pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PAI130516**
Facility Type	**MS4**	APS ID	**951740**
Permit Type	**Individual**	Authorization ID	**1200957**

NPDES PERMIT FACT SHEET
MS4s

Applicant and Facility Information

Applicant Name	**New Garden Township**	Facility Name	**New Garden Township MS4**
Applicant Address	299 Starr Road	Facility Address	299 Starr Road
	Landenberg, PA 19350-9208		Landenberg, PA 19350-9208
Applicant Contact	Ramsey Reiner	Facility Contact	Ramsey Reiner
Applicant Phone	(610) 268-2915	Facility Phone	(610) 268-2915
Client ID	75713	Site ID	613616
SIC Code	9199	Municipality	New Garden Township
SIC Description	Public Admin. - General Government	County	Chester
Date Application Received	September 15, 2017		
Date Application Accepted			

Purpose of Application: Application for a renewal of MS4 NPDES permit

Internal Review and Recommendations

This applicant has submitted a renewal MS4 Individual Permit Application Package containing TMDL Plan for the coverage under the permit cycle 2018-2023. The previous permit was issued on 2/19/2004.

The township enacted a SWM Ordinance on April 3, 2006.

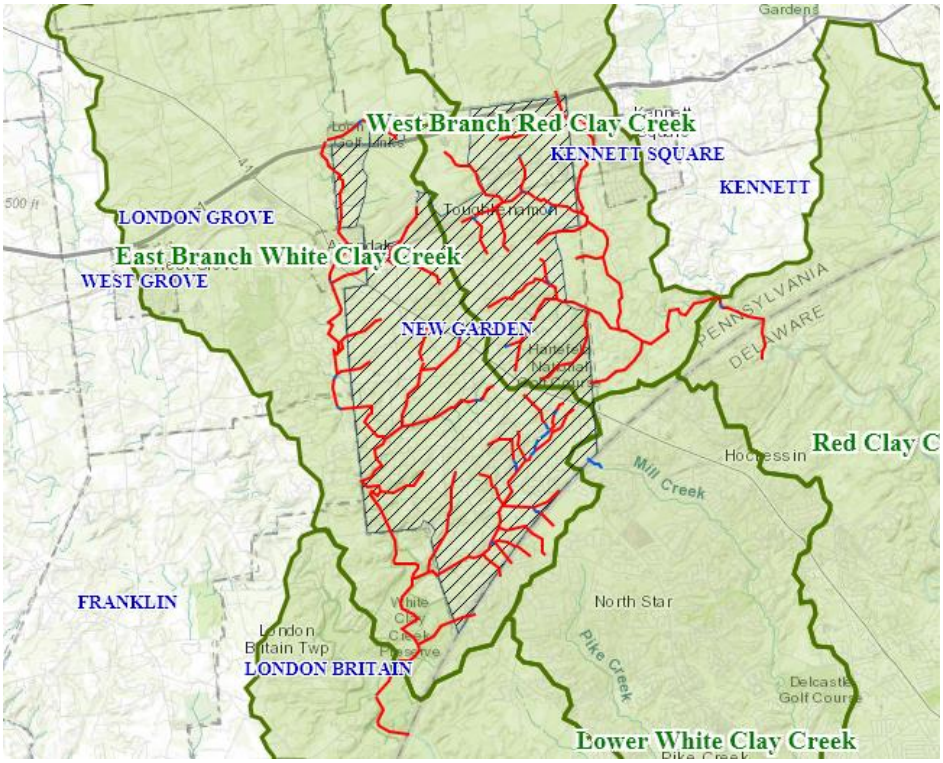
The applicant has indicated in the application that it will rely on Pennsylvania's Chapter 102 program for E & S controls and post-construction SWM requirements.

The review of TMDL Plan is detailed in TMDL Plan Review Check List, parts of which are included below:

The DEP's GIS shows New Garden's UA in the map:

Approve	Deny	Signatures	Date
X		Harris Mahmud / Environmental Engineering Specialist	1/26/2021
X		Elizabeth Mahoney / Environmental Group Manager	1/27/2021

Internal Review and Recommendations



The MS4 Requirements Table shows the New Garden's MS4 requirements:

MS4 Urban Area Report
NEW GARDEN TWP, Chester County

INDIVIDUAL PERMIT REQUIRED: Yes	**REASON:** TMDL Plan, SP, IP	**NPDES ID:** PAI130516

IMPAIRED DOWNSTREAM WATERS	REQUIREMENTS	OTHER CAUSES OF IMPAIRMENT
Red Clay Creek	Appendix C-PCB (4a)	
Trout Run	Appendix C-Pesticides (4a)	
West Branch Red Clay Creek	Appendix C-PCB (4a)	
Christina River Basin Sediment	TMDL Plan-Siltation Suspended Solids (4a)	
Egypt Run	Appendix B-Pathogens (5)	
Walnut Run	Appendix B-Pathogens (5)	Water/Flow Variability (4c)
Bucktoe Creek	Appendix C-PCB (4a)	
East Branch White Clay Creek	Appendix B-Pathogens (5)	
White Clay Creek	Appendix B-Pathogens (5)	
Broad Run	Appendix B-Pathogens (5)	Water/Flow Variability (4c)
Unnamed Tributaries to East Branch White Clay Creek		Other Habitat Alterations (4c)
Christina River Basin Nutrients	TMDL Plan-Nutrients Organic Enrichment/Low D.O. (4a)	

The MS4 must comply with Appendices B and C of the permit during the permit term of five years.
The Christina River Basin TMDL includes this MS4 in Red Clay Creek Watershed and White Clay Creek Watershed, for which the township submitted a TMDL Plan to comply with the reductions.

Internal Review and Recommendations

It is clear from the table below that the HUC 12s can be combined to address the pollutant reduction requirements in this TMDL Plan.

HUC 12 NAMES	IMPAIRED DOWNSTREAM WATERS	REQUIREMENTS
East Branch White Clay Creek Upper White Clay Creek	Broad Run East Branch White Clay Creek Egypt Run Walnut Run White Clay Creek	Appendix B-Pathogens
East Branch White Clay Creek Red Clay Creek West Branch Red Clay Creek	Bucktoe Creek Red Clay Creek Trout Run West Branch Red Clay Creek	Appendix C-PCB Pesticides
East Branch White Clay Creek Lower White Clay Creek Red Clay Creek Upper White Clay Creek West Branch Red Clay Creek	Christina River Basin Nutrients Christina River Basin Sediment	TMDL Plan-Nutrients Organic Enrichment/Low D.O. Siltation Suspended Solids

EPA's Christina River Basin TMDL Report from

Table 4-9. Average annual sediment allocations for towns in Red Clay Creek Watershed

Township	Baseline (ton/yr)	TMDL (ton/yr)	Percent Reduction
EAST MARLBOROUGH TWP	8791.41	4193.24	52.30%
KENNETT SQUARE BORO	840.10	405.41	51.74%
KENNETT TWP	6751.63	3312.06	50.94%
NEW GARDEN TWP	4709.65	2118.72	55.01%

Table 4-10. Average annual sediment allocations for towns in White Clay Creek Watershed

Township	Baseline (ton/yr)	TMDL (ton/yr)	Percent Reduction
AVONDALE BORO	463.65	140.02	69.80%
FRANKLIN TWP	4220.43	2305.87	45.36%
LONDON BRITAIN TWP	2634.66	1620.44	38.50%
LONDON GROVE TWP	13616.33	4842.81	64.43%
NEW GARDEN TWP	6746.50	2986.66	55.73%
NEW LONDON TWP	1913.97	1008.60	47.30%
PENN TWP	3584.76	1410.29	60.66%
WEST GROVE BORO	562.29	192.63	65.74%

From 1995:

Internal Review and Recommendations

Red Clay Creek Watershed	Sediment (tons/year)				Total Nitrogen (kg/day)				Total Phosphorus (kg/day)			
	Baseline MS4 Load[1c.]	MS4 Load Allocation[1c.]	MS4 Load Reduction [1e.]	% Reduction[1c.]	Baseline MS4 Load [2h.]	MS4 Allocation[2b.]	MS4 Load Reduction[2m.]	% Reduction [2m.]	Baseline MS4 Load [2k.]	MS4 Allocation[2a.]	MS4 Load Reduction[2m.]	% Reduction [2m.]
EAST MARLBOROUGH TWP	8791.41	4,193.24	4598.17	52.30%	137.13	68.56	68.57	50.00%	2.742	1.372	1.37	49.96%
KENNETT SQUARE BORO	840.10	405.41	434.69	51.74%	13.26	6.63	6.63	50.00%	0.452	0.151	0.301	66.59%
KENNETT TWP	6751.63	3,312.06	3439.57	50.94%	157.97	97.83	60.14	38.07%	21.517	3.731	17.786	82.66%
NEW GARDEN TWP	4709.65	2,118.72	2590.93	55.01%	77.03	38.52	38.51	49.99%	27.708	2.87	24.838	89.64%
PENNSBURY TWP					4.32	4.32	0.00	0.00%	0.082	0.082	0.00	0.00%

White Clay Creek Watershed	Sediment (tons/year)				Total Nitrogen (kg/day)				Total Phosphorus (kg/day)			
	Baseline MS4 Load[1d.]	MS4 Load Allocation[1d.]	MS4 Load Reduction [1e.]	% Reduction[1d.]	Baseline MS4 Load [2l.]	MS4 Allocation[2c.]	MS4 Load Reduction[2m.]	% Reduction [2m.]	Baseline MS4 Load [2l.]	MS4 Allocation[2f.]	MS4 Load Reduction[2m.]	% Reduction [2m.]
AVONDALE BORO	463.65	140.02	323.63	69.80%	9.16	4.58	4.58	50.00%	0.322	0.135	0.187	58.07%
FRANKLIN TWP	4220.43	2,305.87	1914.56	45.36%	122.01	61.01	61	50.00%	15.219	5.557	9.662	63.49%
KENNETT TWP					2.17	2.17	0.00	0.00%	0.055	0.055	0	0.00%
LONDON BRITAIN TWP	2634.66	1,620.44	1014.22	38.50%	96.47	49.9	46.57	48.27%	15.732	7.333	8.399	53.39%
LONDON GROVE TWP	13616.33	4,842.81	8773.52	64.43%	262.76	128.47	134.29	51.11%	25.875	7.965	17.91	69.22%
NEW GARDEN TWP	6746.50	2,986.66	3759.84	55.73%	167.06	83.83	83.23	49.82%	41.916	13.374	28.542	68.09%
NEW LONDON TWP	1913.97	1,008.60	905.37	47.30%	53.56	26.61	26.95	50.32%	0.65	0.292	0.358	55.08%
PENN TWP	3584.76	1,410.29	2174.47	60.66%	71.23	33.36	37.87	53.17%	0.798	0.359	0.439	55.01%
WEST GROVE BORO	562.29	192.63	369.66	65.74%	9.24	4.36	4.88	52.81%	0.112	0.05	0.062	55.36%

From 2012:

Red Clay Creek Watershed	Sediment (tons/year)				Total Nitrogen (kg/day)				Total Phosphorus (kg/day)			
	Baseline MS4 Load[1c.]	MS4 Load Allocation[1c.]	MS4 Load Reduction [1e.]	% Reduction[1c.]	Baseline MS4 Load [2h.]	MS4 Allocation[2b.]	MS4 Load Reduction[2m.]	% Reduction [2m.]	Baseline MS4 Load [2k.]	MS4 Allocation[2a.]	MS4 Load Reduction[2m.]	% Reduction [2m.]
EAST MARLBOROUGH TWP	8791.41	4,193.24	4598.17	52.30%	137.13	68.56	68.57	50.00%	2.742	1.372	1.37	49.96%
KENNETT SQUARE BORO	840.10	405.41	434.69	51.74%	13.26	6.63	6.63	50.00%	0.452	0.151	0.301	66.59%
KENNETT TWP	6751.63	3,312.06	3439.57	50.94%	157.97	97.83	60.14	38.07%	21.517	3.731	17.786	82.66%
NEW GARDEN TWP	4709.65	2,118.72	2590.93	55.01%	77.03	38.52	38.51	49.99%	27.708	2.87	24.838	89.64%
PENNSBURY TWP					4.32	4.32	0.00	0.00%	0.082	0.082	0.00	0.00%

White Clay Creek Watershed	Sediment (tons/year)				Total Nitrogen (kg/day)				Total Phosphorus (kg/day)			
	Baseline MS4 Load[1d.]	MS4 Load Allocation[1d.]	MS4 Load Reduction [1e.]	% Reduction[1d.]	Baseline MS4 Load [2l.]	MS4 Allocation[2c.]	MS4 Load Reduction[2m.]	% Reduction [2m.]	Baseline MS4 Load [2l.]	MS4 Allocation[2f.]	MS4 Load Reduction[2m.]	% Reduction [2m.]
AVONDALE BORO	463.65	140.02	323.63	69.80%	9.16	4.58	4.58	50.00%	0.322	0.135	0.187	58.07%
FRANKLIN TWP	4220.43	2,305.87	1914.56	45.36%	122.01	61.01	61	50.00%	15.219	5.557	9.662	63.49%
KENNETT TWP					2.17	2.17	0.00	0.00%	0.055	0.055	0	0.00%
LONDON BRITAIN TWP	2634.66	1,620.44	1014.22	38.50%	96.47	49.9	46.57	48.27%	15.732	7.333	8.399	53.39%
LONDON GROVE TWP	13616.33	4,842.81	8773.52	64.43%	262.76	128.47	134.29	51.11%	25.875	7.965	17.91	69.22%
NEW GARDEN TWP	6746.50	2,986.66	3759.84	55.73%	167.06	83.83	83.23	49.82%	41.916	13.374	28.542	68.09%
NEW LONDON TWP	1913.97	1,008.60	905.37	47.30%	53.56	26.61	26.95	50.32%	0.65	0.292	0.358	55.08%
PENN TWP	3584.76	1,410.29	2174.47	60.66%	71.23	33.36	37.87	53.17%	0.798	0.359	0.439	55.01%
WEST GROVE BORO	562.29	192.63	369.66	65.74%	9.24	4.36	4.88	52.81%	0.112	0.05	0.062	55.36%

The TMDL loads are shown in the tables below:

Average Annual Sediment Allocations						
Watershed	**Township**	**Baseline(ton/yr)**	**Baseline (lbs/year)**	**TMDL (ton/year)**	**TMDL(lb/year)**	**Percent Reduction**
Red Clay Creek Watershed	New Garden	4,709.65	9,419,300.00	2,118.72	4,237,440.00	55.01%
White Clay Creek Watershed	New Garden	6,746.50	13,493,000.00	2,986.66	5,973,320.00	55.73%
			22,912,300.00		10,210,760.00	

Average Annual Nitrogen Allocations						
Watershed	**Township**	**Baseline(kg/day)**	**Baseline (lbs/day)**	**Pennsylvania Allocation(kg/day**	**Pennslyvania Allocation (lbs/day)**	**Percent Reduction**
Red Clay Creek Watershed	New Garden	466.70	1,028.90	320.40	706.36	31.30%
White Clay Creek Watershed	New Garden	956.20	2,108.06	685.00	1,510.16	28.40%
			3,136.95		2,216.52	

Average Annual Phosphorus Allocations						
Watershed	**Township**	**Baseline(kg/day)**	**Baseline (lbs/day)**	**Pennsylvania Allocation**	**TMDL(lb/year)**	**Percent Reduction**
Red Clay Creek Watershed	New Garden	62.80	138.45	17.20	37.92	72.60%
White Clay Creek Watershed	New Garden	110.60	243.83	65.90	145.28	40.40%
			382.28		183.20	

The township used the 2013-2014 Chesapeake Bay Conservancy Land Use dataset to calculate its existing load.

The plan includes the calculations of existing loads of sediment, nitrogen and phosphorous as follows:

Internal Review and Recommendations

Base Pollutant Loading No Existing BMPs Summary:

New Garden Township Urbanized Area			Chester County Loading Rates			Pollutants of Concern lbs/year		
Total Area (ac)	**9,049.70**	**Acres**	**TSS**	**TP**	**TN**	**TSS**	**TP**	**TN**
% Pervious	0.86	7,802.08	185.12	0.36	14.09	1,444,320.20	2,808.75	109,931.24
% Impervious	0.14	1,247.63	1504.78	1.46	21.15	1,877,405.52	1,821.54	26,387.33
						3,321,725.72	**4,630.28**	**136,318.57**
						0.10	**0.05**	**0.03**
						332,172.57	**231.51**	**4,089.56**

It is pursuing short-term objective of reduction of its existing loads by 10% in the permit term. The following are proposed BMPs planned to be implemented in this permit cycle.

New Garden Township
Proposed BMP Structures

				Required Reduction		
				332,172.57	*231.51*	*4,089.56*
BMP ID	**Watershed**	**BMP Type**	**Status**	**TSS (lbs/yr)**	**TP (lbs/yr)**	**TN (lbs/yr)**
COF001-BS1	Red Clay Creek	Bioswale	Proposed	52,902.20	51.39	845.00
COF002-BS1	White Clay Creek	Bioswale	Proposed	57,483.18	62.39	1,307.47
COF002-BS2	White Clay Creek	Bioswale	Proposed	28,013.21	30.25	628.06
COF003-BS1	White Clay Creek	Bioswale	Proposed	19,439.08	21.05	439.08
OF080-BS1	White Clay Creek	Bioswale	Proposed	16,630.60	22.19	624.35
OF092-BS1	White Clay Creek	Bioswale	Proposed	6,915.84	9.24	260.15
OF099-BS1	White Clay Creek	Bioswale	Proposed	12,598.72	14.64	343.98
OF040-BS1	Red Clay Creek	Bioswale	Proposed	23,396.95	27.07	631.55
OF058-BS1	White Clay Creek	Bioswale	Proposed	8,558.75	11.23	310.08
OF059-BS1	White Clay Creek	Bioswale	Proposed	28,954.86	36.92	985.22
OF110-BS1	White Clay Creek	Bioswale	Proposed	29,555.16	32.59	702.61
BS6	White Clay Creek	Bioswale	Proposed	8,150.91	9.99	253.54
OF053-BS1	White Clay Creek	Bioswale	Proposed	11,019.07	13.63	349.63
OF060-BS1	White Clay Creek	Bioswale	Proposed	5,704.64	6.30	136.38
OF025-BS1	White Clay Creek	Bioswale	Proposed	3,413.42	3.71	78.12
OF014-BS1	Red Clay Creek	Bioswale	Proposed	10,234.43	14.01	405.50
OF015-BS1	Red Clay Creek	Bioswale	Proposed	9,824.53	12.82	351.86
				332,795.55	***379.42***	***8,652.59***
				Reduction Met With Proposed BMPs		

The township plans to meet the TMDL requirements as a long-term objective in multiple permit terms.

Funding

The township stated in the TMDL Plan that it would use its General Fund to implement the proposed BMPs.

Operation & Maintenance (O & M)

New Garden Township will own and operate any proposed BMPs for stormwater management and treatment. O&M requirements for future BMP's that may be required will be established at that time.

Public Participation

The TMDL/ PRP public notice was published in local newspaper on November 11, 2020. The plan was made available for public review in the township building and in its website from November 11 to December 11. A comment period was provided from November 11 to December 11. A public meeting was held on November 16, which included this TMDL Plan in the agenda. The township received no comment from the public on TMDL Plan.

Public Participation

Internal Review and Recommendations
DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.