

### CUMULATIVE TN, TP, AND TSS LOAD AND FLOW REPORT

**NAME:** Anne Arundel County Department of Public Works  
**ADDRESS:** 2662 Riva Road Annapolis, MD 21401  
**ATTN:** Noelle Anuszkiewicz  
**FACILITY:** Annapolis Water Reclamation Facility  
**LOCATION:** 7228 Edgewood Rd. Annapolis, MD 21403

#### DISCHARGE MONITORING REPORT (DMR)

MD 0021814		001	(SUBR 03)
<b>STATE PERMIT NUMBER</b>		<b>DISCHARGE NUMBER</b>	F- FINAL MAJOR
			03-DP-0838
			<b>PERMIT NUMBER</b>

<b>MONITORING PERIOD</b>		NO DISCHARGE
FROM: <b>M / D / Y</b>	<b>M / D / Y</b>	
1/1/2018	12/31/2018	

Cumulative TN and TP Load and Flow									
Month	Total Effluent Flow (MG)	N Average (MG/L)	TN Load Rate (LBS)*	Cumulative TN Loading YTD (LBS)*	TN Net Cumulative Loading YTD	TP Average (MG/L)	TP Load Rate (LBS)*	TSS Average (MG/L)	TSS Load Rate (LBS)*
January	223.73	1.7	3172	3172	3147	0.050	93	1.2	2239
February	239.21	2.9	5786	8958	8908	0.090	180	1.7	3392
March	251.31	1.5	3144	12101	12028	0.120	252	1.0	2096
April	240.93	1.4	2813	14915	14816	0.110	221	1.4	2813
May	291.11	2.4	5827	20741	20618	0.320	777	1.2	2913
June	263.34	4.1	9005	29746	29598	0.120	264	1.3	2855
July	286.73	2.3	5500	35246	35074	0.140	335	1.4	3348
August	269.61	3.5	7870	43116	42919	0.100	225	0.8	1799
September	302.81	2.4	6061	49177	48956	0.100	253	0.9	2273
October	275.94	2.3	5293	54470	54224	0.100	230	0.9	2071
November	296.21	1.5	3706	58176	57905	0.100	247	1.4	3459
December	298.95	1.7	4239	62414	62119	0.180	449	1.0	2493
TOTAL ANNUAL EFFLUENT FLOW (MG)	3239.88								
BENCHMARK LOADING RATE		3.0	81062			0.30	8106	30.0	810618
TOTAL ANNUAL LOAD RATE (LBS)		2.3	62119			0.13	3524	1.2	31751
TOTAL ANNUAL LOAD CREDIT (LBS)			18943				4582		778867

\* Loading calculation is as follows:  $(mg/l) \times (Q) \times 8.34 = \text{monthly pounds}$

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>		<b>TELEPHONE</b>	<b>DATE</b>
Michael J. Smith Sr. Cert. # 9137 Team Manager, Annapolis WRF Anne Arundel County Department of Public Works	Michael J. Smith Sr.	410-222-1332	1/4/2019
	Signature of Principal Executive Officer or Authorized Agent		M / D / Y

## CUMULATIVE TN, TP, AND TSS LOAD AND FLOW REPORT

**NAME:** Anne Arundel County Department of Public Works  
**ADDRESS:** 2662 Riva Road Annapolis, MD 21401  
**ATTN:** Noelle Anuszkiewicz  
**FACILITY:** Broadneck Water Reclamation Facility  
**LOCATION:** 1340 Log Inn Rd. Annapolis, MD 21409

### DISCHARGE MONITORING REPORT (DMR)

MD 00221644	001	(SUBR 03)	06-DP-0677
<b>STATE PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>	F- FINAL MAJOR	<b>PERMIT NUMBER</b>

<b>MONITORING PERIOD</b>		NO DISCHARGE
FROM: M / D / Y	TO: M / D / Y	
1/1/2018	12/31/2018	

Cumulative TN and TP Load and Flow									
Month	Total Effluent Flow (MG)	N Average (MG/L)	TN Load Rate (LBS)*	Cumulative TN Loading YTD (LBS)*	TN Net Cumulative Loading YTD	TP Average (MG/L)	TP Load Rate (LBS)*	TSS Average (MG/L)	TSS Load Rate (LBS)*
January	118.94	1.3	1290	1290	1258	0.020	20	0.5	496
February	114.28	2.2	2097	3386	3324	0.100	95	0.4	381
March	128.44	1.5	1607	4993	4899	0.100	107	0.5	536
April	125	2.1	2189	7182	7057	0.100	104	1.3	1355
May	153.73	1.5	1923	9106	8949	0.100	128	0.5	641
June	150.19	1.5	1816	10922	10734	0.070	88	0.7	877
July	152.62	1.1	1400	12322	12103	0.070	89	0.9	1146
August	155.25	1.2	1554	13876	13625	0.100	129	1.9	2460
September	150.96	1.18	1486	15361	15080	0.100	126	0.9	1133
October	147.54	1.37	1686	17047	16734	0.080	98	0.9	1107
November	158.33	1.86	2456	19503	19159	0.070	92	0.5	660
December	167.88	1.93	2702	22205	21830	0.070	98	0.4	560
TOTAL ANNUAL EFFLUENT FLOW (MG)	1723.16								
BENCHMARK LOADING RATE		3.0	43113			0.300	4311	30.0	431135
TOTAL ANNUAL LOAD RATE (LBS)		1.6	21830			0.082	1176	0.8	11352
TOTAL ANNUAL LOAD CREDIT (LBS)			21284				3136		419782

\* Loading calculation is as follows:  $(mg/l) \times (Q) \times 8.34 = \text{monthly pounds}$

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>		TELEPHONE	DATE
William P Jamar Cert. # 1305 Team Manager, Broadneck WRF Anne Arundel County Department of Public Works	Signature of Principal Executive Officer or Authorized Agent	410-222-1510	1/7/2019
			M / D / Y

PERMITTEE NAME/ADDRESS:

**CUMULATIVE TN AND TP LOAD, AND FLOW REPORT FOR 2018**

NAME: Anne Arundel County Department of Public Works

DISCHARGE MONITORING REPORT (DMR)

ADDRESS: 2662 Riva Road

MD0024350

001

(SUBR 03)

12345

06-DP-0813

Annapolis, MD 21401

PERMIT NUMBER

DISCHARGE  
NUMBER

F-FINAL MAJOR

STATE PERMIT NUMBER

ATTN: Noelle Anuszkiewicz, Deputy Director

FACILITY: Broadwater Water Reclamation Facility

MONITORING PERIOD

NO DISCHARGE

Location: 1161 Deep Cove Road

M/D/Y

M/D/Y

Churchton, Maryland 20733

FROM

12/1/2018

12/31/18

Cumulative TN and TP Load, and Flow - Calendar Year 2018

MONTHS	Total Effluent Flow (MG)	TN Average (MG/L) *	TN Load Rate (LBS) *	Cumulative TN Loading YTD (LBS) *	TP Average (MG/L) *	TP Load Rate (LBS) *	Cumulative TP Loading YTD (LBS) *	TSS Average (MG/L) *	TSS Load Rate (LBS) *	Cumulative TSS Loading YTD (LBS) *	COMMENTS
JANUARY	22.721	2.96	561	561	0.13	25	25	1.5	284	284	
FEBRUARY	34.536	3.49	1005	1566	0.11	32	56	1.6	461	745	
MARCH	35.756	3.36	1003	2569	0.04	12	68	1.4	425	1170	
APRIL	32.624	1.34	365	2934	0.11	31	99	2.3	633	1803	
MAY	44.270	1.30	480	3414	0.23	85	184	1.5	554	2357	
JUNE	27.929	0.65	151	3565	0.23	54	238	1.1	265	2622	
JULY	27.321	0.58	132	3697	0.30	68	306	1.4	328	2950	
AUGUST	22.409	0.78	146	3843	0.15	29	335	1.2	231	3181	
SEPTEMBER	32.784	0.88	241	4084	0.18	49	384	1.7	472	3653	
OCTOBER	29.977	1.00	250	4334	0.11	28	412	0.9	225	3878	
NOVEMBER	44.793	1.34	501	4834	0.00	0	412	1.2	448	4326	
DECEMBER	43.903	2.81	1029	5863	0.01	4	416	1.2	439	4766	
<b>TOT YRLY EFF FLOW (MG)</b>	399.02										
<b>BENCHMARK LOADING RATE</b>		3.0	9984		0.3	998		30	99836		
<b>TOTAL ANNUAL LOAD RATE (L)</b>		1.7	5863		0.13	416		1	4766		
<b>TOTAL ANNUAL LOAD CREDIT</b>			4121			582			95070		

**NAME/TITLE PRINCIPLE EXECUTIVE OFFICER**  
 Lee R. Garrett Cert.# 2428  
 Team Manager Broadwater WRF  
 Department of Public Works AA County

<i>Lee R. Garrett</i>	<b>TELEPHONE</b>	<b>DATE</b>
	410-222-1949	19/01/07
<b>Signature of Principal Executive Officer or Authorized Agent</b>	<b>Phone Number</b>	<b>YEAR/MO/DAY</b>

### CUMULATIVE TN, TP, AND TSS LOAD AND FLOW REPORT

**NAME:** Anne Arundel County Department of Public Works  
**ADDRESS:** 2662 Riva Road Annapolis, MD 21401  
**ATTN:** Noelle Anuszkiewicz  
**FACILITY:** Cox Creek Water Reclamation Facility  
**LOCATION:** 8833 Wagner Station Rd, Curtis Bay, MD 21226

#### DISCHARGE MONITORING REPORT (DMR)

MD 0021661		001	(SUBR 03)	07-DP-06987
<b>STATE PERMIT NUMBER</b>		<b>DISCHARGE NUMBER</b>	F- FINAL MAJOR	<b>PERMIT NUMBER</b>
<b>MONITORING PERIOD</b>			NO DISCHARGE	
FROM: 1/1/2018		TO: 12/31/2018		

Cumulative TN and TP Load and Flow									
Month	Total Effluent Flow (MG)	TN Average (MG/L)	TN Load Rate (LBS)*	Cumulative TN Loading YTD (LBS)	TN Net Cumulative Loading YTD	TP Average (MG/L)	TP Load Rate (LBS)*	TSS Average (MG/L)	TSS Load Rate (LBS)*
January	278.43	6.0	13933	13933	N/A	0.06	139	0.3	697
February	283.98	3.5	8289	22222	N/A	0.05	118	0.2	474
March	305.68	1.8	4589	26811	N/A	0.04	102	0.4	1020
April	292.64	1.7	4149	30960	N/A	0.08	195	0.5	1220
May	368.84	2.5	7690	38650	N/A	0.24	738	0.4	1230
June	355.90	1.9	5640	44290	N/A	0.19	564	0.9	2671
July	398.35	1.6	5316	49606	N/A	0.15	498	1.1	3654
August	371.08	1.1	3404	53010	N/A	0.08	248	0.6	1857
September	385.26	1.3	4177	57187	N/A	0.22	707	0.6	1928
October	359.28	1.4	4195	61382	N/A	0.11	330	0.5	1498
November	408.04	2.0	6806	68188	N/A	0.06	204	0.3	1021
December	434.13	2.3	8327	76515	N/A	0.09	326	0.4	1448
TOTAL ANNUAL EFFLUENT FLOW (MG)	4241.61								
BENCHMARK LOADING RATE		3.0	106125			0.30	10613	30.0	1061251
TOTAL ANNUAL LOAD RATE (LBS)		2.3	76515			0.11	4169	0.5	18718
TOTAL ANNUAL LOAD CREDIT (LBS)			29610				6444		1042533

\* Loading calculation is as follows: (mg/l) x (Q) x 8.34 = monthly pounds

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>		TELEPHONE	DATE
Jerome Napora Cert. # 727 Team Manager, Cox Creek WRF Anne Arundel County Department of Public Works	Signature of Principal Executive Officer or Authorized Agent	410-222-6060	M / D / Y

Loading sheet constant link - Do not change

[https://docs.google.com/spreadsheets/d/1Ya\\_4MNboXzGZWK56j4OFYjwBwJg9dXqniVFHxBRcvA](https://docs.google.com/spreadsheets/d/1Ya_4MNboXzGZWK56j4OFYjwBwJg9dXqniVFHxBRcvA)

### CUMULATIVE TN AND TP LOAD AND FLOW REPORT

**NAME:** Anne Arundel County Department of Public Works  
**ADDRESS:** 2662 Riva Road Annapolis, MD 21401  
**ATTN:** ATTN: Noelle Anuszkiewicz, Deputy Director  
**FACILITY:** Maryland City Water Reclamation Facility  
**LOCATION:** 462 Brock Bridge Road Laurel, MD 20724

MD 0062596	001	(SUBR 03)
<b>STATE PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>	F- FINAL MAJOR
		02-DP-2393
		<b>PERMIT NUMBER</b>

<b>MONITORING PERIOD</b>		
<b>M / D / Y</b>		<b>M / D / Y</b>
FROM: 12/1/2018	TO:	12/31/2018

NO DISCHARGE

Cumulative TN and TP Load and Flow										
Month	Total Effluent Flow (MG)	N Average (MG/L)	TN Load Rate (LBS)*	Cumulative TN Loading YTD (LBS)*	TP Average (MG/L)	TP Load Rate (LBS)*	Cumulative TP Loading YTD (LBS)*	TSS Average (MG/L)	TSS Load Rate (LBS)*	Cumulative TSS Loading YTD (LBS)*
January	37.97	2.30	728	728	0	0	0	1	317	317
February	37.34	3.1	965	1694	0.1	31	31	2	623	940
March	39.38	1.6	528	2222	0	0	31	1	328	1268
April	38.23	1.7	542	2764	0.1	32	63	1	319	1587
May	44.15	3.1	1142	3906	0.3	110	173	3	1105	2691
June	43.15	1.7	612	4518	0	0	173	1	360	3051
July	43	1.5	547	5065	0.2	72	245	1	359	3410
August	42.47	2	717	5782	0.1	35	280	1	354	3764
September	46.08	1.4	548	6330	0	0	280	1	384	4148
October	43.91	1.3	476	6806	0.05	18	298	0.3	110	4258
November	45.63	1	381	7186	0	0	298	0.5	190	4448
December	45.71	2.1	801	7987	0	0	298	0.4	152	4601
<b>TOT YRLY EFF FLOW (MG)</b>	507.02									
<b>BENCHMARK LOADING RATE</b>		3.0	12686		0.3	1269		30	126856	
<b>TOTAL ANNUAL LOAD RATE (LBS)</b>		1.9	7987		0.08	299		1	4601	
<b>TOTAL ANNUAL LOAD CREDIT (LBS)</b>			4699			970			122255	

\* Loading calculation is as follows:  $(mg/l) \times (Q) \times 8.34 = \text{monthly pounds}$

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Lee Garrett (certificate #2428) Team Manager, Maryland City Water Reclamation Facility Anne Arundel County Department of Public Works
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	TELEPHONE	DATE
Signature of Principal Executive Officer or Authorized Agent	410-222-8190	1/9/2018
		M / D / Y

### CUMULATIVE TN, TP, AND TSS LOAD AND FLOW REPORT

#### DISCHARGE MONITORING REPORT (DMR)

**NAME:** Anne Arundel County Department of Public Works  
**ADDRESS:** 2662 Riva Road Annapolis, MD 21401  
**ATTN:** Noelle Anuszkiewicz  
**FACILITY:** Patuxent Water Reclamation Facility  
**LOCATION:** 1640 Professional Blvd.

MD 0021652	001	(SUBR 03)	11-DP-0132
<b>STATE PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>	F- FINAL MAJOR	<b>PERMIT NUMBER</b>
<b>MONITORING PERIOD</b>		NO DISCHARGE	
FROM: <b>M / D / Y</b>	<b>M / D / Y</b>		
1/1/2018	12/31/2018		

Cumulative TN and TP Load and Flow									
Month	Total Effluent Flow (MG)	TN Average (MG/L)	TN Load Rate (LBS)*	Cumulative TN Loading YTD (LBS)*	TN Net Cumulative Loading YTD	TP Average (MG/L)	TP Load Rate (LBS)*	TSS Average (MG/L)	TSS Load Rate (LBS)*
January	156.63	2.50	3266	3266	3266	0.14	180	1.69	2203
February	150.00	3.23	4044	7310	7310	0.24	303	1.95	2434
March	164.27	2.33	3187	10497	10497	0.16	224	2.01	2759
April	156.73	2.08	2720	13217	13217	0.31	400	2.67	3485
May	180.19	2.03	3043	16260	16260	0.19	282	2.93	4399
June	174.79	1.25	1820	18081	18081	0.23	341	3.00	4373
July	178.57	1.26	1880	19961	19961	0.18	266	2.30	3419
August	172.90	1.11	1604	21565	21565	0.12	171	1.93	2786
September	171.04	1.00	1426	22992	22992	0.06	91	1.47	2092
October	168.39	1.31	1843	24835	24835	0.15	209	1.94	2719
November	184.33	2.21	3394	28229	28229	0.18	279	1.46	2250
December	197.95	2.06	3405	31633	31633	0.20	322	2.22	3662
<b>TOTAL ANNUAL EFFLUENT FLOW (MG)</b>	<b>2055.80</b>								
<b>BENCHMARK LOADING RATE</b>		<b>3.0</b>	<b>51436</b>			<b>0.300</b>	<b>5144</b>	<b>30.0</b>	<b>514361</b>
<b>TOTAL ANNUAL LOAD RATE (LBS)</b>		<b>1.9</b>	<b>31633</b>			<b>0.180</b>	<b>3068</b>	<b>2.1</b>	<b>36580</b>
<b>TOTAL ANNUAL LOAD CREDIT (LBS)</b>			<b>19803</b>				<b>2076</b>		<b>477781</b>

\* Loading calculation is as follows: (mg/l) x (Q) x 8.34 = monthly pounds

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>		TELEPHONE	DATE
Robert L. Kraus Cert. # 7720 Team Manager Anne Arundel County Department of Public Works		410-222-7925	1/14/2019
	Signature of Principal Executive Officer or Authorized Agent		M / D / Y