

**City of Winnipeg
Water and Waste Department
West End Water Pollution Control Centre Monitoring Data**

March 2011

| Date | Raw Sewage | Final Effluent 24 Hour Composite | | | | | | | | | Final Effluent Grab Sample | | | |
|------------------|-------------|-------------------------------------|----------|----------|----------------|------------------|------------------|-----------|----------------|-----------|-------------------------------|-------------|----------------|------------|
| | Daily Flow | TSS | cBOD5 | Ammonia | | Ortho Phosphorus | Total Phosphorus | | Total Nitrogen | | Temp. | pH | Fecal Coliform | E.Coli |
| | ML | (mg/L) | (mg/L) | (mg/L-N) | (kg NH3-N/day) | (mg/L-P) | (mg/L-P) | (mg/L-P)* | (mg/L-N) | (mg/L-N)* | (°C) | (units) | MPN/100 mL | |
| 1-Mar-11 | 22.0 | <4 | 3 | 4.30 | 95 | 0.96 | 1.2 | 1.0 | 11 | 10 | 0 | 7.25 | 230 | 230 |
| 2-Mar-11 | 22.4 | <4 | <2 | 4.54 | 102 | 0.93 | 1.2 | 1.1 | 9 | 10 | 0 | 7.25 | 930 | 930 |
| 3-Mar-11 | 22.5 | <4 | 2 | 4.67 | 105 | 0.94 | 1.2 | 1.1 | 9 | 10 | 0 | 7.17 | 930 | 930 |
| 4-Mar-11 | 22.2 | <4 | <2 | 4.16 | 93 | 0.92 | 1.2 | 1.1 | 9 | 10 | 0 | 7.21 | 230 | 230 |
| 5-Mar-11 | 23.3 | <4 | <2 | 4.02 | 93 | 0.93 | 1.2 | 1.1 | 10 | 10 | 0 | 7.15 | 930 | 930 |
| 6-Mar-11 | 23.8 | <4 | 3 | 4.21 | 100 | 1.00 | 1.2 | 1.1 | 10 | 10 | 0 | 7.22 | 230 | 230 |
| 7-Mar-11 | 22.6 | <4 | 3 | 4.01 | 91 | 1.02 | 1.3 | 1.1 | 10 | 10 | 0 | 7.32 | 2,300 | 2,300 |
| 8-Mar-11 | 22.2 | 4 | 2 | 4.13 | 92 | 1.01 | 1.2 | 1.1 | 10 | 10 | 0 | 7.12 | 930 | 930 |
| 9-Mar-11 | 22.0 | <4 | <2 | 4.32 | 95 | 1.02 | 1.3 | 1.1 | 10 | 10 | 0 | 7.13 | 430 | 430 |
| 10-Mar-11 | 22.4 | <4 | <2 | 3.64 | 82 | 0.94 | 1.2 | 1.1 | 10 | 10 | 0 | 7.15 | 930 | 930 |
| 11-Mar-11 | 22.7 | <4 | <2 | 3.84 | 87 | 1.00 | 1.3 | 1.1 | 10 | 10 | 0 | 7.11 | 430 | 430 |
| 12-Mar-11 | 23.6 | 4 | 2 | 3.59 | 85 | 0.97 | 1.3 | 1.1 | 10 | 10 | 0 | 7.18 | 930 | 930 |
| 13-Mar-11 | 22.8 | 4 | <2 | 3.39 | 77 | 0.94 | 1.2 | 1.1 | 9 | 10 | 0 | 7.15 | 380 | 380 |
| 14-Mar-11 | 23.5 | 4 | 2 | 3.13 | 73 | 1.04 | 1.3 | 1.1 | 10 | 10 | 0 | 7.17 | 4,300 | 4,300 |
| 15-Mar-11 | 24.4 | 4 | 3 | 3.47 | 85 | 0.96 | 1.2 | 1.1 | 9 | 10 | 0 | 7.18 | 430 | 430 |
| 16-Mar-11 | 30.2 | 4 | 3 | 4.22 | 128 | 0.97 | 1.2 | 1.1 | 10 | 10 | 0 | 7.17 | 2,300 | 930 |
| 17-Mar-11 | 28.2 | ns | ns | ns | ns | ns | ns | 1.1 | ns | 10 | 0 | 7.09 | 430 | 430 |
| 18-Mar-11 | 24.3 | 15 | 7 | 3.28 | 80 | 0.83 | 1.1 | 1.1 | 9 | 10 | 0 | 7.16 | 230 | 230 |
| 19-Mar-11 | 26.0 | 11 | 5 | 3.21 | 83 | 0.80 | 1.0 | 1.1 | 8 | 10 | 1 | 7.26 | 430 | 430 |
| 20-Mar-11 | 31.9 | 9 | 4 | 3.01 | 96 | 0.76 | 1.0 | 1.1 | 8 | 10 | 1 | 7.23 | 430 | 430 |
| 21-Mar-11 | 44.2 | 9 | 4 | 4.00 | 177 | 0.76 | 1.0 | 1.1 | 9 | 10 | 1 | 7.31 | 230 | 230 |
| 22-Mar-11 | 41.1 | 8 | 4 | 3.13 | 128 | 0.73 | 0.9 | 1.1 | 8 | 10 | 1 | 7.11 | 930 | 930 |
| 23-Mar-11 | 32.4 | 8 | 4 | 3.04 | 98 | 0.72 | 0.9 | 1.1 | 8 | 10 | 1 | 7.25 | 430 | 28 |
| 24-Mar-11 | 30.0 | 7 | 4 | 2.98 | 89 | 0.69 | 0.9 | 1.1 | 7 | 9 | 1 | 7.18 | 430 | 230 |
| 25-Mar-11 | 29.8 | 11 | 4 | 2.97 | 89 | 0.65 | 0.8 | 1.1 | 7 | 9 | 1 | 7.23 | 230 | 230 |
| 26-Mar-11 | 30.3 | 6 | 4 | 2.79 | 85 | 0.62 | 0.8 | 1.1 | 8 | 9 | 1 | 7.31 | 75 | 75 |
| 27-Mar-11 | 30.2 | 7 | nr | 2.72 | 82 | 0.59 | 0.8 | 1.1 | 7 | 9 | 2 | 7.28 | 93 | 43 |
| 28-Mar-11 | 32.4 | 6 | 4 | 2.75 | 89 | 0.60 | 0.8 | 1.1 | 7 | 9 | 1 | 7.25 | 43 | 23 |
| 29-Mar-11 | 32.6 | 7 | 4 | 2.68 | 87 | 0.56 | 0.8 | 1.1 | 7 | 9 | 1 | 7.30 | 93 | 15 |
| 30-Mar-11 | 35.9 | 5 | 4 | 2.80 | 100 | 0.55 | 0.8 | 1.1 | 7 | 9 | 2 | 7.26 | 23 | 23 |
| 31-Mar-11 | 37.6 | 7 | 3 | 2.54 | 96 | 0.55 | 0.7 | 1.1 | 7 | 9 | 2 | 7.39 | 43 | 43 |
| Max: | 44.2 | | | | | | | | | | | | | |
| Min: | 22.0 | | | | | | | | | | | | | |
| Average: | 27.7 | 5 | 3 | 4 | 95 | 0.83 | 1.1 | | 9 | | 1 | 7.21 | | |
| Geo.Mean: | | | | | | | | | | | | | 364 | 286 |

Notes:

- (1) * = 30 day rolling average
- (2) Effluent ammonia load based upon Raw Sewage flows and Final Cell NH3-N concentrations
- (3) nr - not recorded or no result; na - not analyzed; ns - no sample

- (4) Final Effluent flow data unavailable
- (5) Where < values are reported 50% of the MDL is used for calculated results
- (6) Licence No. 2669 E RR
- (7) Total Nitrogen results are calculated from TKN and nitrate values.