

**City of Winnipeg
Water and Waste Department**

2011 RIVERS SURVEY MONITORING REPORT

| Survey Date ¹ : November 29, 2011 | | Red River Sampling Locations | | | | | | | |
|----------------------------------------------|-----------------|-------------------------------------------|------------------------------|-------------------------|------------------------------------|-------------------|-------------------|------------------------------|--------------------|
| Parameter | Unit | ST.ADOLPHE PIERRE DELORME BRIDGE | SOUTH PERIMETER BRIDGE | FORT GARRY BRIDGE | COCKBURN AT BRIDGE DRIVE INN | NORWOOD BRIDGE | REDWOOD BRIDGE | NORTH PERIMETER BRIDGE | LOCKPORT BRIDGE |
| Temperature | ° C | NS | 0.2 | 0.4 | NS | 1.0 | NS | NS | 0.2 |
| Dissolved Oxygen | mg/L | NS | 17.4 | 17.1 | NS | 17.6 | NS | NS | 17.4 |
| Oxygen Saturation ² | % | NS | 119 | 118 | NS | 124 | NS | NS | 119 |
| pH | units | NS | 8.29 | 8.39 | NS | 8.51 | NS | NS | 8.25 |
| Total Solids | mg/L | NS | 588 | 552 | NS | 568 | NS | NS | 724 |
| Total Suspended Solids | mg/L | NS | 11 | <4 | NS | 13 | NS | NS | 16 |
| Turbidity | n.t.u. | NS | 11 | 7 | NS | 10 | NS | NS | 14 |
| Total Organic Carbon | mg/L | NS | 14 | 15 | NS | 14 | NS | NS | 15 |
| Chlorophyll a | ug/L | NS | 18 | 26 | NS | 16 | NS | NS | 32 |
| Ammonia Nitrogen | mg/L N | NS | <0.003 | 0.258 | NS | 0.167 | NS | NS | 0.518 |
| Nitrate Nitrogen | mg/L N | NS | 0.121 | 0.093 | NS | 0.123 | NS | NS | 0.478 |
| Total Kjeldahl Nitrogen | mg/L N | NS | <2.0 | <2.0 | NS | <2.0 | NS | NS | <2.0 |
| Total Nitrogen ² | mg/L N | NS | <2.0 | <2.0 | NS | <2.0 | NS | NS | <2.0 |
| Soluble Phosphorus | mg/L P | NS | 0.07 | 0.10 | NS | 0.08 | NS | NS | 0.20 |
| Total Phosphorus | mg/L P | NS | <0.30 | <0.30 | NS | <0.30 | NS | NS | <0.30 |
| Escherichia Coliform ³ | colonies/100 mL | NS | <3 | 43 | NS | 210 | NS | NS | 93 |
| Fecal Coliform ³ | colonies/100 mL | NS | <3 | 75 | NS | 210 | NS | NS | 230 |

Weather Conditions during monitoring: Winds S at 20 km/hr with 12 % cloud cover. Average air temperature during survey at -7.2 C

- Notes:
- 1) LIMS Reference No: 31378
 - 2) Calculated values
 - 3) Analyzed by contract laboratory.
 - 4) Red River elevation at South Floodway Control Gates: 730.4ft.
 - 5) There are no samples at St.Adolphe Pierre Delorme Bridge, Cockburn at Bridge Drive Inn, Redwood Bridge, and North Perimeter Bridge due to ice conditions.

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