

City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
December 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-Dec-08	167.1	5	21	4	26	4,261	3.88	4.4	3.5	32	25	14.1	6.94	26	26
2-Dec-08	170.9	7	17	4	27	4,546	3.88	4.3	3.5	nr	25	14.3	6.83	170	170
3-Dec-08	169.2	9	19	4	25	4,281	3.67	4.5	3.5	nr	25	14.4	6.87	350	130
4-Dec-08	166.9	5	22	4	25	4,189	3.56	4.4	3.5	31	25	15.1	6.89	490	40
5-Dec-08	165.0	17	15	9	25	4,158	1.65	3.1	3.4	33	25	15.7	6.86	31	17
6-Dec-08	163.3	14	21	10	26	4,295	2.52	3.7	3.4	31	25	13.9	6.94	9,400	4,600
7-Dec-08	157.2	12	27	7	24	3,789	3.02	4.0	3.5	30	26	14.8	6.94	4,900	170
8-Dec-08	166.3	7	38	7	24	4,041	3.38	4.1	3.6	29	26	14.0	6.76	58	58
9-Dec-08	163.5	7	19	6	30	4,954	3.92	4.4	3.6	34	27	14.8	7.07	460	460
10-Dec-08	163.2	11	22	6	32	5,239	3.57	4.2	3.7	36	27	13.8	6.48	490	490
11-Dec-08	163.7	7	22	6	33	5,435	3.81	4.6	3.7	37	27	13.9	6.86	460	140
12-Dec-08	166.8	7	24	6	33	5,471	3.86	4.6	3.7	36	28	14.9	7.01	79	17
13-Dec-08	162.5	8	25	6	32	5,233	3.80	4.5	3.8	37	29	14.4	6.93	460	330
14-Dec-08	160.2	15	29	6	32	5,110	3.74	4.4	3.8	36	29	14.2	6.88	49	33
15-Dec-08	162.7	8	29	6	31	5,109	3.63	4.4	3.9	37	30	13.4	6.79	33	22
16-Dec-08	166.9	9	29	6	31	5,207	3.67	4.6	3.9	36	30	13.0	6.79	130	79
17-Dec-08	163.9	9	23	5	33	5,425	3.88	4.6	4.0	40	31	14.0	6.75	33	33
18-Dec-08	162.6	9	44	6	32	5,154	3.88	4.6	4.0	38	31	12.8	6.76	23	23
19-Dec-08	161.6	8	30	5	31	5,042	3.71	4.4	4.0	36	32	13.5	6.82	27	13
20-Dec-08	157.1	8	34	4	29	4,603	3.51	4.4	4.0	36	32	12.9	6.94	79	49
21-Dec-08	158.7	9	36	5	27	4,348	3.19	4.1	4.1	34	32	14.1	6.86	70	70
22-Dec-08	160.9	11	51	6	27	4,393	3.32	4.1	4.1	34	32	12.2	6.91	110	70
23-Dec-08	160.5	10	43	5	28	4,430	3.57	4.5	4.1	32	33	14.9	6.79	31	31
24-Dec-08	178.4	7	40	5	27	4,817	3.18	3.9	4.1	33	33	14.5	7.09	22	14
25-Dec-08	140.6	7	41	5	29	4,007	3.69	4.2	4.2	32	34	14.3	6.99	220	140
26-Dec-08	140.4	7	51	7	31	4,409	3.75	4.4	4.2	36	34	15.8	6.80	27	27
27-Dec-08	146.4	5	39	5	32	4,714	3.73	4.5	4.2	37	34	13.3	6.98	46	46
28-Dec-08	147.1	7	41	5	31	4,516	3.66	4.6	4.3	41	34	14.4	7.17	110	70
29-Dec-08	155.9	10	45	6	30	4,599	3.80	4.7	4.3	37	35	13.4	6.86	49	49
30-Dec-08	159.2	20	34	6	26	4,060	3.59	4.5	4.3	33	35	13.2	6.79	170	170
31-Dec-08	155.9	11	28	7	26	4,007	3.74	4.3	4.3	32	35	14.7	6.99	170	79
Max:	178														
Min:	140														
Average:	161	9	31	6	29	4,640	3.54	4.3		35		14.1	6.88		
Geo.Mean:														118	70

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.