

**City of Winnipeg**  
**Water and Waste Department**  
**South End Water Pollution Control Centre Monitoring Data**  
**April, 2007**

Date	Raw Sewage	Final Effluent 24 Hour Composite										Final Effluent Grab Sample			
	Daily Flow	TSS	BOD5	cBOD5	Ammonia		Ortho Phosphorus	Total Phosphorus		Total Nitrogen		Temp.	pH	Fecal Coliform	E.Coli
	ML**	(mg/L)	(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-Apr-07	<b>148.6</b>	29	24	17	9	1,337	1.35	1.8	3.7	13	28	11	7.07	(>1600)	(>1600)
2-Apr-07	<b>113.1</b>	10	<10	6	11	1,244	1.90	2.2	3.6	16	27	14	7.17	(1,599)	(1,600)
3-Apr-07	83.6	7	<10	4	15	1,253	2.34	2.5	3.5	18	26	11	7.30	>1600	>1600
4-Apr-07	75.1	6	<11	6	19	1,428	3.07	3.4	3.5	22	26	11	6.97	920	920
5-Apr-07	70.5	7	10	6	21	1,480	3.49	3.9	3.5	24	25	11	7.35	na	1,500
6-Apr-07	69.9	10	11	7	21	1,467	3.08	3.7	3.4	25	25	11	7.50	4,300	4,300
7-Apr-07	66.8	10	11	6	22	1,470	2.92	3.4	3.4	25	25	11	6.79	4,300	2,300
8-Apr-07	65.3	8	12	6	22	1,437	2.88	3.6	3.3	26	25	11	6.91	na	930
9-Apr-07	65.8	9	12	8	24	1,579	3.27	4.0	3.4	29	24	12	7.00	9,300	4,300
10-Apr-07	66.0	8	12	6	24	1,585	3.42	4.0	3.4	28	24	12	6.99	350	350
11-Apr-07	65.8	7	<10	5	24	1,578	3.83	4.2	3.4	27	24	12	6.91	240	240
12-Apr-07	62.2	8	13	6	26	1,617	4.12	4.6	3.4	28	24	11	6.85	350	350
13-Apr-07	61.0	6	12	7	27	1,648	4.32	4.9	3.5	30	24	12	7.10	1,600	1,600
14-Apr-07	63.3	6	12	6	27	1,710	3.46	4.1	3.5	29	24	13	6.92	130	130
15-Apr-07	63.4	5	<10	6	25	1,584	3.22	3.8	3.4	28	24	13	6.78	130	130
16-Apr-07	67.6	4	12	8	24	1,622	3.19	3.6	3.4	26	24	12	6.93	920	920
17-Apr-07	60.8	5	13	6	24	1,458	3.38	4.1	3.4	28	24	13	7.17	49	33
18-Apr-07	59.3	6	12	6	26	1,543	3.75	4.4	3.4	30	24	13	7.09	na	na
19-Apr-07	58.1	5	10	6	27	1,567	4.13	4.7	3.5	29	24	14	7.09	79	79
20-Apr-07	57.9	5	nr	nr	27	1,564	4.37	4.7	3.5	28	24	14	7.31	170	170
21-Apr-07	59.5	7	12	5	26	1,548	3.54	3.9	3.5	28	24	14	7.00	70	70
22-Apr-07	59.6	5	12	7	25	1,489	3.34	3.9	3.5	28	23	14	7.11	350	350
23-Apr-07	57.4	6	14	6	26	1,493	3.38	3.9	3.5	28	24	14	6.69	920	920
24-Apr-07	53.9	7	12	6	26	1,401	3.69	3.8	3.5	27	24	14	7.14	9,200	920
25-Apr-07	55.0	7	15	6	28	1,540	3.99	3.7	3.6	27	24	14	6.88	350	350
26-Apr-07	53.2	8	17	8	27	1,435	4.54	4.5	3.6	29	25	14	7.12	1,600	1,600
27-Apr-07	53.8	7	16	5	28	1,507	4.31	4.3	3.7	29	25	14	6.94	3,500	3,500
28-Apr-07	54.8	5	<10	5	28	1,533	3.80	4.2	3.8	32	26	14	6.93	170	170
29-Apr-07	56.1	6	<10	5	28	1,570	3.58	4.1	3.8	31	26	14	6.89	49	49
30-Apr-07	57.3	7	14	6	26	1,490	3.65	4.1	3.9	31	27	14	7.18	240	130
<b>Max:</b>	148.6														
<b>Min:</b>	53.2														
<b>Average:</b>	<b>67.5</b>	<b>8</b>	<b>11</b>	<b>6</b>	<b>24</b>	<b>1,506</b>	<b>3.44</b>	<b>3.87</b>		<b>27</b>		<b>13</b>	<b>7.04</b>		
<b>Geo.Mean:</b>														<b>525</b>	<b>468</b>

- Notes:**
- (1) effluent ammonia load based upon Raw Sewage flows and Final NH3-N concentrations
  - (2) nr - not recorded or no result; na - not analyzed; ns - no sample
  - (3) Where value is expressed as less than (<), the value is halved and used in the calculations.
  - (4) \* = 30 day rolling average
  - (5)\*\* Flow, highlighted in bold, in excess of 98.6 ML/D per clause 26 of Licence 2716.
  - (6) Bracketed Coliform results not used in the Geometric Mean calculation.
  - (7) Raw wastewater flows in excess of 100 ML/D will by-pass the secondary process.