



April 15, 2024

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

Dear Mr. Turner:

RE: Monthly Report: March 2024

In compliance with the City of Regina "Permit to Operate a Sewage Works" # 0050853-08-00 please find attached the monthly report for March 2024.

I trust this meets with your approval, should you have any questions please do not hesitate to contact me directly at (306) 519-1178 or Rui Li at (306) 535-5874.

Yours truly,

A handwritten signature in blue ink, appearing to read "Rynette Moore-Guillaume", written in a cursive style.

Rynette Moore-Guillaume
Senior Manager, Capital, Growth & Operations
EPCOR Water Services

City of Regina - Wastewater Treatment Plant

March 2024																
Final Effluent Results											Permit# 00050853-08-00					
Date	Flow to Creek	Total Coliform	<i>E. coli</i>	Enterococci	Dissolved Oxygen (Field Test)	Temp. (Field Test)	pH (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)	(SU)	(mg/L)	(mg P/L)	(SU)	(mg/L)	(mg/L)	(mg N/L)	(mg N/L)	(mg N/L)	(mg N/L)
01	61.63	131	16		7.39	13.9	7.9		0.27	7.16	8.9	< 2.0	0.44	< 0.030	2.4	9.4
02	61.92				7.27	13.8	7.7		0.53		10.8	2.7	1.33		4.4	9.3
03	61.62				7.42	13.4	8.1	213	0.57	7.28	13.6	3.1	1.60	< 0.030	4.6	9.7
04	62.61	79	10		7.76	13.3	7.8	206	0.53	7.23	11.8	3.3	0.89	< 0.030	3.8	9.0
05	62.13	108	7	19	7.98	13.7	7.7	215	0.46	7.23	9.3	2.7	0.54	< 0.030	3.1	8.8
06	62.72	73	8		7.86	13.5	7.8	225	0.39	7.24	7.8	2.8	1.08	< 0.030	3.4	9.5
07	64.90	91	8		7.78	13.1	7.3	224	0.41	7.26	9.3	3.4	1.75	< 0.030	4.4	11.1
08	67.01	196	16		7.86	12.9	7.3		0.43	7.27	9.0	2.8	1.00	< 0.030	3.9	11.4
09	66.52				7.20	13.0	7.6		0.45		9.5	2.7	1.76		4.8	9.3
10	72.51				17.33	13.4	7.6	245	0.52	7.20	10.2	3.4	4.08	< 0.030	7.4	11.5
11	81.20	158	9		7.10	13.5	7.8	290	0.96	7.09	22.3	5.6	4.32	< 0.030	7.8	11.3
12	71.90	365	35	166	7.03	13.4	7.9	322	8.20	7.07	38.4	10.5	1.46	< 0.030	6.2	11.8
13	52.80	113	22		6.75	13.9	7.6	303	1.47	7.18	4.9	< 2.0	< 0.30	< 0.030	2.0	6.4
14	56.68	88	16		7.51	13.9	6.7	280	0.18	7.10	2.6	< 2.0	< 0.30	< 0.030	1.8	8.7
15	66.59	42	8		7.90	13.6	7.3		0.18	7.11	3.1	< 2.0	< 0.30	< 0.030	1.9	10.4
16	69.89				8.21	12.7	7.5		0.15		3.1	< 2.0	< 0.30		2.0	11.5
17	68.60				7.98	12.7	7.5	239	0.16	7.15	5.6	< 2.0	< 0.30	< 0.030	2.0	10.1
18	73.33	48	3		7.39	13.3	7.8	241	0.12	7.05	2.5	2.1	< 0.30	< 0.030	2.1	9.0
19	77.67	276	5	10	8.14	12.7	7.6	245	0.14	7.07	2.8	< 2.0	0.74	< 0.030	2.7	10.8
20	71.28	387	1		8.45	12.7	7.6	235	0.14	7.15	4.0	< 2.0	0.53	< 0.030	2.5	11.2
21	66.70	5	<	1	8.34	13.1	7.1	236	0.18	7.08	3.4	< 2.0	< 0.30	< 0.030	1.8	11.6
22	65.48	8	2		8.93	13.4	7.3		0.18	7.16	3.6	< 2.0	< 0.30	< 0.030	2.4	10.4
23	65.18				8.56	13.3	7.1		0.18		2.7	< 2.0	< 0.30		1.9	10.6
24	64.58				8.57	13.3	7.4	234	0.18	7.09	2.9	< 2.0	< 0.30	< 0.030	1.9	9.3
25	66.99	30	1		8.50	13.5	7.2	236	0.20	7.18	3.2	< 2.0	< 0.30	< 0.030	1.9	9.7
26	71.38	16	4	3	8.26	13.4	7.5	233	0.18	7.12	2.7	< 2.0	< 0.30	< 0.030	1.8	11.5
27	71.42	248	6		7.47	13.0	7.5	227	0.17	7.15	3.2	< 2.0	< 0.30	< 0.030	2.0	11.4
28	70.04	13	6		7.98	12.7		215	0.22	7.21	3.6	2.3	< 0.30	< 0.030	1.7	11.0
29	67.60	14	1		7.90	12.5	7.7		0.20	7.29	5.4	2.0	< 0.30	< 0.030	1.8	11.0
30	66.11				7.97	12.7	7.8		0.22		4.4	< 2.0	< 0.30		2.0	9.7
31	65.57				8.92	13.2	7.7	233	0.19	7.11	3.8	< 2.0	< 0.30	< 0.030	2.0	9.6
Sum	2074.56															
Avg	66.92				8.18	13.2	7.5	243	0.59	7.16	7	3	0.86	< 0.030	3.0	10
Min	52.80				6.75	12.5	6.7	206	0.12	7.05	2.5	< 2.0	< 0.30	< 0.030	1.7	6.4
Max	81.20		35		17.33	13.9	8.1	322	8.20	7.29	38.4	10.5	4.32	< 0.030	7.8	11.8
Permit Limits			≤1,000						≤0.75		≤15	≤15	≤10	≤1.24		≤14

***E. coli* Geometric Mean = 6 MPN/100mL, Limit = 200 MPN/100mL**

Plant Notes:

An increase in total phosphorus and total suspended solids on March 11-12, likely due to unknown contamination.
 Chemical treatment and flow equalization measures were implemented starting March 12 to facilitate the passing of the TP permit.

WSA Notes:

Mar 5 - Acute lethality was tested by an external accredited laboratory and passed.
 Mar 10 - Suspect an error in dissolved oxygen reading of 17.33 mg/L. Was reported on the weekly report as 12.33 mg/L.

Creek Monthly Report to Water Security Agency

Tuesday, March 12, 2024

Permit# 00050853-08-00

Test Description	Riske's Crossing	Final Effluent	Sidmar Crossing	Wascana above the Qu'Appelle	Qu'Appelle above the Wascana	Lumsden
Dissolved Oxygen (Field Test)	8.24	7.03	9.83	11.30	12.09	10.93
pH (Field Test)	7.67	7.9	7.38	7.42	7.41	7.29
Temperature (Field Test)	2.1	13.4	3.8	1.6	0.6	1.8
pH at 15±1°C	7.38	7.07	7.44	7.39	7.29	7.35
Total Suspended Solids	36.0	38.4	117	18.6	12.2	20.2
Carbonaceous Biochemical Oxygen Demand	5.7	10.5	10.6	5.0	5.4	6.0
Total Phosphorus	0.86	8.20	0.89	0.41	0.45	0.43
Total Kjeldahl Nitrogen	3.1	6.2	4.1	2.7	1.8	2.8
Ammonia Nitrogen	2.41	1.46	2.47	0.62	<0.30	0.53
Un-ionized Ammonia	<0.030		<0.030	<0.030	<0.030	<0.030
Nitrate Nitrogen	<0.25	5.45	0.79	2.78	0.86	1.91
Total Nitrogen	3.2	11.8	4.9	5.5	2.7	4.8
Total Alkalinity	119	158	202	132	99	119
Carbonate	0	0	0	0	0	0
Bicarbonate	145	192	246	161	121	145
Chloride	470	322	558	165	23	111
Total Coliform	36,500	365	19,800	8,660	14,100	11,200
<i>E. coli</i>	5,790	35	1,550	59	76	44
Enterococci	4,350	166	1330	687	921	517
Total Hardness*	160	315	274	201	132	178
Calcium*	41	72	59	46	30	40
Magnesium*	14	33	31	21	14	19
Potassium*	20	24	20	17	12.0	15
Sodium*	332	222	284	117	30	87
Sulfate*	65	210	140	110	76	100
Fluoride*	0.30	0.17	0.25			
Total Dissolved Solids*	1110	1040	1140	589	261	470
Conductivity at 25°C*	2110	1770	2050	1030	435	818
Mercury*		0.000005				
Aluminum*		0.210				
Antimony*		0.0008				
Arsenic*		0.0019				
Barium*		0.053				
Beryllium*		<0.0001				
Boron*		0.29				
Cadmium*		0.00003				
Chromium*		0.0011				
Cobalt*		0.0006				
Copper*		0.025				
Iron*		0.21				
Lead*		0.0010				
Manganese*		0.18				
Molybdenum*		0.0120				
Nickel*		0.0029				
Selenium*		0.0034				
Silver*		<0.00005				
Strontium*		0.40				
Thallium*		<0.0002				
Tin*		0.0006				
Titanium*		0.0025				
Uranium*		0.0004				
Vanadium*		0.0009				
Zinc*		0.053				

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).

Wascana above the Qu'Appelle, Qu'Appelle above the Wascana, and Lumsden were sampled March 19, 2024.

An increase in total phosphorus and total suspended solids of FE on March 11-12, likely due to unknown contamination.