

Fairfax County 2018 MS4 Program Plan and Annual Report

# Appendix R21

Chesapeake Bay TMDL Action Plan Implementation  
Updates

VSMP Permit Number VA0088587  
9-28-2018

Summary Table showing Cumulative Progress Towards Action Plan Pollutant Reductions

Item	Approved Action Plan Reductions			Approved Action Plan Reductions Completed through June 30, 2018			Remaining Approved Action Plan Reductions to Complete			Project Reductions Completed in Addition to Approved Action Plan				Total Reductions Completed to Date			
	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)	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	-47.86	-1.63	-479.87					6,029.50	576.74	701,952.33
				2017 Annual Report	383.75	38.86	30,496.14				2017 Annual Report	93.95	8.31	5,924.34			
				2018 Annual Report							2018 Annual Report	155.91	14.07	13,651.84			
				<b>Total</b>	<b>5,779.64</b>	<b>554.36</b>	<b>682,376.15</b>				<b>Total</b>	<b>249.86</b>	<b>22.38</b>	<b>19,576.18</b>			
Stream Restoration for TMDL Compliance	18,198.75	5919.67	1,802,250.84	Action Plan	10,725.21	2,779.45	970,979.98	-300.51	57.04	36,072.23				22,958.89	6790.55	2,051,364.52	
				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	4,114.91	798.32				240,564.38
				<b>Total</b>	<b>18,499.26</b>	<b>5,862.63</b>	<b>1,766,178.61</b>				<b>Total</b>	<b>4,459.63</b>	<b>927.92</b>				<b>285,185.91</b>
All Structural Facilities 2006-2009	5,705.48	670.27	577,628.02	Action Plan	5,705.48	670.27	577,628.02	0.00	0.00	0.00				5,705.48	670.27	577,628.02	
Redevelopment	0.00	0.00	0.00	Action Plan	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	
More Stringent Single Family Residential Standards	135.32	22.09	11,977.54	Action Plan	135.32	22.09	11,977.54	0.00	0.00	0.00				243.91	61.40	20,266.32	
											2017 Annual Report	106.35	17.61				8,132.78
											2018 Annual Report	2.24	21.70				156.00
<b>Total</b>	<b>108.59</b>	<b>39.31</b>	<b>8,288.78</b>														
In-Lake Forebay Retrofits	6,615.89	391.88	156,038.24	Action Plan	4,289.43	254.50	99,156.00	0.00	0.00	0.00				6,615.89	391.88	156,038.24	
											2018 Annual Report*	2,326.46	137.38				56,882.24
											<b>Total</b>	<b>6,615.89</b>	<b>391.88</b>				<b>156,038.24</b>
Septic Conversions	1,806.85	0	0.00	Action Plan	1,806.85	0.00	0.00	0.00	0.00	0.00				2,037.45	0.00	0.00	
											2017 Annual Report	201.60	0.00				0.00
											2018 Annual Report	29.00	0.00				0.00
<b>Total</b>	<b>230.60</b>	<b>0.00</b>	<b>0.00</b>														
Off-Site Pollutant Reduction Credits	0.00	0.00	0.00	Action Plan	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	
Nutrient Management Plans	89.58	1.82	0.00	Action Plan	89.58	1.82	0.00	0.00	0.00	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	0.00	0.00	0.00				84.32	4.44	2,409.19	
											2017 Annual Report	13.65	0.48				167.53
											2018 Annual Report	10.37	0.79				495.09
<b>Total</b>	<b>24.02</b>	<b>1.27</b>	<b>662.62</b>														
Additional Means and Measures	0.00	0.00	0.00	Action Plan	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	
<b>Total Means and Methods</b>	<b>38,343.95</b>	<b>7,561.63</b>	<b>3,231,537.49</b>		<b>38,692.32</b>	<b>7,506.22</b>	<b>3,195,945.13</b>	<b>-348.37</b>	<b>55.41</b>	<b>35,592.36</b>		<b>5,072.71</b>	<b>990.88</b>	<b>313,713.49</b>	<b>43,765.02</b>	<b>8,497.10</b>	<b>3,509,658.62</b>

\* Royal Lake Forebay project was substantially completed on 7/18/2017. See pollutant reduction calculation in Action Plan.

Summary of Required Reductions (based on Action Plan Table 1.B)

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*	29.40	-1.03	-223.12
<b>Total Adjusted Required Reductions and Offsets for Current Permit Cycle</b>	<b>2,616.81</b>	<b>93.22</b>	<b>149,882.59</b>

\* See detailed calculations in grandfathered projects table. Calculations result in a net credit for phosphorus and sediment as opposed to an offset due to treatment in excess of that necessary to meet offsets for grandfathered projects.

# Structural Retrofits for TMDL Compliance July 1, 2017 - June 30, 2018

## Structural Retrofits

All Action Plan Projects were completed by June 30, 2017 as reported in the 2017 Annual Report

Projects in Addition to Those Reported in the Chesapeake Bay TMDL Action Plan Completed July 1, 2017 to June 30, 2018 (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 (lbs/yr)			Pollutant Reduction Calculation Method	% Treated Area Outside Regulated MS4	Baseline Reduction Provided for Unregulated Areas (lb/yr)			Total Credit Received (lb/yr)		
										TN	TP	TSS			TN	TP	TSS	TN	TP	TSS
<b>Construction Complete</b>																				
80	Reston Police Station Stormwater Enhancements	3/17/2016	-77.360127	38.963288	Permeable Pavement	0.38	0.38	-	\$18,819	2.73	0.32	249.41	CBP Retrofits Expert Panel RR, 0.50 inches of runoff treated	100%	0.58	0.10	89.02	2.15	0.22	160.39
					Permeable Pavement	0.53	0.53	-	\$45,819	5.10	0.60	465.76	CBP Retrofits Expert Panel RR, 1.01 inches of runoff treated	100%	0.80	0.14	124.16	4.29	0.46	341.60
					Permeable Pavement	0.08	0.08	-	\$17,819	0.78	0.09	71.19	CBP Retrofits Expert Panel RR, 1.06 inches of runoff treated	100%	0.12	0.02	18.74	0.66	0.07	52.45
					Permeable Pavement	0.15	0.15	-	\$14,819	1.43	0.17	130.87	CBP Retrofits Expert Panel RR, 0.98 inches of runoff treated	100%	0.23	0.04	35.14	1.20	0.13	95.73
					Permeable Pavement	0.08	0.08	-	\$25,319	0.76	0.09	69.74	CBP Retrofits Expert Panel RR, 0.98 inches of runoff treated	100%	0.12	0.02	18.74	0.64	0.07	51.00
					Permeable Pavement	0.23	0.23	-	\$19,319	2.22	0.26	202.97	CBP Retrofits Expert Panel RR, 1.02 inches of runoff treated	100%	0.35	0.06	53.88	1.87	0.20	149.09
					Permeable Pavement	0.13	0.13	-	\$76,819	1.24	0.15	112.94	CBP Retrofits Expert Panel RR, 0.97 inches of runoff treated	100%	0.20	0.03	30.45	1.04	0.11	82.49
					Permeable Pavement	0.23	0.23	-	\$46,819	1.63	0.19	148.64	CBP Retrofits Expert Panel RR, 0.49 inches of runoff treated	100%	0.35	0.06	53.88	1.28	0.13	94.76
					Permeable Pavement	0.15	0.15	-	\$26,819	1.09	0.13	99.51	CBP Retrofits Expert Panel RR, 0.51 inches of runoff treated	100%	0.23	0.04	35.14	0.86	0.09	64.37
					Filtering Practices	0.03	0.03	-	\$21,500	0.20	0.03	28.11	CBP Established Efficiency, Filtering Practices	100%	0.05	0.01	7.03	0.16	0.02	21.08
					Filtering Practices	0.03	0.03	-	\$21,500	0.20	0.03	28.11	CBP Established Efficiency, Filtering Practices	100%	0.05	0.01	7.03	0.16	0.02	21.08
81	West Ox Bus Operations Center Expansion (CU87-0001)	7/21/2017	-77.377953	38.848160	Permeable Pavement	0.08	0.08	-	\$5,501	0.80	0.09	73.26	CBP Retrofits Expert Panel RR, 1.21 inches of runoff treated	100%	0.12	0.02	18.74	0.68	0.07	54.52
					Permeable Pavement	0.42	0.42	-	\$83,249	4.16	0.49	380.46	CBP Retrofits Expert Panel RR, 1.17 inches of runoff treated	100%	0.63	0.11	97.92	3.53	0.38	282.54
82	Mantua ES	8/21/2017	-77.258500	38.847300	Infiltration	4.99	3.25	1.74	\$306,000	57.85	5.08	3,907.05	CBP Established Efficiency, Infiltration Practices w/o Sand, Veg.	37%	1.65	0.28	255.35	41.16	3.77	2,994.52
			-77.258597	38.847374	Dry Swale	0.65	0.20	0.45	\$34,000	5.53	0.38	250.70	CBP Established Efficiency, Bioswale	0%	-	-	-	5.53	0.38	250.70
83	Bucknell ES (LH9828B)	11/30/2017	-77.074070	38.766991	Grass Channel	0.14	0.04	0.10	\$15,834	1.04	0.08	52.42	CBP Retrofits Expert Panel RR, 1.58 inches of runoff treated	100%	0.12	0.01	10.91	0.92	0.07	41.51
					Grass Channel	0.24	0.04	0.20	\$15,487	1.74	0.12	69.65	CBP Retrofits Expert Panel RR, 2.20 inches of runoff treated	100%	0.18	0.02	12.45	1.55	0.10	57.21
					Grass Channel	0.13	0.10	0.03	\$16,430	1.39	0.13	97.92	CBP Established Efficiency, Bioswale	100%	0.17	0.03	23.89	1.22	0.10	74.04
					Permeable Pavement	0.16	0.12	0.04	\$21,702	1.39	0.15	111.48	CBP Retrofits Expert Panel RR, 1.03 inches of runoff treated	100%	0.21	0.03	28.73	1.19	0.12	82.75
					Bioretention	0.10	0.07	0.03	\$42,498	0.86	0.09	66.32	CBP Retrofits Expert Panel RR, 1.06 inches of runoff treated	100%	0.12	0.02	16.86	0.73	0.07	49.46
					Bioretention	0.40	-	0.40	\$47,436	1.01	0.07	38.68	CBP Established Efficiency, Bioretention C/D soils, underdrain	100%	0.24	0.01	6.15	0.77	0.06	32.52
84	Park Forest	5/10/2018	-77.254205	38.772988	Infiltration	0.72	0.51	0.21	\$73,136	6.95	0.73	541.06	CBP Retrofits Expert Panel RR, 2.5 inches of runoff treated	100%	0.90	0.14	122.70	6.05	0.59	418.36
					Infiltration	0.13	0.06	0.07	\$73,136	1.12	0.10	70.66	CBP Retrofits Expert Panel RR, 2.41 inches of runoff treated	100%	0.13	0.02	15.13	0.99	0.08	55.53
					Infiltration	0.07	0.06	0.01	\$73,136	0.72	0.08	61.45	CBP Retrofits Expert Panel RR, 2.5 inches of runoff treated	100%	0.10	0.02	14.21	0.62	0.06	47.24
					Infiltration	0.20	0.13	0.07	\$73,136	1.72	0.17	128.51	CBP Retrofits Expert Panel RR, 1.2 inches of runoff treated	100%	0.24	0.04	31.53	1.48	0.13	96.98
					Infiltration	0.13	0.10	0.03	\$73,136	1.29	0.14	104.41	CBP Retrofits Expert Panel RR, 2.5 inches of runoff treated	100%	0.17	0.03	23.89	1.12	0.11	80.52
85	McLean Hunt Estates 0271DP	5/25/2018	-77.222678	38.945389	Extended Detention Pond	13.50	6.52	6.98	\$290,039	36.05	2.69	5,320.84	CBP Established Efficiency, Dry Extended Detention Ponds	8%	1.67	0.29	257.65	34.38	2.40	5,063.19
86	Newington Forest ES (PC9508)	6/30/2018	-77.240205	38.739225	Infiltration	0.67	0.67	-	\$65,800	9.04	0.92	745.55	CBP Established Efficiency, Infiltration Practices w/o Sand, Veg.	0%	-	-	-	9.04	0.92	745.55
87	Public Safety Headquarters Building Stormwater Enhancements	8/30/2017	-77.362589	38.857386	Dry Swale	2.75	2.23	0.52	\$231,238	29.98	2.87	2,162.77	CBP Established Efficiency, Bioswale	0%	-	-	-	29.98	2.87	2,162.77
					Permeable Pavement	0.24	0.24	-	\$72,384	2.33	0.27	212.94	CBP Retrofits Expert Panel RR, 1.04 inches of runoff treated	0%	-	-	-	2.33	0.27	212.94
					Vegetated Roof	0.31	0.31	-	\$259,052	3.01	0.36	275.08	CBP Retrofits Expert Panel, RR, 1.05 inches of runoff treated	0%	-	-	-	3.01	0.36	275.08
					Rainwater Harvesting	0.61	0.61	-	\$242,072	8.33	0.80	578.75	CBP Retrofits Expert Panel, RR, 1.26 inches of runoff treated	0%	-	-	-	8.33	0.80	578.75
<b>Subtotal:</b>						<b>28.66</b>	<b>17.78</b>	<b>10.88</b>	<b>\$2,449,773</b>	<b>193.68</b>	<b>17.87</b>	<b>16,857.22</b>			<b>9.72</b>	<b>1.59</b>	<b>1,409.32</b>	<b>168.92</b>	<b>15.25</b>	<b>14,790.73</b>
														<b>Fairfax Credit</b>	<b>92.3%</b>	<b>155.91</b>	<b>14.07</b>	<b>13,651.84</b>		
														Herndon Credit	4.2%	7.09	0.64	621.21		
														Vienna Credit	3.5%	5.91	0.53	517.68		

**Note:** Additional reductions taken for decommissioned facilities, BR0436 and BR0439

### Control Measures Expected to be Implemented During the Next reporting Cycle:

As reported in the 2017 Annual Report, Fairfax County has completed the control measures in the approved TMDL Action Plan. The County will continue to report additional implemented projects annually.

# Stream Restoration July 1, 2017 - June 30, 2018

**Stream Restoration**

**Action Plan Projects Completed July 1, 2017 to June 30, 2018 (or previously unreported)**

#	Projects Completed	Substantial Completion Date	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
35	Accotink Tributary at Daventry	10/25/2016	-77.209548	38.765789	Urban Stream Restoration	133.89	39.68	94.21	\$610,000	153.1	57.78	11.76	4,054.22	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 152.53 LF, Average Stream Bank Height: 5.5 ft, Sediment Delivery Ratio: 0.181; Protocol 2 - Average Stream Bank Width: 7.42 ft	25.3%	25.15	2.18	1,642.06	103.32	24.86	7,682.52
					185.4					70.69	15.29	5,270.35	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 181.76 LF, Average Stream Bank Height: 6 ft, Sediment Delivery Ratio: 0.181; Protocol 2 - Average Stream Bank Width: 6.73 ft								
38	Colvin Run Ph I	8/9/2017	-77.311688	38.965054	Urban Stream Restoration	2,776.59	947.96	1,828.63	\$3,041,000	2175.0	2,037.36	444.15	153,126.00	CBP Urban Stream Restoration Expert Panel: Protocol 1 - BANCS Sediment Load Estimate: 846 tons/yr, Sediment Delivery Ratio: 0.181; Protocol 2 - Average Stream Bank Width: 30.8 ft	43.2%	902.94	80.27	60,979.01	1,304.28	405.88	106,626.99
					110.0					38.80	8.93	3,077.00	CBP Urban Stream Restoration Expert Panel: Protocol 1 - BANCS Sediment Load Estimate: 17 tons/yr, Sediment Delivery Ratio: 0.181; Protocol 2 - Average Stream Bank Width: 4.6 ft								
					350.0					131.06	33.08	11,403.00	CBP Urban Stream Restoration Expert Panel: Protocol 1 - BANCS Sediment Load Estimate: 63 tons/yr, Sediment Delivery Ratio: 0.181; Protocol 2 - Average Stream Bank Width: 4 ft								
40	Turkey Run at Truro	10/19/2017	-77.245164	38.828326	Urban Stream Restoration	259.23	67.48	191.75	\$3,550,000	3581.5	1,682.29	774.74	267,099.89	CBP Urban Stream Restoration Expert Panel: Protocol 1 - BANCS Sediment Load Estimate: 1,475.69 tons/yr, Sediment Delivery Ratio: 0.181	10.9%	20.72	1.77	1,323.13	1,661.57	772.97	265,776.76
41	Oakford Drive Stream Restoration	4/27/2018	-77.230847	38.757118	Urban Stream Restoration	97.59	41.28	56.31	\$1,415,000	1302.0	501.89	231.13	79,685.00	CBP Urban Stream Restoration Expert Panel: Protocol 1 - BANCS Sediment Load Estimate: 440.25 tons/yr, Sediment Delivery Ratio: 0.181	8.3%	6.36	0.61	481.10	495.53	230.52	79,203.90
															<b>Total</b>				<b>3,564.70</b>	<b>1,434.23</b>	<b>459,290.16</b>
															Fairfax Credit	92.3%			<b>3,290.22</b>	<b>1,323.80</b>	<b>423,924.82</b>
															Herrndon Credit	4.2%			149.72	60.24	19,290.19
															Vienna Credit	3.5%			124.76	50.20	16,075.16

**Projects in Addition to Those Reported in the Chesapeake Bay TMDL Action Plan Completed July 1, 2017 to June 30, 2018 (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
<b>Construction Complete</b>																					
48	Babson Court Outfall Restoration	7/21/2017	-77.271345	38.817677	Outfall Restoration	12.96	3.74	9.22	\$409,830	383.2	69.40	31.96	11,018.56	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 380 LF, Average Stream Bank Height: 6 ft, Sediment Delivery Ratio: 0.181	30.8%	2.71	0.20	135.81	66.68	31.76	10,882.74
49	Lazy Creek Outfall Restoration	8/18/2017	-77.22583748	38.72917459	Outfall Restoration	5.37	2.48	2.88	\$195,315	159.0	19.36	8.92	3,073.60	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 159 LF, Average Stream Bank Height: 4 ft, Sediment Delivery Ratio: 0.181	5.5%	0.23	0.02	16.31	19.13	8.89	3,057.28
50	Tysons Galleria Outfall Restoration	10/13/2017	-77.224451	38.927591	Outfall Restoration	70.07	54.09	15.98	\$376,562	188.5	28.92	13.32	4,591.07	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 190 LF, Average Stream Bank Height: 5 ft, Sediment Delivery Ratio: 0.181	2.4%	0.70	0.32	110.51	28.22	13.00	4,480.56
51	Crestmont Circle Outfall Restoration	11/7/2017	-77.22942916	38.73279478	Outfall Restoration	3.61	1.20	2.41	\$106,041	146.0	26.44	8.94	3,355.47	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 146 LF, Average Stream Bank Height: 4 ft, Sediment Delivery Ratio: 0.181; Protocol 4: Runoff	34.2%	0.91	0.08	57.94	25.53	8.86	3,297.53
52	Nottoway Park Retrofit Ph I	2/15/2018	-77.189617	38.938023	Outfall Restoration	47.14	16.06	31.08	\$753,685	248.0	57.34	12.54	5,236.15	CBP Urban Stream Restoration Expert Panel: Protocol 1 - BANCS Sediment Load Estimate: 18.42 tons/yr, Sediment Delivery Ratio: 0.181; Protocol 4 - Treated Runoff	81.7%	31.85	3.30	2,652.54	3.29	12.69	7,809.81
					20.10	6.74	13.36	213.0	22.31	10.27	3,542.17	CBP Urban Stream Restoration Expert Panel: Protocol 1 - BANCS Sediment Load Estimate: 19.57 tons/yr, Sediment Delivery Ratio: 0.181	77.1%	12.51	1.25	992.96	9.80	9.02	2,549.21		
53	Harvest Green Court Outfall Restoration	3/27/2018	-77.353822	38.976308	Outfall Restoration	33.47	10.78	22.69	\$387,057	402.3	60.88	28.04	9,665.40	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 400 LF, Average Stream Bank Height: 5 ft, Sediment Delivery Ratio: 0.181	30.3%	7.42	0.63	467.07	53.46	27.41	9,198.33
54	Stone Mill Court Reach 2	4/24/2018	-77.342058	38.879321	Outfall Restoration	32.96	7.76	25.20	\$360,874	262.8	32.02	14.75	5,084.00	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 263 LF, Average Stream Bank Height: 4 ft, Sediment Delivery Ratio: 0.181	4.3%	1.02	0.08	60.75	31.01	14.66	5,023.25
55	Flatlick Ph II	4/26/2018	-77.434525	38.881297	Urban Stream Restoration	3,331.06	1,117.71	2,213.35	\$4,874,194	3560.0	3,146.99	339.22	116,951.34	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 4400 LF, Average Stream Bank Height: 5.5 ft, Sediment Delivery Ratio: 0.181; Protocol 2 - Average Stream Bank Height: 5.5 ft, Sediment Delivery Ratio: 0.181; Protocol 2 - Average Stream Bank Height: 5 ft, Sediment Delivery Ratio: 0.181	37.9% Note 1	269.39	22.49	46,398.02	3,257.65	378.73	91,925.93
					340.0					155.43	24.25	8,360.57									
					175.0					98.49	21.97	7,575.26									
					200.0					126.13	15.77	5,436.79									
56	Robinson, PCL 19 @ 0723DP (DF82-03)	5/22/2018	-77.230847	38.757118	Urban Stream Restoration	97.59	41.28	56.31	\$1,415,000	1302.0	501.89	231.13	79,685.00	CBP Urban Stream Restoration Expert Panel: Protocol 1 - BANCS Sediment Load Estimate: 440.25 tons/yr, Sediment Delivery Ratio: 0.181	8.3%	6.36	0.61	481.10	495.53	230.52	79,203.90
57	McLean Hunt Estates 0271DP	5/25/2018	-77.293272	38.9708	Outfall Restoration	34.33	5.08	29.25	\$395,000	260.0	7.91	3.64	1,256.50	CBP Urban Stream Restoration Expert Panel: Protocol 1 - Existing Length: 260 LF, Average Stream Bank Height: 1.0 ft, Sediment Delivery Ratio: 0.181	93.6%	7.41	1.90	1,176.13	0.51	1.74	80.37
58	Turkeycock Run at Mason District Park	5/25/2018	-77.171226	38.83211	Urban Stream Restoration	108.85	27.84	81.01	\$1,124,154	259.0	48.29	5.08	1,750.00	CBP Urban Stream Restoration Expert Panel: Protocol 1 - BANCS Sediment Load Estimate: 9.67 tons/yr, Sediment Delivery Ratio: 0.181; Protocol 2 - Average Stream Bank Width: 1.9 ft	71.8%	32.75	2.44	1,716.78	467.39	127.63	43,124.22
										1194.0	451.85	124.99	43,091.00								
<b>Subtotal:</b>															<b>373.25</b>	<b>33.33</b>	<b>54,265.93</b>	<b>4,458.19</b>	<b>864.92</b>	<b>260,633.13</b>	
															Fairfax Credit	92.3%			<b>4,114.91</b>	<b>798.32</b>	<b>240,564.38</b>
															Herrndon Credit	4.2%			187.24	36.33	10,946.59
															Vienna Credit	3.5%			156.04	30.27	9,122.16

**Note 1:** Some or all of the total Baseline for unregulated areas accounted for by another project with an overlapping drainage area.

**Control Measures Expected to be Implemented During the Next Reporting Cycle:**

These projects from the approved TMDL Action Plan are currently in construction.

#	Projects In Construction
42	Wolftrap Creek Phase 2

## Single Family Residential Development July 1, 2017 to June 30, 2018

The approved TMDL Action Plan included reductions for single family residential development under one acre from July 1, 2009 through June 30, 2014. As discussed in the approved Action Plan, this annual report includes an update to account for post-July 1, 2014 reductions from July 1, 2017 to June 30, 2018.

Plan Number	Project Name	Date Approved	Facility Type	Efficiency			Efficiency Source	Total Area Treated (Ac)	IA%	>0.05% of Parcel in MS4 Regulated Area	Total POC Reductions (lb/yr)*		
				TN	TP	TSS					TN	TP	TSS
000020-INF -017-3	WESTMORE GARDENS SECTION 2 LOT 8 (DR)	7/27/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.11	-
000080-INF -005-2	PLYMOUTH HAVEN SEC 2 BLK 4 LOT 3 (MV)	2/2/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.06	-
000394-INF -003-1	HICKORY CREEK LOT 75 SEC 11A (DR)	6/19/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.15	-
000427-INF -020-1	BROYHILLS MCLEAN ESTATES SEC 1 LOT 34 (DR)	9/11/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	1.90	-
000508-INF -019-1	RIVER OAKS LOT 4 SEC 1 (DR)	8/16/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.18	-
000508-INF -020-1	RIVER OAKS LOT 6 SEC 1 (DR)	10/11/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.18	-
000652-INF -002-3	2754 CEDAR LN (PR)	12/1/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-
000804-INF -026-1	HANSBOROUGH LOT 68 (DR)	2/26/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.15	-
001048-INF -001-3	TATTERSALL LOT 119A SEC 1 (PR)	6/25/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.10	-
001108-INF -001-2	BELLE HAVEN SEC 15 BLK 24 LOT 19 (MV)	12/21/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.08	-
001167-INF -001-2	RAYBURN PROPERTY LOT 1 (HM)	1/10/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.19	-
001303-INF -005-3	HOLMES RUN PARK SEC 1 PT LT 15, SEC 2 PT LT 16-18	6/4/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.12	-
001318-INF -003-2	WOOLFENDEN PROPERTY LOT 11B (MA)	12/12/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.13	-
001348-INF -012-1	OLD DOMINION GARDENS LOT 8 SEC 1 (DR)	5/21/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.12	-
001358-INF -006-2	WOODHAVEN SECTION 3 LOT 9 (DR)	3/13/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.19	-
001365-INF -002-2	NANTUCKET LOT 45 (DR)	5/29/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.07	-
001484-INF -003-1	PIMMIT VIEW SEC 2 LOT 24 7411 LISLE AVE (DR)	10/30/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-
001521-INF -006-1	RUCKERS LANGLEY SEC 3 LOT 43 - 1119 GUILFORD COURT	2/28/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	1.04	-
001610-INF -041-1	CHESTERBROOK GARDENS SEC 4 LOT 107 (DR)	11/14/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.03	-
001926-INF -008-1	HAYWOOD LOT 15 (BR)	9/8/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.16	-
002043-INF -014-3	WESTMORELAND PARK LT 67 SEC 2 (DR)	2/21/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.14	-
002367-INF -025-2	LANGLEY MANOR SECTION 1 LOT 32 (DR)	1/30/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.07	-
002461-INF -001-4	BELLE HAVEN LOT 20 BLK 2 SEC 1 (MV)	11/22/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-
002596-INF -079-2	SUGAR CREEK SECTION 1 LOT 30 (DR)	6/25/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.11	-
002893-INF -002-1	HILLTOP LOT 13 (PR)	4/19/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.11	-
002920-INF -013-4	LEE FOREST PT LT 87 SEC 2 (BR)	8/17/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.13	-
003072-INF -010-1	RIVER OAKS LOT 210 SEC 5 & PARKVIEW (DR)	12/21/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.67	-
003508-INF -006-2	BROYHILL CREST LOT 36A SECTION 1 (MA)	11/8/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.07	-
003890-INF -012-2	BROYHILLS MCLEAN ESTATES SEC 3 LOT 215 (DR)	11/9/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-
003959-INF -012-3	ADDITION PLYMOUTH HAVEN LT 6 BLK 2 SEC 1 (MV)	7/11/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.06	-
004023-INF -002-2	STONEWALL MANOR SEC 1 LOT 117 (PR)	6/20/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-
004086-INF -004-3	FAIRVIEW WOODS LT 42 SEC 2A (SP)	9/25/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.14	-
004180-INF -006-2	COLONIAL ACRES SEC 1 LOT 6 (MV)	11/20/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.10	-
004285-INF -021-3	MCLEAN MANOR LT 27 SEC 1 - 1565 HANE ST (DR)	9/22/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.07	-
004340-INF -003-1	SALONA VILLAGE SEC 8 LOT 11 (DR)	7/13/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.13	-
004342-INF -018-3	BROOKHAVEN BLK 4 LOT 5 (DR)	4/12/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.15	-
004372-INF -004-1	DONNA LEE GARDENS SEC 1 LOT 20 (PR)	2/9/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.07	-
004800-INF -024-1	EL NIDO ESTATES SEC 4 LOT 59 (DR)	1/24/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.07	-
004856-INF -001-2	ANNANDALE TERRACE SEC 2 LOTS 83 (MA)	10/30/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	1.04	-
004856-INF -002-2	ANNANDALE TERRACE SEC 2 LOTS 82 (MA)	10/30/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	1.04	-
004944-INF -003-6	MILLER HEIGHTS SEC 2 LOT 32 (PR)	8/18/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-
004954-INF -002-1	VILLA LORING LOT 2 BLK 1 (PR)	5/2/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.14	-
005134-INF -149-1	PIMMIT HILLS LOT 256 SEC 7 (DR)	10/18/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-
005134-INF -153-1	PIMMIT HILLS SEC 3 LOT 67 - 1927 LEONARD RD (DR)	11/13/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.08	-
005134-INF -164-1	PIMMIT HILLS LOT 370 SEC 6 (DR)	4/12/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-

Single Family Residential Development July 1, 2017 to June 30, 2018

Plan Number	Project Name	Date Approved	Facility Type	Efficiency			Efficiency Source	Total Area Treated (Ac)	IA%	>0.05% of Parcel in MS4 Regulated Area	Total POC Reductions (lb/yr)*			
				TN	TP	TSS					TN	TP	TSS	
005134-INF -166-1	PIMMIT HILLS LOT 244 SEC 7 (DR)	4/27/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.10	-	
005291-INF -027-2	PLYMOUTH HAVEN SEC 1 BLK 3 LOT 1A - 1123 ALDEN RD	10/30/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.07	-	
005314-INF -016-1	PIMMIT HILLS SECTION 6 LOT 365 (DR)	8/3/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-	
005599-INF -002-2	PARKVIEW HILLS LOT 7 [DR]	1/4/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.22	-	
005735-INF -011-2	KENBARGAN LOT 15 (DR)	3/26/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-	
005770-INF -029-3	MERRELL PARK LOT 12 (DR)	11/16/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-	
005825-INF -008-2	WESTHAMPTON LT 48 SEC 2 (DR)	10/11/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.06	-	
005825-INF -009-1	WESTHAMPTON SEC 2 LOT 68 (DR)	7/20/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.10	-	
005916-INF -001-1	BROOKSIDE WEST LOT 5 (HM)	8/11/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.04	-	
005963-INF -003-3	REYNOLDS 3RD ADDN TO POTOMAC HILLS LOT 11 (DR)	12/28/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-	
006198-INF -011-2	BRADDOCK LOT 10 (BR)	3/23/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.18	-	
006245-INF -001-2	FAIRFAX VILLA SEC 2 LOT 146 (BR)	8/29/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.59	-	
007117-INF -008-1	CHESTERBROOK ESTATES LOT 36 (DR)	10/27/2017	INFILTRATION PRACTICES LEVEL 2 (PRACTICE 8)	0.92	0.93	0.95	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.08	0.5	Yes	0.58	0.08	40.66	-
007182-INF -007-2	CHESTERBROOK FARM LT 53 SEC 2 (DR)	11/7/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.08	-	
007284-INF -001-3	PT OF RAVENSWORTH LT 15 [BR]	3/19/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.04	-	
007428-INF -007-2	SALONA VILLAGE SECTION 3 LOT 41A (DR)	11/9/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.14	-	
007855-INF -003-2	ASHGROVE PLANTATION LOT 50 SEC 3 (PR)	8/24/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.11	-	
008192-INF -003-1	MCLEAN HAMLET SEC 1 LOT 82 (DR)	2/6/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-	
008219-INF -003-1	OX ROAD LOT 18 3612 WEST OX ROAD (SU)	3/26/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.17	-	
008622-INF -029-3	BROYHILL LANGLEY ESTATES SEC 2 LOT 15 (DR)	10/5/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.10	-	
008622-INF -036-2	BROYHILL LANGLEY ESTATES SECTION 2 LOT 12 (DR)	11/16/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-	
008622-INF -037-1	BROYHILL LANGLEY ESTATES LOT 11 SEC 2 (DR)	9/28/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.11	-	
008622-INF -039-1	BROYHILL LANGLEY ESTATES LOT 63 SEC 1 (DR)	5/9/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.08	-	
008654-INF -001-2	R H STOWES ADDITION CHESTERBROOK WOODS LT17 (DR)	2/9/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.02	-	
009022-INF -001-2	PINEY RUN MEADOW SEC 1 LOT 3 (HM)	2/16/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	1.49	-	
009114-INF -005-3	PARIS SUBD LOT 2 (PR)	8/10/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-	
009162-INF -002-2	OLD COURTHOUSE RD LOT 10 ( HM)	2/9/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.31	-	
009272-INF -006-1	FOREST VILLA, LOT 7 (DR)	7/13/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.18	-	
009636-INF -002-2	HATCHET FARM LT 22 & COLLINGWOOD ESTS PCL B SEC 2	2/7/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-	
009649-INF -039-1	GARFIELD PARK LOT 112A SEC 3 (DR)	8/24/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.20	-	
009716-INF -018-3	GRASS RIDGE SEC 1 BLK 1 LOT 9 (DR)	2/14/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-	
009937-INF -005-2	MCLEAN HAMLET SEC 2 LOT 354 (DR)	11/14/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.06	-	
009937-INF -007-1	MCLEAN HAMLET SEC 2 LOT 246 (DR)	7/17/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	1.26	-	
011889-INF -001-3	DEWEY PARK LOT 20 SEC 1 (LE)	9/7/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.16	-	
011889-INF -002-3	DEWEY PARK LOT 19 SEC 1 / 7015 ROXANN RD (LE)	9/7/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.32	-	
013041-INF -004-3	DEVON PARK, SEC 2 LOT 126 (DR)	7/28/2017	INFILTRATION TRENCH - DESIGN 1	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.044	0.155	Yes	0.10	0.02	8.46	-
			INFILTRATION TRENCH - DESIGN 2	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.168	0.4		0.86	0.13	69.66	-
013041-INF -016-1	DEVON PARK SEC 1 LOT 30 (DR)	11/28/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.04	-	
013041-INF -017-1	DEVON PARK SEC 1 LOT 43 (DR)	1/25/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.07	-	
013944-INF -003-3	WELLINGTON HEIGHTS SEC 4 BLK 7 LOT 14 (MV)	8/10/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.22	-	
015147-INF -001-1	PROVIDENCE FOREST LOT 8 (DR)	1/24/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.13	-	
015414-INF -017-1	CHESTERBROOK GARDENS LOT 20 SEC 1 (DR)	12/28/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.07	-	
020179-INF -007-2	DEVON PARK SECTION 2 LOT 95 (DR)	8/10/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-	
021296-INF -003-3	O N MILLER LT 2 (LE)	9/11/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.24	-	
023141-INF -007-2	BROYHILL LANGLEY ESTATES SEC 1 LOT 14 (DR)	11/7/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.09	-	
024497-INF -002-1	H E G BESLEY LOT 56A (DR)	4/19/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.22	-	
024542-INF -004-1	BRAEWOOD SEC 1 LOT 5 (DR)	9/21/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.12	-	
024708-INF -011-2	BRILYN PARK LOT 90 (DR)	7/27/2017	CONVENTNL INFILTRATN-1 (20,000-100,000 SQ FT) DRAINAGE	0.80	0.85	0.95	CBP Established Efficiencies - Infiltration Practices w/o Sand, Veg.	0.09	0.222	Yes	0.28	0.04	22.87	-
024727-INF -002-1	Z B GROVES LT 25 (DR)	2/1/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.67	-	
024760-INF -009-4	RETLAW TERRACE LT1 BLK5 SEC2 (DR)	9/20/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.26	-	
024808-INF -007-1	DEVON PARK SECTION 3 LOT 29 (DR)	9/12/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.78	-	

Single Family Residential Development July 1, 2017 to June 30, 2018

Plan Number	Project Name	Date Approved	Facility Type	Efficiency			Efficiency Source	Total Area Treated (Ac)	IA%	>0.05% of Parcel in MS4 Regulated Area	Total POC Reductions (lb/yr)*		
				TN	TP	TSS					TN	TP	TSS
024808-INF -008-2	DEVON PARK SEC 3 LOT 73 (DR)	1/12/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-
024859-INF -014-4	LEWINSVILLE HEIGHTS SEC 2 LOT 7 (DR)	8/21/2017	BIORETENTION BASINS LV 1 NO UNDERGROUND SOIL INFILTRATN	0.64	0.55	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.09	0.778	Yes	0.68	0.08	39.73
		2/8/2018	MICRO-BIORETENTION (RAINGARDENS) LEVEL 2	0.90	0.90	0.55	VA BMP Clearinghouse for TP & TN; CBP Established Efficiencies - Bioretention C/D soils, underdrain for TSS	0.074	0.649	Yes	0.66	0.10	27.60
024859-INF -015-3	LEWINSVILLE HEIGHTS SEC 2 LOT 16 (DR)												
024859-INF -017-1	LEWINSVILLE HEIGHTS LOT 23 SEC 1 (DR)	8/31/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.39	-
024859-INF -021-1	LEWINSVILLE HEIGHTS LT 5 SEC 1 (DR)	4/12/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.13	-
024968-INF -004-3	DOLLEY MADISON ESTATES LOT 34 (DR)	7/6/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.11	-
024968-INF -005-1	DOLLEY MADISON ESTATES LOT 33 (DR)	12/20/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-
025039-INF -001-5	WOODSIDE ESTATES LOT1C / 8908 GALLANT GREEN DR (DR)	11/20/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.26	-
025158-INF -007-1	ROSEMONT SEC 4 LOT 39 - 6826 ROSEMONT DR (DR)	9/11/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.16	-
025455-INF -004-2	EUDORA SEC 1 LOT 46 (HM)	9/5/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.11	-
025524-INF -001-2	WEST SPRINGFIELD VILLAGE LOT 142 SEC 2(SP)	4/27/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.08	-
025842-INF -002-1	WALHAVEN LOT 33 SEC 2 (LE)	6/11/2018	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.17	-
025997-INF -001-2	POMPONIOS BEL AIR PT LT 1A (MA)	10/5/2017	NUTRIENT CREDIT PURCHASE	N/A	N/A	N/A	N/A	N/A	N/A	Yes	-	0.05	-

\* The change in POC load adjustment included in previous reporting is no longer being subtracted for post-2014 facilities.

<b>3.17</b>	<b>21.81</b>	<b>208.99</b>
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The Occoquan Overlook Bioretention Basin reported in the 2017 annual report has not been constructed so this credit is being removed (Plan 001811-INF-002-2)

(0.93)	(0.11)	(52.99)
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**2018 Single Family Credit:**

<b>2.24</b>	<b>21.70</b>	<b>156.00</b>
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**Septic Conversions from July 1, 2017 to June 30, 2018**

List includes parcels that intersect the FY17 MS4 Service Area

PIN	Street Name	Street Type	Address Number	Status Change	Type (Residential or Commercial)
0121 01 0045A	UTTERBACK STORE	RD	1085	10/2/2017	C
0554 20 0010	CRUZ	CT	12783	11/29/2017	R
0584 10 0010	PRINCE WILLIAM	DR	3831	8/8/2017	R

**Reduction from Residential Septic Conversions:**

TN Edge of Stream Loading (lbs/year/person):	3.6
Average number of people per household for Fairfax County (2010 Census):	2.8
Number of residential conversions:	2

**Residential TN reduction (lbs/year) = 20.16**

**Formula from DEQ for Household Septic Conversion**

Average HH (2010)	TN Per Year Per Person	TN Reduction Per HH Per Year	Conversions	Total TN Reduced (Lbs/Year)
2.80	3.60	10.08	1.00	10.08

**Determining TN Per Gallon Based on DEQ Household Formula and Table 5.1 "Sewage Flows" from 12VAC5-610-670**

Table 5.1 Provides Dwelling Per Person Total Flow of 75 GPD

Average HH (2010)	Flow Per Person Per Year (Gal)	Flow Per HH Per Year (Gal)	Conversions	Total Flow Reduced (Gal/Year)
2.80	27375.00	76650.00	1.00	76650.00

**Total TN Reduced Per Gallon = Total TN Reduced / Total Flow Reduced: 0.000132**

**Commercial Facility Calculations (July 1, 2017 - June 30, 2018)**

Unless otherwise noted, commercial flow is the maximum design flow provided by VDH divided by 1.6667 to arrive at an average flow. This factor is based on that applied by Fairfax County to average household flow to arrive at the design flow.

Facility	Use	Design Unit	Flow Per Day (Gal)	Flow Per Year	TN Reduced Per Gallon	Total TN Reduced (Lbs/Year)
Forestville Elementary School, 1085 Utterback Store Road, Great Falls	School	Per Day (Note that max. design flow per VDH is 367 gal/day. Since primary use is for a 180 day school year, this figure was divided by two (half of a 365 day year) for a conservative daily estimate. Approach approved by Kelsey Brooks at DEQ by email on 9/28/2016.)	183.5	66977.5	0.000132	8.84

**Total TN Reduced for Commercial Facility Conversions 8.84**

**Total TN Reduced for Residential and Commercial Facility Conversions (FY18) 29.00**



Land Use Changes July 1, 2017 - June 30, 2018

#	Project Name	Substantial Completion	Longitude	Latitude	Pollutant Reduction Calculation Method	Land Use From	Conversion	Area Converted (SF)	Estimated Cost (\$)	Estimated Amount of Pollutant Reduction from Land Use Change (lb/yr)			Total Drainage Area (Ac)	Impervious Drainage Area (Ac)	Pervious Drainage Area (Ac)	Estimated Pollutant Reduction from Forest Buffer (lb/yr)			Estimated Amount of Total Pollutant Reduction (lb/yr)			
										TN	TP	TSS				TN	TP	TSS	TN	TP	TSS	
<b>Construction Complete</b>																						
12	Americana Phase II	6/1/2016	-77.220417	38.833694	Land Use Change	Pervious	Grass	19,000	\$ 9,500	2.53									2.53	0.00	0.00	
13	Bucknell Elementary School	11/30/2017	-77.072337	38.767649	Land Use Change & Forest Buffer	Pervious	Forest	3,858	\$ 24,223	0.63	0.03	11.78	0.11	0	0.11	0.28	0.02	9.67	0.91	0.06	21.44	
			-77.074802	38.766772	Land Use Change	Pervious	Forest	2,642	\$ 17,633	0.43	0.02	8.06								0.43	0.02	8.06
			-77.074575	38.767341	Land Use Change	Pervious	Forest	3,758	\$ 22,627	0.62	0.03	11.47									0.62	0.03
14	Newington Forest ES	6/30/2018	-77.240205	38.739225	Land Use Change	Pervious	Grass	4,356	\$ 11,150	0.58	-	-							0.58	0.00	0.00	
			-77.240205	38.739225	Land Use Change	Impervious	Forest	5,413	\$ 27,000	1.73	0.22	155.58								1.73	0.22	155.58
15	Cliveden Court	4/6/2018	-77.369473	38.994705	Land Use Change	Impervious	Forest	5,000	\$ 35,000	3.57	0.46	298.53							3.57	0.46	298.53	
<b>Total:</b>								<b>44,027</b>	<b>\$ 147,133</b>	<b>10.10</b>	<b>0.77</b>	<b>485.42</b>	<b>0.11</b>	<b>-</b>	<b>0.11</b>	<b>0.28</b>	<b>0.02</b>	<b>9.67</b>	<b>10.37</b>	<b>0.79</b>	<b>495.09</b>	

Grandfathered Projects Initiating Construction July 1, 2017 - June 30, 2018

Plan level Input Data						Facility Level Input Data				Plan level Calculations					Practice level Calculations			
Plan #	Plan Name	Tax Map #	Disturbed Acres	Pre C Factor	Post C Factor	PAWS Facility Type	Acres Treated	DA C Factor	TP Removal Efficiency	Impervious %		Offsets (Credit Owed)			Reductions Provided			
										Pre	Post	TN (lb/yr)	TP (lb/yr)	TSS (lb/yr)	Impervious %	TN (lb/yr)	TP(lb/yr)	TSS(lb/yr)
007268-INF -002-3	MACINTOSH ESTATES LOT 6 (DR)	0203 22 0006	0.98	0.3	0.41					14	29	1.86	0.27	126.47	-	-	-	-
003759-SP-007-2	MONTICELLOW MEWS SEC 2 PHASE II (MA)	0812 01 0008	8.22	0.3	0.61	ENHANCED EXTENDED DETENTION DRY POND	7.24	0.69	0.50	14	57	48.20	6.99	3,277.51	69	15.21	5.51	3,102.46
						CONSERVATION EASEMENT AREA	1.48	0.30	1.00						14	-	0.59	-
						REFORESTATION	0.85	0.30	0.70						14	-	0.24	-
						VORTSENTRY/CDS AREA	2.20	0.85	0.15						91	-	0.65	-
005950-SP -003-4	OAKTON COMMUNITY PARK, PH 2A HUNTER MILL RD (PR)	0472 01 0013	2.42	0.59	0.64	OFFSITE CREDIT PURCHASE				55	62	2.40	0.35	163.15	-	8.22	0.61	-
008342-SP -007-5	METROWEST SECTION 6 (PR)	0483 49 0002	4.37	0.35	0.64	OTHER APPROVED BMP FACILITY - BAYFILTER	1.15	0.79	0.50	21	62	25.13	3.64	1,708.76	83	3.74	1.04	508.01
						OTHER APPROVED BMP FACILITY - BAYFILTER	0.40	0.75	0.50						77	1.22	0.34	165.47
						OTHER APPROVED BMP FACILITY - BAYFILTER	0.44	0.75	0.50						77	1.34	0.37	182.02
						FILTERING STRUCTURE - FILTERRA (TM)	0.17	0.82	0.50						87	0.58	0.16	78.67
009915-SP -002-3	SYA FIELDS OF DREAMS PH 2 (SU)	0524 01 0007, 0008, 0009, 0010, 0017	32.3	0.34	0.33	VEGETATED SWALE WITHOUT CHECK DAMS	1.98	0.63	0.50	20	18	(6.40)	(0.93)	(435.51)	60	7.81	1.34	699.01
						BIORETENTION FILTER	0.97	0.61	0.40						57	3.66	0.50	327.86

71.18	10.32	4,840.38	41.78	11.35	5,063.50
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Grandfathered Offset Required: 29.40 (1.03) (223.12)