



## 2019 RIVERS SURVEY MONITORING REPORT

Survey Date: October 17, 2019		Assiniboine River Sampling Locations				Red River Sampling Locations						
Parameter	Unit	HEADINGLY BRIDGE (R1)	WEST PERIMETER BRIDGE (R2)	ASSINIBOINE PARK FOOT BRIDGE (R3)	MAIN STREET BRIDGE (R4)	SOUTH FLOODWAY CONTROL* (R5)	SOUTH PERIMETER BRIDGE (R6)	FORT GARRY BRIDGE (R7)	NORWOOD BRIDGE (R8)	REDWOOD BRIDGE (R9)	NORTH PERIMETER BRIDGE (R10)	LOCKPORT BRIDGE (R11)
Sample Number		249822	249824	249821	249823	251171	249831	249826	249829	249830	249828	249827
Temperature	° C	3.8	3.9	3.6	3.5	6.2	5.6	5.9	5.3	5.2	4.8	5.2
Dissolved Oxygen	mg/L	12.4	12.5	12.6	12.5	10.0	10.7	10.6	10.6	10.9	10.8	10.6
Oxygen Saturation	%	94	95	95	94	81	85	85	84	85	84	84
Biochemical Oxygen Demand	mg/L	>8	>8	>8	>8	>8	>8	>7	7	7	>7	5
pH	units	7.92	8.09	8.11	7.92	7.77	7.69	7.67	7.59	7.63	7.52	7.15
Total Solids	mg/L	822	820	792	682	568	546	570	582	568	698	628
Total Suspended Solids	mg/L	169	188	176	98	70	72	94	108	92	58	114
Turbidity	n.t.u.	122	113	111	67	64	62	68	63	71	48	84
Total Organic Carbon	mg/L	13.1	13.8	12.7	13.7	13.8	13.8	13.0	14.7	13.8	14.6	13.7
Chlorophyll a	ug/L	32.0	29.4	28.0	29.4	2.7	2.7	2.7	1.3	4.0	4.0	4.0
Ammonia Nitrogen	mg/L N	0.205	0.147	0.124	0.209	0.010	0.021	0.043	0.030	0.042	0.090	0.068
Nitrate Nitrogen	mg/L N	0.328	0.289	0.291	0.339	0.401	0.398	0.411	0.412	0.411	0.435	0.437
Total Nitrogen	mg/L N	1.4	1.4	1.4	1.6	1.3	1.3	1.3	1.4	1.4	1.5	1.5
Soluble Phosphorus	mg/L P	0.30	0.30	0.27	0.29	0.29	0.27	0.29	0.36	0.35	NR	0.34
Total Phosphorus	mg/L P	0.40	0.41	0.39	0.35	0.33	0.33	0.33	0.33	0.35	0.32	0.35
Escherichia Coliform	MPN/100 mL	320	300	240	240	130	50	230	590	680	810	890
Fecal Coliform	MPN/100 mL	330	300	340	390	60	60	580	460	830	960	1,020

Notes: NS - No Sample      NA - Not Analyzed      NR - No Result

Red River elevation at South Floodway control gates: 757 ft

Weather conditions during monitoring:

Wind Direction: SE

Wind Speed: 12.3 km/h

Cloud Coverage: 10%

Precipitation: 0 mm

Air Temperature: 11°C

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\*Pierre Delorme Bridge was used as an alternate location for the South Floodway Control