

Fairfax County 2023 MS4 Program Plan and Annual Report

Appendix R16

Chesapeake Bay TMDL Action Plan Implementation
Updates

VSMP Permit Number VA0088587
9-29-2023

Summary Table showing Cumulative Progress Towards Action Plan Pollutant Reductions

Item	Reductions Proposed from Approved Action Plan			Reductions Completed from Approved Action Plan (All Proposed Action Plan Reductions Met or Exceeded)				Reductions Achieved in Addition to Approved Action Plan				Total Reductions Achieved to Date		
	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)	Completion Reported	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)	Completion Reported	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)
Structural Retrofits for TMDL Compliance	5,731.78	552.73	681,896.28	Action Plan	5,395.89	515.50	651,880.01					8,460.44	812.17	895,282.98
				2017 Annual Report	383.75	38.86	30,496.14	2017 Annual Report	93.95	8.31	5,924.34			
								2018 Annual Report	164.33	15.02	14,429.71			
								FCPS Projects	204.91	18.61	13,510.41			
								2019 Annual Report	199.49	19.86	17,164.22			
								2020 Annual Report	464.49	48.36	39,095.44			
								2021 Annual Report	236.93	16.80	19,412.38			
								2022 Annual Report	276.81	28.90	23,127.32			
								2023 Annual Report	1,039.89	101.95	80,243.01			
				Total	5,779.64	554.36	682,376.15	Total	2,680.80	257.81	212,906.83			
Stream Restoration for TMDL Compliance	18,198.75	5,919.67	1,802,250.84	Action Plan	10,725.21	2,779.45	970,979.98					45,401.80	14,858.15	4,497,034.62
				2017 Annual Report	4,483.83	1,759.38	371,273.81	2017 Annual Report	344.72	129.60	44,621.53			
				2018 Annual Report	3,290.22	1,323.80	423,924.82	2018 Annual Report	3,667.99	590.82	169,126.93			
				2019 Annual Report	62.14	58.77	38,289.73	2019 Annual Report	6,183.98	1,950.09	662,555.52			
								2020 Annual Report	6,907.21	2,423.59	739,653.63			
								2021 Annual Report	2,094.29	1,089.51	277,964.50			
								2022 Annual Report	4,560.57	1,592.37	547,755.34			
								2023 Annual Report	3,081.64	1,160.77	250,888.83			
				Total	18,561.40	5,921.40	1,804,468.34	Total	26,840.40	8,936.75	2,692,566.28			
All Structural Facilities 2006-2009	5,705.48	670.27	577,628.02	Action Plan	5,705.48	670.27	577,628.02					5,705.48	670.27	577,628.02
Redevelopment	0.00	0.00	0.00	Action Plan	0.00	0.00	0.00	2019 Annual Report	83.79	11.35	6,034.03	368.18	54.24	31,516.35
								2020 Annual Report	93.51	13.26	7,717.41			
								2021 Annual Report	51.47	6.64	4,126.09			
								2022 Annual Report	26.04	3.61	2,336.32			
								2023 Annual Report	113.37	19.38	11,302.50			
								Total	368.18	54.24	31,516.35			
More Stringent Single Family Residential Standards	135.32	22.09	11,977.54	Action Plan	135.32	22.09	11,977.54	2017 Annual Report	106.35	16.16	8,132.78	1,635.14	151.87	40,696.00
								2018 Annual Report	2.24	0.35	156.00			
								2019 Annual Report	436.90	41.32	788.19			
								2020 Annual Report	298.32	24.03	6,177.25			
								2021 Annual Report	320.30	24.56	7,637.67			
								2022 Annual Report	223.51	14.71	0.00			
								2023 Annual Report ^c	112.20	8.65	5,826.57			
								Total	1,499.82	129.78	28,718.46			
In-Lake Forebay Retrofits	6,615.89	391.88	156,038.24	Action Plan	4,289.43	254.50	99,156.00					7,302.02	435.17	174,801.22
				2018 Annual Report	2,326.46	137.38	56,882.24	2022 Annual Report	686.13	43.29	18,762.98			
				Total	6,615.89	391.88	156,038.24	Total	686.13	43.29	18,762.98			

Item	Reductions Proposed from Approved Action Plan			Reductions Completed from Approved Action Plan (All Proposed Action Plan Reductions Met or Exceeded)				Reductions Achieved in Addition to Approved Action Plan				Total Reductions Achieved to Date		
	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)	Completion Reported	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)	Completion Reported	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)
Septic Conversions	1,806.85	0	0.00	Action Plan	1,806.85	0.00	0.00	2017 Annual Report	201.60	0.00	0.00	2,248.78	0.00	0.00
								2018 Annual Report	29.00	0.00	0.00			
								2019 Annual Report	60.48	0.00	0.00			
								2020 Annual Report	50.40	0.00	0.00			
								2021 Annual Report	22.05	0.00	0.00			
								2022 Annual Report	49.00	0.00	0.00			
								2023 Annual Report	29.40	0.00	0.00			
								Total	441.93	0.00	0.00			
Off-Site Pollutant Reduction Credits	0.00	0.00	0.00	Action Plan	0.00	0.00	0.00	2023 Annual Report - Wastewater Credit Transfer ^b	7,264.00	1,401.00	0.00	7,264.00	1,401.00	0.00
Nutrient Management Plans ^a	89.58	1.82	0.00	Action Plan	89.58	1.82	0.00				89.58	1.82	0.00	
Land Use Change	60.30	3.17	1,746.57	Action Plan	60.30	3.17	1,746.57	2017 Annual Report	13.65	0.48	167.53	203.24	12.38	5,824.90
								2018 Annual Report	10.37	0.79	495.09			
								2019 Annual Report	No land use change reported					
								2020 Annual Report	117.84	7.71	3,236.65			
								2021 Annual Report	1.08	0.23	179.06			
								2022 Annual Report	No land use change reported					
								2023 Annual Report	No land use change reported					
								Total	142.94	9.21	4,078.33			
Additional Means and Measures	0.00	0.00	0.00	Action Plan	0.00	0.00	0.00				0.00	0.00	0.00	
Total Means and Methods	38,343.95	7,561.63	3,231,537.49		38,754.46	7,564.99	3,234,234.86		39,924.20	10,832.08	2,988,549.23	78,678.66	18,397.07	6,222,784.09
Total Adjusted Required Reductions and Offsets for Current Permit Cycle (April 1, 2015 - March 31, 2020)											2,700.77	100.69	153,757.97	
Reductions Applied to Next Permit Cycle (Pending)											75,977.89	18,296.38	6,069,026.12	

^a NMP credit based on Phase I TMDL Action Plan - Phase II Action Plan will incorporate updates to this evaluation

^b Annual Water Quality Credit Transfer for Calendar Year 2022 from the Upper Occoquan Service Authority - see attached credit transfer

^c Includes structural single family credits from July 2021-June 2022 (previously unreported). Credit purchases and single family structural practices in FY23 are being reviewed and will be reported in next annual report.

Summary of Required Reductions (based on Action Plan Table 1.B) - using MS4 area at time of Phase I TMDL Action Plan, Phase II Action Plan includes updated MS4 area

Item	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)
Total Required Reductions and Offsets (from Approved Action Plan)	2,607.69	101.71	152,772.37
+ Required Grandfathered Offsets for Projects Initiating Construction July 1, 2016 - June 30, 2017 (Calculations documented in 2017 annual report)	-20.28	-7.46	-2,666.66
+ Required Grandfathered Offsets for Projects Initiating Construction July 1, 2017 - June 30, 2018 (Calculations documented in 2018 annual report)	29.40	-1.03	-223.12
+ Required Grandfathered Offsets for Projects Initiating Construction July 1, 2018 - June 30, 2019	83.96	7.47	3,875.38
= Total Adjusted Required Reductions and Offsets for Current Permit Cycle	2,700.77	100.69	153,757.97

Structural Retrofits for TMDL Compliance July 1, 2022 - June 30, 2023

Updated: 9/21/2023

Structural Retrofits

Projects in Addition to Those Reported in the Chesapeake Bay TMDL Action Plan Completed July 1, 2022 to June 30, 2023 (or previously unreported)

Project Name	Substantial Completion	Long.	Lat.	Type of Project or BMP	Treated (Ac)	Impervious Treated (Ac)	Pervious Treated (Ac)	Estimated Cost (\$)	Estimated Amount of Total			Pollutant Reduction Calculation Method	% Treated Area Outside Regulated	Baseline Reduction Provided for			Total Credit Received (lb/yr)		
									TN	TP	TSS			TN	TP	TSS	TN	TP	TSS
Construction Complete																			
Gunston Corner @ Laurel Hill	1/6/2023	-77.231080	38.710770	Constructed Wetland	23.30	17.28	6.02	\$1,072,500	123.08	16.74	14,895.74	CBP Retrofits Expert Panel, ST curve, for 1.0 inches of runoff	99%	21.29	2.52	2,098.44	101.79	14.22	12,797.30
Centre Ridge Bason Retrofit	1/20/2023	-77.445937	38.821486	Constructed Wetland	52.37	21.42	30.95	\$1,672,941	262.99	29.14	23,885.04	CBT Retrofits Expert Panel, ST curve, for 2.0 inches of runoff	8%	5.31	0.87	783.07	257.68	28.27	23,101.98
Peyton Run @ Longwood Knolls	6/27/2022	-77.275278	38.762889	Constructed Wetland	133.82	41.75	92.07	\$1,444,166	375.18	38.10	29,948.94	CBP Retrofits Expert Panel, ST curve, for 0.4 inches of runoff	49%	57.80	6.95	5,825.24	317.38	31.15	24,123.70
Nutley Pond @ Virginia Center	11/14/2022	-77.268687	38.879940	Dredging to restore pond volume	749.00	253.20	495.80	\$108,100	963.04	100.23	79,793.83	CBP Retrofits Expert Panel, ST curve, for 0.3 inches of runoff	87%	603.67	73.67	61,975.92	359.37	26.56	17,817.91
Mt Vernon Government Center	11/11/2022	-77.077567	38.742020	Bioretention	1.73	1.04	0.69	\$408,956	6.12	0.89	736.71	CBP, Bioretention	0%	-	-	-	6.12	0.89	736.71
Mt Vernon Government Center	11/11/2022	-77.077697	38.742013	MTD	0.36	0.36	-	\$106,915	1.59	0.29	220.40	CBP Retrofits, 0.5" runoff credit	0%	-	-	-	1.59	0.29	220.40
Mt Vernon Government Center	11/11/2022	-77.078051	38.741954	Grass Channel	2.80	1.87	0.93	\$208,401	4.09	0.34	1,176.93	CBP, Grass Channel	0%	-	-	-	4.09	0.34	1,176.93
Mt Vernon Government Center	11/11/2022	-77.078193	38.741413	Bioretention	1.65	1.32	0.33	\$168,862	6.39	1.02	882.29	CBP, Bioretention	0%	-	-	-	6.39	1.02	882.29
Mt Vernon Government Center	11/11/2022	-77.076445	38.742194	MTD	0.66	0.35	0.31	\$111,073	2.36	0.35	242.76	CBP Retrofits, 0.5" runoff credit	0%	-	-	-	2.36	0.35	242.76
Mt Vernon Government Center	11/11/2022	-77.074400	38.743300	Bioretention	1.47	0.94	0.53	\$181,012	5.30	0.78	656.82	CBP Retrofits, 0.5" runoff credit	0%	-	-	-	5.30	0.78	656.82
Crosspointe Pond Improvements	2/1/2023	-77.251923	38.731306	Forebay / Micropools	104.14	32.80	71.34	\$100,000	106.58	10.86	8,549.19	CBP Retrofits, ST curve, 0.1" runoff	39%	42.00	4.28	3,368.80	64.58	6.58	5,180.39
Subtotal:					1,071.30	372.33	698.97	\$5,582,926	1,856.71	198.74	160,988.64			730.07	88.28	74,051.47	1,126.64	110.46	86,937.17
														Fairfax Credit	92.3%	1,039.89	101.95	80,243.01	
														Herndon Credit	4.2%	47.32	4.64	3,651.36	
														Vienna Credit	3.5%	39.43	3.87	3,042.80	

Control Measures Expected to be Implemented During the Next Reporting Period (July 1, 2023 - June 30, 2024):

As reported in the 2017 Annual Report, Fairfax County has completed the control measures in the approved TMDL Action Plan which were over and above the 5% reduction requirement. The County will continue to report additional implemented projects annually. Projects currently in construction include: Hollin Meadows cisterns; Springfield Parking Garage and Sully Community Center manufactured treatment devices; and Ashburton Manors constructed wetlands.

Stream Restoration July 1, 2022 - June 30, 2023

Updated: 9/21/2023

Stream Restoration

Projects in Addition to Those Reported in the Chesapeake Bay TMDL Action Plan Completed July 1, 2022 to June 30, 2023 (or previously unreported)

Project Name	Substantial Completion	Longitude	Latitude	Type of Project or BMP	Acres Treated (Ac)	Impervious Acres Treated (Ac)	Pervious Acres Treated (Ac)	Estimated Cost (\$)	Restored Length (LF)	Estimated Amount of Total Pollutant Reduction (lbs/yr)			Pollutant Reduction Calculation Method	% Treated Area Outside Regulated Area	Baseline Reduction Provided for Unregulated Areas (lb/yr)			Total Credit Received (lb/yr)		
										TN	TP	TSS			TN	TP	TSS	TN	TP	TSS
Construction Complete																				
Cameron Run Tributary @ La Vista Drive	9/9/2022	-77.12145	38.796402	Urban Stream Restoration	121.75	35.70	86.1	\$906,253	907	314	69	8,584	CBP Urban Stream Restoration Expert Panel: Protocol 1 -BANCS Sediment Load Estimate: 131.86 tons/yr, Sediment Delivery Ratio: 0.0651, Protocol 2 - Restored Length 907 lf, Average Stream Bank Width: 10.7 ft	24.9%	17.23	4.26	2,136.41	297.1	65.0	6,447.7
Paul Springs Branch Seg 1 @ Hollin Hills	6/29/2022	-77.0631	38.7601	Urban Stream Restoration	34.24	7.90	26.3	\$1,195,045	886	253	117	14,459	CBP Urban Stream Restoration Expert Panel: Protocol 1 -BANCS Sediment Load Estimate: 222.11 tons/yr, Sediment Delivery Ratio: 0.0651	65.7%	18.50	1.98	1,607.85	234.7	114.6	12,851.5
Paul Springs Branch Seg 2 @ Hollin Hills	6/29/2022	-77.0655	38.7605	Urban Stream Restoration	22.58	5.47	17.1	\$1,195,045	908	573	264	32,708	CBP Urban Stream Restoration Expert Panel: Protocol 1 -BANCS Sediment Load Estimate: 502.43 tons/yr, Sediment Delivery Ratio: 0.0651	100.0%	12.68	1.13	864.22	560.1	262.6	31,844.0
Peyton Run @ Longwood Knolls	6/27/2022	-77.2752778	38.76288889	Urban Stream Restoration	51.17	13.46	37.7	\$3,497,169	2,841	622	246	84,927	CBP Urban Stream Restoration Expert Panel: Protocol 1 -BANCS Sediment Load Estimate: 469.21 tons/yr, Sediment Delivery Ratio: 0.181, Protocol 2 - Restored Length 1992 lf, Average Stream Bank Width: 15 ft	49.3%	57.80	6.95	5,825.24	564.4	239.4	79,101.8
Piney Run @ Lake Wereowance	1/23/2023	-77.2864	38.983	Urban Stream Restoration	2,601.60	520.32	2,081.3	\$4,212,584	3,267	1,765	578	199,420	CBP Urban Stream Restoration Expert Panel: Protocol 1 -BANCS Sediment Load Estimate: 708.53 tons/yr, Sediment Delivery Ratio: 0.181, Protocol 2 - Restored Length 3267 lf, Average Stream Bank Width: 8.8 ft	63.3%	366.16	126.93	99,810.35	1,399.0	451.5	99,610.0
Rolling Creek Way	2/21/2023	-77.17531	38.74366	Regenerative Storm Conveyance	90.50	32.00	58.5	\$1,125,893	1,193	145	67	23,062	CBP Urban Stream Restoration Expert Panel: Protocol 1 -Existing Length: 1193 LF, Average Stream Bank Height: 4 ft, Sediment Delivery Ratio: 0.181	24.2%	19.75	2.41	2,025.75	125.5	64.5	21,035.9
Woodland Stream Drive	1/10/2023	-77.15104	38.78498	Regenerative Storm Conveyance	95.39	5.90	89.5	\$655,982	524	72	33	11,396	CBP Urban Stream Restoration Expert Panel: Protocol 1 -Existing Length: 524 LF, Average Stream Bank Height: 4.5 ft, Sediment Delivery Ratio: 0.181	18.9%	13.56	3.66	2,152.34	58.2	29.4	9,243.2
Crosspointe Pond Outfall	2/1/2023	-77.251917	38.731313	Regenerative Storm Conveyance	104.14	32.80	71.3	\$100,000	147	10	4	1,542	CBP Urban Stream Restoration Expert Panel: Protocol 1 -Existing Length: 147 LF, Average Stream Bank Height: 2.17 ft, Sediment Delivery Ratio: 0.181	0.0%	-	-	-	9.7	4.5	1,541.6
Terra Grande Outfall	6/1/2021	-77.203492	38.73463	Regenerative Storm Conveyance	11.97	3.33	8.6	\$170,465	325	49	23	7,853	CBP Urban Stream Restoration Expert Panel: Protocol 1 -Existing Length: 325 LF, Average Stream Bank Height: 5 ft, Sediment Delivery Ratio: 0.181	15.7%	4.83	0.74	652.40	44.6	22.0	7,200.7
Gunston Corner @ Laurel Hill	1/6/2023	-77.231319	38.710031	Regenerative Storm Conveyance	5.50	2.95	2.6	\$1,072,500	190	45	4	2,943	CBP Urban Stream Restoration Expert Panel: Protocol 4 -Runoff Depth- 1.0232 inches, 10957 cf storage	0.0%	-	-	-	45.3	4.1	2,942.5
					Subtotal:	3,138.84	659.83	2,479.0	\$14,130,935	11,188.00	3,849	1,406	386,893		510.51	148.07	115,074.54	3,338.72	1,257.61	271,818.88
														Fairfax Credit	92.3%	3,081.64	1,160.77	250,888.83		
														Herndon Credit	4.2%	140.23	52.82	11,416.39		
														Vienna Credit	3.5%	116.86	44.02	9,513.66		

Control Measures Expected to be Implemented During the Next Reporting Period (July 1, 2023 - June 30, 2024):

Fairfax County has completed the control measures in the approved TMDL Action Plan as reported in the 2019 annual report. The County will continue to report additional implemented projects annually. Other stream restoration projects currently in construction include: Crook Branch at Mantua Hills, Rabbit Branch at Collingham Drive, and Accotink Tributary at Danbury Forest.

Single Family Residential Development July 1, 2021 to June 30, 2022 (previously unreported)

Structural BMP reductions for single family residential development under one acre from July 1, 2021 through June 30, 2022 (on parcels intersecting the 2023 MS4). These projects were not reported last year while undergoing Quality Control review.

Plan Number	Project Name	Released Date	Facility Type	SMS Asset ID	Efficiency			Efficiency Source	Area Treated	Impervious Area (ac)	Total POC Reductions (lb/yr)		
					TN	TP	TSS				TN	TP	TSS
000020-INF-029	WESTMORE GARDENS SEC 2 LOT 28 (DR)	9/28/2021	BIORETENTION BASINS LV 2 NO UNDERGROUND SOIL INFILTRATN	BR1164	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.04	0.04	0.61	0.06	25.77
000113-INF-006	POWHATAN HILLS SEC 3 LOT 11 (DR)	12/29/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1937	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.03	0.03	0.47	0.05	33.38
000211-INF-002	MARIE PERZEL PROPERTY LOT 4 (EPLAN)(SU)	6/29/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1195	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.03	0.03	0.32	0.03	19.33
000885-INF-002	TOWN AND COUNTRY GARDENS SEC 2 LOT28 (EPLAN)(HM)	12/7/2021	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1938	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.24	0.09	2.42	0.18	125.20
000940-INF-007	OLD DOMINION GARDENS SEC 3 LOT 76 (EPLAN)(DR)	11/5/2021	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1886	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.27	0.11	2.77	0.21	149.12
001279-INF-058	CRUTCHFIELD LOT 5 (EPLAN) (DR)	10/6/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1077	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.023	0.023	0.25	0.02	14.82
001279-INF-058	CRUTCHFIELD LOT 5 (EPLAN) (DR)	10/6/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1078	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.013	0.013	0.14	0.01	8.37
001279-INF-058	CRUTCHFIELD LOT 5 (EPLAN) (DR)	10/6/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1079	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.011	0.011	0.12	0.01	7.09
001298-INF-019	ROSEMONT SEC 3 LOT 11 (EPLAN)(DR)	4/11/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1998	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0355	0.0252	0.42	0.04	29.76
001327-INF-006	DOWNSCREST SEC 1 LOT 2 [DR]	5/17/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1982	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.155	0.1	1.79	0.16	120.46
001502-INF-001	OAKTON RIDGE DEVELOPMENT LLC LOT 1 (EPLAN) [PR]	2/3/2022	MICRO-BIORETENTION (RAINGARDENS) LEVEL 2	BR1113	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.13	0.08	1.67	0.14	56.37
001502-INF-003	WAPLES MILL ROAD LOT A (EPLAN)[PR]	6/29/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1185	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.04	0.04	0.43	0.04	25.77
001555-INF-006	COLLINGWOOD MANOR BLK D LOT 16 (EPLAN)(MV)	4/11/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1974	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0396	0.0248	0.52	0.04	30.07
001555-INF-007	COLLINGWOOD MANOR BLK D LT 17 (EPLAN)(MV)	4/11/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1981	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0536	0.0233	0.64	0.05	30.99
001603-INF-015	MARLBORO ESTATES SEC 3 LOT 23 (EPLAN)(DR)	11/5/2021	2.I. TO STORMWATER PLANTER (URBAN BIORETENTION) (SPEC #9, APPENDIX A)	BR1083	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.03	0.03	0.32	0.03	19.33
001603-INF-016	MARLBORO ESTATES SEC 3 LOT 43 (EPLAN)(DR)	12/22/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1935	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.1	0.04	1.18	0.08	54.53
002123-INF-002	FENWICK PARK LT 11 (EPLAN)(PR)	5/26/2022	MICRO-BIORETENTION (RAINGARDENS) LEVEL 1	BR1140	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0735	0.0435	0.66	0.05	30.92
002166-INF-008	REDDFIELD LOT 7 (EPLAN) (DR)	2/3/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR2012	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.1	0.03	1.11	0.07	45.07
002271-INF-002	LEWINSVILLE LOT 33 (EPLAN)(DR)	2/3/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1963	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.05	0.05	0.78	0.08	55.64
002286-INF-003	LEELAND PARK LT 4 SEC 2 (EPLAN)(DR)	3/30/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1962	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0159	0.0159	0.25	0.02	17.69
002367-INF-027	LANGLEY MANOR SEC 1 LOT 12 (DR)	9/8/2021	BIORETENTION BASINS LV 2 NO UNDERGROUND SOIL INFILTRATN	BR1111	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.098	0.03	1.07	0.07	25.90
002418-INF-001	SPRING SIDE LOT 4A (EPLAN) (DR)	2/24/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1117	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
002418-INF-001	SPRING SIDE LOT 4A (EPLAN) (DR)	2/24/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1118	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
002908-INF-018	GRASS RIDGE SEC 3 BLK 4 LOT 6 (DR)	10/27/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1940	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0413	0.0344	0.60	0.05	39.43
002908-INF-020	HILLSIDE MANOR LOT 33 (EPLAN) (DR)	7/14/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1915	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0774	0.034	0.93	0.07	45.08
003176-INF-007	CHESTERBROOK SEC 2 LOT 105 (EPLAN) (DR)	5/26/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1148	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
003218-INF-026	HORVATH LOT 3 & ODERICKS CORNER PCL A (DR)	9/8/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1924	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	1	0.48	12.26	0.92	620.97
003482-INF-007	ENOLA LOT 3 (PR)	6/15/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1152	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.03	0.03	0.32	0.03	19.33
003766-INF-008	OAK VALLEY ESTATES LOT 10 (EPLAN) (PR)	10/27/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1943	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.19	0.03	1.95	0.11	60.10

Single Family Residential Development July 1, 2021 to June 30, 2022 (previously unreported)

Plan Number	Project Name	Released Date	Facility Type	SMS Asset ID	Efficiency			Efficiency Source	Area Treated	Impervious Area (ac)	Total POC Reductions (lb/yr)		
					TN	TP	TSS				TN	TP	TSS
003948-INF-006	CHESTERBROOK WOODS SEC 1 LOT 314A (DR)	7/21/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1875	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.064	0.064	0.99	0.10	71.22
003948-INF-007	CHESTERBROOK WOODS SEC 1 LOT 309E (DR)	9/29/2021	BIORETENTION FILTERS LEVEL 2 WITH UNDERDRAIN	BR1187	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.014	0.014	0.21	0.02	9.02
003948-INF-007	CHESTERBROOK WOODS SEC 1 LOT 309E (DR)	9/29/2021	BIORETENTION FILTERS LEVEL 2 WITH UNDERDRAIN	BR1188	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.012	0.012	0.18	0.02	7.73
003948-INF-007	CHESTERBROOK WOODS SEC 1 LOT 309E (DR)	9/29/2021	BIORETENTION FILTERS LEVEL 2 WITH UNDERDRAIN	BR1189	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.016	0.016	0.24	0.02	10.31
004285-INF-034	MCLEAN MANOR SEC 4 LOT 114 (DR)	12/14/2021	MICRO INFILTRATION LEVEL 2 (250-2500 SQ FT)	TR1891	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.06	0.04	0.81	0.07	47.85
004285-INF-038	MCLEAN MANOR SEC 2 LOT 34 (EPLAN) (DR)	3/4/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1967	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.05	0.05	0.78	0.08	55.64
004285-INF-039	MCLEAN MANOR SEC 2 LOT 22 (DR)	12/7/2021	2.I. TO STORMWATER PLANTER (URBAN BIORETENTION) (SPEC #9, APPENDIX A)	BR1102	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.02	0.22	1.08	0.15	122.39
004317-INF-011	SPRINGDALE LOT 5 [MA]	6/8/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1146	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.552	0.0464	3.76	0.16	78.78
004317-INF-013	FRANKLYN LOT 3 (EPLAN) (MA)	11/5/2021	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1887	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0387	0.0346	0.50	0.05	39.19
004342-INF-025	BROOKHAVEN BLK 3 LOT 2 (EPLAN)(DR)	6/30/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR2007	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.1287	0.11	1.63	0.16	125.53
004886-INF-006	FRANKLIN PARK PT BLOCK 9 (EPLAN) (DR)	9/15/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR2010	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	1.35	0.28	14.26	0.83	490.27
005134-INF-227	PIMMIT HILLS SEC 7 LOT 252 (EPLAN) (DR)	9/8/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1183	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0205	0.0205	0.22	0.02	13.21
005134-INF-227	PIMMIT HILLS SEC 7 LOT 252 (EPLAN) (DR)	9/8/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1184	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0164	0.0164	0.18	0.01	10.57
005134-INF-229	PIMMIT HILLS SEC 3 LOT 62 (EPLAN)(DR)	7/14/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1063	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.03	0.03	0.32	0.03	19.33
005134-INF-230	PIMMIT HILLS SEC 6 LOT 146 (EPLAN) (DR)	9/29/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1926	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.091	0.0444	1.12	0.08	57.19
005134-INF-232	PIMMIT HILLS SEC 2 BLK K LOT 8 (EPLAN)(DR)	2/3/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1948	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.09	0.03	0.89	0.06	43.40
005134-INF-241	PIMMIT HILLS SEC 7 LOT 289 (EPLAN)(DR)	3/4/2022	BIORETENTION BASINS LV 1 NO UNDERGROUND SOIL INFILTRATN	BR1174	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.047	0.02	0.39	0.02	15.50
005134-INF-242	PIMMIT HILLS SEC 7 LOT 196 (EPLAN)(DR)	2/24/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1128	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0219	0.0219	0.24	0.02	14.11
005134-INF-253	PIMMIT HILLS SEC 7 LOT 232 (EPLAN) (DR)	6/15/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1985	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.11	0.07	1.27	0.11	84.57
005134-INF-254	PIMMIT HILLS SEC 5 LOT 58 (EPLAN)(DR)	3/4/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1950	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0471	0.0344	0.65	0.06	40.40
005134-INF-219	PIMMIT HILLS SEC 7 LOT 193 (EPLAN) (DR)	7/21/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1064	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0493	0.0493	0.53	0.04	31.76
005134-INF-245	PIMMIT HILLS SEC 7 LOT 221 (EPLAN) (DR)	9/29/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1068	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
005134-INF-249	PIMMIT HILLS SEC 7 LOT 153 (EPLAN)(DR)	3/4/2022	2.I. TO STORMWATER PLANTER (URBAN BIORETENTION) (SPEC #9, APPENDIX A)	BR1124	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
005253-INF-057	SALONA VILLAGE SEC 3 LOT 6 (DR)	5/12/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1987	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.07	0.07	0.94	0.10	77.89
005253-INF-059	SALONA VILLAGE SEC 7 LOT 23 (EPLAN) (DR)	9/29/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1925	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.062799	0.062799	0.97	0.09	69.88
005318-INF-002	SPRINGFIELD FOREST SEC 2 LOT 73 (EPLAN) (LE)	7/14/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1919	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.17	0.06	1.95	0.13	85.14
005349-INF-006	GUM SPRINGS LOT 13A (MV)	12/29/2021	BIORETENTION BASIN	BR1036	0.42	0.52	0.56	CBP, Retrofit Curves - RR; 0.5" Runoff Depth per Fairfax County PFM	0.488	0.157	2.53	0.20	134.95
005406-INF-004	CHESTERBRK WOODS BRIGGS HOPPERS SEC 3 LOT 27(EPLAN	2/10/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1132	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
005735-INF-015	KENBARGAN LOT 8 (EPLAN) (DR)	8/11/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1921	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0664	0.0664	1.03	0.10	73.89
006583-INF-002	WESTVIEW HILLS LOT 338 (EPLAN) (BR)	12/7/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1944	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.05	0.05	0.78	0.08	55.64
007016-INF-006	FORESTVILLE ESTATES SEC 2 LOT 7 (EPLAN)(DR)	11/5/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1885	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.33	0.11	3.74	0.25	159.15
007096-INF-035	LANGLEY FOREST SEC 5 LOT 21 (DR)	10/7/2021	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1918	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.17	0.14	2.13	0.20	160.80
007096-INF-046	LANGLEY FOREST SEC 5 LOT 4 (DR)	4/28/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1162	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0512	0.0271	0.45	0.03	19.79

Single Family Residential Development July 1, 2021 to June 30, 2022 (previously unreported)

Plan Number	Project Name	Released Date	Facility Type	SMS Asset ID	Efficiency			Efficiency Source	Area Treated	Impervious Area (ac)	Total POC Reductions (lb/yr)		
					TN	TP	TSS				TN	TP	TSS
007096-INF-046	LANGLEY FOREST SEC 5 LOT 4 (DR)	4/28/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1163	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0537	0.0288	0.47	0.03	20.96
007268-INF-003	MACINTOSH ESTATES LOT 3 (DR)	7/27/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1903	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.12	0.1	1.74	0.16	114.62
007333-INF-018	HILLSIDE MANOR LOT 14 (DR)	10/7/2021	BIORETENTION BASINS LV 1 NO UNDERGROUND SOIL INFILTRATN	BR1092	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.1306	0.0538	1.08	0.07	42.09
007913-INF-006	SIMPSON & MAYS 1ST ADDN TO CHESTERBROOK WDS LOT 23	3/30/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1979	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.2061	0.134	2.39	0.21	161.15
007986-INF-003	MCLEAN MANOR SEC 1 LOT 1 (DR)	10/27/2021	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1942	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.1	0.06	1.13	0.10	73.45
008617-INF-008	LITTLE VIENNA ESTATES SEC 1 LOT 27 (EPLAN) (HM)	4/11/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1990	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.1128	0.0849	1.58	0.14	99.13
009176-INF-038	FRANKLIN PARK BLK 5 LTS 41, 42, 43 (EPLAN) (DR)	3/18/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1999	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.17	0.1	1.91	0.16	122.97
009176-INF-039	FRANKLIN PARK BLK 17 LOT 5 (EPLAN) (DR)	7/14/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1916	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0781	0.0781	1.21	0.12	86.91
009649-INF-043	GARFIELD PARK SEC 1A LOT 157 (EPLAN) (DR)	3/30/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1973	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.11	0.06	1.39	0.11	75.12
009716-INF-028	GRASS RIDGE SEC 1 BLK 2 LT 4 (EPLAN)(DR)	5/12/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1161	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.06	0.06	0.65	0.05	38.65
012784-INF-007	BEVERLY MANOR BLK B LOTS 23 & 24 (EPLAN)(DR)	12/9/2021	2.I. TO STORMWATER PLANTER (URBAN BIORETENTION) (SPEC #9, APPENDIX A)	BR1087	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
012784-INF-007	BEVERLY MANOR BLK B LOTS 23 & 24 (EPLAN)(DR)	12/9/2021	2.I. TO STORMWATER PLANTER (URBAN BIORETENTION) (SPEC #9, APPENDIX A)	BR1088	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
012784-INF-008	BEVERLY MANOR BLK B LOTS 21 & 22 (EPLAN)(DR)	12/14/2021	2.I. TO STORMWATER PLANTER (URBAN BIORETENTION) (SPEC #9, APPENDIX A)	BR1089	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
012784-INF-008	BEVERLY MANOR BLK B LOTS 21 & 22 (EPLAN)(DR)	12/14/2021	2.I. TO STORMWATER PLANTER (URBAN BIORETENTION) (SPEC #9, APPENDIX A)	BR1090	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
013236-INF-006	EL NIDO ESTATES SEC 2 LOT 7 (EPLAN)(DR)	11/5/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1094	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.04	0.04	0.43	0.04	25.77
013308-INF-008	KENT GARDENS SEC 1 LOT 18 (EPLAN)(DR)	8/11/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1060	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.052	0.052	0.56	0.05	33.50
013857-INF-024	BROYHILL LANGLEY ESTATES SEC 1 LOT 55 (DR)	7/14/2021	BIORETENTION BASINS LV 2 NO UNDERGROUND SOIL INFILTRATN	BR1059	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.1	0.04	1.15	0.08	31.57
013857-INF-026	BROYHILL LANGLEY ESTATES SEC 1 LOT 40 (EPLAN) (DR)	11/17/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1084	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.04	0.04	0.43	0.04	25.77
015014-INF-004	MARLBORO ESTATE SEC 3 LOT 38 (EPLAN)(DR)	5/12/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1984	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.02	0.02	0.31	0.03	22.26
020334-INF-008	POPLAR HEIGHTS SEC 4 LT 80 [PR]	5/26/2022	BIORETENTION BASINS LV 2 NO UNDERGROUND SOIL INFILTRATN	BR1155	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.05	0.03	0.64	0.05	21.26
024130-INF-015	TREMONT GARDENS LOT 119 (EPLAN)(PR)	2/4/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1115	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0361	0.0361	0.39	0.03	23.26
024130-INF-015	TREMONT GARDENS LOT 119 (EPLAN)(PR)	2/4/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1116	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0208	0.0208	0.22	0.02	13.40
024541-INF-002	TWINMILL LOT 44 [SU]	5/26/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1988	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.08	0.08	1.08	0.11	89.02
024695-INF-002	WEST GRASS RIDGE SEC 2 BLK 5 LOT 2 (DR)	8/25/2021	MICRO-BIORETENTION (RAINGARDENS) LEVEL 2	BR1058	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.07	0.06	1.00	0.09	39.62
024808-INF-011	DEVON PARK SECTION 3 LOT 28 (EPLAN)(DR)	8/25/2021	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1914	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.18	0.064	1.80	0.13	90.59
024881-INF-009	ROSEMONT SEC 5 LOT 51 (EPLAN) (DR)	9/8/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1912	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.08	0.03	0.93	0.06	41.73
024881-INF-011	ROSEMONT SEC 5 LOT 9 (EPLAN) (DR)	8/11/2021	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1910	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.03	0.02	0.35	0.03	23.93
024881-INF-010	ROSEMONT SEC 5 LOT 37 (EPLAN) (DR)	9/8/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1911	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0717	0.0717	1.11	0.11	79.78
024999-INF-004	TIBURON SEC 1 LOT 51 (EPLAN)(HM)	7/21/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1062	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.0382	0.0382	0.41	0.03	24.61
025282-INF-003	CHESTERBROOK SEC 2 LOT 119 (EPLAN)(DR)	6/8/2022	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1995	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0228	0.02	0.34	0.03	22.72
025318-INF-003	ADA GROVE LOT 6 (EPLAN)(DR)	10/13/2021	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1884	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.12	0.03	1.13	0.07	48.41
025582-INF-002	NEAR FRANKLIN PARK 11794 SF IN ARLINGTON (EPLAN) (5/12/2022	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1154	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.1803	0.1416	1.78	0.13	94.96

Single Family Residential Development July 1, 2021 to June 30, 2022 (previously unreported)

Plan Number	Project Name	Released Date	Facility Type	SMS Asset ID	Efficiency			Efficiency Source	Area Treated	Impervious Area (ac)	Total POC Reductions (lb/yr)		
					TN	TP	TSS				TN	TP	TSS
025601-INF-007	TIBURON SEC 2 LOT 351 (EPLAN)(PR)	12/23/2021	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	TR1939	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.034	0.034	0.53	0.05	37.83
025769-INF-005	BROYHILL GLEN GARY PARK SEC 2 LOT 15 (EPLAN)(DR)	10/27/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1081	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.02	0.02	0.22	0.02	12.88
025769-INF-005	BROYHILL GLEN GARY PARK SEC 2 LOT 15 (EPLAN)(DR)	10/27/2021	BIORETENTION FILTERS LEVEL 1 WITH UNDERDRAIN	BR1082	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.01	0.01	0.11	0.01	6.44
025850-INF-002	BEACON HILL SEC 1 LOT 7 (DR)	12/7/2021	BIORETENTION BASINS LV 2 NO UNDERGROUND SOIL INFILTRATN	BR1086	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.1	0.07	1.33	0.11	48.00
025913-INF-005	POPLAR HEIGHTS SEC 7 LOT 7 (EPLAN) (PR)	12/7/2021	GRASS CHANNEL (PR 3) ALT TO CURB AND GUTTER	VS0062	0.44	0.41	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Vegetated Open Channels C/D soils, no underdrain	0.2047	0.0833	1.16	0.08	65.40
025913-INF-005	POPLAR HEIGHTS SEC 7 LOT 7 (EPLAN) (PR)	12/7/2021	GRASS CHANNEL (PR 3) ALT TO CURB AND GUTTER	VS0063	0.44	0.41	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Vegetated Open Channels C/D soils, no underdrain	0.0724	0.0231	0.39	0.02	19.65
025979-INF-002	DUNN LORING WOODS SEC 2 BLK Q LOT 17 (PR)	4/28/2022	INFILTRATION PRACTICES LEVEL 1 (PRACTICE 8)	TR1983	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.0985	0.0346	0.98	0.07	49.17
2023 Single Family Credit for Structural BMPs:											112.20	8.65	5,826.57
2023 Single Family Credit for Nutrient Credit Purchases (this data is being reviewed and will be reported in the next annual report):											-	-	-
Total 2023 Credit for Single Family < 1 acre:											112.20	8.65	5,826.57

Septic Conversions from July 1, 2022 to June 30, 2023 (or previously unreported)

List includes parcels that intersect the FY23 MS4 Service Area

PIN	Street Name	Street Type	Address Number	Type (Residential or Commercial)
0662 01 0017	BRADDOCK	RD	12504	R
0381 03 0012	LAUREL RIDGE	RD	2231	R
0472 04 0001	CHAIN BRIDGE	RD	2903	R

Reduction from Residential Septic Conversions:

TN Edge of Stream Loading (lbs/year/person):	3.5	updated per GM20-2003
Average number of people per household for Fairfax County (2010 Census):	2.8	
Number of residential conversions:	3	

Residential TN reduction (lbs/year) = 29.40

Redevelopment and Oversized Facility Credit (all pollutant loads in lb/yr)
 Projects identified in the July 1, 2022 to June 30, 2023 reporting period (on parcels intersecting 2023 MS4)
 Calculation process based on Appendix V.E of Guidance Memo 20-2003

Data collected from VRRM spreadsheets on plans

Plan Number	Plan TP Redevelopment Reduction Required	Plan TP Total Reduction Required	Plan TP Total Reduction Achieved	TN Reductions, Example V.E.1, Step 3	BMP Clearinghouse Facility Name	Phosphorus Load from Upstream Practice (Impervious)	Phosphorus Load from Upstream Practice (Turf)	Untreated Phosphorus Load to Practice (Impervious)	Untreated Phosphorus Load to Practice (Turf)	Facility Impervious Drainage Area (acres)	Facility Turf Drainage Area (acres)	Facility Drainage Area (acres)	Phosphorus Load to Practice	Determine Proportions of TP Reductions Applied to TMDL, Example V.E.1, Step 1				TN Credit towards TMDL Reductions, Example V.E.1, Step 4			TSS Reductions, Example V.E.1, Steps 2 & 3			TSS Credit towards TMDL Reductions, Example V.E.1, Step 4			
														Plan Oversized Facility TP Credit ^a	Total TP Credit ^b	Redevelopment Percentage of Required Reductions ^c	TP Percentage Oversized ^d	Plan Oversized Facility TN Credit ^e	Plan Redevelopment TN Credit ^f	Total TN Credit ^g	Adjusted Facility Treated Depth	TSS Removal Efficiency	Facility TSS Reduction ^h	Plan Oversized Facility TSS Credit ⁱ	Plan Redevelopment TSS Credit ^j	Total TSS Credit ^k	
000041-INF-001	0.03	0.24	0.13	1.06	6.a. Bioretention #1 or Urban Bioretention (Spec #9)			0.158	0.032	0.09	0.08	0.17	0.19	-	0.03	12.50%	0%	-	0.13	0.13	1.89	83.13%	74.11	-	-	11.21	11.21
001137-SP-002	1.08	3.56	5.18	39.97	6.a. Bioretention #1 or Urban Bioretention (Spec #9)			0.04	0	0.09	0.08	0.17	0.04	-	1.62	2.70	30.34%	31%	12.50	8.33	20.83	0.81	69.98%	3,401.87	1,063.91	709.27	1,773.18
001183-SP-022	2.03	9.21	9.37	62.4	Up-Flo Filter [®] with CPZ media, Hydro International			9.062	1.298	4.17	2.58	6.75	10.36	0.16	2.19	22.04%	2%	1.07	13.52	14.58	2.50	85.30%	372.22	90.75	1,151.44	1,242.20	
					6.b. Bioretention #2 (Spec #9)			0.755	0.175	0.34	0.34	0.68	0.93								2.42	85.55%	168.59				
					6.b. Bioretention #2 (Spec #9)			0.345	0.075	0.16	0.15	0.31	0.42								2.37	85.54%	301.01				
					6.b. Bioretention #2 (Spec #9)			0.621	0.129	0.28	0.25	0.53	0.75								2.34	85.49%	661.84				
					1.b. Vegetated Roof #2 (Spec #5)			1.373	0.277	0.62	0.54	1.16	1.65								1.10	76.70%	61.18				
					BayFilter [™] Stormwater Cartridge System, Baysaver Technologies LLC			0.17	0	0.08	0	0.08	0.17								0.61	62.01%	241.50				
					BayFilter [™] Stormwater Cartridge System, Baysaver Technologies LLC			0.789	0.041	0.36	0.08	0.44	0.83								0.62	62.45%	334.05				
					3.a. Permeable Pavement #1 (Spec #7)			1.08	0.06	0.5	0.12	0.62	1.14								1.00	74.89%	94.87				
					3.a. Permeable Pavement #1 (Spec #7)			0.27	0	0.31	0	0.31	0.27								1.00	74.89%	80.82				
					3.a. Permeable Pavement #1 (Spec #7)			0.23	0	0.15	0	0.15	0.23								1.00	74.89%	200.28				
					3.a. Permeable Pavement #1 (Spec #7)			0.57	0	0.29	0	0.29	0.57								1.00	74.89%	84.33				
					3.a. Permeable Pavement #1 (Spec #7)			0.24	0	0.16	0	0.16	0.24								1.00	74.89%	63.25				
					3.a. Permeable Pavement #1 (Spec #7)			0.18	0	0.19	0	0.19	0.18								1.00	74.89%	144.06				
					3.a. Permeable Pavement #1 (Spec #7)			0.41	0	0.34	0	0.34	0.41								1.00	74.89%	189.74				
					3.a. Permeable Pavement #1 (Spec #7)			0.54	0	0.45	0	0.45	0.54								1.00	74.89%	77.30				
					3.a. Permeable Pavement #1 (Spec #7)			0.22	0	0.18	0	0.18	0.22								1.00	74.89%	1,007.03				
					5.b. Dry Swale #2 (Spec #10)		0.72	1.06	0.81	1.99	1.04	3.03	2.62								1.67	81.92%	1,232.72				
					5.b. Dry Swale #2 (Spec #10)		0.84	0.262	1.068	0.39	1.59	1.98	3.08								2.50	85.30%	1,232.72				
001259-INF-018	0.04	0.06	0.17	1.24	7.b. Infiltration #2 (Spec #8)			0.43	0	0.08	0.03	0.11	0.43	0.11	0.15	66.67%	65%	0.80	0.29	1.09	1.51	95.00%	191.67	124.02	45.10	169.12	
001298-INF-022	0.02	0.11	0.11	0.75	7.b. Infiltration #2 (Spec #8)			0.105	0.005	0.05	0.01	0.06	0.11	-	0.02	18.18%	0%	-	0.14	0.14	1.32	95.00%	49.03	-	8.91	8.91	
001327-INF-005	0.13	0.25	0.16	1.07	7.a. Infiltration #1 (Spec #8)			0.24	0.02	0.11	0.04	0.15	0.26	-	0.13	52.00%	0%	-	0.56	0.56	1.36	95.00%	115.89	-	60.26	60.26	
001337-INF-012	0.03	0.15	0.16	1.13	7.b. Infiltration #2 (Spec #8)			0.17	0	0.08	0	0.08	0.17	0.01	0.04	20.00%	6%	0.07	0.21	0.28	1.10	95.00%	75.78	4.74	14.21	18.94	
001433-INF-017	0.03	0.08	0.14	0.99	6.a. Bioretention #1 or Urban Bioretention (Spec #9)			0.11	0	0.025	0	0.03	0.11	0.06	0.09	37.50%	43%	0.42	0.21	0.64	1.00	74.89%	38.65	33.13	16.56	49.69	
					6.a. Bioretention #1 or Urban Bioretention (Spec #9)			0.11	0	0.027	0	0.03	0.11								1.00	74.89%	38.65				
					7.b. Infiltration #2 (Spec #8)			0.09	0	0.04	0	0.04	0.09	0.06	0.09	37.50%	43%	0.42	0.21	0.64	1.10	95.00%	40.12	28.65	14.33	42.98	
					7.b. Infiltration #2 (Spec #8)			0.06	0	0.03	0	0.03	0.06								1.10	95.00%	26.74				
001521-INF-010	0.0333	0.0973	0.0982	0.6951	7.b. Infiltration #2 (Spec #8)			0.098	0.009	0.0445	0.0172	0.06	0.11	0.00	0.03	34.22%	1%	0.01	0.24	0.24	1.53	95.00%	47.69	0.44	16.17	16.61	
001586-INF-003	0.034	0.1607	0.1637	1.0776	7.a. Infiltration #1 (Spec #8)			0.189	0.073	0.0842	0.14	0.22	0.26	0.00	0.04	21.16%	2%	0.02	0.22	0.24	2.50	95.00%	116.78	2.14	24.26	26.40	
001891-INF-003	0.04	0.16	0.14	0.92	7.a. Infiltration #1 (Spec #8)			0.175	0.045	0.08	0.09	0.17	0.22	-	0.04	25.00%	0%	-	0.23	0.23	2.13	95.00%	98.06	-	24.52	24.52	
002387-INF-005	0.03	0.16	0.15	1.09	6.b. Bioretention #2 (Spec #9)			0.138	0.032	0.06	0.06	0.12	0.17	-	0.03	18.75%	0%	-	0.20	0.20	2.50	85.30%	68.04	-	12.76	12.76	
002615-SP-011	0.66	0.66	0.71	4.42	Jellyfish [®] Filter, Contech Engineered Solutions LLC			1.43	0	0.66	0	0.66	1.43	0.05	0.71	100.00%	7%	0.31	4.11	4.42	0.50	55.75%	374.03	26.34	347.69	374.03	
002908-INF-024	0.02	0.06	0.07	0.52	7.a. Infiltration #1 (Spec #8)			0.08	0	0.04	0	0.04	0.08	0.01	0.03	33.33%	14%	0.07	0.15	0.22	1.00	95.00%	35.66	5.09	10.19	15.28	
					Continuous Deflective Separator [®] (CDS), Contech Engineered Solutions LLC			0.75	0	0.35	0	0.35	0.75	-	0.15	100.00%	0%	-	2.32	2.32	0.50	55.75%	196.17	-	196.17	196.17	
003564-INF-003	0.04	0.19	0.1637	1.0776	6.b. Bioretention #2 (Spec #9)			0.2	0.01	0.09	0.02	0.11	0.21	0.01	0.05	22.22%	5%	0.07	0.29	0.36	1.53	81.04%	79.85	4.20	16.81	21.01	
004285-INF-037	0.03	0.08	0.09	0.65	6.b. Bioretention #2 (Spec #9)			0.1	0	0.05	0	0.05	0.10	0.01	0.04	37.50%	11%	0.07	0.22	0.29	1.25	78.71%	36.93	4.10	12.31	16.41	
004285-INF-043	0.02	0.06	0.04	0.3	6.a. Bioretention #1 or Urban Bioretention (Spec #9)			0.06	0	0.03	0	0.03	0.06	-	0.02	33.33%	0%	-	0.10	0.10	1.00	74.89%	21.08	-	7.03	7.03	
004371-INF-006	0.03	0.15	0.07	0.56	5.a. Dry Swale #1 (Spec #10)			0.089	0.051	0.04	0.1	0.14	0.14	-	0.03	20.00%	0%	-	0.11	0.11	2.50	85.30%	56.03	-	11.21	11.21	
004549-INF-002	0.0293	0.0794	0.0983	0.6472	7.a. Infiltration #1 (Spec #8)			0.09	0.068	0.0392	0.1294	0.17	0.16	0.02	0.05	36.90%	19%	0.12	0.19	0.32	2.50	95.00%	70.43	13.54	20.99	34.53	
005134-INF-218	0.02	0.1	0.06	0.48	6.a. Bioretention #1 or Urban Bioretention (Spec #9)			0.11	0	0.0292	0	0.03	0.11	-	0.02	20.00%	0%	-	0.10	0.10	1.00	74.89%	38.65	-	7.73	7.73	
005134-INF-225	0.0229	0.0625	0.0836	0.5918	7.b. Infiltration #2 (Spec #8)			0.059	0.032	0.0258	0.0607	0.09	0.09	0.02	0.04	36.64%	25%	0.15	0.16	0.31	2.50	95.00%	40.56	10.24	11.11	21.35	
005134-INF-239	0.02	0.07	0.08	0.58	6.b. Bioretention #2 (Spec #9)			0.07	0.02	0.03	0.04	0.07	0.09	0.01	0.03	28.57%	13%	0.07	0.15	0.22	2.50	85.30%	36.02	4.50	9.01	13.51	
005134-INF-243	0.02	0.08	0.08	0.55	7.b. Infiltration #2 (Spec #8)			0.08	0	0.04	0	0.04	0.08	-	0.02	25.00%	0%	-	0.14	0.14	1.10	95.00%	35.66	-	8.91	8.91	
005134-INF-247	0.02	0.07	0.03	0.24	6.a. Bioretention #1 or Urban Bioretention (Spec #9)			0.02	0	0.01	0	0.01	0.02	-	0.02	28.57%	0%	-	0.07	0.07	1.00	74.89%	7.03	-	4.02	4.02	
					6.a. Bioretention #1 or Urban Bioretention (Spec #9)			0.02	0	0.01	0	0.01	0.02								1.00	74.89%	7.03				
005214-SP-002	0.3	0.47	0.86	6																							

