

**City of Winnipeg  
Water and Waste Department**

**2007 RIVERS SURVEY MONITORING REPORT**

| Survey Date <sup>1</sup> : September 26, 2007 |             | Assiniboine River Sampling Locations |                     |                          |                             | Red River Sampling Locations              |                         |                   |                   |                              |                    |
|---|-------------|--------------------------------------|---------------------|--------------------------|-----------------------------|---|-------------------------|-------------------|-------------------|------------------------------|--------------------|
| Parameter                                     | Unit        | ASSINIBOINE<br>PARK FOOT<br>BRIDGE   | HEADINGLY<br>BRIDGE | MAIN<br>STREET<br>BRIDGE | WEST<br>PERIMETER<br>BRIDGE | SOUTH<br>FLOODWAY <sup>4</sup><br>CONTROL | FORT<br>GARRY<br>BRIDGE | NORWOOD<br>BRIDGE | REDWOOD<br>BRIDGE | NORTH<br>PERIMETER<br>BRIDGE | LOCKPORT<br>BRIDGE |
| Temperature                                   | ° C         | 12.6                                 | 12.2                | 13.0                     | 12.5                        | 14.4                                      | 14.7                    | 14.7              | 14.2              | 14.4                         | 14.4               |
| Dissolved Oxygen                              | mg/L        | 10.4                                 | 10.5                | 10.1                     | 10.4                        | 10.6                                      | 9.8                     | 9.4               | 10.3              | 9.0                          | 10.6               |
| Oxygen Saturation <sup>2</sup>                | %           | 98                                   | 98                  | 96                       | 98                          | 104                                       | 97                      | 93                | 101               | 88                           | 104                |
| pH  | units       | 8.41                                 | 8.43                | 8.48                     | 8.35                        | 8.76                                      | 8.68                    | 8.58              | 8.48              | 8.38                         | 8.48               |
| Total Solids                                  | mg/L        | 780                                  | 795                 | 635                      | 760                         | 620                                       | 590                     | 615               | 585               | 560                          | 610                |
| Total Suspended Solids                        | mg/L        | 185                                  | 200                 | 71                       | 182                         | 37  | 32                      | 38                | 30                | 32                           | 33                 |
| Turbidity                                     | n.t.u.      | 98                                   | 103                 | 43                       | 110                         | 28  | 24                      | 30                | 19                | 20                           | 23                 |
| Total Organic Carbon                          | mg/L        | 12                                   | 14                  | 13                       | 13                          | 11  | 14                      | 14                | 14                | 15                           | 12                 |
| Chlorophyll a                                 | ug/L        | 58                                   | 58                  | 51                       | 59                          | 34  | 25                      | 33                | 61                | 59                           | 50                 |
| Ammonia Nitrogen                              | mg/L N      | 0.09                                 | <0.05               | 0.11                     | <0.05                       | <0.05                                     | 0.35                    | 0.30              | 1.12              | 0.72                         | 0.65               |
| Nitrate Nitrogen                              | mg/L N      | 0.54                                 | 0.47                | 0.54                     | 0.48                        | 0.03                                      | 0.06                    | 0.12              | 0.25              | 0.28                         | 0.32               |
| Total Kheldahl Nitrogen                       | mg/L N      | <2                                   | <2                  | <2                       | <2                          | <2  | <2                      | <2                | <2                | <2                           | 2                  |
| Total Nitrogen <sup>2</sup>                   | mg/L N      | <2                                   | <2                  | <2                       | <2                          | <2  | <2                      | <2                | <2                | <2                           | 2                  |
| Phosphate                                     | mg/L N      | 0.17                                 | 0.18                | 0.19                     | 0.19                        | 0.10                                      | 0.13                    | 0.19              | 0.23              | 0.22                         | 0.25               |
| Total Phosphorus                              | mg/L P      | 0.4                                  | 0.4                 | 0.3                      | 0.4                         | <0.3                                      | <0.3                    | 0.3               | <0.3              | 0.3                          | 0.4                |
| Eshcerichia Coliform <sup>3</sup>             | col./100 mL | 920                                  | 540                 | 5,400                    | 540                         | 130                                       | 350                     | 76                | 5,400             | 9,200                        | 220                |
| Fecal Coliform <sup>3</sup>                   | col./100 mL | 920                                  | 540                 | 5,400                    | 540                         | 130                                       | 350                     | 76                | 5,400             | 9,200                        | 220                |

Weather Conditions during monitoring: Winds SW at 13 km/hr with 35 % cloud cover. Average air temperature of 13 Celcius. Precipitation: nil.

Notes: 1) LIMS Reference No: 18274  
 2) Calculated values  
 3) Analyzed by contract laboratory.  
 All other parameters analysed by the Analytical Services Branch of Environmental Standards Division.

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