

**City of Winnipeg**  
**Water and Waste Department**  
**South End Water Pollution Control Centre Monitoring Data**  
**July 2008**

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-Jul-08	64.1	7	11	5	21	1,333	3.62	3.9	3.7	24	23	16	6.95	92	92
2-Jul-08	67.2	8	14	6	23	1,553	4.07	4.5	3.7	24	22	15	6.84	36	36
3-Jul-08	59.5	8	21	4	25	1,482	3.96	4.3	3.6	24	22	16	6.77	360	230
4-Jul-08	57.5	5	14	5	26	1,488	3.97	4.2	3.6	26	22	16	6.71	92	92
5-Jul-08	56.5	6	17	5	26	1,440	3.56	4.1	3.6	27	22	16	6.71	920	920
6-Jul-08	54.6	9	21	7	26	1,392	3.83	4.2	3.6	25	22	18	6.72	230	230
7-Jul-08	72.5	13	34	9	23	1,668	3.78	4.6	3.7	26	23	17	6.64	360	360
8-Jul-08	66.5	7	14	3	21	1,390	3.09	3.6	3.7	24	23	17	6.71	92	92
9-Jul-08	59.0	8	20	5	25	1,493	4.56	5.0	3.8	29	23	17	6.77	92	92
10-Jul-08	57.5	10	22	4	26	1,506	4.07	4.5	3.9	30	24	18	6.86	14	11
11-Jul-08	65.7	10	20	5	24	1,576	3.79	4.1	3.9	26	24	nr	6.72	50	50
12-Jul-08	70.3	15	21	9	22	1,561	3.38	3.7	3.9	26	24	17	6.75	8	8
13-Jul-08	68.7	9	17	7	19	1,334	2.49	2.9	4.0	23	25	16	6.79	300	230
14-Jul-08	62.6	7	19	4	23	1,421	3.41	3.9	4.0	23	25	16	6.76	330	40
15-Jul-08	63.9	12	19	5	25	1,571	3.98	4.4	4.0	29	25	17	6.71	110	70
16-Jul-08	61.6	10	20	5	25	1,558	3.32	3.7	4.1	26	25	16	6.77	30	13
17-Jul-08	59.1	9	21	5	26	1,525	3.58	4.2	4.1	29	25	17	6.68	90	13
18-Jul-08	57.0	10	26	7	25	1,448	3.85	4.5	4.1	28	25	17	6.69	140	70
19-Jul-08	52.1	9	19	6	26	1,328	3.31	3.9	4.0	26	25	17	6.76	170	30
20-Jul-08	53.8	11	20	6	26	1,399	3.51	4.5	4.0	33	25	17	6.68	13	13
21-Jul-08	54.7	17	26	11	27	1,450	4.06	5.1	4.1	32	25	18	6.65	75	26
22-Jul-08	53.3	23	23	9	28	1,466	4.18	5.1	4.1	28	26	17	6.64	170	27
23-Jul-08	54.7	12	23	8	27	1,455	3.55	4.3	4.1	35	26	17	6.67	800	19
24-Jul-08	49.7	11	23	6	26	1,302	2.77	3.4	4.1	28	26	20	6.71	80	4
25-Jul-08	60.2	12	18	6	28	1,656	2.69	3.5	4.0	37	26	18	6.83	600	170
26-Jul-08	50.1	9	15	5	28	1,414	2.37	3.3	4.0	27	26	18	6.68	8	4
27-Jul-08	49.0	14	18	6	28	1,387	2.94	4.0	4.0	35	27	18	6.72	700	220
28-Jul-08	55.1	ns	ns	ns	ns	ns	ns	ns	4.0	ns	27	18	7.10	700	110
29-Jul-08	61.1	13	17	6	24	1,479	3.24	4.3	4.1	33	28	17	6.67	30,000	30,000
30-Jul-08	52.4	14	14	5	27	1,416	2.34	3.3	4.1	35	28	16	nr	nr	7
31-Jul-08	50.4	16	16	6	29	1,441	3.12	4.3	4.1	37	29	18	6.58	7,000	163
<b>Max:</b>	72.5														
<b>Min:</b>	49.0														
<b>Average:</b>	<b>58.7</b>	<b>11</b>	<b>19</b>	<b>6</b>	<b>25</b>	<b>1,464</b>	<b>3.48</b>	<b>4.1</b>		<b>29</b>		<b>17</b>	<b>6.74</b>		
<b>Geo.Mean:</b>														<b>160</b>	<b>61</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.