

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

July 2010

| 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-Jul-10 | 34.5 | 23 | 4 | 0.56 | 19 | 1.45 | 1.7 | 2.1 | 5 | 6 | 20 | 9.00 | <3 | <3 |
| 2-Jul-10 | 31.6 | nr | 3 | 0.41 | 13 | 1.31 | 1.6 | 2.1 | 5 | 6 | 22 | 8.90 | <3 | <3 |
| 3-Jul-10 | 32.0 | 16 | 5 | 0.31 | 10 | 1.20 | 1.5 | 2.0 | 4 | 6 | 24 | 9.24 | 43 | 43 |
| 4-Jul-10 | 32.1 | 20 | 3 | 0.11 | 4 | 1.06 | 1.4 | 2.0 | 4 | 6 | 24 | 9.23 | 4 | 4 |
| 5-Jul-10 | 34.2 | 19 | 4 | 0.43 | 15 | 1.05 | 1.4 | 2.0 | 4 | 6 | 24 | 9.25 | 4 | 4 |
| 6-Jul-10 | 33.1 | 36 | 5 | 0.27 | 9 | 0.99 | 1.5 | 1.9 | 5 | 5 | 23 | 9.06 | 9 | 9 |
| 7-Jul-10 | 31.2 | 27 | 5 | 0.27 | 8 | 0.92 | 1.4 | 1.9 | 5 | 5 | 22 | 9.21 | 4 | 4 |
| 8-Jul-10 | 30.8 | 23 | 6 | 0.19 | 6 | 0.89 | 1.3 | 1.9 | 4 | 5 | 22 | 9.21 | <3 | <3 |
| 9-Jul-10 | 30.7 | 27 | 7 | 0.18 | 6 | 0.80 | 1.3 | 1.9 | 4 | 5 | 22 | 9.17 | <3 | <3 |
| 10-Jul-10 | 30.0 | 22 | 5 | 0.14 | 4 | 0.76 | 1.1 | 1.8 | 3 | 5 | 23 | 9.38 | 4 | 4 |
| 11-Jul-10 | 30.5 | 27 | 4 | 0.28 | 9 | 0.79 | 1.2 | 1.8 | 3 | 5 | 22 | 9.33 | 9 | 9 |
| 12-Jul-10 | 31.8 | 25 | 7 | 0.27 | 9 | 0.78 | 1.2 | 1.8 | 3 | 5 | 22 | 9.28 | nr | nr |
| 13-Jul-10 | 33.6 | 31 | 7 | 0.53 | 18 | 0.82 | 1.2 | 1.7 | 5 | 5 | 21 | 9.05 | 4 | 4 |
| 14-Jul-10 | 47.0 | 37 | 6 | 0.53 | 25 | 0.88 | 1.5 | 1.7 | 5 | 5 | 22 | 9.22 | 43 | 43 |
| 15-Jul-10 | 34.1 | 33 | 5 | 0.58 | 20 | 0.97 | 1.5 | 1.7 | 5 | 5 | 21 | 9.11 | <3 | <3 |
| 16-Jul-10 | 32.1 | 34 | 6 | 0.58 | 19 | 1.09 | 1.4 | 1.7 | 4 | 5 | 21 | 9.04 | 4 | 4 |
| 17-Jul-10 | 31.0 | 24 | nr | 0.71 | 22 | 1.14 | 1.5 | 1.6 | 6 | 5 | 21 | 9.06 | 9 | 9 |
| 18-Jul-10 | 30.7 | 21 | 6 | 0.62 | 19 | 1.22 | 1.5 | 1.6 | 5 | 5 | 21 | 8.96 | 4 | 4 |
| 19-Jul-10 | 30.6 | 24 | 5 | 0.70 | 21 | 1.30 | 1.7 | 1.6 | 4 | 5 | 21 | 8.91 | <3 | <3 |
| 20-Jul-10 | 29.9 | 19 | 6 | 0.64 | 19 | 1.36 | 1.7 | 1.6 | 4 | 5 | 22 | 8.89 | 9 | 9 |
| 21-Jul-10 | 29.5 | 16 | 5 | 0.60 | 18 | 1.38 | 1.7 | 1.6 | 4 | 5 | 22 | 8.97 | <3 | <3 |
| 22-Jul-10 | 32.1 | 17 | 5 | 0.41 | 13 | 1.44 | 1.7 | 1.6 | 5 | 5 | 23 | 9.08 | <3 | <3 |
| 23-Jul-10 | 32.1 | 15 | 5 | 0.60 | 19 | 1.50 | 1.7 | 1.6 | 5 | 5 | 22 | 8.85 | 9 | 9 |
| 24-Jul-10 | 30.6 | 18 | 5 | 0.47 | 14 | 1.49 | 1.8 | 1.6 | 5 | 5 | 23 | 8.95 | 14 | 14 |
| 25-Jul-10 | 29.6 | 16 | 4 | 0.40 | 12 | 1.54 | 1.8 | 1.6 | 4 | 5 | 24 | 9.03 | 9 | 9 |
| 26-Jul-10 | 30.3 | 23 | 4 | 0.42 | 13 | 1.55 | 2.0 | 1.6 | 5 | 5 | 24 | 8.96 | 4 | 4 |
| 27-Jul-10 | 31.9 | 26 | 6 | 0.50 | 16 | 1.53 | 2.0 | 1.6 | 4 | 5 | 25 | 8.99 | 23 | 23 |
| 28-Jul-10 | 29.7 | 33 | 6 | 0.24 | 7 | 1.43 | 1.9 | 1.6 | 4 | 5 | 24 | 9.01 | 9 | 9 |
| 29-Jul-10 | 28.7 | 32 | 5 | 0.06 | 2 | 1.48 | 1.8 | 1.6 | 3 | 5 | 23 | 9.12 | 9 | <3 |
| 30-Jul-10 | 28.7 | 26 | 5 | 0.09 | 3 | 1.10 | 1.7 | 1.6 | 3 | 4 | 22 | 9.10 | 9 | 4 |
| 31-Jul-10 | 27.4 | 20 | 4 | <0.02 | <1 | 0.93 | 1.2 | 1.5 | 4 | 4 | 22 | 9.23 | 4 | 4 |
| Max: | 47.0 | | | | | | | | | | | | | |
| Min: | 27.4 | | | | | | | | | | | | | |
| Average: | 31.7 | 24 | 5 | 0.39 | 13 | 1.17 | 1.5 | | 4 | | 22 | 9.09 | | |
| Geo.Mean: | | | | | | | | | | | | | 5 | 5 |

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.