

NPDES PERMITTEE

ANNUAL CONSTITUENTS MONITORING REPORT

as required for all POTWs per 40 CFR, Appendix J to Part 122, Table 1A and Table 1
NPDES Permit Testing Requirements for POTWs with design flows of ≥0.1 MGD

Permit #: 3-1203

Permittee Name: TOWN OF MILTON WWTF

<i>Constituent</i>	<i>Date Sampled</i>	<i>Sample Type</i>	<i>Result</i>	<i>Unit of Measurement</i>
Ammonia (as N)		grab		mg/l
Dissolved Oxygen		grab		mg/l
Nitrate/Nitrite		composite		mg/l
Total Kjeldahl Nitrogen		composite		mg/l
Oil and grease		grab		mg/l
Total Phosphorus		composite		mg/l
Temperature		grab		°C
Total Dissolved Solids		composite		mg/l

Note: Over the life of your permit samples must be taken to represent your discharge for all seasons (spring, summer, fall and winter). Check your permit to determine which of the listed constituents are to be sampled on an annual basis. This report is due by December 31 of the sampling year.

Contact Name: Tom Elwood
 Title: Superintendent
 Address: 43 Bombardier Road
Milton, Vermont 05468
 Phone: 802-893-1170

Signature: _____
 Submittal Date: _____

Mail this report to: Watershed Management Division
 Vermont Department of Environmental Conservation
 One National Life Drive, Main Bldg, 2nd Floor
 Montpelier VT 05620-3522

Agency of Natural Resources	Permittee:	Milton
Department of Environmental Conservation	NPDES Permit No.	3-1203
Watershed Management Division	Preparer/Contact:	Thomas Elwood Superintendent
One National Life Drive, Main Building, 2nd Floor	Telephone:	1-802-893-1170
Montpelier, VT 05620-3522	Email:	telwood@miltonvt.gov
	Month/Year:	Jul-23

Total Phosphorus Waste Load Allocation from Lake Champlain Phosphorus TMDL:	metric 0.829 tons/year 1828 lbs/year	Select your facility in the pulldown list next to Permittee above.
Monthly Average TP concentration	0.31 mg/L	Enter this value from WR-43.
Monthly Average Daily Flow Rate	0.26 MGD	Enter this value from WR-43.
Number of days with discharge	31 days	Enter the number of days with discharge.
Average TP Concentration * Average Flow Rate * Days of Discharge * 8.34	20.68 lbs	Pounds of Phosphorus discharged this month.
12 Month Running Total Pounds of Phosphorus	180.44 lbs/year	Enter the 12 Month Running Total Pounds of Phosphorus.
12 Month Running Total / Waste Load Allocation * 100	9.87 %	Percentage of Annual Phosphorus Load from TMDL

This form should be submitted monthly by facilities that have a Total Phosphorus Waste Load Allocation under the Lake Champlain Phosphorus TMDL. If you have a permit issued before 2017 DO NOT USE this form.

Notes:

**VERMONT WASTEWATER PERMIT PROGRAM
OPERATIONS REPORT**

MONTH: July-2023

PERMITTEE: TOWN OF MILTON WWTF

PERMIT #: 3-1203

PREPARED BY: _____

CERTIFICATE #: _____

APPROVED BY: _____

Thomas A Elwood, W W/W SUPERINTENDENT

LARGE ACTIVATED SLUDGE WASTEWATER TREATMENT FACILITIES (SBR/UV)

DATE	WEATHER CONDITIONS		RAW WASTEWATER (INFLUENT)							Kwh used per day	SEQUENTIAL BATCH REACTORS									PROCESS						ALUM. FEED #/DAY	POLY FEED GPD	25% CAUSTIC FEED GPD										
			FLOW			TEMP. C	pH	SETT. SOLIDS ml	GRIT REMOVED POUNDS		SBR No.1			SBR No. 2			SBR No.3			SETT. SLUDGE VOLUME ml			DISSOLVED OXYGEN mg/L						pH			SVI SBR NO.1	SVI SBR NO.2	SVI SBR NO. 3	MCRT SBR NO.1 DAYS	MCRT SBR NO.2 DAYS	MCRT SBR NO. 3 DAYS	
	RAIN INCH	SNOW INCH	MAX. MGD	MIN. MGD	TOTAL DAILY MGD					ML Susp. Solids mg/l	Water Elev. ft.	Solids in Susp. lb.	ML Susp. Solids mg/l	Water Elev. ft.	Solids in Susp. lb.	ML Susp. Solids mg/l	Water Elev. ft.	Solids in Susp. lb.	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3					
1	0.04	0	1.20	0.200	0.197	16.8	7.59	10.0	<1	900																								416				
2	0.07	0	1.50	0.200	0.304	16.9	7.22	5.0	<1	1200																								416				
3	0	0	1.60	0.200	0.243	16.8	7.45	32.0	<1	800																								347				
4	T	0	1.45	0.200	0.338	17.2	7.25	6.0	<1	1800																								485				
5	0	0	1.55	0.200	0.274	17.7	7.29	24.0	<1	1500																								416				
6	0	0	1.50	0.200	0.313	20.5	7.46	16.0	<1	1200																								277				
7	0.04	0	1.35	0.200	0.149	21.1	6.98	10.0	<1	1600																								277				
8	0	0	1.50	0.200	0.236	16.9	7.35	28.0	<1	1200																								416				
9	0.24	0	1.20	0.200	0.335	17.9	7.34	16.0	<1	1500																								416				
10	1.64	0	1.55	0.300	0.369	17.5	7.22	9.5	<1	1400	4046	10.1	9270	2358	10.5	5617	7438	10.1	17042	220	150	415	6.8	2.2	2.2	6.61	6.57	6.88	54	64	56			555				
11	0.5	0	1.65	0.350	0.428	19.7	7.15	12.0	<1	1400																								277				
12	0	0	1.65	0.250	0.333	18.5	7.35	6.0	<1	1400																								277				
13	0.05	0	1.55	0.200	0.342	17.5	7.39	15.0	<1	1400																								416				
14	0.14	0	1.50	0.260	0.264	18.8	7.37	18.0	<1	1500																								347				
15	0	0	1.30	0.240	0.287	20.7	7.53	14.0	<1	1500																								555				
16	0.97	0	1.55	0.250	0.462	18.0	7.31	5.0	<1	1900																								347				
17	0	0	1.45	0.300	0.248	21.2	7.41	11.0	<1	1100	4756	10.3	11113	3448	10.5	8213	6692	11.0	16699	250	200	400	10.0	2.3	2.1	6.87	6.94	6.61	53	58	60			416				
18	0.1	0	1.45	0.200	0.281	18.8	7.32	12.5	<1	1100																									416			
19	0	0	1.55	0.250	0.372	18.1	7.38	10.0	<1	1400																								485				
20	0	0	1.60	0.220	0.325	20.3	9.48	16.0	<1	1200	3482	10.3	8136	3316	10.4	7823	5556	10.8	13612	190	190	330	1.7	2.1	2.2	6.70	6.82	6.96	55	57	59			485				
21	0.81	0	1.55	25.000	0.275	21.1	7.25	8.0	<1	1100																								277				
22	T	0	1.50	0.200	0.199	17.7	7.41	6.0	<1	800																								277				
23	T	0	1.70	0.250	0.439	17.1	7.35	3.0	<1	1500																								555				
24	0.07	0	1.70	0.250	0.322	20.9	7.47	17.0	<1	1200																								416				
25	0	0	1.50	0.250	0.233	18.2	7.63	16.0	<1	1000	3922	10.3	9164	3410	10.5	8122	4396	11.2	11169	240	200	290	3.5	2.9	1.9	6.86	6.9	6.84	61	59	66			624				
26	0	0	1.60	0.220	0.419	22.0	7.39	80.0	<1	2000																								277				
27	0.73	0	1.60	0.260	0.369	21.6	7.64	15.0	<1	1200																								416				
28	0	0	1.40	0.250	0.186	18.9	7.12	5.0	<1	800																								277				
29	0.44	0	1.20	0.250	0.321	18.9	7.14	5.0	<1	1300																								485				
30	0	0	1.70	0.250	0.437	18.5	7.06	10.0	<1	1200																								555				
31	0.05	0	1.65	0.300	0.243	21.7	7.25	18.0	<1	1200																								277				
TOTAL	0.00				9.543				<28	40300																								12478				
AVG.	0.21		1.508	1.035	0.308	19.0		15	<1	1300.0	4052	10.3	9421	3133	10.5	7444	6021	10.8	14630	225	185	359	5.5	2.4	2.1							56	59	60		402.5		
MAX.			1.700	25.000	0.462	22.0	9.48	80	<1	2000.0	4756	10.3	11113	3448	10.5	8213	7438	11.2	17042	250	200	415	10.0	2.9	2.2	6.87	6.94	6.96	61	64	66			624.0				
MIN.			1.200	0.200	0.149	16.8	6.98	3.0	<1	800.0	3482	10.1	8136	2358	10.4	5617	4396	10.1	11169	190	150	290	1.7	2.1	1.9	6.61	6.57	6.61	53	57	56			277.0				

DATE	INFLUENT				EFFLUENT														SIZE AND TYPE OF PRIMARY FLOW DEVICE RECTANGULAR WEIR													
	BOD	BOD	TSS	PHOS	BOD		TSS		TKN		PHOS		UOD	ECOLI	SBR No. 1				SBR No. 2				SBR No. 3				TOTAL	FLOW CHECK PERFORMED ON EFFLUENT METER				
	mg/l	lbs	mg/l	mg/l	mg/l	lbs	mg/l	lbs	mg/l	lbs	mg/l	lbs	lbs	#/100	SETT SOLIDS	pH	TEMP	TURB	SETT SOLIDS	pH	TEMP	TURB	SETT SOLIDS	pH	TEMP	TURB	FLOW	DATE	HEAD	ACTUAL FLOW	CHART FLOW	(ACTUAL - CHART) X 100 = % ERROR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1															0	6.59	20	1.78								0.205	5-Jul	0.20	1.049	1.147	-9.3 %ERROR	
2																			0	6.64	20.1	1.5				0.239	11-Jul	0.17	0.904	0.858	5.2 %ERROR	
3																							0	6.69	20.0	1.72	0.22	17-Jul	0.17	0.823	0.927	-12.7 %ERROR
4															0	6.58	19.9	1.76								0.294	24-Jul	0.19	0.979	1.043	-6.5 %ERROR	
5	444.8	1016.32	560	12.6	7.2	13.33	11.5	21.20	10.0	18.43	0.64	1.19	103.29	17								0	6.67	20.6	2.96	0.221						
6																			0	6.79	20.8	1.9				0.291						
7															0	6.78	21.3	1.5								0.158						
8																			0	6.5	21	1.31				0.204						
9																							0	6.52	21.3	1.57	0.275					
10														6	0	6.57	20.9	1.95								0.31						
11	149.5	533.64	259	6.0	5.8	17.26	2.2	6.57	7.6	22.69	0.24	0.71	128.38					0	6.66	20.2	3.55				0.358							
12																							0	6.97	20.8	1.96	0.259					
13															0	6.69	20.1	1.5								0.297						
14																			0	6.67	20.2	1.43				0.217						
15															0	6.63	21.5	1.29						0	6.71	21.3	1.22	0.255				
16																										0.342						
17														15					0	6.82	21.3	0.84				0.216						
18	140.3	328.68	268	4.2	2.4	4.68	0.8	1.54	1.5	2.89	0.10	0.20	19.90					0	6.58	21.3	1.21				0.231							
19															0	6.58	21.3	1.21								0.275						
20																			0	6.77	20.8	0.99				0.267						
21																							0	6.53	21.0	1.21	0.201					
22															0	6.97	20.8	1.36								0.226						
23																			0	6.96	20.1	0.85				0.321						
24														<1									0	6.79	20.9	1.52	0.278					
25	159.5	309.94	884	6.0	7.0	11.36	3.7	5.99	3.4	5.50	0.24	0.39	41.38		0	6.62	20.8	1.14							0.194							
26																			0	6.55	21.4	1.03				0.347						
27																							0	6.75	21.9	1.41	0.303					
28															0	6.63	21.1	1.71								0.185						
29																			0	6.62	21.7	0.96				0.251						
30																							0	6.60	20.6	1.26	0.356					
31														6.3	0	6.61	20.5									0.209						
TOTAL													292.9													8.005						
AVG	223.5	547.1	492.5	7.2	5.6	11.7	4.6	8.8	5.6	12.4	0.31	0.62	73.24	11	0		20.7	1.5	0					0		0.258						
MAX	444.8	1016.3	883.9	12.6	7.2	17.3	11.5	21.2	10.0	22.7	0.64	1.2	128.4	17	0.0	6.97	21.5	2.0	0.0	6.96	21.7	3.6	0.0	6.97	21.9	3.0	0.358					
MIN	140.3	309.9	258.6	4.2	2.4	4.7	0.8	1.5	1.5	2.9	0.10	0.2	19.9	6	0	6.57	19.9	1.1	0	6.50	20.1	0.8	0	6.52	20.0	1.0	0.158					
					97.5		99.1					95.8																				

Plant phone number:802-893-1170

7/31/23 tested E-coli using Idexx quantitray 2000 and Colilert the results are in MPN. 8/1/23 Tested DMRQA-43 for ecoli and submitted results using new Idexx system.

TKN + N02 + N03=10.45 mg/l and 19.26 LBS

PREPARED BY: Thomas A Elwood, CHIEF OPERATOR, CERT #1397

I certify under penalty of law that I have personally examined, and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

APPROVED BY: Thomas A Elwood, SUPERINTENDENT (AUTHORIZED AGENT FOR THE PERMITTEE)

UOD lbs = (1.43 X BODlbs) + (4.57 * TKN lbs) TH ORIGINAL SIGNATURES; PERMITTEE TO KEEP A COPY ON FILE

DATE	ULTRAVIOLET DISINFECTION									SLUDGE HANDLING AND DEWATERING											FINAL SLUDGE DISPOSAL		
	SBR #1			SBR #2			SBR #3			SEPTAGE RECEIVED GAL	CENTRIFUGE				HOLDING TANKS		DECANT (GALLONS)		TOTAL VOLUME IN STORAGE GAL	MASS IN STORAGE lbs	WET TONS OUT	% SOLIDS OUT	DISPOSAL SITE
	INSTAN.	INTENSITY	INTENSITY	INSTAN.	INTENSITY	INTENSITY	INSTAN.	INTENSITY	INTENSITY		% SOLIDS		VOLUME		TANK 1	TANK 2	TANK 1	TANK 2					
	Flow Rate	BANK	BANK	Flow Rate	BANK	BANK	Flow Rate	BANK	BANK		IN	OUT	GAL.	TONS	LEVEL	LEVEL	GAL	GAL					
1	2	3	4	5	6	7	8	9	11	12	13	14	15	16	17	18	19	20	21	22	23		
1	0.1	8.81	8.81						0					8.24	8.16	-4477	-4477	198440	47995				
2				0.8	8.81	8.81			0					8.61	8.53	-5445	-3630	207394	50160				
3								0.7	8.81	8.81	12200			9.06	8.83	-3509	-5203	216469	52355				
4	1.0	8.81	8.81						3000					9.35	9.26	-9559	3751	225181	54462				
5								1.0	8.81	8.81	10900			10.14	8.95	121	14036	230989	55867				
6				1.0	8.81	8.81			15000	1.08	25.23	116416	20.78	10.13	7.79	35211	24926	216832	52443	22.49	25.23	landfill coventry	
7	1.0	8.81	8.81						0					7.22	5.73	3872	-13310	156695	37898				
8				0.8	8.81	8.81			0					6.90	6.83	-4235	-4719	166133	40181				
9									0					7.25	7.22	-17908	5082	175087	42347				
10	2.0	8.81	8.81					0.9	8.81	8.81	21000			8.73	6.80	-16940	-5566	187913	45449				
11				1.0	8.81	8.81			24000					10.13	7.26	1573	-28919	210419	50892				
12									12500	1	22.86	23604	4.31	10.00	9.65	-1452	13068	237765	57506				
13	0.2	8.81	8.81					0.9	8.81	8.81	0			10.12	8.57	1452	-8107	226149	54696	20.26	22.86	landfill coventry	
14				0.9	8.81	8.81			6000	1	32.60	135948	17.39	10.00	9.24	29645	31097	232804	56306				
15									0					7.55	6.67	18513	8954	172062	41615				
16	0.6	8.81	8.81					0.7	8.81	8.81	0			6.02	5.93	-18392	21538	144595	34972				
17				1.1	8.81	8.81			9000	1	26.81	36208	5.63	7.54	4.15	11011	-28072	141449	34211				
18									24200					6.63	6.47	-15125	-16093	158510	38337	24.50	29.71	landfill coventry	
19	0.7	8.81	8.81					0.7	8.81	8.81	10500			7.88	7.80	-26862	10043	189728	45888				
20				0.8	8.81	8.81			11000					10.10	6.97	-242	4477	206547	49955				
21								0.8	8.81	8.81	16400			10.12	6.60	12947	-29524	202312	48931				
22	1.0	8.81	8.81						0					9.05	9.04	-7502	-7381	218889	52940				
23				1.0	8.81	8.81			0					9.67	9.65	-5566	30008	233772	56540				
24								1.0	8.81	8.81	13600			10.13	7.17	484	7139	209330	50629				
25	1.0	8.81	8.81						5500					10.09	6.58	6534	-23716	201707	48785				
26				0.6	8.81	8.81			10800	1	26.21	40528	6.45	9.55	8.54	10648	0	218889	52940				
27								1.0	8.81	8.81	19500			8.67	8.54	-12947	20328	208241	50365				
28	1.2	8.81	8.81						0					9.74	6.86	15004	-18513	200860	48580				
29				0.5	8.81	8.81			0					8.50	8.39	-5203	-5566	204369	49429				
30								0.8	8.81	8.81	0			8.93	8.85	-13310	27104	215138	52033				
31	0.7	8.81	8.81						0					10.03	6.61	19239	-24684	201344	48697				
TOTAL									225,100.00				54.56								67.25		
AVG.	0.9	8.81	8.81	0.9	8.81	8.81	0.8	8.81	8.81	7,261.29	1	26.74	70,541	10.91	8.91	7.67	-78	-191	200,517	48497	22.42	25.93	
MAX.	2.0	8.81	8.81	1.1	8.81	8.81	1.0	8.81	8.81	24,200.00	1	32.60	135,948	20.78	10.14	9.65	35,211	31,097	237,765	57506	24.50	29.71	
MIN.	0.1	8.81	8.81	0.5	8.81	8.81	0.7	8.81	8.81	0.00	1	22.86	23,604	4.31	6.02	4.15	-26,862	-29,524	141,449	34211	20.26	22.86	