

2018 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, 2019. DEQ will publish notice of all credit exchanges for the previous calendar year by July 1, 2019.

2018 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)	2018 Discharged TN (lbs)	2018 Delivered TN (lbs)	2018 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Strasburg STP	VA0020311	VAN010102	500	0.98	11,939	0.43	5,134	13,602	5,849	715	--
Merck (Outfall 101) ^A	VA0002178	VAN010007	500	1.20	43,835	0.33	14,466	5,170	1,706	0	0
Front Royal STP	VA0062812	VAN010010	500	4.00	48,729	0.61	29,725	48,214	29,411	-314	--
Middleburg	VA0024775	VAN010120	500	0.25	7,973	0.05	399	950	48	-352	--
FCW&SA-Vint Hill WWTF	VA0020460	VAN010020	500	0.95	11,573	0.05	579	2,060	103	-476	--
Berryville STP	VA0020532	VAN010040	500	0.70	8,528	0.63	5,373	7,728	4,869	-504	--
Stoney Creek S.D. STP	VA0028380	VAN010015	500	0.60	8,259	0.35	2,891	6,169	2,159	-732	--
Boyce STP	VA0085171	VAN010107	500	0.099	2,848	0.63	1,794	910	573	-1,221	--
Mt. Jackson STP	VA0026441	VAN010012	500	0.70	8,528	0.34	2,900	4,253	1,446	-1,454	--
VA Poultry Growers Cooperative-Hinton	VA0002313	VAN010009	500	1.50	27,410	0.13	3,563	13,066	1,699	-1,864	--
Luray WWTP	VA0062642	VAN010006	500	1.60	19,492	0.42	8,187	12,254	5,147	-3,040	--
King George Co - Potomac River Aggregate	--	VAN010060	500	--	--	--	12,060		8,707	-3,353	--
Dahlgren S.D. WWTP	VA0026514	--	501	1.00	9,137	1.00		5,805		0	
Purkins Corner WWTP	VA0070106	--	502	0.12	1,096	1.00		2,114		0	
Fairview Beach STP	VA0092134	--	503	0.20	1,827	1.00		787		0	
Town of Broadway Regional WWTF	VA0090263	VAN010062	500	2.92	29,481	0.19	5,601	8,473	1,610	-3,991	--
USNSWC-Dahlgren WWTF	VA0021067	VAN010041	500	0.72	6,578	1.00	6,578	2,442	2,442	-4,136	--
Round Hill WWTP	VA0026212	VAN010093	500	0.75	9,137	0.72	6,579	3,291	2,370	-4,209	--
Waynesboro STP	VA0025151	VAN010098	500	4.00	48,729	0.14	6,822	15,478	2,167	-4,655	--
Massanutten PSC STP	VA0024732	VAN010039	500	1.50	18,273	0.33	6,030	3,867	1,276	-4,754	0
Middletown STP	VA0020982	VAN010121	500	0.40	14,238	0.43	6,122	3,149	1,354	-4,768	--
Alma Plant	VA0001961	VAN010008	500	1.00	18,273	0.33	6,030	0	0	-6,030	--
Georges Chicken	VA0077402	VAN010011	500	1.70	31,065	0.35	10,873	13,612	4,764	-6,109	--
Woodstock STP	VA0026468	VAN010094	500	2.00	24,364	0.35	8,527	5,228	1,830	-6,697	--
Lovettsville	VA0023183	VAN010129	500	0.38	14,238	0.85	12,102	3,276	2,785	-9,317	--
Apparel and Advanced Textiles LLC - Waynesboro	VA0002160	VAN010050	500	1.44	78,941	0.14	11,052	2,073	290	-10,762	--
USMC-Quantico Mainside WWTF	VA0028363	VAN010043	500	2.20	20,101	1.00	20,101	8,967	8,967	-11,134	--

2018 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)	2018 Discharged TN (lbs)	2018 Delivered TN (lbs)	2018 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
MillerCoors LLC	VA0073245	VAN010096	500	4.50	54,820	0.33	18,091	18,564	6,126	-11,965	--
Colonial Beach STP	VA0026409	VAN010099	500	2.00	18,273	1.00	18,273	6,238	6,238	-12,035	--
Purcellville-Basham Simms WWTF	VA0022802	VAN010016	500	1.50	18,273	0.72	13,157	1,470	1,058	-12,099	
Augusta Co. Service Authority Aggregate	--	VAN010092	500	--	--	--	21,383		9,281	-12,102	--
Fishersville STP	VA0025291	--	501	4.00	48,729	0.10		13,137			
Stuarts Draft WWT	VA0066877	--	502	4.00	48,729	0.05		8,100			
Middle River Regional STP	VA0064793	--	503	6.80	82,839	0.10		28,873			
Weyers Cave STP	VA0022349	--	504	0.50	6,091	0.24		12,567			
Greenville STP	VA0090417	--	505	0.25	14,238	0.10		4,508			
Mt. Sidney STP	VA0022322	--	506	0.15	8,543	0.10		5,656			
Vesper View STP	VA0067962	--	507	0.10	5,695	0.18		2,633			
Harriston STP	VA0027901	--	508	0.10	5,695	0.18		934			
Frederick-Winchester SA Aggregate	--	VAN010057	500	--	--	--	47,518		20,577	-26,941	--
Opequon WRF	VA0065552	--	501	12.60	121,851	0.26		51,439			
Parkins Mills WWTP	VA0075191	--	502	5.00	60,911	0.26		27,450			
Upper Occoquan S.A. WWTP	VA0024988	VAN010019	500	54.00	1,315,682	0.23	302,607	1,191,379	274,017	-28,590	--
HRRSA-North River WWTF	VA0060640	VAN010042	500	22.0	253,391	0.22	55,746	117,576	25,867	-29,879	--
Virginia American Water Prince William - Aggregate	--	VAN010058	500	--	--	1.00	84,058		49,192	-34,866	--
Virginia American Water Prince William - Section 1	VA0024724	--	501	4.60	42,029	1.00		20,548			
Virginia American Water Prince William - Section 8	VA0024678	--	502	4.60	42,029	1.00		28,559			
Stafford Co-Aquia WWTP	VA0060968	VAN010023	500	10.00	73,093	1.00	73,093	26,433	26,433	-46,660	--
Leesburg WPCF	VA0092282	VAN010061	500	10.00	121,822	0.80	97,458	35,928	28,742	-68,716	25,278
LCSA-Broad Run WRF	VA0091383	VAN010017	500	11.00	134,005	0.89	119,264	52,091	46,361	-72,903	--
PWCSA-H.L. Mooney WWTF	VA0025101	VAN010018	500	24.00	219,280	1.00	219,280	115,203	115,203	-104,077	--
Alexandria S.A. WWTP	VA0025160	VAN010059	500	54.00	493,381	1.00	493,381	337,645	337,645	-155,736	--
Arlington Co. WPCF	VA0025143	VAN010021	500	40.00	365,467	1.00	365,467	180,277	180,277	-185,190	--
Fairfax Co.-Noman-Cole PCF	VA0025364	VAN010022	500	67.00	612,158	1.00	612,158	253,273	253,273	-358,885	--
Totals							2,734,422	1,471,860	-1,249,802	25,278	

^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 885 pounds of TP credits for 2018.

2018 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)	2018 Discharged TP (lbs)	2018 Delivered TP (lbs)	2018 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
VA Poultry Growers Cooperative-Hinton	VA0002313	VAN010009	500	1.50	1,371	0.53	727	2,584	1,370	643	--
Front Royal STP	VA0062812	VAN010010	500	4.00	3,655	0.54	1,974	4,762	2,571	597	--
Stoney Creek S.D. STP	VA0028380	VAN010015	500	0.60	667	0.53	354	1,488	789	435	--
King George Co - Potomac River Aggregate	--	VAN010060	500	--	--	--	1,199		1,622	423	--
Dahlgren S.D. WWTP	VA0026514	--	501	1.00	914	1.00		1,073			
Purkins Corner WWTP	VA0070106	--	502	0.12	110	0.96		212			
Fairview Beach STP	VA0092134	--	503	0.20	183	0.98		333			
USNSWC-Dahlgren WWTF	VA0021067	VAN010041	500	0.72	658	0.99	651	983	973	322	--
Merck (Outfall 101) ^A	VA0002178	VAN010007	500	1.20	4,384	0.54	2,367	3,202	1,729	0	0
FCW&SA-Vint Hill WWTF	VA0020460	VAN010020	500	0.95	868	0.17	148	136	23	-125	--
MillerCoors LLC	VA0073245	VAN010096	500	4.50	4,112	0.54	2,220	3,872	2,091	-129	--
Middleburg WWTP	VA0024775	VAN010120	500	0.25	1,066	0.17	181	218	37	-144	--
Strasburg STP	VA0020311	VAN010102	500	0.98	895	0.53	474	581	308	-166	--
Berryville STP	VA0020532	VAN010040	500	0.70	640	0.53	339	294	156	-183	--
Boyce STP	VA0085171	VAN010107	500	0.099	381	0.54	206	38	21	-185	--
Mt. Jackson STP	VA0026441	VAN010012	500	0.70	640	0.53	339	201	107	-232	--
Round Hill WWTP	VA0026212	VAN010093	500	0.75	685	0.53	363	79	42	-321	--
Alma Plant	VA0001961	VAN010008	500	1.00	914	0.53	484	0	0	-484	--
Apparel and Advanced Textiles LLC - Waynesboro	VA0002160	VAN010050	500	1.44	1,009	0.54	545	79	43	-502	--
Luray STP	VA0062642	VAN010006	500	1.60	1,462	0.54	789	493	266	-523	--
Georges Chicken	VA0077402	VAN010011	500	1.70	1,553	0.54	839	542	293	-546	--
Purcellville-Basham Simms WWTF	VA0022802	VAN010016	500	1.50	1,371	0.53	727	341	181	-546	--
Massanutten PSC STP	VA0024732	VAN010039	500	1.50	1,371	0.53	727	183	97	-630	387
Middletown STP	VA0020982	VAN010121	500	0.40	1,903	0.54	1,028	504	272	-756	--
Lovettsville WWTP	VA0023183	VAN010129	500	0.375	1,903	0.54	1,028	400	216	-812	--
Woodstock STP	VA0026468	VAN010094	500	2.00	1,827	0.54	987	167	90	-897	--
Town of Broadway Regional WWTF	VA0090263	VAN010062	500	2.92	2,211	0.53	1,172	353	187	-985	--
Colonial Beach STP	VA0026409	VAN010099	500	2.00	1,827	1.00	1,827	821	821	-1,006	--

2018 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)	2018 Discharged TP (lbs)	2018 Delivered TP (lbs)	2018 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
USMC-Quantico Mainside WWTF	VA0028363	VAN010043	500	2.20	1,206	1.00	1,206	138	138	-1,068	--
Waynesboro STP	VA0025151	VAN010098	500	6.00	3,655	0.54	1,974	1,022	552	-1,422	--
LCSA-Broad Run WRF	VA0091383	VAN010017	500	11.00	3,350	0.54	1,809	710	383	-1,426	--
Stafford Co-Aquia WWTP	VA0060968	VAN010023	500	8.00	4,386	1.00	4,386	2,012	2,012	-2,374	--
Leesburg WPCF	VA0092282	VAN010061	500	10.00	9,137	0.54	4,934	4,080	2,203	-2,731	1,759
Upper Occoquan S.A. WWTP	VA0024988	VAN010019	500	54.00	16,446	0.30	4,934	5,673	1,702	-3,232	--
Virginia American Water Prince William - Aggregate	--	VAN010058	500	--	--	--	5,044		1,810	-3,234	--
Virginia American Water Prince William - Section 1	VA0024724	--	501	4.60	2,522	1.00		857			
Virginia American Water Prince William - Section 8	VA0024678	--	502	4.60	2,522	1.00		953			
HRRSA-North River WWTF	VA0060640	VAN010042	500	22.0	19,004	0.54	10,262	11,311	6,108	-4,154	--
Augusta Co. Service Authority Aggregate	--	VAN010092	500	--	--	--	10,012		4,335	-5,677	--
Fishersville STP	VA0025291	--	501	4.00	3,655	0.54		877			
Stuarts Draft WWT	VA0066877	--	502	4.00	3,655	0.54		735			
Middle River Regional STP	VA0064793	--	503	6.80	6,213	0.54		2,063			
Weyers Cave STP	VA0022349	--	504	0.50	457	0.53		1,883			
Greenville STP	VA0090417	--	505	0.25	1,903	0.54		686			
Mt. Sidney STP	VA0022322	--	506	0.15	1,142	0.54		676			
Vesper View STP	VA0067962	--	507	0.10	761	0.54		525			
Harriston STP	VA0027901	--	508	0.10	761	0.54		614			
Frederick-Winchester SA Aggregate	--	VAN010057	500	--	--	--	8,684		2,590	-6,094	--
Opequan WRF	VA0065552	--	501	12.60	11,512	0.54		3,007			
Parkins Mills WWTP	VA0075191	--	502	5.00	4,568	0.54		1,806			
PWCSA-H.L. Mooney WWTF	VA0025101	VAN010018	500	24.00	13,157	1.00	13,157	2,388	2,388	-10,769	--
Arlington Co. WPCF	VA0025143	VAN010021	500	40.00	21,928	1.00	21,928	3,234	3,234	-18,694	--
Alexandria S.A. WWTP	VA0025160	VAN010059	500	54.00	29,603	1.00	29,603	9,647	9,647	-19,956	--
Fairfax Co.-Noman-Cole PCF	VA0025364	VAN010022	500	67.00	36,729	1.00	36,729	10,799	10,799	-25,930	--
Totals							176,357		62,205	-113,514	2,146

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 885 pounds of TP credits for 2018.

2018 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)	2018 Discharged TN (lbs)	2018 Delivered TN (lbs)	2018 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Fredericksburg WWTF	VA0025127	VAN020095	500	4.50	54,820	1.00	54,820	61,341	61,341	6,521	--
HRSD-Urbanna	VA0026263	VAN020034	500	0.10	1,218	1.00	1,218	3,322	3,322	2,104	--
Montross-Westmoreland WWTP	VA0072729	VAN020032	500	0.13	1,584	0.74	1,172	2,675	1,980	808	--
Camp Red Arrow WWTF	VA0092452	VAN020162	500	0.0055	78	0.49	38	54	26	-12	
Rush River	VA0091651	VAN020108	500	0.06	1,462	0.24	351	148	36	-315	--
Rapidan STP	VA0090948	VAN020026	500	0.60	7,309	0.29	2,120	5,100	1,479	-641	--
Reedville S.D. WWTP	VA0060712	VAN020101	500	0.20	2,436	1.00	2,436	1,542	1,542	-894	--
Presidential Lakes Section 14 STP	VA0086720	VAN020109	500	0.07	1,994	1.00	1,994	869	869	-1,125	--
Warrenton STP	VA0021172	VAN020028	500	2.50	30,456	0.19	5,787	21,504	4,086	-1,701	--
Haynesville Correctional Center WWTP	VA0023469	VAN020044	500	0.23	2,802	1.00	2,802	775	775	-2,027	633
Culpeper County Nutrient Aggregate ^A	--	VAN020054	500	--	--	--	2,743		642	-2,101	--
Clevengers Village WWTP	VA0080527	--	505	0.90	10,964	0.19		563			
Airpark WWTP	VA0068586	--	506	0.025	1346	0.49		1,092			
Warsaw STP	VA0026891	VAN020036	500	0.30	3,655	1.00	3,655	1,529	1,529	-2,126	--
US Army -Ft. A.P. Hill WWTP	VA0032034	VAN020035	500	0.53	6,457	1.00	6,457	4,273	4,273	-2,184	--
Kilmarnock WWTP	VA0020788	VAN020038	500	0.50	6,091	1.00	6,091	2,412	2,412	-3,679	--
Wilderness WWTP	VA0083411	VAN020029	500	2.00	15,228	0.41	6,243	4,242	1,739	-4,504	--
King George Co – Nutrient Aggregate	--	VAN020056	500	--	--	--	7,797		2,461	-5,336	1,523
Oakland Park STP	VA0086789	--	501	0.14	1,706	1.00		1,375			
Hopyard Farms WWTF	VA0089338	--	502	0.50	6,091	1.00		1,090			
Fauquier Co. WSA Nutrient Aggregate	--	VAN020053	500	--	--	--	13,419		6,723	-6,696	--
Remington WWTP	VA0076805	--	501	2.00	24,364	0.49		12126			
Marshall WWTP	VA0031763	--	502	0.64	7,797	0.19		4,112			
Tappahannock WWTP	VA0071471	VAN020033	500	0.80	9,746	1.00	9,746	3,027	3,027	-6,719	--
Haymount WWTF	VA0089125	VAN020030	500	0.58	7,066	1.00	7,066	0	0	-7,066	7,066
Orange STP	VA0021385	VAN020025	500	3.00	36,547	0.29	10,599	7,531	2,184	-8,415	--
Omega Protein	VA0003867	VAN020037	500	3.21	21,213	1.00	21,213	2,116	2,116	-19,097	--
Culpeper WPCF	VA0061590	VAN020024	500	6.00	73,093	0.49	35,816	17,886	8,764	-27,052	--
Spotsylvania County Nutrient Aggregate	--	VAN020055	500	--	--	--	163,242		135,526	-27,716	--
FMC WWTF	VA0068110	--	501	4.00	48,737	1.00		48,833			
Massaponax WWTF	VA0025658	--	502	9.40	114,505	1.00		86,693			
Stafford Co.-Little Falls Run WWTF	VA0076392	VAN020031	500	8.00	97,458	1.00	97,458	40,471	40,471	-56,987	--
Totals							464,283		287,323	-176,960	9,222

^A VAN020054 did not collect June 2018 nutrient data for outfall 506. DEQ staff used the facility's reported flow for June 2018 along with the highest nutrient concentration data collected at outfall 506 in calendar year 2018 to generate a surrogate load to create a conservative annual load for this report.

2018 Rappahannock 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)	2018 Discharged TP (lbs)	2018 Delivered TP (lbs)	2018 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
HRSD-Urbanna	VA0026263	VAN020034	500	0.10	91	0.96	87	623	598	511	--
Rapidan STP	VA0090948	VAN020026	500	0.60	548	0.77	422	1160	893	471	--
Montross-Westmoreland WWTP	VA0072729	VAN020032	500	0.13	119	0.92	109	241	222	112	--
Camp Red Arrow WWTF	VA0092452	VAN020162	500	0.0055	10	0.78	8	7	5	-3	
King George Co. Nutrient Aggregate	--	VAN020056	500	--	--	--	576		458	-118	114
Oakland Park STP	VA0086789	--	501	0.14	128	0.97		137			
Hopyard Farms WWTF	VA0089338	--	502	0.50	457	0.99		319			
Reedville S.D. WWTP	VA0060712	VAN020101	500	0.20	183	0.98	179	55	54	-125	--
Haynesville Correctional Center WWTP	VA0023469	VAN020044	500	0.23	210	1.00	210	59	59	-151	47
Rush River	VA0091651	VAN020108	500	0.06	235	0.78	183	7	5	-178	--
Presidential Lakes Section 14 STP	VA0086720	VAN020109	500	0.07	267	1.00	267	79	79	-188	
Warsaw STP	VA0026891	VAN020036	500	0.30	274	0.99	271	65	64	-207	--
Kilmarnock WWTP	VA0020788	VAN020038	500	0.50	457	0.99	452	200	198	-254	--
US Army -Ft. A.P. Hill WWTP	VA0032034	VAN020035	500	0.53	484	0.99	479	50	50	-430	--
Haymount WWTF	VA0089125	VAN020030	500	0.58	530	0.99	525	0	0	-525	525
Wilderness WWTP	VA0083411	VAN020029	500	2.00	1,142	0.77	879	402	310	-569	--
Culpeper County Nutrient Aggregate ^A	--	VAN020054	500	--	--	--	773		147	-626	--
Clevengers Village WWTP	VA0080527	--	505	0.90	822	0.77		15			
Airpark WWTP	VA0068586	--	506	0.025	180	0.78		174			
Tappahannock WWTP	VA0071471	VAN020033	500	0.80	731	1.00	731	75	75	-656	--
Warrenton STP	VA0021172	VAN020028	500	2.50	2,284	0.78	1,782	872	680	-1,102	--
Fredericksburg WWTF	VA0025127	VAN020095	500	4.50	4,112	1.00	4,112	2,851	2,851	-1,261	--
Fauquier Co. WSA Nutrient Aggregate	--	VAN020053	500	--	--	--	1,876		414	-1,462	--
Remington WWTP	VA0076805	--	501	2.00	1,827	0.78		340			
Marshall WWTP	VA0031763	--	502	0.64	585	0.77		193			
Omega Protein	VA0003867	VAN020037	500	3.21	1,591	1.00	1,591	70	70	-1,521	--
Orange STP	VA0021385	VAN020025	500	3.00	2,741	0.78	2,138	445	347	-1,791	--
Culpeper WWTP	VA0061590	VAN020024	500	6.00	5,483	0.78	4,277	814	635	-3,642	--
Stafford Co.-Little Falls Run WWTF	VA0076392	VAN020031	500		7,309	1.00	7,309	2,490	2,490	-4,819	--
Spotsylvania Co. Nutrient Aggregate	--	VAN020055	500	--	--	--	12,060		6,309	-5,751	--
FMC WWTF	VA0068110	--	501	4.00	3,655	1.00		1,368			
Massaponax WWTF	VA0025658	--	502	9.40	8,405	1.00		4,911			
Totals								41,296	17,012	-24,284	687

^A VAN020054 did not collect June 2018 nutrient data for outfall 506. DEQ staff used the facility's reported flow for June 2018 along with the highest nutrient concentration data collected at outfall 506 in calendar year 2018 to generate a surrogate load to create a conservative annual load for this report.

2018 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)	2018 Discharged TN (lbs)	2018 Delivered TN (lbs)	2018 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	329,516	329,516	70,339	--
Shenandoah Crossing STP	VA0076678	VAN030119	500	0.10	2,848	0.26	740	87	23	-717	--
Gordonsville STP	VA0021105	VAN030046	500	0.94	17,177	0.05	859	2,188	109	-750	249
Lake Land' Or WWTP	VA0060887	VAN030110	500	0.22	5,695	0.58	3,303	3,550	2,059	-1,244	--
Caroline County Regional STP	VA0073504	VAN030045	500	1.50	9,137	0.58	5,299	3,681	3,681	-1,618	--
Louisa County Water Authority Aggregate	--	VAN030154	500	--	--	--	7,404		2,367	-5,037	--
Louisa Regional WWTP	VA0067954	--	501	0.80	22,780	0.26		8,022			
Zion Crossroads WWTP	VA0090743	--	502	0.311	5,695	0.26		1,080			
Bear Island Paper Company	VA0029521	VAN030133	500	4.20	47,328	0.51	24,137	5,738	2,926	-21,211	--
Parham Landing WWTP	VA0088331	VAN030048	500	2.00	36,547	1.00	36,547	2,815	2,815	-33,732	--
HRSD York River Aggregate	--	VAN030052	500	--	--	--	288,315		195,438	-92,877	--
York River STP	VA0081311	--	501	15.00	275,927	1.00		174,064			
West Point STP	VA0075434	--	502	0.60	10,964	1.00		21,304			
King William STP	VA0088102	--	504	0.10	1,424	1.00		71			
Hanover County Aggregate	--	VAN030051	500	--	--	--	192,054		80,976	-111,078	54,820
Ashland WWTP	VA0024899	--	501	2.00	36,547	0.62		32,227			
Doswell WWTP	VA0029521	--	502	1.00	18,273	0.57		13,430			
Totopotomoy WWTP	VA0089915	--	503	10.00	182,734	0.87		61,310			
Plains Marketing LP Yorktown	VA0003018	VAN030047	500	53.80	167,128	1.00	167,128	488	488	-166,640	--
Totals							984,963	620,398	-364,565	55,069	

2018 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)	2018 Discharged TP (lbs)	2018 Delivered TP (lbs)	2018 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Gordonsville STP	VA0021105	VAN030046	500	0.94	1,145	0.18	206	1502	270	64	0
Shenandoah Crossing STP	VA0076678	VAN030119	500	0.10	381	0.55	210	14	8	-202	--
Lake Land' Or WWTP	VA0060887	VAN030110	500	0.22	761	0.69	525	406	280	-245	--
Caroline County Regional STP	VA0073504	VAN030045	500	1.50	609	0.68	414	190	129	-285	--
Louisa County Water Authority Aggregate	--	VAN030154	500	--	--	--	2,010		167	-1,843	--
Louisa Regional WWTP	VA0067954	--	501	0.80	3,045	0.55		251			
Zion Crossroads WWTP	VA0090743	--	502	0.311	609	0.55		54			
Parham Landing WWTP	VA0088331	VAN030048	500	2.00	2,436	1.00	2,436	170	170	-2,266	--
Bear Island Paper Company	VA0029521	VAN030133	500	4.20	10,233	0.55	5,628	1,286	707	-4,921	--
HRSD York River Aggregate	--	VAN030052	500	--	--	--	19,315		14,059	-5,256	--
York River STP	VA0081311	--	501	15.00	18,395	1.00		10,719			
West Point STP	VA0075434	--	502	0.60	731	1.00		3,335			
King William STP	VA0088102	--	504	0.10	190	1.00		5			
Hanover County Aggregate	--	VAN030051	500	--	--	--	11,390		5,417	-5,973	5,973
Ashland WWTP	VA0024899	--	501	2.00	2,436	0.55		4,223			
Doswell WWTP	VA0029521	--	502	1.00	1,218	0.55		1,149			
Totopotomoy WWTP	VA0089915	--	503	10.00	12,182	0.77		3,198			
WestRock CP LLC- West Point	VA0003115	VAN030049	500	23.00	56,038	1.00	56,038	48,557	48,557	-7,481	--
Plains Marketing LP Yorktown	VA0003018	VAN030047	500	53.80	17,689	1.00	17,689	36	36	-17,653	--
Totals							115,861	69,801	-46,060	5,973	

2018 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)	2018 Discharged TN (lbs)	2018 Delivered TN (lbs)	2018 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Upper/Middle James											
So. Central Wastewater Authority WWTF	VA0025437	VAN040087	500	23.00	350,239	1.00	350,239	444,527	444,527	94,288	--
E. I. DuPont-Spruance	VA0004669	VAN040079	500	23.33	201,080	1.00	201,080	236,378	236,378	35,298	--
Lake Monticello STP	VA0024945	VAN040074	500	0.995	18,182	0.67	12,182	64,097	42,945	30,763	0
Buena Vista STP	VA0020991	VAN040063	500	2.25	41,115	0.56	23,024	52,367	29,326	6,302	--
Covington STP	VA0025542	VAN040065	500	3.00	54,820	0.21	11,512	71,389	14,992	3,480	--
Augusta Correctional Center	VA0091821	VAN040118	500	0.44	4,020	0.21	844	1,447	304	-540	--
Manakin Farms WWTP	VA0027910	VAN040173	500	0.100	3,987	0.89	3,548	2,177	1,937	-1,611	--
Crewe WWTP	VA0020303	VAN040100	500	0.50	9,137	0.29	2,650	3,210	931	-1,719	--
Tyson Foods-Glen Allen	VA0004031	VAN040089	500	1.07	19,552	0.16	3,128	8,618	1,379	-1,749	--
Amherst-Rutledge Creek WWTP	VA0031321	VAN040071	500	0.60	10,964	0.34	3,728	2,351	799	-2,929	--
Greif Inc.	VA0006408	VAN040073	500	6.50	73,246	0.65	47,610	68,261	44,370	-3,240	--
Dillwyn WWTP	VA0027294	VAN040104	500	0.20	5,695	0.69	3,930	725	500	-3,429	--
Powhatan Correctional Center STP	VA0020699	VAN040077	500	0.47	8,588	0.89	7,643	516	459	-7,184	--
Farmville WWTP	VA0083135	VAN040097	500	2.40	43,856	0.26	11,403	14,437	3,754	-7,649	--
WestRock Virginia Corporation- Covington	VA0003646	VAN040070	500	35.00	394,400	0.11	43,384	304,161	33,458	-9,926	--
Lex.-Rock. Regional WQCF	VA0088161	VAN040068	500	3.00	54,820	0.32	17,542	10,816	3,461	-14,081	--
Alleghany County Aggregate	--	VAN040069	500	--	--	--	19,005		2,885	-16,120	4,934
Low Moor WWTP	VA0027979	--	501	0.50	9,137	0.26		1,333			
Lower Jackson River WWTP	VA0090671	--	502	2.60	63,957	0.26		9,762			
Mohawk Industries, Inc.	VA0004677	VAN040067	500	2.00	30,456	0.59	17,969	1,517	895	-17,074	--
The Sustainability Park LLC (001)	VA0002780	VAN040078	500	2.10	25,583	1.00	25,583	70	70	-25,513	--
GP Big Island LLC	VA0003026	VAN040066	500	10.87	122,489	0.60	73,493	66,425	39,855	-33,638	--
BWX Technologies, Inc.	VA0003697	VAN040072	500	1.00	187,000	0.65	121,550	80,434	52,282	-69,268	--
Philip Morris USA-Park 500	VA0026557	VAN040084	500	2.90	139,724	1.00	139,724	34,486	34,486	-105,238	--
RWSA-Moores Creek Regional STP	VA0025518	VAN040076	500	15.00	282,831	0.67	189,497	112,130	75,127	-114,370	--
Lynchburg STP	VA0024970	VAN040075	500	22.00	536,019	0.65	348,412	260,051	169,033	-179,379	--
Chesterfield County Aggregate	--	VAN040080	500	--	--	--	564,952		336,597	-228,355	--
Falling Creek WWTP	VA0024996	--	501	10.10	153,801	1.00		107,688			
Proctors Creek WWTP	VA0060194	--	502	27.00	411,151	1.00		228,909			
Dominion-Chesterfield	VA0004146	VAN040086	500	--	272,036	1.00	272,036	24,178	24,178	-247,858	--
AdvanSix Resins and Chemicals LLC	VA0005291	VAN040082	500	121.00	1,090,798	1.00	1,090,798	662,688	662,688	-428,110	--
Henrico Co. WWTP	VA0063690	VAN040081	500	75.00	1,142,085	1.00	1,142,085	578,734	578,734	-563,351	--
Richmond WWTP	VA0063177	VAN040085	500	45.00	1,093,652	1.00	1,093,652	359,602	359,602	-734,050	--
Hopewell RWTF	VA0066630	VAN040083	500	50.00	1,827,336	1.00	1,827,336	918,839	918,839	-908,497	--
Upper/Middle James Subtotals							7,669,539	4,114,791	-3,554,748	4,934	

2018 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)	2018 Discharged TN (lbs)	2018 Delivered TN (lbs)	2018 Delivered TN Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Lower James											
HRSD James River Aggregate	--	VAN040090	500	--	--	--	4,553,500		3,604,689	-948,811	--
Boat Harbor STP	VA0081256	--	501	25.00	612,813	1.00		728,572			
James River STP	VA0081272	--	502	20.00	490,251	1.00		340,531			
Williamsburg STP	VA0081302	--	503	22.50	551,532	1.00		81,203			
Nansemond STP	VA0081299	--	504	30.00	735,376	1.00		223,409			
Army Base STP	VA0081230	--	505	18.00	441,226	1.00		146,065			
Virginia Initiative STP	VA0081281	--	506	40.00	980,501	1.00		507,188			
Chesapeake-Elizabeth STP	VA0081264	--	507	24.00	588,301	1.00		1,577,711			
Lawnes Point WWTP	VA0091952	--	508	0.05	0	1.00		10			
Lower James Subtotals							4,553,500		3,604,689	-948,811	0
James River Basin Total							12,223,039		7,719,480	-4,503,559	4,934

2018 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)	2018 Discharged TP (lbs)	2018 Delivered TP (lbs)	2018 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Upper/Middle James											
Hopewell RWTF	VA0066630	VAN040083	500	50.00	61,749	1.00	61,749	87,453	87,453	25,704	--
E. I. DuPont-Spruance	VA0004669	VAN040079	500	23.33	6,339	1.00	6,339	16,495	16,495	10,156	--
Buena Vista STP	VA0020991	VAN040063	500	2.25	2,778	0.66	1,833	7,751	5,116	3,283	--
Lake Monticello STP	VA0024945	VAN040074	500	0.995	1,229	0.66	811	4,538	2,995	2,184	0
Dominion-Chesterfield	VA0004146	VAN040086	500	--	170	1.00	170	900	900	730	--
Amherst-Rutledge Creek WWTP	VA0031321	VAN040071	500	0.60	741	0.66	489	939	620	131	--
Tyson Foods-Glen Allen	VA0004031	VAN040089	500	1.07	409	0.46	188	146	67	-121	--
Augusta Correctional Center	VA0091821	VAN040118	500	0.44	402	0.66	265	113	75	-190	--
Crewe WWTP	VA0020303	VAN040100	500	0.50	617	0.46	284	102	47	-237	--
Manakin Farms WWTP	VA0027910	VAN040173	500	0.10	533	0.66	352	167	110	-242	
BWX Technologies, Inc.	VA0003697	VAN040072	500	1.00	1,235	0.66	815	781	515	-300	--
Powhatan Corr. Center STP	VA0020699	VAN040077	500	0.47	581	0.66	383	31	20	-363	--
Philip Morris USA-Park 500	VA0026557	VAN040084	500	2.90	2,149	1.00	2,149	1,760	1,760	-389	--
Dillwyn WWTP	VA0027294	VAN040104	500	0.20	5,695	0.66	761	187	123	-638	--
Farmville WWTP	VA0083135	VAN040097	500	2.40	2,964	0.46	1,363	1,433	659	-704	--
Covington STP	VA0025542	VAN040065	500	3.00	3,705	0.66	2,445	2,424	1,600	-845	--
The Sustainability Park LLC (001)	VA0002780	VAN040078	500	2.10	1,556	1.00	1,556	12	12	-1,544	--
Lex.-Rock. Regional WQCF	VA0088161	VAN040068	500	3.00	3,705	0.66	2,445	424	280	-2,165	--
Alleghany County Aggregate	--	VAN040069	500	--	--	--	3,260		804	-2,456	1,371
Low Moor WWTP	VA0027979	--	501	0.50	617	0.66		693			
Lower Jackson River WWTP	VA0090671	--	502	1.50	4,323	0.66		525			
Chesterfield County Aggregate	--	VAN040080	500	--	--	--	45,817		40,276	-5,541	--
Falling Creek WWTP	VA0024996	--	501	10.10	12,473	1.00		13,966			
Proctors Creek WWTP	VA0060194	--	502	27.00	33,344	1.00		26,310			
So. Central Wastewater Authority WWTF	VA0025437	VAN040087	500	23.00	28,404	1.00	28,404	22,150	22,150	-6,254	--
Mohawk Industries, Inc.	VA0004677	VAN040067	500	2.00	9,880	0.66	6,521	88	58	-6,463	--
RWSA-Moores Creek Regional STP	VA0025518	VAN040076	500	15.00	18,525	0.66	12,227	5,618	3,708	-8,519	--
Lynchburg STP	VA0024970	VAN040075	500	22.00	27,169	0.66	17,932	12,014	7,929	-10,003	--
Greif Inc.	VA0006408	VAN040073	500	6.50	24,082	0.66	15,894	7,585	5,006	-10,888	--
AdvanSix Resins and Chemicals LLC	VA0005291	VAN040082	500	121.00	41,841	1.00	41,841	30,154	30,154	-11,687	--
GP Big Island LLC	VA0003026	VAN040066	500	10.87	40,273	0.66	26,580	15,734	10,384	-16,196	--
WestRock Virginia Corporation- Covington	VA0003646	VAN040070	500	35.00	96,771	0.66	63,869	70,241	46,359	-17,510	--
Richmond WWTP	VA0063177	VAN040085	500	45.00	55,574	1.00	55,574	14,954	14,954	-40,620	--
Henrico Co. WWTP	VA0063690	VAN040081	500	75.00	92,623	1.00	92,623	15,629	15,629	-76,994	--
Upper/Middle James Subtotals							494,939	316,259	-178,679	1,371	

2018 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)	2018 Discharged TP (lbs)	2018 Delivered TP (lbs)	2018 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Lower James											
G. Robert House, Jr. WTP	VA0076473	VAN040127	500	--	12,739	1.00	12,739	3,761	3,761	-8,978	--
HRSD James River Aggregate	--	VAN040090	500	--	--	--	318,436		253,616	-64,820	--
Boat Harbor STP	VA0081256	--	501	25.00	43,177	1.00		27,994			
James River STP	VA0081272	--	502	20.00	34,541	1.00		19,024			
Williamsburg STP	VA0081302	--	503	22.50	38,859	1.00		15,014			
Nansemond STP	VA0081299	--	504	30.00	51,812	1.00		53,646			
Army Base STP	VA0081230	--	505	18.00	31,087	1.00		19,357			
Virginia Initiative STP	VA0081281	--	506	40.00	69,083	1.00		65,150			
Chesapeake-Elizabeth STP	VA0081264	--	507	24.00	41,450	1.00		53,431			
Lawnes Point WWTP	VA0091952	--	508	0.05	0	1.00		1			
Lower James Subtotal							331,175		257,377	-73,798	0
James River Basin Total							826,114		573,636	-252,477	1,371

2018 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)	2018 Discharged TN (lbs)	2018 Delivered TN (lbs)	2018 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	1,535	1,535	317	--
Riverside Shore Memorial Hospital	VA0027537	VAN050003	500	0.10	1,218	1.00	1,218	858	858	-360	--
Cape Charles Town - WWTP	VA0021288	VAN050001	500	0.25	3,046	1.00	3,046	399	399	-2,647	--
Onancock Town - WWTP	VA0021253	VAN050002	500	0.75	9,137	1.00	9,137	972	972	-8,165	--
Tyson Farms Inc - Temperanceville	VA0004049	VAN050005	500	1.25	22,842	1.00	22,842	7,370	7,370	-15,472	--
Totals							37,461		11,134	-26,327	0

2018 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)	2018 Discharged TP (lbs)	2018 Delivered TP (lbs)	2018 Delivered TP Exceedance/ (Credit) (lbs)	Nutrient Offset Fund Held Credits (lbs)
Tangier Town WWTP	VA0067423	VAN050004	500	0.10	91	0.96	87	223	214	127	--
Riverside Shore Memorial Hospital	VA0027537	VAN050003	500	0.10	91	0.96	87	41	39	-48	--
Cape Charles Town - WWTP	VA0021288	VAN050001	500	0.25	228	0.99	226	31	31	-195	--
Onancock Town - WWTP	VA0021253	VAN050002	500	0.75	685	0.99	678	92	91	-587	--
Tyson Farms Inc - Temperanceville	VA0004049	VAN050005	500	1.25	1,142	1.00	1,142	261	261	-881	--
Totals								2,220	636	-1,584	0