



July 13, 2023

Mr. Don Turner
Environmental Project Officer
Water Security Agency
Suite 300 – 2365 Albert Street
Regina, SK S4P 4K1

Dear Mr. Turner:

RE: Monthly Report: **June 2023**

In compliance with the City of Regina “Permit to Operate a Sewage Works” # 0050853-07-00 please find attached the monthly report for June 2023.

I trust this meets with your approval, should you have any questions please do not hesitate to contact me directly at (306) 580-1204 or Rui Li at (306) 535-5874.

Yours truly,

A handwritten signature in blue ink that reads "V. Campbell". The signature is written in a cursive, flowing style.

Vicki Campbell
Senior Manager, Capital, Growth & Operations
EPCOR Water Services

City of Regina - Wastewater Treatment Plant

June 2023 Final Effluent Results Permit# 00050853-07-00															
Date	Flow to Creek	Total Coliform	<i>E. coli</i>	Enterococci	Dissolved Oxygen (Field Test)	Temp. (Field Test)	Chloride (Field Test)	Total Phosphorus	pH @15±1°C	Total Suspended Solids	CBOD	Ammonia Nitrogen	Unionized Ammonia @15±1°C	Total Kjeldahl Nitrogen	Total Nitrogen
	(ML)	(MPN /100mL)			(mg/L)	(°C)	(mg/L)	(mg P/L)	(SU)	(mg/L)	(mg/L)	(mg N/L)	(mg N/L)	(mg N/L)	(mg N/L)
01	71.24	23	3		6.67	16.6	194	0.14	7.31	< 2.5	2.1	1.50	< 0.030	3.1	6.9
02	109.13	34	3		8.01	15.7		0.21		5.6		0.41		1.6	5.4
03	95.04				7.92	15.4		0.12		3.1		< 0.30		1.0	6.4
04	92.94				8.33	15.9	206	0.07	7.20	< 2.5	< 2.0	0.41	< 0.030	1.3	8.2
05	91.95	16	2		6.53	16.8	221	0.11	7.20	2.6	< 2.0	0.36	< 0.030	1.3	7.5
06	85.23	75	8	< 1	6.39	17.2	218	0.24	7.36	6.9	2.3	0.57	< 0.030	2.5	9.8
07	91.77	127	24		6.47	17.5	202	0.19	7.23	5.7	2.8	2.10	< 0.030	5.0	10.3
08	115.00	190	23		5.25	16.7	177	0.73	7.21	19.6	3.9	0.46	< 0.030	3.6	9.3
09	96.19	19	1		6.90	16.7		0.29		8.4		0.64		2.8	9.4
10	99.41				7.20	17.4		0.13		5.1	< 2.0	0.52		2.6	10.3
11	98.45				7.93	17.8	206	0.16	7.15	7.5	2.3	2.51	< 0.030	5.0	10.0
12	101.76	52	6	5	6.26	18.1	222	0.26	7.35	8.3	3.2	4.88	0.030	7.4	10.6
13	99.10	172	11		5.85	18.6	212	0.24	7.37	9.5	3.4	5.35	0.034	7.6	10.9
14	87.98	25	2		6.31	18.5	213	0.34	7.40	11.2	4.9	5.64	0.038	8.2	11.4
15	75.53	35	8		6.95	17.5	211	0.39	7.36	12.0	4.3	6.28	0.039	8.6	14.0
16	70.73	51	3		7.18	17.5		0.40		11.4		6.26		8.9	15.3
17	65.21				6.72	17.7		2.04		44.1	6.2	7.64		12.0	15.6
18	70.01				6.68	17.9	209	0.36	7.32	9.5	3.5	3.73	< 0.030	6.2	10.4
19	83.58	179	3	1	7.24	17.7	203	0.35	7.29	9.2	3.5	4.10	< 0.030	7.0	10.7
20	69.60	46	< 1		6.84	17.9	192	0.24	7.31	5.6	2.1	1.56	< 0.030	3.7	7.1
21	65.44	44	< 1		6.99	18.2	203	0.39	7.23	9.3	2.3	0.82	< 0.030	2.7	6.0
22	62.53	17	< 1		7.08	18.3	186	0.16	7.28	3.2	< 2.0	< 0.30	< 0.030	2.0	6.0
23	68.04	17	1		7.58	18.4		0.18		4.2		0.86		2.6	6.5
24	73.75				7.74	18.5		0.21		4.7	< 2.0	2.09		4.3	7.9
25	72.14				6.86	18.7	200	0.23	7.22	5.4	2.2	2.18	< 0.030	4.6	8.8
26	71.39	75	5	5	6.60	18.8	210	0.38	7.25	10.5	3.1	1.47	< 0.030	4.1	9.4
27	76.23	34	2		6.29	19.0	212	0.39	7.24	11.4	3.2	3.31	< 0.030	6.2	10.7
28	77.65	82	8		6.49	19.2	203	0.42	7.33	11.2	3.6	4.14	< 0.030	7.5	11.0
29	66.02	28	2		6.56	19.3	204	0.37	7.25	8.5	3.5	2.18	< 0.030	5.2	9.1
30	72.47	44	5		6.81	19.3		0.33		6.9		2.06		4.6	8.4
Sum	2475.51														
Avg	82.52				6.89	17.7	205	0.34	7.28	9	3	2	0.031	4.8	9
Min	62.53				5.25	15.4	177	0.07	7.15	< 2.5	< 2.0	< 0.30	< 0.030	1.0	5.4
Max	115.00		24		8.33	19.3	222	2.04	7.40	44.1	6.2	7.64	0.039	12.0	15.6
Permit Limits			≤1,000					≤0.75		≤15	≤15	≤4	≤1.24		≤10

***E. coli* Geometric Mean = 3 MPN/100mL, Limit = 200 MPN/100mL**

Plant Notes:

We experienced a significant increase in rainfall, resulting in extreme wet weather conditions and a reduction in lagoon capacity at the beginning of the month. To address the excessive flow and regain lagoon capacity, we implemented measures to sustain higher influent flow rates.

WSA Notes:

Jun 1 - CBOD result qualified. Quality control standard exceeded acceptance criteria.
 Jun 6 - Acute toxicity was tested by an external accredited laboratory and passed.

Creek Monthly Report to Water Security Agency

Tuesday, June 6, 2023

Permit# 00050853-07-00

Test Description	Riske's Crossing	Final Effluent	Sidmar Crossing	Wascana above the Qu'Appelle	Qu'Appelle above the Wascana	Lumsden
Dissolved Oxygen (Field Test)	5.43	6.39	6.27	6.96	7.40	6.94
pH (Field Test for Creek Samples)	7.32	7.36	7.04	7.51	7.71	7.57
Temperature (Field Test)	23.4	17.2	21.6	24.0	24.2	24.4
Total Suspended Solids	26.0	6.9	26.5	122	129	143
Carbonaceous Biochemical Oxygen Demand	<2.0	2.3	<2.0	<2.0	2.6	2.0
Total Phosphorus	0.55	0.24	0.41	0.28	0.50	0.42
Total Kjeldahl Nitrogen	1.8	2.5	1.9	1.5	1.2	1.0
Ammonia Nitrogen	0.31	0.57	<0.30	<0.30	<0.30	<0.30
Nitrate Nitrogen	0.52	7.16	2.91	2.31	<0.13	1.39
Total Nitrogen	2.5	9.8	5.0	3.8	1.3	2.4
Phenol Alkalinity	0	0	0	0	0	0
Total Alkalinity	203	169	188	181	212	193
Carbonate	0	0	0	0	0	0
Bicarbonate	248	206	229	221	258	236
Chloride (Field Test)	53.6	218	112	88.3	37.2	59.4
Total Coliform	17,300	75	17,300	24,200	7,270	15,500
<i>E. coli</i>	727	8	411	866	23	308
Enterococci	219	<1	248	186	20	155
Total Hardness*	287	398	328	300	294	293
Calcium*	64	92	74	71	65	68
Magnesium*	31	41	35	30	32	30
Potassium*	16	17	17	14	12	13
Sodium*	70	154	99	82	89	81
Sulfate*	170	270	210	180	220	190
Total Dissolved Solids*		973				
Conductivity at 25°C*		1550				
Phenolics*		0.0070				
Mercury*		0.000001				
Aluminum*		0.16				
Antimony*		0.0008				
Arsenic*		0.0008				
Barium*		0.026				
Beryllium*		<0.0001				
Boron*		0.27				
Cadmium*		0.00001				
Chromium*		<0.0005				
Cobalt*		0.0004				
Copper*		0.009				
Iron*		0.064				
Lead*		0.0008				
Manganese*		0.60				
Molybdenum*		0.017				
Nickel*		0.0029				
Selenium*		0.0016				
Silver*		<0.00005				
Strontium*		0.53				
Thallium*		<0.0002				
Uranium*		0.0053				
Vanadium*		0.0057				
Zinc*		0.048				

Notes:

* Tests conducted by an external accredited laboratory.

Results are in mg/L except total coliforms, *E.coli*, enterococci (MPN/100mL), temperature (°C), conductivity (µS/cm) and pH (SU).

Jun 1 - PI BOD result qualified. Quality control standard exceeded acceptance criteria.

Primary Influent BOD Results (mg/L)

Jun 1 - 205; Jun 6 - 189; Jun 8 - 129; Jun 13 - 159; Jun 15 - 249; Jun 20 - 193; Jun 22 - 216; Jun 27 - 209; Jun 29 - 212