

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

August 2011

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-Aug-11	155.5	11	47	5	24	3,685	2.57	2.9	2.9	29	28	20	6.99	43	9
2-Aug-11	180.2	6	26	5	20	3,550	0.64	1.0	2.7	28	28	20	6.87	2,300	2,300
3-Aug-11	159.7	8	34	4	23	3,737	0.31	0.8	2.6	33	29	20	6.85	930	930
4-Aug-11	160.4	6	49	6	25	3,946	0.28	0.6	2.5	33	29	20	6.85	930	930
5-Aug-11	160.7	9	39	4	24	3,905	0.40	0.7	2.5	33	30	20	6.85	430	93
6-Aug-11	151.7	6	27	4	25	3,717	0.37	0.7	2.4	33	30	21	6.99	93	43
7-Aug-11	148.6	8	43	6	26	3,908	0.72	1.0	2.3	34	30	20	6.97	9,300	270
8-Aug-11	192.9	10	47	7	23	4,340	1.37	1.9	2.3	31	31	20	6.90	150	150
9-Aug-11	198.6	10	27	4	18	3,634	1.30	1.7	2.3	25	31	19	6.83	1,500	750
10-Aug-11	167.8	8	25	4	23	3,792	1.87	2.4	2.3	31	31	20	6.88	93	93
11-Aug-11	171.2	10	28	5	27	4,554	2.41	2.7	2.3	34	31	21	6.86	23	23
12-Aug-11	169.3	9	22	4	27	4,486	2.56	2.9	2.3	34	31	21	6.88	93	43
13-Aug-11	154.7	6	21	5	25	3,837	2.40	2.8	2.3	32	33	21	6.97	38	14
14-Aug-11	153.7	12	nr	nr	25	3,812	2.64	3.0	2.3	32	32	21	6.99	43	43
15-Aug-11	171.7	11	20	4	21	3,571	2.59	3.0	2.3	30	32	22	6.82	93	93
16-Aug-11	165.6	11	24	5	21	3,544	2.87	3.5	2.4	28	32	21	6.95	93	43
17-Aug-11	161.0	10	11	5	23	3,687	2.95	3.5	2.5	30	32	21	6.94	43	15
18-Aug-11	193.6	59	45	24	20	3,949	2.68	3.7	2.5	28	32	21	6.84	230	230
19-Aug-11	353.0	13	17	6	11	3,848	1.02	1.4	2.5	16	31	20	6.81	4,300	1,500
20-Aug-11	189.3	11	13	4	18	3,313	1.55	1.8	2.5	23	31	20	6.95	4,300	4,300
21-Aug-11	144.9	12	18	5	22	3,144	2.58	3.1	2.5	30	31	20	6.93	2,300	2,300
22-Aug-11	166.3	15	24	7	23	3,825	2.87	3.4	2.5	32	31	20	6.91	2,300	930
23-Aug-11	158.7	17	24	10	24	3,793	3.12	3.8	2.6	32	31	20	6.89	2,300	nr
24-Aug-11	161.0	16	23	9	26	4,186	3.06	3.8	2.6	33	31	21	6.93	1,500	1,500
25-Aug-11	160.6	13	25	7	27	4,336	3.25	4.0	2.6	35	31	21	6.94	930	930
26-Aug-11	148.6	11	27	8	26	3,908	3.36	4.1	2.6	33	31	20	6.92	750	750
27-Aug-11	147.7	10	41	12	26	3,885	3.67	4.4	2.6	35	31	21	6.96	7500	7500
28-Aug-11	141.6	16	nr	nr	26	3,653	3.63	4.2	2.6	35	31	21	6.99	930	930
29-Aug-11	153.3	19	28	7	24	3,710	3.64	4.2	2.7	32	31	20	6.88	93	93
30-Aug-11	162.7	15	27	6	23	3,791	3.50	4.1	2.7	31	31	21	6.85	230	230
31-Aug-11	161.3	26	35	12	25	3,968	2.99	3.7	2.7	32	31	21	6.85	930	930
Max:	353														
Min:	142														
Average:	170	13	29	7	23	3,839	2.23	2.7		31		20	6.90		
Geo.Mean:														436	261

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 2684RRR.
- (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.
- (8) Total Nitrogen results are calculated from TKN and nitrate values.