4,066	102
Tracey Circle	Low Traffic	Yes	Yes	0.06	317	50	28	11,722	4,118	90
Tree Line Drive	Low Traffic	Yes	Yes	0.55	2904	50	26	101,640	43,560	857
Trotter Lane	Low Traffic	Yes	Yes	0.14	739	50	32	30,307	6,653	196
Tudor Drive	Low Traffic	Yes	Yes	0.91	4805	50	30	187,387	52,853	1,324
Twining Road	Low Traffic	Yes	Yes	0.68	3590	50	30	140,026	39,494	989
Usher Lane	Low Traffic	Yes	Yes	0.22	1162	50	28	42,979	15,101	331
Veronica Lane	Low Traffic	Yes	Yes	0.22	1162	50	28	42,979	15,101	331
Village Drive	Low Traffic	Yes	Yes	0.12	634	50	26	22,176	9,504	187
Vilsmeier Road	Low Traffic	Yes	Yes	0.75	3960	50	16	99,000	99,000	1,360
Virginia	Low Traffic	Yes	Yes	0.06	317	50	28	11,722	4,118	90
Walden Circle	Low Traffic	Yes	Yes	0.06	317	50	30	12,355	3,485	87
Walden Court	Low Traffic	Yes	Yes	0.07	370	50	32	15,154	3,326	98
Walden Lane	Low Traffic	Yes	Yes	0.10	528	50	30	20,592	5,808	145
Wentworth Drive	Low Traffic	Yes	Yes	0.40	2112	50	28	78,144	27,456	602
West Thomas Rd.	Low Traffic	Yes	Yes	0.47	2482	50	16	62,040	62,040	852
Westgate Drive	Low Traffic	Yes	Yes	0.37	1954	50	27	70,910	26,770	564
Westminster Drive	Low Traffic	Yes	Yes	0.54	2851	50	28	105,494	37,066	813
Weston Court	Low Traffic	Yes	Yes	0.08	422	50	30	16,474	4,646	116
Weymouth Circle	Low Traffic	Yes	Yes	0.06	317	50	30	12,355	3,485	87
White Pines Drive	Low Traffic	Yes	Yes	0.26	1373	50	26	48,048	20,592	405
Willowood Court	Low Traffic	Yes	Yes	0.05	264	50	26	9,240	3,960	78
Winter Drive	Low Traffic	Yes	Yes	0.28	1478	50	26	51,744	22,176	436
Witchwood Drive	Low Traffic	Yes	Yes	0.28	1478	50	40	72,442	1,478	336
Woodland Dr.	Low Traffic	Yes	Yes	0.52	2746	50	26	96,096	41,184	810
Woodlea Terrace	Low Traffic	Yes	Yes	0.07	370	50	32	15,154	3,326	98
Wordsworth Lane	Low Traffic	Yes	Yes	0.07	370	50	30	14,414	4,066	102
Wren Court	Low Traffic	Yes	Yes	0.05	264	50	28	9,768	3,432	75
Wrights Circle	Low Traffic	Yes	Yes	0.06	317	50	28	11,722	4,118	90
						TOTAL		13,941,998	4,745,770	106,056
Neshaminy West Branch	25%							3,485,500	1,186,442	26,514
Little Neshaminy	60%							8,365,199	2,847,462	63,634
Wissahickon	15%							2,091,300	711,865	15,908

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GILMORE & ASSOCIATES, INC.

SEDIMENT LOADING SUMMARY

CLIENT:
MONTGOMERY TOWNSHIP
PROJECT NAME:
NPDES MS4 PERMIT RENEWAL
PROJECT NUMBER:
11-12055

Sediment Loading Summary

	Area (Ac.)	Sediment Generated (lbs per year)	Required Reduction (%)**	Pounds To Be Removed Each Year	Waste Load Allocation
Neshaminy West Branch Sub-Basin 2					
Municipal Properties	82	13,411	56%	7,510	5,901
Roads	107	26,514		14,848	11,666
Subtotal	189	39,925		22,358	17,567
Little Neshaminy					
Municipal Properties	581	110,554	17%	18,905	91,649
Roads	257	63,634		10,881	52,752
Subtotal	839	174,188		29,786	144,402
Wissahickon					
Municipal Properties	52	5,246	31%	1,626	3,620
Roads	64	15,908		4,932	10,977
Subtotal	117	21,154		6,558	14,597
TOTAL	**1,145**	**235,267**		**58,702**	**176,565**

** Required reduction percentage taken from Neshaminy and Wissahickon Creeks WLAs which includes both overland and streambank loading