

**City of Winnipeg  
Water and Waste Department  
North End Water Pollution Control Centre Monitoring Data  
September 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-Sep-08	270.3	29	40	12	8	2,219	2.40	3.1	3.2	23	28	20	6.88	1,300	500
2-Sep-08	251.9	6	19	3	4	1,030	1.55	1.9	3.1	17	28	20	6.65	17	17
3-Sep-08	206.1	9	19	3	6	1,313	2.18	2.3	3.0	20	27	19	6.64	14	7
4-Sep-08	205.0	10	23	3	7	1,492	2.49	2.7	3.0	23	27	20	6.54	4	4
5-Sep-08	225.4	8	25	4	9	1,929	2.44	2.9	2.9	24	26	20	6.69	17	11
6-Sep-08	228.2	15	27	7	9	2,036	2.46	3.0	2.9	25	26	19	6.69	30	30
7-Sep-08	220.9	9	22	4	7	1,566	2.14	2.5	2.8	22	25	18	6.70	30	23
8-Sep-08	154.4	8	24	4	11	1,714	2.69	3.2	2.8	27	25	19	6.55	17	4
9-Sep-08	181.7	10	18	3	14	2,580	3.09	3.6	2.8	31	25	19	6.66	30	30
10-Sep-08	182.4	9	19	3	16	2,937	3.39	3.8	2.8	30	25	20	6.64	220	70
11-Sep-08	174.7	11	36	4	17	2,952	3.88	4.2	2.9	30	25	20	6.49	170	110
12-Sep-08	175.6	10	22	5	24	4,267	4.49	5.1	3.0	39	26	20	6.73	500	170
13-Sep-08	164.2	10	19	5	18	2,956	4.10	4.7	3.1	33	26	19	6.83	220	170
14-Sep-08	160.4	9	15	4	15	2,374	3.71	4.3	3.1	29	26	20	6.59	30	17
15-Sep-08	138.9	8	22	4	12	1,708	3.49	3.6	3.2	26	26	19	6.54	80	50
16-Sep-08	161.9	7	14	4	12	1,975	3.38	3.9	3.2	25	26	20	6.58	80	80
17-Sep-08	163.2	8	16	<4	15	2,383	3.64	3.9	3.2	27	26	19	6.50	70	50
18-Sep-08	165.2	11	19	4	17	2,775	3.79	4.4	3.2	28	26	20	6.61	110	50
19-Sep-08	161.2	7	21	5	17	2,724	3.79	4.3	3.3	28	26	20	6.68	50	50
20-Sep-08	150.5	8	20	4	17	2,483	4.18	4.6	3.3	29	26	20	6.68	13	13
21-Sep-08	148.4	8	18	3	14	2,107	3.89	4.4	3.4	27	27	20	6.68	8	2
22-Sep-08	164.9	23	28	11	14	2,375	3.24	3.9	3.5	26	27	20	6.51	8	4
23-Sep-08	<b>399.2</b>	28	34	11	8	3,230	1.48	2.1	3.5	14	27	19	6.71	(27)	(14)
24-Sep-08	353.7	10	26	4	9	3,268	1.42	1.7	3.5	15	26	17	6.72	nr	nr
25-Sep-08	201.6	7	nr	nr	15	3,004	2.65	2.9	3.5	22	26	19	6.74	23	4
26-Sep-08	177.8	8	12	4	19	3,396	3.45	3.7	3.5	28	26	20	6.70	9	7
27-Sep-08	162.0	8	nr	nr	21	3,321	3.72	3.8	3.5	29	26	19	6.78	14	9
28-Sep-08	158.8	9	15	5	21	3,335	3.54	3.9	3.5	31	26	19	6.74	17	17
29-Sep-08	164.2	8	29	5	25	4,039	4.92	5.5	3.6	34	26	18	6.79	22	14
30-Sep-08	159.6	10	21	5	25	3,942	4.95	4.5	3.6	nr	26	21	6.64	130	80
<b>Max:</b>	399														
<b>Min:</b>	139														
<b>Average:</b>	<b>194</b>	<b>11</b>	<b>22</b>	<b>5</b>	<b>14</b>	<b>2,581</b>	<b>3.22</b>	<b>3.6</b>		<b>26</b>		<b>19.3</b>	<b>6.66</b>		
<b>Geo.Mean:</b>														<b>39</b>	<b>23</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 380 ML/D per clause 26 of Licence 2684RR.
- (6) Bracketed Coliform results not used in the Geometric Mean calculation.
- (7) Raw wastewater flows in excess of 400 ML/D will by-pass the secondary process and flows in excess of 675 ML/D will cause raw sewage to by-pass the plant.