

## 2017 Nutrient Load Analysis

§ 62.1-44.19:18.D. of the State Water Control Law requires that by April 1st of each year, DEQ prepare a report containing the annual mass loads of Total Nitrogen and Total Phosphorus discharged by each permitted facility, the number of point source Nitrogen and Phosphorus credits generated or required by each facility in the previous calendar year, and to the extent there are insufficient point source credits available for exchange to provide for full compliance by every permittee, the number of credits to be purchased from the Nutrient Offset Fund.

Actual discharged and delivered loads are included for each discharger. The degree to which each discharge was over or under the wasteload allocation is listed in the next to last column of each spreadsheet. The bottom figure in that same column indicates the degree to which the basin as a whole was over or under the basin-wide delivered wasteload allocation. The final column reflects credits which are held by the Nutrient Offset Fund in accordance with Part I.J.2.e. of the watershed general permit.

Sufficient Nitrogen and Phosphorus credits are available in every basin. With adequate credits available from permitted facilities, no credits will be made available by the Nutrient Offset Fund. Permitted facilities must complete and report all trades to DEQ by June 1, 2018. DEQ will publish notice of all credit exchanges for the previous calendar year by July 1, 2018.

## 2017 Potomac Total Nitrogen Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TN Wasteload Allocation (lbs/yr)	TN Delivery Factor	Delivered TN Wasteload Allocation (lbs/yr)	2017 Discharged TN (lbs)	2017 Delivered TN (lbs)	2017 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Front Royal STP	VA0062812	VAN010010	500	4.00	48,729	0.61	29,725	64,619	39,418	9,693	--
Mt. Jackson STP	VA0026441	VAN010012	500	0.70	8,528	0.34	2,900	21,144	7,189	4,289	--
Massanutten PSC STP	VA0024732	VAN010039	500	1.50	18,273	0.33	6,030	19,146	6,318	288	0
Merck (Outfall 101) <sup>A</sup>	VA0002178	VAN010007	500	1.20	43,835	0.33	14,466	3,976	1,312	0	0
Strasburg STP	VA0020311	VAN010102	500	0.98	11,939	0.43	5,134	11,303	4,860	-274	--
Middleburg	VA0024775	VAN010120	500	0.25	7,973	0.05	399	419	21	-378	--
FCW&SA-Vint Hill WWTF	VA0020460	VAN010020	500	0.95	11,573	0.05	579	1,531	77	-502	--
VA Poultry Growers Cooperative-Hinton	VA0002313	VAN010009	500	1.50	27,410	0.13	3,563	17,922	2,330	-1,233	--
Boyce STP	VA0085171	VAN010107	500	0.099	2,848	0.63	1,794	672	423	-1,371	--
Stoney Creek S.D. STP	VA0028380	VAN010015	500	0.60	8,259	0.35	2,891	4,131	1,446	-1,445	--
Berryville STP	VA0020532	VAN010040	500	0.70	8,528	0.63	5,373	3,572	2,250	-3,123	--
Town of Broadway Regional WWTF	VA0090263	VAN010062	500	2.92	29,481	0.19	5,601	7,940	1,509	-4,092	--
USNSWC-Dahlgren WWTF	VA0021067	VAN010041	500	0.72	6,578	1.00	6,578	2,084	2,084	-4,494	--
Round Hill WWTP	VA0026212	VAN010093	500	0.75	9,137	0.72	6,579	2,570	1,850	-4,729	--
Middletown STP	VA0020982	VAN010121	500	0.40	14,238	0.43	6,122	3,075	1,322	-4,800	--
Waynesboro STP	VA0025151	VAN010098	500	4.00	48,729	0.14	6,822	8,792	1,231	-5,591	--
Alma Plant	VA0001961	VAN010008	500	1.00	18,273	0.33	6,030	0	0	-6,030	--
Luray WWTP	VA0062642	VAN010006	500	1.60	19,492	0.42	8,187	4,369	1,835	-6,352	--
Georges Chicken	VA0077402	VAN010011	500	1.70	31,065	0.35	10,873	11,606	4,062	-6,811	--
Woodstock STP	VA0026468	VAN010094	500	2.00	24,364	0.35	8,527	1,961	686	-7,841	--
King George Co - Potomac River Aggregate	--	VAN010060	500	--	--	--	12,060		4,198	-7,862	--
Dahlgren S.D. WWTP	VA0026514	--	501	1.00	9,137	1.00		1,968			
Purkins Corner WWTP	VA0070106	--	502	0.12	1,096	1.00		1,758			
Fairview Beach STP	VA0092134	--	503	0.20	1,827	1.00		471			
Lovettsville	VA0023183	VAN010129	500	0.38	14,238	0.85	12,102	3,577	3,040	-9,062	--
Apparel and Advanced Textiles LLC - Waynesboro	VA0002160	VAN010050	500	1.44	78,941	0.14	11,052	1,828	256	-10,796	--
MillerCoors LLC	VA0073245	VAN010096	500	4.50	54,820	0.33	18,091	18,110	5,976	-12,115	--
Purcellville-Basham Simms WWTF	VA0022802	VAN010016	500	1.50	18,273	0.72	13,157	893	643	-12,514	
Augusta Co. Service Authority Aggregate	--	VAN010092	500	--	--	--	21,383		8,344	-13,039	--
Fishersville STP	VA0025291	--	501	4.00	48,729	0.10		12,249			
Stuarts Draft WWT	VA0066877	--	502	4.00	48,729	0.05		6,959			
Middle River Regional STP	VA0064793	--	503	6.80	82,839	0.10		19,453			

## 2017 Potomac Total Nitrogen Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TN Wasteload Allocation (lbs/yr)	TN Delivery Factor	Delivered TN Wasteload Allocation (lbs/yr)	2017 Discharged TN (lbs)	2017 Delivered TN (lbs)	2017 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Weyers Cave STP	VA0022349	--	504	0.50	6,091	0.24		11,986			
Greenville STP	VA0090417	--	505	0.25	14,238	0.10		4,683			
Mt. Sidney STP	VA0022322	--	506	0.15	8,543	0.10		7,911			
Vesper View STP	VA0067962	--	507	0.10	5,695	0.18		3,280			
Harriston STP	VA0027901	--	508	0.10	5,695	0.18		555			
USMC-Quantico Mainside WWTF	VA0028363	VAN010043	500	2.20	20,101	1.00	20,101	5,017	5,017	-15,084	--
Colonial Beach STP	VA0026409	VAN010099	500	2.00	18,273	1.00	18,273	2,770	2,770	-15,503	--
Frederick-Winchester SA Aggregate	--	VAN010057	500	--	--	--	47,518		17,381	-30,137	--
Opequon WRF	VA0065552	--	501	12.60	121,851	0.26		45,848			
Parkins Mills WWTP	VA0075191	--	502	5.00	60,911	0.26		21,059			
HRRSA-North River WWTF	VA0060640	VAN010042	500	22.0	253,391	0.22	55,746	83,219	18,308	-37,438	--
Upper Occoquan S.A. WWTP	VA0024988	VAN010019	500	54.00	1,315,682	0.23	302,607	1,139,341	262,048	-40,559	--
Virginia American Water Prince William - Aggregate	--	VAN010058	500	--	--	1.00	84,058		40,779	-43,279	--
Virginia American Water Prince William - Section 1	VA0024724	--	501	4.60	42,029	1.00		16,827			
Virginia American Water Prince William - Section 8	VA0024678	--	502	4.60	42,029	1.00		23,952			
Stafford Co-Aquia WWTP	VA0060968	VAN010023	500	10.00	73,093	1.00	73,093	24,746	24,746	-48,347	--
Leesburg WPCF	VA0092282	VAN010061	500	10.00	121,822	0.80	97,458	30,217	24,174	-73,284	25,278
LCSA-Broad Run WRF	VA0091383	VAN010017	500	11.00	134,005	0.89	119,264	39,132	34,827	-84,437	--
PWCSA-H.L. Mooney WWTF	VA0025101	VAN010018	500	24.00	219,280	1.00	219,280	115,383	115,383	-103,897	--
Arlington Co. WPCF	VA0025143	VAN010021	500	40.00	365,467	1.00	365,467	156,564	156,564	-208,903	--
Alexandria S.A. WWTP	VA0025160	VAN010059	500	54.00	493,381	1.00	493,381	257,319	257,319	-236,062	--
Fairfax Co.-Noman-Cole PCF	VA0025364	VAN010022	500	67.00	612,158	1.00	612,158	227,221	227,221	-384,937	--
<b>Totals</b>							<b>2,734,422</b>		<b>1,289,219</b>	<b>-1,432,049</b>	<b>25,278</b>

<sup>A</sup> In any year when credits are available after all other exchanges within the Potomac Basin are completed in accordance with § 62.1-44.19:18 of the Code of Virginia, Merck shall acquire credits for TN discharged in excess of 14,619 lbs/yr and TP discharged in excess of 1,096 lbs/yr. Credits are only generated if discharged loads are less than these same loads. This equates to the need for 0 delivered pounds of TN credits and 489 pounds of TP credits for 2017.

## 2017 Potomac Total Phosphorus Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TP Wasteload Allocation (lbs/yr)	TP Delivery Factor	Delivered TP Wasteload Allocation (lbs/yr)	2017 Discharged TP (lbs)	2017 Delivered TP (lbs)	2017 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Front Royal STP	VA0062812	VAN010010	500	4.00	3,655	0.54	1,974	11,265	6,083	4,109	--
Massanutten PSC STP	VA0024732	VAN010039	500	1.50	1,371	0.53	727	5,091	2,698	1,971	0
Strasburg STP	VA0020311	VAN010102	500	0.98	895	0.53	474	651	345	-129	--
VA Poultry Growers Cooperative-Hinton	VA0002313	VAN010009	500	1.50	1,371	0.53	727	1,987	1,053	326	--
Stoney Creek S.D. STP	VA0028380	VAN010015	500	0.60	667	0.53	354	748	396	42	--
Merck (Outfall 101) <sup>A</sup>	VA0002178	VAN010007	500	1.20	4,384	0.54	2,367	2,469	1,333	0	0
USNSWC-Dahlgren WWTF	VA0021067	VAN010041	500	0.72	658	0.99	651	451	446	-205	--
FCW&SA-Vint Hill WWTF	VA0020460	VAN010020	500	0.95	868	0.17	148	74	13	-135	--
Middleburg WWTP	VA0024775	VAN010120	500	0.25	1,066	0.17	181	207	35	-146	--
Boyce STP	VA0085171	VAN010107	500	0.099	381	0.54	206	16	9	-197	--
Mt. Jackson STP	VA0026441	VAN010012	500	0.70	640	0.53	339	1,309	694	355	--
Berryville STP	VA0020532	VAN010040	500	0.70	640	0.53	339	257	136	-203	--
Round Hill WWTP	VA0026212	VAN010093	500	0.75	685	0.53	363	119	63	-300	--
Alma Plant	VA0001961	VAN010008	500	1.00	914	0.53	484	0	0	-484	--
King George Co - Potomac River Aggregate	--	VAN010060	500	--	--	--	1,199		774	-425	--
Dahlgren S.D. WWTP	VA0026514	--	501	1.00	914	1.00		327			
Purkins Corner WWTP	VA0070106	--	502	0.12	110	0.96		91			
Fairview Beach STP	VA0092134	--	503	0.20	183	0.98		360			
Middletown STP	VA0020982	VAN010121	500	0.40	1,903	0.54	1,028	213	115	-913	--
Apparel and Advanced Textiles LLC - Waynesboro	VA0002160	VAN010050	500	1.44	1,009	0.54	545	56	30	-515	--
Georges Chicken	VA0077402	VAN010011	500	1.70	1,553	0.54	839	531	287	-552	--
Luray STP	VA0062642	VAN010006	500	1.60	1,462	0.54	789	489	264	-525	--
Purcellville-Basham Simms WWTF	VA0022802	VAN010016	500	1.50	1,371	0.53	727	228	121	-606	--
Town of Broadway Regional WWTF	VA0090263	VAN010062	500	2.92	2,211	0.53	1,172	515	273	-899	--
Lovettsville WWTP	VA0023183	VAN010129	500	0.375	1,903	0.54	1,028	662	357	-671	--
MillerCoors LLC	VA0073245	VAN010096	500	4.50	4,112	0.54	2,220	2,594	1,401	-819	--
Woodstock STP	VA0026468	VAN010094	500	2.00	1,827	0.54	987	80	43	-944	--
USMC-Quantico Mainside WWTF	VA0028363	VAN010043	500	2.20	1,206	1.00	1,206	88	88	-1,118	--
Colonial Beach STP	VA0026409	VAN010099	500	2.00	1,827	1.00	1,827	310	310	-1,517	--
LCSA-Broad Run WRF	VA0091383	VAN010017	500	11.00	3,350	0.54	1,809	466	252	-1,557	--

## 2017 Potomac Total Phosphorus Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TP Wasteload Allocation (lbs/yr)	TP Delivery Factor	Delivered TP Wasteload Allocation (lbs/yr)	2017 Discharged TP (lbs)	2017 Delivered TP (lbs)	2017 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Waynesboro STP	VA0025151	VAN010098	500	6.00	3,655	0.54	1,974	669	361	-1,613	--
Leesburg WPCF	VA0092282	VAN010061	500	10.00	9,137	0.54	4,934	2,351	1,270	-3,664	1,759
Stafford Co-Aquia WWTP	VA0060968	VAN010023	500	8.00	4,386	1.00	4,386	1,650	1,650	-2,736	--
Virginia American Water Prince William - Aggregate	--	VAN010058	500	--	--	--	5,044		1,601	-3,443	--
Virginia American Water Prince William - Section 1	VA0024724	--	501	4.60	2,522	1.00		806			
Virginia American Water Prince William - Section 8	VA0024678	--	502	4.60	2,522	1.00		795			
Upper Occoquan S.A. WWTP	VA0024988	VAN010019	500	54.00	16,446	0.30	4,934	4,862	1,459	-3,475	--
HRRSA-North River WWTF	VA0060640	VAN010042	500	22.0	19,004	0.54	10,262	6,429	3,472	-6,790	--
Frederick-Winchester SA Aggregate	--	VAN010057	500	--	--	--	8,684		2,165	-6,519	--
Opequon WRF	VA0065552	--	501	12.60	11,512	0.54		2,544			
Parkins Mills WWTP	VA0075191	--	502	5.00	4,568	0.54		1,456			
Augusta Co. Service Authority Aggregate	--	VAN010092	500	--	--	--	10,012		3,943	-6,069	--
Fishersville STP	VA0025291	--	501	4.00	3,655	0.54		437			
Stuarts Draft WWT	VA0066877	--	502	4.00	3,655	0.54		550			
Middle River Regional STP	VA0064793	--	503	6.80	6,213	0.54		1,651			
Weyers Cave STP	VA0022349	--	504	0.50	457	0.53		2,156			
Greenville STP	VA0090417	--	505	0.25	1,903	0.54		689			
Mt. Sidney STP	VA0022322	--	506	0.15	1,142	0.54		909			
Vesper View STP	VA0067962	--	507	0.10	761	0.54		570			
Harriston STP	VA0027901	--	508	0.10	761	0.54		385			
PWCSA-H.L. Mooney WWTF	VA0025101	VAN010018	500	24.00	13,157	1.00	13,157	2,653	2,653	-10,504	--
Arlington Co. WPCF	VA0025143	VAN010021	500	40.00	21,928	1.00	21,928	3,447	3,447	-18,481	--
Alexandria S.A. WWTP	VA0025160	VAN010059	500	54.00	29,603	1.00	29,603	7,026	7,026	-22,577	--
Fairfax Co.-Noman-Cole PCF	VA0025364	VAN010022	500	67.00	36,729	1.00	36,729	9,402	9,402	-27,327	--
<b>Totals</b>							<b>176,357</b>		<b>56,068</b>	<b>-119,255</b>	<b>1,759</b>

Footnotes

A In any year when credits are available after all other exchanges within the Potomac Basin are completed in accordance with § 62.1-44.19:18 of the Code of Virginia, Merck shall acquire credits for TN discharged in excess of 14,619 lbs/yr and TP discharged in excess of 1,096 lbs/yr. Credits are only generated if discharged loads are less than these same loads. This equates to the need for 0 delivered pounds of TN credits and 489 pounds of TP credits for 2017.

## 2017 Rappahannock Total Nitrogen Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TN Wasteload Allocation (lbs/yr)	TN Delivery Factor	Delivered TN Wasteload Allocation (lbs/yr)	2017 Discharged TN (lbs)	2017 Delivered TN (lbs)	2017 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
HRSD-Urbanna	VA0026263	VAN020034	500	0.10	1,218	1.00	1,218	3,080	3,080	1,862	--
Montross-Westmoreland WWTP	VA0072729	VAN020032	500	0.13	1,584	0.74	1,172	2,166	1,603	431	--
Camp Red Arrow WWTF	VA0092452	VAN020162	500	0.0055	78	0.49	38	48	24	-14	
Rush River	VA0091651	VAN020108	500	0.06	1,462	0.24	351	158	38	-313	--
Rapidan STP	VA0090948	VAN020026	500	0.60	7,309	0.29	2,120	3,920	1,137	-983	--
Presidential Lakes Section 14 STP	VA0086720	VAN020109	500	0.07	1,994	1.00	1,994	717	717	-1,277	--
Reedville S.D. WWTP	VA0060712	VAN020101	500	0.20	2,436	1.00	2,436	782	782	-1,654	--
Haynesville Correctional Center WWTP	VA0023469	VAN020044	500	0.23	2,802	1.00	2,802	1,045	1,045	-1,757	633
Culpeper County Nutrient Aggregate	--	VAN020054	500	--	--	--	2,743		939	-1,804	--
Clevengers Village WWTP	VA0080527	--	505	0.90	10,964	0.19		388			
Airpark WWTP	VA0068586	--	506	0.025	1346	0.49		1,161			
Warsaw STP	VA0026891	VAN020036	500	0.30	3,655	1.00	3,655	1,490	1,490	-2,165	--
US Army -Ft. A.P. Hill WWTP	VA0032034	VAN020035	500	0.53	6,457	1.00	6,457	4,101	4,101	-2,356	--
Warrenton STP	VA0021172	VAN020028	500	2.50	30,456	0.19	5,787	13,766	2,616	-3,171	--
Kilmarnock WWTP	VA0020788	VAN020038	500	0.50	6,091	1.00	6,091	2,470	2,470	-3,621	--
Wilderness WWTP	VA0083411	VAN020029	500	2.00	15,228	0.41	6,243	4,489	1,840	-4,403	--
King George Co – Nutrient Aggregate	--	VAN020056	500	--	--	--	7,797		3,295	-4,502	1,523
Oakland Park STP	VA0086789	--	501	0.14	1,706	1.00		2,569			
Hopyard Farms WWTF	VA0089338	--	502	0.50	6,091	1.00		726			
Haymount WWTF	VA0089125	VAN020030	500	0.58	7,066	1.00	7,066	0	0	-7,066	7,066
Tappahannock WWTP	VA0071471	VAN020033	500	0.80	9,746	1.00	9,746	1,652	1,652	-8,094	--
Orange STP	VA0021385	VAN020025	500	3.00	36,547	0.29	10,599	3,041	882	-9,717	--
Fauquier Co. WSA Nutrient Aggregate	--	VAN020053	500	--	--	--	13,419		3,228	-10,191	--
Remington WWTP	VA0076805	--	501	2.00	24,364	0.49		5,678			
Marshall WWTP	VA0031763	--	502	0.64	7,797	0.19		2,351			
Omega Protein	VA0003867	VAN020037	500	3.21	21,213	1.00	21,213	2,689	2,689	-18,524	--
Fredericksburg WWTF	VA0025127	VAN020095	500	4.50	54,820	1.00	54,820	32,886	32,886	-21,934	--
Culpeper WPCF	VA0061590	VAN020024	500	6.00	73,093	0.49	35,816	20,194	9,895	-25,921	--
Spotsylvania County Nutrient Aggregate	--	VAN020055	500	--	--	--	163,242		124,224	-39,018	--
FMC WWTF	VA0068110	--	501	4.00	48,737	1.00		55,959			
Massaponax WWTF	VA0025658	--	502	9.40	114,505	1.00		68,265			
Stafford Co.-Little Falls Run WWTF	VA0076392	VAN020031	500	8.00	97,458	1.00	97,458	32,611	32,611	-64,847	--
<b>Totals</b>							<b>464,283</b>	<b>233,243</b>	<b>-231,040</b>	<b>9,222</b>	

## 2017 Rapphannock Total Phosphorus Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TP Wasteload Allocation (lbs/yr)	TP Delivery Factor	Delivered TP Wasteload Allocation (lbs/yr)	2017 Discharged TP (lbs)	2017 Delivered TP (lbs)	2017 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Rapidan STP	VA0090948	VAN020026	500	0.60	548	0.77	422	1468	1,130	708	--
HRSD-Urbanna	VA0026263	VAN020034	500	0.10	91	0.96	87	737	708	621	--
Montross-Westmoreland WWTP	VA0072729	VAN020032	500	0.13	119	0.92	119	189	174	55	--
Camp Red Arrow WWTF	VA0092452	VAN020162	500	0.0055	10	0.78	8	7	5	-3	
King George Co. Nutrient Aggregate	--	VAN020056	500	--	--	--	576		502	-74	74
Oakland Park STP	VA0086789	--	501	0.14	128	0.97		243			
Hopyard Farms WWTF	VA0089338	--	502	0.50	457	0.99		257			
Reedville S.D. WWTP	VA0060712	VAN020101	500	0.20	183	0.98	179	60	59	-120	--
Haynesville Correctional Center WWTP	VA0023469	VAN020044	500	0.23	210	1.00	210	55	55	-155	47
Rush River	VA0091651	VAN020108	500	0.06	235	0.78	183	9	7	-176	--
Presidential Lakes Section 14 STP	VA0086720	VAN020109	500	0.07	267	1.00	267	77	77	-190	
Warsaw STP	VA0026891	VAN020036	500	0.30	274	0.99	271	68	67	-204	--
Kilmarnock WWTP	VA0020788	VAN020038	500	0.50	457	0.99	452	177	175	-277	--
US Army -Ft. A.P. Hill WWTP	VA0032034	VAN020035	500	0.53	484	0.99	479	40	40	-439	--
Haymount WWTF	VA0089125	VAN020030	500	0.58	530	0.99	525	0	0	-525	525
Culpeper County Nutrient Aggregate	--	VAN020054	500	--	--	--	773		204	-569	--
Clevengers Village WWTP	VA0080527	--	505	0.90	822	0.77		14			
Airpark WWTP	VA0068586	--	506	0.025	180	0.78		189			
Tappahannock WWTP	VA0071471	VAN020033	500	0.80	731	1.00	731	45	45	-686	--
Wilderness WWTP	VA0083411	VAN020029	500	2.00	1,142	0.77	879	249	192	-687	--
Omega Protein	VA0003867	VAN020037	500	3.21	1,591	1.00	1,591	121	121	-1,470	--
Warrenton STP	VA0021172	VAN020028	500	2.50	2,284	0.78	1,782	382	298	-1,484	--
Fauquier Co. WSA Nutrient Aggregate	--	VAN020053	500	--	--	--	1,876		285	-1,591	--
Remington WWTP	VA0076805	--	501	2.00	1,827	0.78		241			
Marshall WWTP	VA0031763	--	502	0.64	585	0.77		127			
Orange STP	VA0021385	VAN020025	500	3.00	2,741	0.78	2,138	179	140	-1,998	--
Fredericksburg WWTF	VA0025127	VAN020095	500	4.50	4,112	1.00	4,112	1,809	1,809	-2,303	--
Culpeper WWTP	VA0061590	VAN020024	500	6.00	5,483	0.78	4,277	318	248	-4,029	--
Stafford Co.-Little Falls Run WWTF	VA0076392	VAN020031	500		7,309	1.00	7,309	1,566	1,566	-5,743	--
Spotsylvania Co. Nutrient Aggregate	--	VAN020055	500	--	--	--	12,060		5,505	-6,555	--
FMC WWTF	VA0068110	--	501	4.00	3,655	1.00		1,470			
Massaponax WWTF	VA0025658	--	502	9.40	8,405	1.00		4,035			
<b>Totals</b>							<b>41,306</b>	<b>13,412</b>	<b>-27,894</b>	<b>646</b>	

## 2017 York Total Nitrogen Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TN Wasteload Allocation (lbs/yr)	TN Delivery Factor	Delivered TN Wasteload Allocation (lbs/yr)	2017 Discharged TN (lbs)	2017 Delivered TN (lbs)	2017 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
WestRock CP LLC - West Point	VA0003115	VAN030049	500	23.00	259,177	1.00	259,177	269,168	269,168	9,991	--
Shenandoah Crossing STP	VA0076678	VAN030119	500	0.10	2,848	0.26	740	252	66	-674	--
Gordonsville STP	VA0021105	VAN030046	500	0.94	17,177	0.05	859	2,311	116	-743	249
Lake Land' Or WWTP	VA0060887	VAN030110	500	0.22	5,695	0.58	3,303	3,282	1,904	-1,399	--
Caroline County Regional STP	VA0073504	VAN030045	500	1.50	9,137	0.58	5,299	3,047	1,767	-3,532	--
Louisa County Water Authority Aggregate	--	VAN030154	500	--	--	--	7,404		1,541	-5,863	--
Louisa Regional WWTP	VA0067954	--	501	0.80	22,780	0.26		4,804			
Zion Crossroads WWTP	VA0090743	--	502	0.311	5,695	0.26		333			
Bear Island Paper Company	VA0029521	VAN030133	500	4.20	47,328	0.51	24,137	34,441	17,565	-6,572	--
Parham Landing WWTP	VA0088331	VAN030048	500	2.00	36,547	1.00	36,547	2,702	2,702	-33,845	--
Hanover County Aggregate	--	VAN030051	500	--	--	--	192,054		72,677	-119,377	54,820
Ashland WWTP	VA0024899	--	501	2.00	36,547	0.62		32,040			
Doswell WWTP	VA0029521	--	502	1.00	18,273	0.57		14,790			
Totopotomoy WWTP	VA0089915	--	503	10.00	182,734	0.87		51,014			
Plains Marketing LP Yorktown	VA0003018	VAN030047	500	53.80	167,128	1.00	167,128	341	341	-166,787	--
HRSD York River Aggregate	--	VAN030052	500	--	--	--	288,315		98,961	-189,354	--
York River STP	VA0081311	--	501	15.00	275,927	1.00		79,187			
West Point STP	VA0075434	--	502	0.60	10,964	1.00		19,682			
King William STP	VA0088102	--	504	0.10	1,424	1.00		92			
<b>Totals</b>							<b>984,963</b>	<b>466,807</b>	<b>-518,156</b>	<b>55,069</b>	



## 2017 York Total Phosphorus Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TP Wasteload Allocation (lbs/yr)	TP Delivery Factor	Delivered TP Wasteload Allocation (lbs/yr)	2017 Discharged TP (lbs)	2017 Delivered TP (lbs)	2017 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Gordonsville STP	VA0021105	VAN030046	500	0.94	1,145	0.18	206	833	150	-56	56
Shenandoah Crossing STP	VA0076678	VAN030119	500	0.10	381	0.55	210	22	12	-198	--
Caroline County Regional STP	VA0073504	VAN030045	500	1.50	609	0.68	414	160	109	-305	--
Lake Land' Or WWTP	VA0060887	VAN030110	500	0.22	761	0.69	525	272	188	-337	--
Louisa County Water Authority Aggregate	--	VAN030154	500	--	--	--	2,010		130	-1,880	--
Louisa Regional WWTP	VA0067954	--	501	0.80	3,045	0.55		183			
Zion Crossroads WWTP	VA0090743	--	502	0.311	609	0.55		27			
Parham Landing WWTP	VA0088331	VAN030048	500	2.00	2,436	1.00	2,436	143	143	-2,293	--
Bear Island Paper Company	VA0029521	VAN030133	500	4.20	10,233	0.55	5,628	2,748	1,511	-4,117	--
HRSD York River Aggregate	--	VAN030052	500	--	--	--	19,315		13,498	-5,817	--
York River STP	VA0081311	--	501	15.00	18,395	1.00		9,909			
West Point STP	VA0075434	--	502	0.60	731	1.00		3,586			
King William STP	VA0088102	--	504	0.10	190	1.00		3			
WestRock CP LLC- West Point	VA0003115	VAN030049	500	23.00	56,038	1.00	56,038	48,037	48,037	-8,001	--
Hanover County Aggregate	--	VAN030051	500	--	--	--	11,390		3,078	-8,312	6,396
Ashland WWTP	VA0024899	--	501	2.00	2,436	0.55		2,786			
Doswell WWTP	VA0029521	--	502	1.00	1,218	0.55		1,296			
Totopotomoy WWTP	VA0089915	--	503	10.00	12,182	0.77		1,082			
Plains Marketing LP Yorktown	VA0003018	VAN030047	500	53.80	17,689	1.00	17,689	37	37	-17,652	--
<b>Totals</b>							<b>115,861</b>	<b>66,893</b>	<b>-48,968</b>	<b>6,452</b>	

## 2017 James Total Nitrogen Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TN Wasteload Allocation (lbs/yr)	TN Delivery Factor	Delivered TN Wasteload Allocation (lbs/yr)	2017 Discharged TN (lbs)	2017 Delivered TN (lbs)	2017 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
<b>Upper/Middle James</b>											
So. Central Wastewater Authority WWTF	VA0025437	VAN040087	500	23.00	350,239	1.00	350,239	562,631	562,631	212,392	--
Lake Monticello STP	VA0024945	VAN040074	500	0.995	18,182	0.67	12,182	69,102	46,298	34,116	0
E. I. DuPont-Spruance	VA0004669	VAN040079	500	23.33	201,080	1.00	201,080	219,104	219,104	18,024	--
Greif Inc.	VA0006408	VAN040073	500	6.50	73,246	0.65	47,610	83,754	54,440	6,830	--
Covington STP	VA0025542	VAN040065	500	3.00	54,820	0.21	11,512	76,495	16,064	4,552	--
Buena Vista STP	VA0020991	VAN040063	500	2.25	41,115	0.56	23,024	45,393	25,420	2,396	--
Augusta Correctional Center	VA0091821	VAN040126	500	0.44	4,020	0.21	844	2,170	456	-388	--
Tyson Foods-Glen Allen	VA0004031	VAN040089	500	1.07	19,552	0.16	3,128	12,221	1,955	-1,173	--
Crewe WWTP	VA0020303	VAN040100	500	0.50	9,137	0.29	2,650	2,316	672	-1,978	--
Manakin Farms WWTP	VA0027910	VAN040173	500	0.100	3,987	0.89	3,548	1,725	1,535	-2,013	--
Amherst-Rutledge Creek WWTP	VA0031321	VAN040071	500	0.60	10,964	0.34	3,728	1,639	557	-3,171	--
Powhatan Correctional Center STP	VA0020699	VAN040077	500	0.47	8,588	0.89	7,643	663	590	-7,053	--
Farmville WWTP	VA0083135	VAN040097	500	2.40	43,856	0.26	11,403	7,027	1,827	-9,576	--
WestRock Virginia Corporation- Covington	VA0003646	VAN040070	500	35.00	394,400	0.11	43,384	274,610	30,207	-13,177	--
Lex.-Rock. Regional WQCF	VA0088161	VAN040068	500	3.00	54,820	0.32	17,542	7,350	2,352	-15,190	--
Alleghany County Aggregate	--	VAN040069	500	--	--	--	19,005		3,485	-15,520	4,934
Low Moor WWTP	VA0027979	--	501	0.50	9,137	0.26		1,133			
Lower Jackson River WWTP	VA0090671	--	502	2.60	63,957	0.26		10,491			
Mohawk Industries, Inc.	VA0004677	VAN040067	500	2.00	30,456	0.59	17,969	2,225	1,313	-16,656	--
The Sustainability Park LLC (001)	VA0002780	VAN040078	500	2.10	25,583	1.00	25,583	0	0	-25,583	--
GP Big Island LLC	VA0003026	VAN040066	500	10.87	122,489	0.60	73,493	70,696	42,418	-31,075	--
BWX Technologies, Inc.	VA0003697	VAN040072	500	1.00	187,000	0.65	121,550	105,413	68,518	-53,032	--
Philip Morris USA-Park 500	VA0026557	VAN040084	500	2.90	139,724	1.00	139,724	33,537	33,537	-106,187	--
RWSA-Moores Creek Regional STP	VA0025518	VAN040076	500	15.00	282,831	0.67	189,497	64,429	43,167	-146,330	--
Lynchburg STP	VA0024970	VAN040075	500	22.00	536,019	0.65	348,412	228,099	148,264	-200,148	--
Chesterfield County Aggregate	--	VAN040080	500	--	--	--	564,952		359,446	-205,506	--
Falling Creek WWTP	VA0024996	--	501	10.10	153,801	1.00		125,519			
Proctors Creek WWTP	VA0060194	--	502	27.00	411,151	1.00		233,927			
Dominion-Chesterfield	VA0004146	VAN040086	500	--	352,036	1.00	352,036	45,094	45,094	-306,942	--
AdvanSix Resins and Chemicals LLC	VA0005291	VAN040082	500	121.00	1,090,798	1.00	1,090,798	757,964	757,964	-332,834	--
Hopewell RWTF	VA0066630	VAN040083	500	50.00	1,827,336	1.00	1,827,336	1,385,285	1,385,285	-442,051	--
Henrico Co. WWTP	VA0063690	VAN040081	500	75.00	1,142,085	1.00	1,142,085	516,422	516,422	-625,663	--
Richmond WWTP	VA0063177	VAN040085	500	45.00	1,093,652	1.00	1,093,652	313,965	313,965	-779,687	--
<b>Upper/Middle James Subtotals</b>							<b>7,745,609</b>	<b>4,682,987</b>	<b>-3,062,622</b>	<b>4,934</b>	

## 2017 James Total Nitrogen Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TN Wasteload Allocation (lbs/yr)	TN Delivery Factor	Delivered TN Wasteload Allocation (lbs/yr)	2017 Discharged TN (lbs)	2017 Delivered TN (lbs)	2017 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
<b>Lower James</b>											
HRSD James River Aggregate	--	VAN040090	500	--	--	--	4,553,500		3,723,865	-829,635	--
Boat Harbor STP	VA0081256	--	501	25.00	740,000	1.00		538,337			
James River STP	VA0081272	--	502	20.00	1,250,000	1.00		334,862			
Williamsburg STP	VA0081302	--	503	22.50	800,000	1.00		105,293			
Nansemond STP	VA0081299	--	504	30.00	750,000	1.00		369,164			
Army Base STP	VA0081230	--	505	18.00	610,000	1.00		208,847			
Virginia Initiative STP	VA0081281	--	506	40.00	750,000	1.00		542,490			
Chesapeake-Elizabeth STP	VA0081264	--	507	24.00	1,100,000	1.00		1,624,872			
Lawnes Point WWTP	VA0091952	--	508	0.05	0	1.00		0			
<b>Lower James Subtotals</b>							<b>4,553,500</b>		<b>3,723,865</b>	<b>-829,635</b>	<b>0</b>
<b>James River Basin Total</b>							<b>12,299,109</b>		<b>8,406,852</b>	<b>-3,892,257</b>	<b>4,934</b>

## 2017 James Total Phosphorus Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TP Wasteload Allocation (lbs/yr)	TP Delivery Factor	Delivered TP Wasteload Allocation (lbs/yr)	2017 Discharged TP (lbs)	2017 Delivered TP (lbs)	2017 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
<b>Upper/Middle James</b>											
E. I. DuPont-Spruance	VA0004669	VAN040079	500	23.33	6,339	1.00	6,339	13,164	13,164	6,825	--
AdvanSix Resins and Chemicals LLC	VA0005291	VAN040082	500	121.00	41,841	1.00	41,841	45,475	45,475	3,634	--
Lake Monticello STP	VA0024945	VAN040074	500	0.995	1,229	0.66	811	6,180	4,079	3,268	0
Buena Vista STP	VA0020991	VAN040063	500	2.25	2,778	0.66	1,833	7,102	4,687	2,854	--
Hopewell RWTF	VA0066630	VAN040083	500	50.00	61,749	1.00	61,749	63,626	63,626	1,877	--
Dominion-Chesterfield	VA0004146	VAN040086	500	--	170	1.00	170	1,337	1,337	1,167	--
Amherst-Rutledge Creek WWTP	VA0031321	VAN040071	500	0.60	741	0.66	489	637	420	-69	--
Tyson Foods-Glen Allen	VA0004031	VAN040089	500	1.07	409	0.46	188	238	109	-79	--
BWX Technologies, Inc.	VA0003697	VAN040072	500	1.00	1,235	0.66	815	934	616	-199	--
Augusta Correctional Center	VA0091821	VAN040126	500	0.44	402	0.66	265	74	49	-216	--
Crewe WWTP	VA0020303	VAN040100	500	0.50	617	0.46	284	47	22	-262	--
Manakin Farms WWTP	VA0027910	VAN040173	500	0.10	533	0.66	352	75	50	-302	
Powhatan Corr. Center STP	VA0020699	VAN040077	500	0.47	581	0.66	383	63	42	-341	--
Philip Morris USA-Park 500	VA0026557	VAN040084	500	2.90	2,149	1.00	2,149	1,567	1,567	-582	--
Farmville WWTP	VA0083135	VAN040097	500	2.40	2,964	0.46	1,363	759	349	-1,014	--
Covington STP	VA0025542	VAN040065	500	3.00	3,705	0.66	2,445	2,070	1,366	-1,079	--
The Sustainability Park LLC (001)	VA0002780	VAN040078	500	2.10	1,556	1.00	1,556	0	0	-1,556	--
Lex.-Rock. Regional WQCF	VA0088161	VAN040068	500	3.00	3,705	0.66	2,445	1,053	695	-1,750	--
Alleghany County Aggregate	--	VAN040069	500	--	--	--	3,260		890	-2,370	1,371
Low Moor WWTP	VA0027979	--	501	0.50	617	0.66		547			
Lower Jackson River WWTP	VA0090671	--	502	1.50	4,323	0.66		362			
Mohawk Industries, Inc.	VA0004677	VAN040067	500	2.00	9,880	0.66	6,521	80	53	-6,468	--
Chesterfield County Aggregate	--	VAN040080	500	--	--	--	45,817		38,872	-6,945	--
Falling Creek WWTP	VA0024996	--	501	10.10	12,473	1.00		14,375			
Proctors Creek WWTP	VA0060194	--	502	27.00	33,344	1.00		24,497			
Greif Inc.	VA0006408	VAN040073	500	6.50	24,082	0.66	15,894	12,813	8,457	-7,437	--
Lynchburg STP	VA0024970	VAN040075	500	22.00	27,169	0.66	17,932	15,005	9,903	-8,029	--
RWSA-Moores Creek Regional STP	VA0025518	VAN040076	500	15.00	18,525	0.66	12,227	2,531	1,670	-10,557	--
So. Central Wastewater Authority WWTF	VA0025437	VAN040087	500	23.00	28,404	1.00	28,404	16,961	16,961	-11,443	--
GP Big Island LLC	VA0003026	VAN040066	500	10.87	40,273	0.66	26,580	18,556	12,247	-14,333	--
Richmond WWTP	VA0063177	VAN040085	500	45.00	55,574	1.00	55,574	23,969	23,969	-31,605	--
WestRock Virginia Corporation- Covington	VA0003646	VAN040070	500	35.00	96,771	0.66	63,869	39,213	25,881	-37,988	--
Henrico Co. WWTP	VA0063690	VAN040081	500	75.00	92,623	1.00	92,623	11,084	11,084	-81,539	--
<b>Upper/Middle James Subtotals</b>							<b>494,178</b>	<b>287,640</b>	<b>-206,538</b>	<b>1,371</b>	

## 2017 James Total Phosphorus Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TP Wasteload Allocation (lbs/yr)	TP Delivery Factor	Delivered TP Wasteload Allocation (lbs/yr)	2017 Discharged TP (lbs)	2017 Delivered TP (lbs)	2017 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
<b>Lower James</b>											
HRSD James River Aggregate	--	VAN040090	500	--	--	--	318,436		256,552	-61,884	--
Boat Harbor STP	VA0081256	--	501	25.00	43,177	1.00		19,602			
James River STP	VA0081272	--	502	20.00	34,541	1.00		21,079			
Williamsburg STP	VA0081302	--	503	22.50	38,859	1.00		17,716			
Nansemond STP	VA0081299	--	504	30.00	51,812	1.00		50,650			
Army Base STP	VA0081230	--	505	18.00	31,087	1.00		16,350			
Virginia Initiative STP	VA0081281	--	506	40.00	69,083	1.00		67,652			
Chesapeake-Elizabeth STP	VA0081264	--	507	24.00	41,450	1.00		63,503			
Lawnes Point WWTP	VA0091952	--	508	0.05	0	1.00		0			
G. Robert House, Jr. WTP	VA0076473	VAN040127	500	--	12,739	1.00	12,739	3,996	3,996	-8,743	--
<b>Lower James Subtotal</b>							<b>331,175</b>		<b>260,548</b>	<b>-70,627</b>	<b>0</b>
<b>James River Basin Total</b>							<b>825,353</b>		<b>548,188</b>	<b>-277,165</b>	<b>1,371</b>

## 2017 Eastern Shore Total Nitrogen Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TN Wasteload Allocation (lbs/yr)	TN Delivery Factor	Delivered TN Wasteload Allocation (lbs/yr)	2017 Discharged TN (lbs)	2017 Delivered TN (lbs)	2017 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Tangier Town WWTP	VA0067423	VAN050004	500	0.10	1,218	1.00	1,218	2,271	2,271	1,053	--
Riverside Shore Memorial Hospital	VA0027537	VAN050003	500	0.10	1,218	1.00	1,218	1,475	1,475	257	--
Cape Charles Town - WWTP	VA0021288	VAN050001	500	0.25	3,046	1.00	3,046	735	735	-2,311	--
Tyson Farms Inc - Temperanceville	VA0004049	VAN050005	500	1.25	22,842	1.00	22,842	16,923	16,923	-5,919	--
Onancock Town - WWTP	VA0021253	VAN050002	500	0.75	9,137	1.00	9,137	1,221	1,221	-7,916	--
<b>Totals</b>							<b>37,461</b>		<b>22,625</b>	<b>-14,836</b>	<b>0</b>

## 2017 Eastern Shore Total Phosphorus Discharges

Facility	Individual VPDES Permit No.	General Permit Registration No.	General Permit Outfall No.	Design Flow (MGD)	Discharged TP Wasteload Allocation (lbs/yr)	TP Delivery Factor	Delivered TP Wasteload Allocation (lbs/yr)	2017 Discharged TP (lbs)	2017 Delivered TP (lbs)	2017 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Tangier Town WWTP	VA0067423	VAN050004	500	0.10	91	0.96	87	351	337	250	--
Riverside Shore Memorial Hospital	VA0027537	VAN050003	500	0.10	91	0.96	87	69	66	-21	--
Cape Charles Town - WWTP	VA0021288	VAN050001	500	0.25	228	0.99	226	41	41	-185	--
Onancock Town - WWTP	VA0021253	VAN050002	500	0.75	685	0.99	678	72	71	-607	--
Tyson Farms Inc - Temperanceville	VA0004049	VAN050005	500	1.25	1,142	1.00	1,142	331	331	-811	--
<b>Totals</b>							<b>2,220</b>	<b>846</b>	<b>-1,374</b>	<b>0</b>	