CSO Water Quality Monitoring - Wet Weather Flow Event #3

2023 - 2024 RIVER MONITORING REPORT

Client File No: 3205

		Assiniboine River Sampling Locations			Red River Sampling Locations						
		Headingley Bridge	Assiniboine Park Bridge	Osborne Street Bridge	St. Adolphe Pierre Delorme Bridge	Fort Garry Bridge	Queen Elizabeth Way Bridge	Provencher Bridge	Harry Lazarenko Bridge	North Perimeter Bridge	St. Andrew's Lock and Dam Bridge
Parameter	*Unit*	*R1*	*R3*	*RX1*	*R5*	*R7*	*R8*	*RX2*	*R9*	*R10*	*R11*
Temperature [1, 2]	° C	10.2	9.2	10.2	12.7	12.6	13.8	13.2	13.5	13.4	14.0
Dissolved Oxygen [1, 2]	mg/L	9.80	9.61	9.33	11.10	8.98	7.67	8.72	8.29	8.02	9.08
pH [1, 2]	units	7.96	8.45	8.35	8.12	8.13	7.94	8.10	8.20	8.30	8.33
Ammonia [3]	mg/L N	<0.003	<0.003	<0.003	0.046	<0.003	<0.003	<0.003	0.012	<0.003	0.086
Biochemical Oxygen Demand [3]	mg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Nitrate+Nitrite	mg/L	0.216	0.275	0.261	2.00	1.39	1.23	0.782	0.917	0.950	0.956
Total Suspended Solids [3]	mg/L	129.2	125.0	141.3	376.7	224.3	156.0	196.0	230.0	183.0	274.0
Total Kjeldahl Nitrogen [5]	mg/L	0.2	0.8	0.4	1.4	1.0	0.8	0.4	0.9	0.7	1.0
Total Nitrogen [3]	mg/L N	0.43	1.12	0.63	3.36	2.43	2.03	1.17	1.86	1.64	1.97
Total Phosphorus [3]	mg/L P	0.2148	0.2506	0.2365	0.4126	0.2851	0.2486	0.2770	0.2743	0.2724	0.3262
Escherichia Coliform [2, 4]	MPN/100 mL	53	247	1,123	77	47	290	1,093	1,197	12,923	3,650
Survey Date:	***Saturday, May 25, 2024***	**Time:**	*1:10 PM*	*2:10 PM*	*4:10 PM*	*12:40 PM*	*1:40 PM*	*2:55 PM*	*3:00 PM*	*4:00 PM*	*4:40 PM*	*5:08 PM*

Notes:

CSO = Combined Sewer Overflow
MPN = Most Probable Number

1) *Field analysed parameter*
2) *Average value of discrete samples reported*
3) *Value of composited sample reported*
4) *Analysed by contract laboratory*
5) *Calculated by laboratory*

< VALUE *Less than minimum detection*
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Parameter	*Unit*	*R1*	*R3*	*RX1*	*R5*	*R7*	*R8*	*RX2*	*R9*	*R10*	*R11*
Temperature [1, 2]	° C	12.7	12.6	12.2	12.5	13.0	13.5	14.3	15.2	14.6	14.9
Dissolved Oxygen [1, 2]	mg/L	8.72	9.18	9.15	8.67	8.70	8.17	7.98	7.68	7.60	8.52
pH [1, 2]	units	8.43	8.44	8.42	7.72	8.07	8.32	8.36	8.36	8.34	8.40
Ammonia [3]	mg/L N	<0.003	0.007	0.003	0.085	0.174	0.069	0.035	0.045	0.073	0.082
Biochemical Oxygen Demand [3]	mg/L	<3	<3	<3	<3	<3	<3	4	<3	<3	4
Nitrate+Nitrite	mg/L	0.425	0.518	0.484	2.64	2.79	2.10	1.46	1.62	1.35	1.19
Total Suspended Solids [3]	mg/L	132.2	160.0	165.6	726.7	543.3	450.0	364.0	382.5	375.0	342.5
Total Kjeldahl Nitrogen [5]	mg/L	0.2	0.2	0.4	0.4	0.6	0.7	0.6	0.3	0.4	0.5
Total Nitrogen [3]	mg/L N	0.59	0.72	0.86	3.03	3.44	2.75	2.10	1.92	1.77	1.66
Total Phosphorus [3]	mg/L P	0.1699	0.2188	0.1870	0.5628	0.4201	0.3349	0.3273	0.2895	0.3601	0.3713
Escherichia Coliform [2, 4]	MPN/100 mL	53	67	47	150	140	173	123	217	870	1,560
Survey Date:	***Sunday, May 26, 2024***	**Time:**	*9:20 AM*	*10:20 AM*	*11:08 AM*	*9:00 AM*	*9:55 AM*	*10:40 AM*	*11:20 AM*	*11:35 AM*	*12:10 PM*	*12:55 PM*

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Parameter	*Unit*	*R1*	*R3*	*RX1*	*R5*	*R7*	*R8*	*RX2*	*R9*	*R10*	*R11*
Temperature [1, 2]	° C	15.1	14.1	13.6	13.2	13.0	13.0	12.9	12.9	13.3	13.8
Dissolved Oxygen [1, 2]	mg/L	8.23	9.08	8.41	7.22	7.76	7.78	8.17	8.34	7.88	8.54
pH [1, 2]	units	6.83	7.30	7.55	7.95	8.15	8.15	8.26	8.22	8.19	8.23
Ammonia [3]	mg/L N	0.006	0.015	<0.003	0.104	0.196	0.146	0.101	0.104	0.192	0.144
Biochemical Oxygen Demand [3]	mg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Nitrate+Nitrite	mg/L	0.507	0.587	0.578	2.92	3.35	3.34	2.40	2.56	2.45	2.35
Total Suspended Solids [3]	mg/L	112.0	124.3	137.0	630.0	566.7	543.3	433.3	473.3	446.7	503.3
Total Kjeldahl Nitrogen [5]	mg/L	1.2	0.8	0.9	1.4	2.0	2.0	1.3	1.7	0.4	1.5
Total Nitrogen [3]	mg/L N	1.66	1.36	1.48	4.33	5.38	5.31	3.68	4.28	2.90	3.85
Total Phosphorus [3]	mg/L P	0.1832	0.2134	0.2041	0.5407	0.5758	0.5294	0.4204	0.4630	0.4476	0.4796
Escherichia Coliform [2, 4]	MPN/100 mL	163	113	107	433	143	220	167	127	190	190
Survey Date:	***Monday, May 27, 2024*** **Time:**	*9:05 AM*	*9:55 AM*	*11:05 AM*	*8:35 AM*	*9:16 AM*	*9:46 AM*	*10:00 AM*	*10:30 AM*	*10:57 AM*	*11:23 AM*

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